



Annual Report 2019

Empower an autonomous future



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About this report

The audited annual accounts and consolidated accounts can be found on pages 14–20 and 32–72. The corporate governance report examined by the auditors can be found on pages 21–25.



The sustainability report has been reviewed by the auditors for compliance with the Annual Accounts Act and can be found on: investors.hexagon.com

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Hexagon AB is a Swedish public limited liability company with corporate registration number 556190-4771. All values are expressed in Euros unless otherwise stated. The Euro is abbreviated EUR, thousands of Euro to KEUR, millions of Euro to MEUR, billions of Euro to bn EUR and million US dollars to MUSD. Figures in parentheses refer to 2018 unless otherwise stated. Data on markets and peers represent Hexagon's own assessments unless otherwise stated. Assessments are based on most recent available facts from published sources. While every care has been taken in the translation of this annual report, readers are reminded that the original annual report, signed by the Board of Directors, is in Swedish.

This report contains forward-looking statements based on Hexagon management's current expectations. Although management considers expectations expressed in such future-oriented information as reasonable, no assurance can be given that these expectations will prove correct. Consequently, actual future results can differ considerably from those implied in the forward-looking statements as a result of factors such as changed conditions in the economy, market and competition, changes in legal requirements and other political measures, fluctuations in exchange rates and other factors.

2019 in brief

- Net sales increased by 4 per cent to 3,907.7 MEUR (3,760.7). Using fixed exchange rates and a comparable group structure (organic growth), net sales decreased -1 per cent
- Operating earnings (EBIT1) increased by 5 per cent to 972.5 MEUR (929.0)
- Earnings before tax, excluding non-recurring items, amounted to 945.6 MEUR (906.2)
- Net earnings, excluding non-recurring items, amounted to 775.4 MEUR (743.1)
- Earnings per share, excluding non-recurring items, increased by 3 per cent to 2.11 EUR (2.04)
- Operating cash flow increased by 18 per cent to 663.2 MEUR (562.8)

[Read about important events on page 15. →](#)

Key figures ¹	2019	2018 ⁴	Δ%
Net sales	3,907.7	3,760.7	-1 ²
Operating earnings (EBIT1)	972.5	929.0	5
Operating margin, %	24.9	24.7	0,2
Earnings before tax, excl. non-recurring items	945.6	906.2	4
Non-recurring items ³	-80.3	-3.9	n.a.
Earnings before tax	865.3	902.3	-4
Earnings after tax	708.6	738,1	-4
Earnings per share, EUR	1.92	2.02	-5
Operating cash flow	663.2	562.8	18
Return on equity, %	12.3	15.0	-2,7
Return on capital employed, %	11.7	12.6	-0,9
Share price, SEK	525.00	408.00	29
Net debt	2,115.7	2,069.3	2
Average number of employees	20,250	19,249	5

1) All figures are in MEUR unless otherwise stated.

2) Adjusted to fixed exchange rates and a comparable group structure, i.e. organic growth.

3) Non-recurring items 2019 relates to the launch of a restructuring programme in Q2 and acquisitions in Q1 and Q4.

4) Numbers for 2018 has not been restated according to IFRS16.

Operating margin

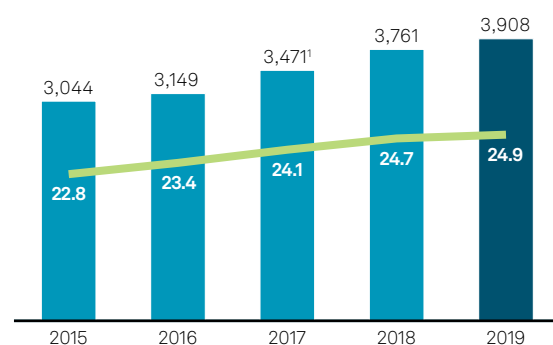
25%

Organic growth

-1%

Net sales, MEUR

Operating margin, %



1) Operating net sales.

[Read about segments financial performance on page 16–17. →](#)

Hexagon in brief

Hexagon is a global leader in sensor, software and autonomous technologies. Hexagon is putting data to work to boost efficiency, productivity, and quality across industrial, manufacturing, infrastructure, safety, and mobility applications. Its technologies are shaping urban and production ecosystems to become increasingly connected and autonomous – ensuring a scalable, sustainable future.



Our focus is data

- Leverage beyond data creation
- From automation to autonomy



Our commitment is innovation

- Transformation focus, with 10–12% of net sales invested in R&D
- 3,800+ employees in R&D
- 3,700+ active patents



Our strength is proven

- More than 20,000 employees across 50 countries
- 3.9 bn EUR in sales
- 25% operating margin



Our value is vital

- Solutions deliver productivity and quality
- Broad range of industries served
- Unmatched scope of technologies in the portfolio



MISSION

Putting data to work to enable autonomous, connected ecosystems that boost efficiency, productivity and quality for our customers.

VISION

A future where data is fully leveraged so that both humanity and sustainability thrive.

CORE VALUES



Profit driven

We value performance over procedure, setting measurable goals and working collaboratively to achieve the results we seek.



Customer focused

We know our customers' success is paramount to our own and is based on our ability to talk openly and set clear targets to meet their needs.



Engaged

Our spirited energy and engagement are evident in our commitment to our work, passion for what we do and the speed by which we achieve it.



Innovative

We understand the importance of innovation in meeting the ever-changing needs of our customers and that opportunities must be nurtured and developed quickly.



Professional

We are honest professionals who understand the importance of knowing our business, exceeding expectations and avoiding politics along the way.



Entrepreneurial

We are not afraid to try new things and leverage our decentralised structure to make speedy decisions, take calculated risks and find new opportunities.



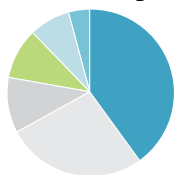
Business overview

Geospatial Enterprise Solutions

Geospatial Enterprise Solutions (GES) includes a world-leading portfolio of reality-capture sensors – from laser scanners, airborne cameras and UAVs (unmanned aerial vehicles) to monitoring equipment, mobile mapping technologies and precise positioning. The sensors are

complemented by software for the creation of 3D maps and models which are used for decision-making in a range of software applications, covering areas such as surveying, construction, public safety and agriculture.

Customer segment, %



■ Surveying, 40
 ■ Infrastructure & construction, 27
 ■ Natural resources, 11
 ■ Aerospace & defence, 10
 ■ Public safety, 8
 ■ Other, 4

Geography, %



■ EMEA, 42
 ■ Americas, 40
 ■ Asia, 18

Sales mix

Software & services

Recurring revenue

Direct sales

Emerging markets

Average no. of employees

8,900

The segment comprises the following divisions:

- Geosystems
- Safety & Infrastructure
- Autonomy & Positioning

Solution examples

Laser scanners



Airborne cameras



Public safety



Mobile mapping technologies



Precise positioning



Precise positioning



Industrial Enterprise Solutions

Industrial Enterprise Solutions (IES) includes a world-leading portfolio of metrology systems that incorporate the latest in sensor technology for fast and accurate measurements. These solutions include technologies such as coordinate measurement machines (CMM) and laser trackers and scanners – which optimise design, processes and throughput in manufacturing facilities. It also includes software for CAD

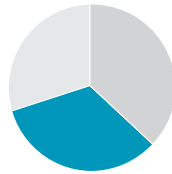
(computer-aided design), CAM (computer-aided manufacturing) and CAE (computer-aided engineering). Solutions within this segment optimise design and processes, improve productivity in process facilities and create and leverage asset management information critical to the planning, construction and operation of plants and process facilities.

Customer segment, %



■ Electronics & manufacturing, 30
 ■ Power & energy, 26
 ■ Automotive, 19
 ■ Aerospace & defence, 14
 ■ Other, 11

Geography, %



■ Asia, 37
 ■ EMEA, 33
 ■ Americas, 30

Sales mix

Software & services

Recurring revenue

Direct sales

Emerging markets

Average no. of employees

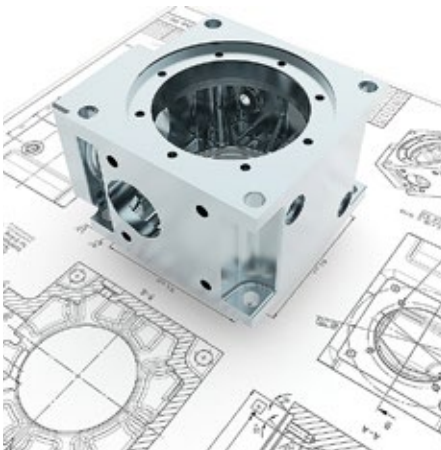
11,300

The segment comprises the following divisions:

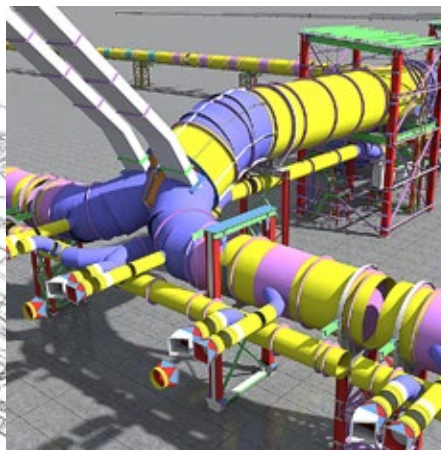
- Manufacturing Intelligence
- PPM

Solution examples

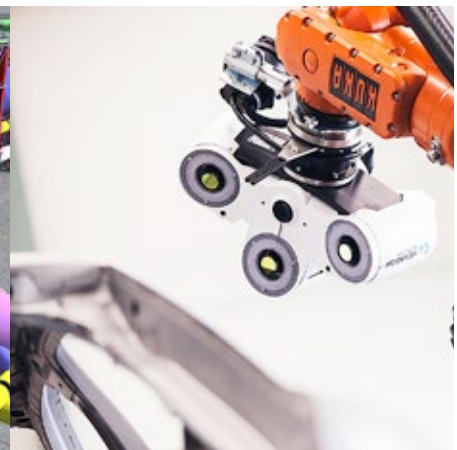
CAD/CAM/CAE (computer-aided design/manufacturing/engineering) software



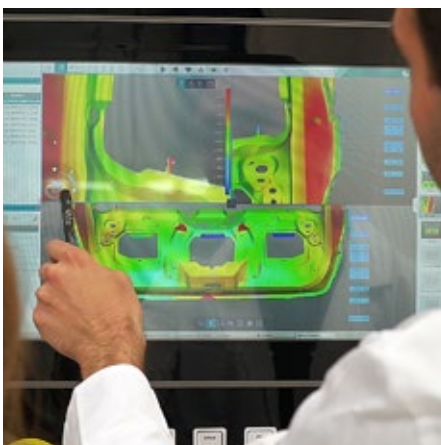
CAD for industrial facilities



Optical scanners



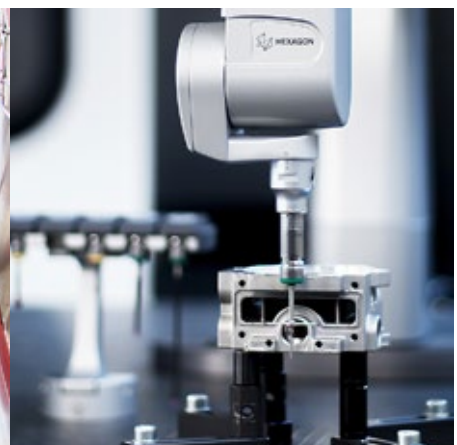
Industrial metrology software



Operations management



CMMs (coordinate measuring machines)



The biggest business opportunity of the 21st century

This year Hexagon celebrates 20 years since we launched a new strategic direction that would redefine our future. The last two decades have flown by, and much has happened—both in terms of Hexagon’s evolution, and in terms of the world around us.

Not surprisingly, our perspective and objectives have changed, and comparing where we were that first year with where we are today says a lot about how far we’ve come:

In 2000, I was tasked with saving a company.

In 2020, we want that same company to save the world.

On the surface, that’s an enormous shift. But over the last twenty years we weren’t just saving a company’s financial fortunes, we were building on a vision of creating something unique and enduring.

Ultimately, we wanted Hexagon to help customers solve their most challenging problems by putting data to work. And while we were becoming pretty good at that, something else happened—the world did not stand still.

Global GDP nearly tripled, from 34 trillion USD in 2000 to 88 trillion USD in 2019. At the same time, world population increased by nearly 2 billion. To keep pace, humanity went



“Our entire purpose is focused on empowering our customers to put data to work to increase efficiency, quality and productivity wisely.”

from extracting 50 billion metric tonnes of natural resources from the Earth in 2000 to a whopping 92 billion in 2019.

A massive shift like this doesn't come without consequences. Scientists warn that we are burning through the resources of 2 earths, and last year we saw the highest levels of CO₂ emissions in history—nearly 38 billion metric tonnes. That's an increase of over 55 per cent since 2000.

The future is governed by how the present manages the past

While many companies talk about achieving carbon neutrality by 2050, we believe this crisis needs to be addressed today. We can't let perfection be the enemy of good.

A fellow CEO said recently "...even if only a fraction of the science is right today, this is a much more structural, long-term crisis." We agree. The environmental crisis is systemic, and it's creating an entirely new economy. We call it the sustainability economy and we believe it may be the biggest business opportunity of the 21st century.

With the tailwinds of 20 years of growth, we've come roaring into the '20's once again, reminiscent of a century ago. To quote the famous last line from *The Great Gatsby*: "So we beat on, boats against the current, borne back ceaselessly into the past."

Like the 1920's, this decade has all the hallmarks of a great business opportunity: fast-growing demand, extreme pressure on profits, new regulatory constraints, increased accountability, shareholder demands and competition from new entrants. But it also carries some sobering and undeniable risks.

It's ironic that much of what we were creating in the 20's of a hundred years ago, we're trying to undo today. Truth is, we're at a unique moment in history. The next thirty years are crucial if we're to address the world's sustainability risks. To avoid the most serious effects of CO₂ emissions and climate change, a tectonic shift is necessary—now.

There is some good news. Until recently the costs of sustainability initiatives were considered detractions from profitability. But companies have begun to realise that their own success depends more and more on the ability to address the broad array of issues impacting the fragile world in which we now live.

We believe Hexagon will play a key role in ensuring business prosperity continues while corrections are made to reverse the excesses that have fueled our economic growth. Our entire purpose is focused on empowering our customers to put data to work to increase efficiency,

“To avoid the most serious effects of CO₂ emissions and climate change, a tectonic shift is necessary—now.”

quality and productivity wisely—the antidotes to resource depletion and waste.

While it's become cliché for leaders to say do well by doing good, we think the opposite is true—that we will do good for the Earth by doing well in our businesses—do good by doing well.

Put data to work for our shared purpose

Today, harnessing the power of practically unlimited data is fraught with complexities of epic proportions. It's easy to get caught in a web of untouched, unleveraged, unanalysed data. If companies are to truly turn data into a competitive advantage, they must be able to put it to work autonomously, behind the scenes, without the aid of human decision-making.

We believe this is a goal worthy of our entire focus and energy that will drive growth and shareholder value for years to come. It's also something we're adeptly positioned to deliver due to our deliberate business focus—one centered on sensor, software and autonomous solutions built from a collection of core capabilities unique to us.

While most think of autonomy as something that will drive our cars, we believe it will do so much more. It will protect our cities. It will improve our climate. It will make fossil fuels cleaner, mining safer, manufacturing more efficient, buildings smarter, and the future brighter for the next generation.

So, while you might find saving the world bold and audacious, I see it as the only rational course of action for all business leaders. I'd like to ask all of you around the world to commit to this shared purpose: Let's begin, now, today, to put data and human ingenuity to work to ensure that both humanity and sustainability thrive.

It's the best business decision we'll ever make.

Stockholm, Sweden, March 2020

Ola Rollén
President and Chief Executive Officer
@OlaRollen

Hexagon empowering an autonomous future

Hexagon is unique in its breadth and depth of sensor, software and autonomous technologies. When these core capabilities converge, their collective value increases exponentially. The result is a Smart Digital Reality™. This is what Hexagon aims to deliver with every solution it provides. It is Hexagon's strategic advantage and the greatest source of value for our customers.

A Smart Digital Reality™ is a digital replica of a complete physical world, where all associated things, places and processes within it are machine-readable and subject to the power of algorithms, making them digitally accessible,

infinitely connected and autonomously intelligent. With its ability to draw and act on data from multiple sources simultaneously, make unaided decisions, and become smarter over time, it can provide the ultimate form of data leverage.

Reality capture solutions

Hexagon's reality capture technologies enable the digital capture of the physical world — from distance measurements (point A to point B) to attributes of physical world objects (e.g. auto parts) to the creation of entire physical world environments in 3D (e.g. complete infrastructure of a city).

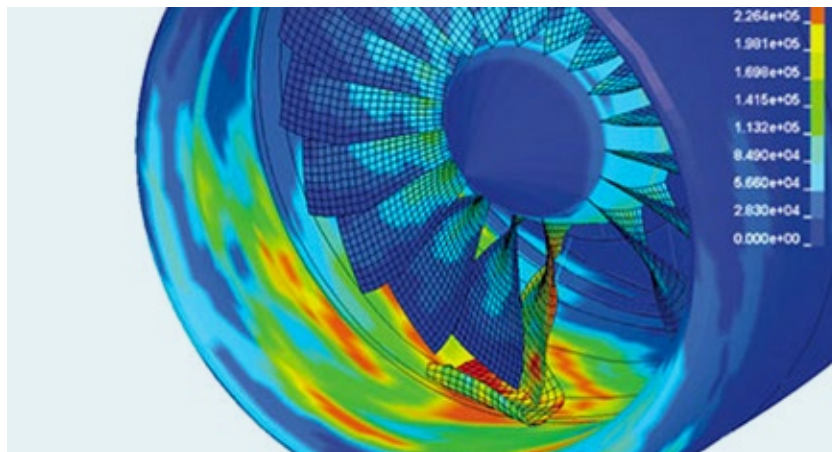


Positioning technologies

Hexagon's positioning technologies enable the location, tracking, navigation, and/or control of anything, anywhere. They power intelligent positioning ecosystems in vital industries and safety-of-life applications.

Location intelligence capabilities

Hexagon invested in location intelligence capabilities to enable active, geo-referenced, situational intelligence for any application, providing businesses and governments with unlimited potential to incorporate high-definition, real-time, dynamic maps into their decision support systems.



Design and simulation capabilities

Hexagon's design and simulation capabilities replicate real-world scenarios in virtual environments — from manufacturing and assembly processes to autonomous driving.



Autonomous capabilities

Hexagon's autonomous technologies provide the ability to "autonomise" any task or process in a workflow to an entire operation or industry (e.g. mobility/transportation) — in which cars, UAVs, industrial vehicles, trains, vessels and more can operate safely, securely, reliably and efficiently thanks to assured autonomy and positioning.

Strategy

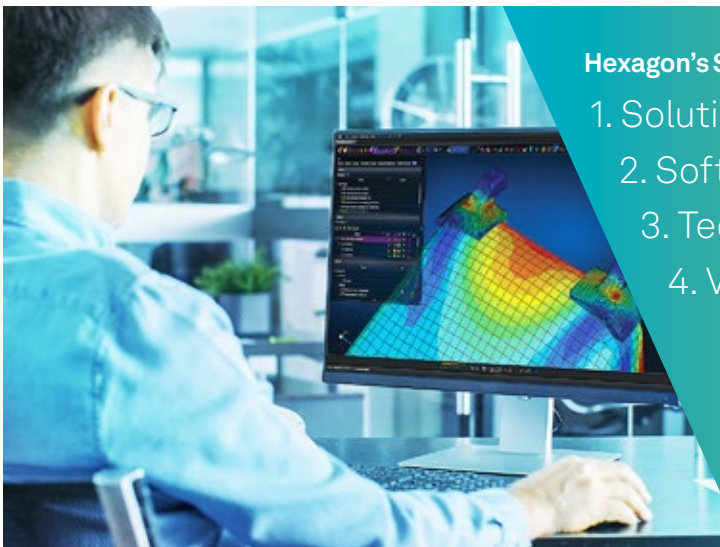
Value-generating customer solutions

Hexagon develops sensor, software and autonomous solutions that are putting data to work to empower an autonomous future by boosting efficiency, productivity and quality for our customers. Hexagon's strategy is based on delivering actionable intelligence necessary for customers to reach their full potential.

We are on the cusp of a revolution from automation to autonomy, a revolution that will finally put all data to work. Machines with only fixed, automated functions today will be capable of dealing with changing, real-world situations — intelligently and autonomously. Autonomy will be introduced

to tasks, work processes, entire operations and industries. Smart, ecosystem-wide solutions will dwarf the impact of recent disruptions like the Internet of Things and big data.

Armed with our core capabilities and strategic advantage, this is the revolution Hexagon is leading.



Hexagon's SMART X solution are based on four key areas:

1. Solution-centric
2. Software focus
3. Technology leadership
4. Value-generating acquisitions

1. Solution-centric

Measurement and positioning sensor technologies continue to become more exact and precise. At the same time, the ability to turn the growing amount of data provided by these advanced sensors into actionable intelligence is a challenge. To meet this challenge, solutions that optimise and automate data-centric workflows are needed.

The combination of Hexagon's expertise and portfolio of both hardware and software technologies can be utilised to do just that. Hexagon's solution-centric portfolios enable customers to create autonomous connected ecosystems. Simply, the solutions integrate data feeds, connect everything in the system – people, machines or processes – embedding intelligence and enabling visualisation for smarter interaction with information.

2. Software focus

The most fundamental productivity and quality improvements are realised when the data captured, whether by Hexagon or third-party technologies, can be put to its greatest use. Hexagon's software portfolio plays a central role in creating such value. This has created a strong focus on in-house software development within Hexagon. The software portfolio is also supplemented through the acquisition of high-tech software companies that fit well with Hexagon's long-term strategy. Together, the strategic focus on software has resulted in a rise in synergies across Hexagon's divisions as software applicability tends to span multiple areas. Moreover, a large portion of Hexagon's software portfolio is open-source, making integration much easier. Today, software and services account for about 60 per cent of Hexagon's revenue.



3. Technology leadership

Hexagon has a strong focus on R&D, with annual investments of about 10–12 per cent of net sales. Hexagon has around 3,800 employees working in R&D, with more than 3,700 active patents. Every development project is based on an identified business case with clearly defined technical, commercial and cost targets.

While R&D efforts to improve divisional portfolios remain a focus of each of the divisions, Hexagon's Innovation Hub is at the centre of the company-wide technology mandate to exploit cross-business synergies and raise the innovation bar across all lines of business. The purpose of the Innovation Hub is to fuel disruptive, breakthrough innovation that benefits the entire company. The collaboration across business lines and disciplines connects all of Hexagon's R&D experts, optimising resources and costs.

Hexagon's R&D investments in 2019 amounted to 514.7 MEUR (449.1), corresponding to 13 per cent (12) of net sales. Development expenses are capitalised if they pertain to new products, the cost is significant and the product is believed to have major earnings potential.

4. Value-generating acquisitions

Acquisitions play a vital role in Hexagon's portfolio and growth strategy. Over the past 20 years, Hexagon has completed more than 150 acquisitions to augment its technologies and domain expertise. For Hexagon, it is always a make or buy decision when evaluating the R&D roadmap and potential acquisition candidates to fill gaps in the portfolio that support Hexagon's strategy.

In addition to filling gaps, Hexagon's acquisition strategy is focused on increasing software synergies across its different business portfolios. Acquisition candidates are regularly monitored and evaluated on market position, customer reputation as well as growth and profitability potential. In the future, Hexagon expects acquired companies to add approximately three to five per cent to annual growth with an incremental operating margin of 30–35 per cent.

[Read about acquisitions on page 68. →](#)

Financial plan for future growth

Hexagon's growth strategy combines organic growth, using technology and innovative leadership, and acquisitions. The strategy is the base for Hexagon's financial plan for the period 2017–2021.

The financial plan features two scenarios for continued growth and improved profitability with the target to reach net sales of 4,600–5,100 MEUR and an operating margin of 27–28 per cent in 2021.

- **Base case scenario** – In the base case scenario, net sales will amount to 4,600 MEUR in 2021, which is equivalent to average annual growth of 8 per cent, whereof 5 per cent organic and 3 per cent growth from acquisitions. The operating margin is estimated in this scenario at 27 per cent in 2021.
- **Opportunity case scenario** – In a more optimistic scenario, net sales will amount to 5,100 MEUR, which is equivalent to average annual growth of 10 per cent, whereof 5 per cent organic and 5 per cent growth from acquisitions. The operating margin is estimated in this scenario at 28 per cent in 2021.

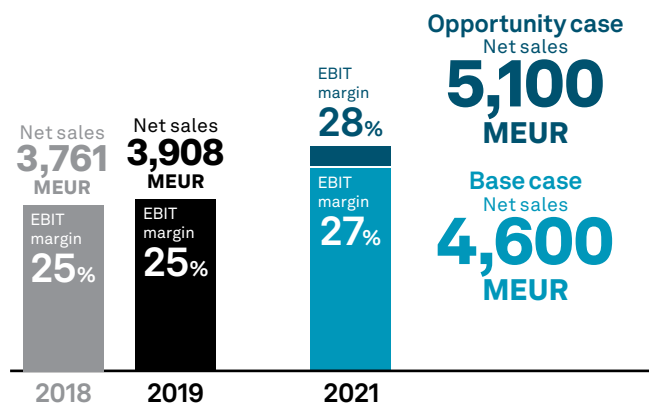
Continued growth

Hexagon's growth strategy is focused on using technology and innovative leadership to grow organically and through acquisitions. Total average annual growth is estimated at 8–10 per cent depending on the scenario, even if some variation is expected between the years. Organic growth, which is estimated at approximately 5 per cent annually, relates in part to GDP-driven growth in the existing portfolio, but is primarily a result of increased revenue from new solutions. Recurring revenue is expected to increase as the percentage of software and services rises. Acquisition-related growth is estimated at approximately 3–5 per cent annually.

Proven ability to deliver margin improvements

Hexagon has proven its ability to steadily deliver enhanced margins. Since 2011, the operating margin (EBIT1) has increased by 4 percentage points. The target in the financial plan through 2021 is for further margin improvements and to reach an operating margin (EBIT1) of 27 per cent or 28 per cent depending on the scenario. Improvements in margin will continue to be achieved through changes to the sales mix, where the software portfolio and new generations of products will account for a greater share of sales. The target is that organic growth will contribute with an incremental margin of 35–40 per cent. At the same time, the cost structure will continue to change. Investments in R&D will continue in order to meet the demand of more solution-centric business. This will trigger investments in sales resources while reducing administrative costs which are non-accretive to profitability.

Target net sales and operating margin (EBIT1)



The target to improve profitability will be achieved through a higher proportion of sales from new high-margin applications and software, with a high percentage of recurring revenue. There is also a strong focus on further generating and utilising synergies. The shift toward a higher proportion of software has improved the operating margin, but also resulted in changes to the cost structure. Hexagon now has lower costs for goods sold, but higher R&D and amortisation costs.

Development during 2019

Sales growth for the third year of the five-year financial plan was hampered by some slowing end-markets and regions, mainly explained by the negative impact of increased geopolitical uncertainties on global trade, especially in China. Hexagon also saw a slowdown within global automotive and within some infrastructure and construction markets. Net sales increased by 4 per cent to 3,907.7 MEUR, of which -1 per cent was organic growth, 3 per cent acquired growth and 2 per cent of currency. The operating result increased by 5 per cent to 972.5 MEUR, which generated an operating margin of 24.9 per cent. Despite the slightly weaker development in 2019, Hexagon is working towards the financial targets that are within reach. The targets will be reached by continued development of technology solutions and further investments in software in order to digitise the industries Hexagon serves.

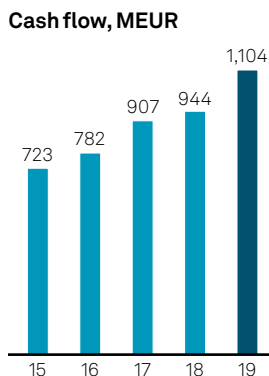
Other financial targets

Hexagon targets to efficiently use capital in order to generate a strong cash flow, reach a sound equity ratio and a balanced debt structure while generating value for shareholders.

Strong cash flow generation

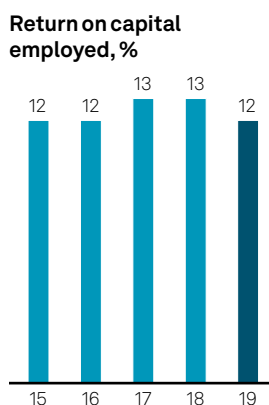
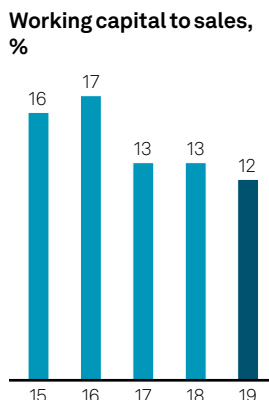
A strong cash flow is necessary to finance investments, settle interest on debts and pay dividends to shareholders. Hexagon's cash conversion, i.e., the ratio at which profits are converted into cash, has averaged 85 per cent since 2011 and was 93 per cent (79) for 2019.

Hexagon's target is to reach a cash conversion of 80–90 per cent. Cash flow from operating activities, excluding non-recurring items, amounted to 1,103.6 MEUR (944.1).



Efficient use of operating capital

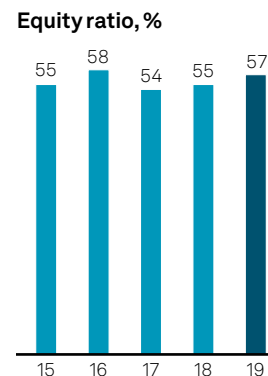
Hexagon seeks to minimise working capital and in recent years, the ratio of working capital to sales has averaged less than 20 per cent. The ratio of working capital to sales in 2019 amounted to 12 per cent (13). The downward trend of working capital as a percentage of sales, is a result of a shift in business model towards more software-centric solutions. Hexagon's target is that return on capital employed, including goodwill from acquisitions, should exceed 15 per cent over a business cycle. Return on average capital employed, excluding non-recurring items, was 11.7 per cent (12.6) in 2019.



Sound equity ratio and balanced debt structure

A sound equity ratio and balanced leverage are requirements for financing acquisitions by loans. Hexagon targets an equity ratio of at least 25 per cent and has the ambition to have a net debt to EBITDA ratio of 2.5x or below. The equity ratio amounted to 57 per cent (55) and the net debt to EBITDA ratio amounted to 1.5x (1.7) at year-end 2019.

Debt capital markets account for 89 per cent (93) of Hexagon's financing, while bank loans make up the remainder. Hexagon's net interest expense amounted to -26.9 MEUR (-22.8) in 2019. The average interest rate on the Group's short- and long-term loans was 0.8 per cent (1.0) at year-end 2019.

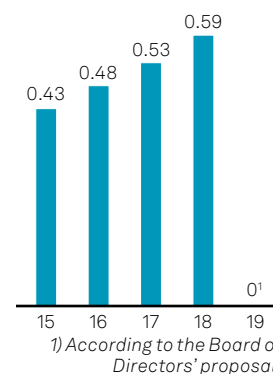


Dividend policy

Hexagon's dividend policy is to distribute between 25 and 35 per cent of net earnings after tax.

Due to the uncertainty in global demand caused by the Covid-19 pandemic, the Board of Directors of Hexagon AB has decided to propose a postponement of the decision on the dividend for fiscal year 2019. The Board's ambition is to fulfil its previously communicated dividend proposal of 0.62 EUR per share at an extraordinary general meeting during the autumn of 2020.

Cash dividend per share, EUR



Board of Directors' Report

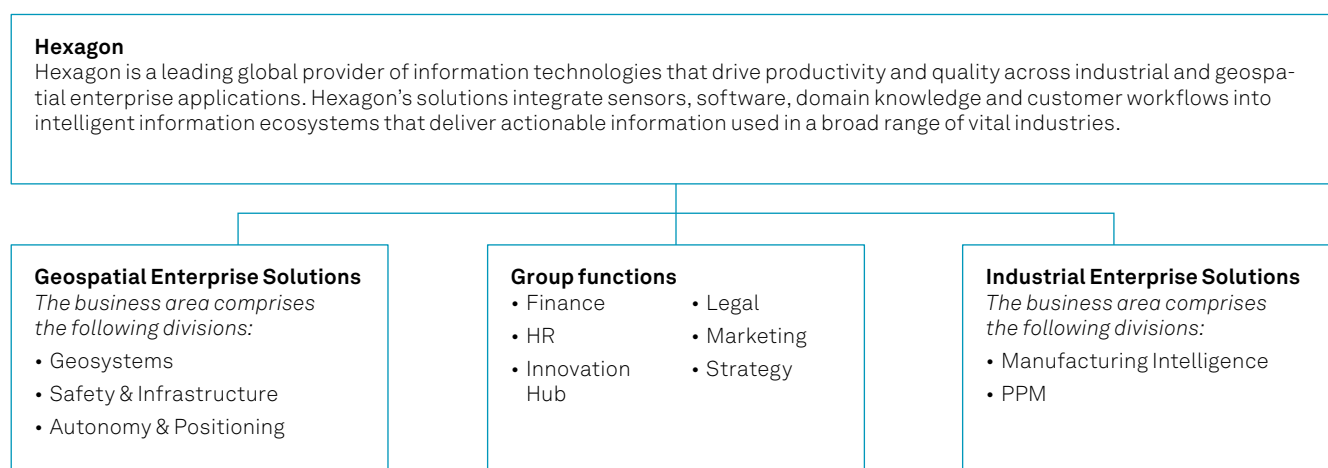
The Board of Directors and the President of Hexagon AB hereby submit their annual report for the year of operation 1 January 2019 to 31 December 2019. Hexagon AB is a public limited liability company with its registered office in Stockholm, Sweden and its corporate registration number is 556190-4771.

Operating structure

Hexagon's business activities are conducted through more than 300 operating companies in about 50 countries worldwide. The President and CEO is responsible for daily management and decision making together with the other members of Hexagon Group Management, including the Chief Financial Officer, the Chief Strategy Officer, the

General Counsel, the Chief Marketing Officer, the Chief Human Resources Officer, the Chief Technology Officer and division directors. Hexagon's Group functions consist of Finance (group accounting, treasury, tax and investor relations), HR, Business and Technology development (Innovation Hub), Legal, Strategy and Marketing.

Hexagon's reporting structure



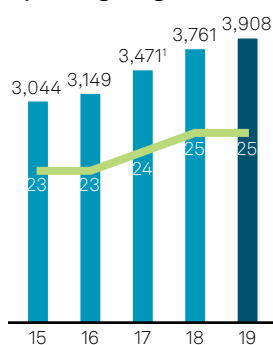
Five-year overview

MEUR	2019	2018 ²	2017 ¹	2016	2015
Net sales	3,907.7	3,760.7	3,448.1	3,149.2	3,043.8
Operating earnings excl. non-recurring items (EBIT ¹)	972.5	929.0	832.8	736.1	692.7
Operating margin, %	24.9	24.7	24.0	23.4	22.8
Earnings before tax excl. non-recurring items	945.6	906.2	810.1	714.3	666.2
Non-recurring items	-80.3	-3.9	-73.2	-	-36.6
Earnings before tax	865.3	902.3	736.9	714.3	629.6
Net earnings	708.6	738.1	671.2	578.6	505.1
Earnings per share, EUR	1.92	2.02	1.84	1.59	1.39

1) Adjusted according to IFRS 15.

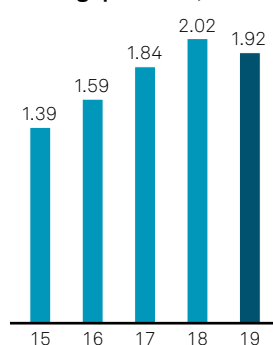
2) Numbers for 2018 has not been restated according to IFRS16.

Operating net sales, MEUR Operating margin, %

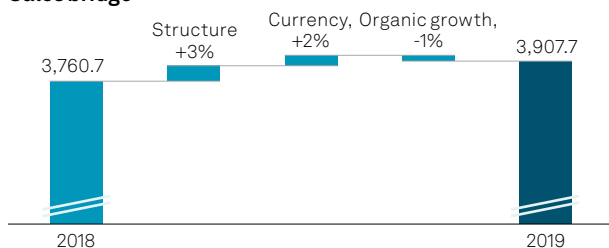


¹) Operating net sales.

Earnings per share, EUR



Salesbridge¹



¹) Operating net sales from completed acquisitions and divestments during the year are recognised as "Structure". Percentages are rounded to the nearest whole per cent.

Net sales

Net sales amounted to 3,907.7 MEUR (3,760.7). Using fixed exchange rates and a comparable group structure (organic growth), sales decreased by -1 per cent.

Market demand

Regionally, organic growth was 2 per cent in EMEA, 1 per cent in Americas and -6 per cent in Asia. Net sales in EMEA amounted to 1,462.6 MEUR (1,415.0), representing 37 per cent (38) of Group sales. In Western Europe, demand slowed during the second half of the year, primarily within the infrastructure and construction industry, the manufacturing industry and public safety. However, demand within the power and energy industry was solid. EMEA excluding Western Europe recorded strong organic growth.

Important events 2019

Q1

Hexagon acquired **Etalon**, a provider of equipment calibration solutions

Hexagon acquired **j5 International**, a market-leading developer of operations management software

Hexagon signed an agreement to acquire **Thermopylae Sciences and Technology**, a software provider that specialises in geospatial applications

Q2

Hexagon held **HxGN LIVE** in Las Vegas where several new solutions were launched, e.g. HxGN OnCall and new products in the BLK series

Q3

No important events were reported

Q4

Hexagon held its **Capital Markets Day 2019** in Cobham and reiterated its 2021 targets

Hexagon acquired **Volume Graphics**, a market leader in the industrial computed tomography (CT) software industry

Net sales in Americas amounted to 1,372.2 MEUR (1,239.6), representing 35 per cent (33) of Group sales. In North America, growth was positively impacted by solid development within surveying and power and energy, but adversely impacted by slowing demand within the automotive industry and mapping content. South America continued to record strong organic growth.

Operating net sales in Asia amounted to 1,072.9 MEUR (1,106.1), representing 27 per cent (29) of Group sales. China declined significantly, mainly due to slower demand within the electronics industry and infrastructure and construction.

Geospatial Enterprise Solutions

Geospatial Enterprise Solutions (GES) net sales amounted to 1,934.2 MEUR (1,820.2). Using fixed exchange rates and a comparable group structure (organic growth), net sales increased by 1 per cent. Regionally, organic growth was 2 per cent in EMEA, 2 per cent in Americas and -3 per cent in Asia. Geosystems recorded 2 per cent organic growth, mainly driven by solid demand in surveying and mining, however, growth was hampered by a slowdown in mapping content and some infrastructure and countertraction markets towards the second half of the year. Safety & Infrastructure recording -3 per cent organic growth, hampered by continued weak demand within public safety during the first half of the year. However, the business recovered during the second half of the year. Autonomy & Positioning recorded 2 per cent organic growth, positively impacted by favorable growth in defence and agriculture but was negatively impacted by weak demand within the automotive industry.

Industrial Enterprise Solutions

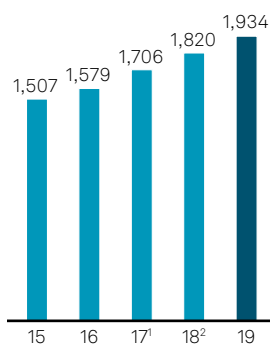
Industrial Enterprise Solutions (IES) operating net sales amounted to 1,973.5 MEUR (1,940.5). Using fixed exchange rates and a comparable group structure (organic growth), net sales decreased by -2 per cent. Regionally, organic growth was 2 per cent in EMEA, 1 per cent in Americas and -7 per cent in Asia. Manufacturing Intelligence recorded -5 per cent organic growth, hampered by a significant slowdown in China, mainly in the electronics industry. Demand in the aerospace industry continued to be solid. PPM recorded 8 per cent organic growth, supported by strong demand in asset management solutions and the traditional design portfolio.

Operating earnings

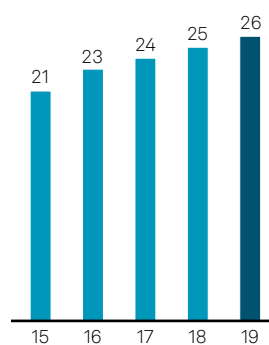
Operating earnings (EBITDA) increased by 12 per cent to 1,339.1 MEUR (1,197.7), corresponding to an operating margin (EBITDA margin) of 34.3 per cent (31.8). Operating earn-

Geospatial Enterprise Solutions

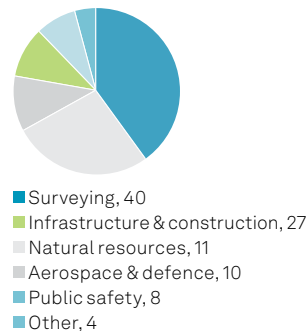
Net sales, MEUR



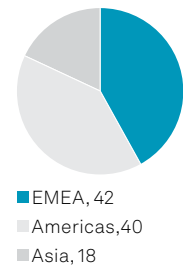
Operating margin, %



Customer segment, %

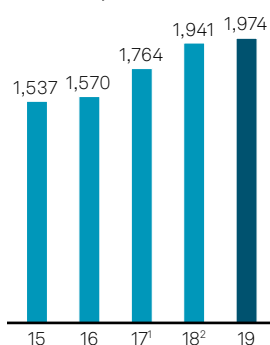


Geography, %

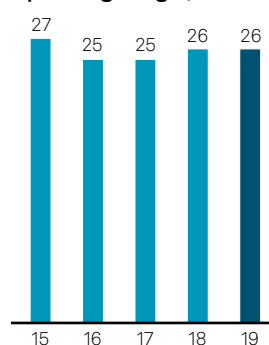


Industrial Enterprise Solutions

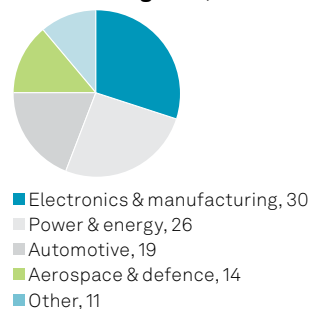
Net sales, MEUR



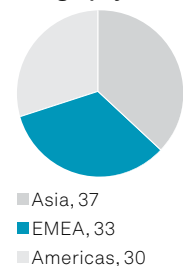
Operating margin, %



Customer segment, %



Geography, %



1) Adjusted according to IFRS 15 and refers to operating net sales.

2) Numbers for 2018 has not been restated according to IFRS16.

ings, excluding non-recurring items (EBIT1), increased by 5 per cent to 972.5 MEUR (929.0), corresponding to an operating margin (EBIT1 margin) of 24.9 per cent (24.7).

Operating earnings (EBIT1) for Geospatial Enterprise Solutions increased to 492.3 MEUR (459.2), corresponding to an operating margin of 25.5 per cent (25.2). Operating earnings (EBIT1) for Industrial Enterprise Solutions increased to 505.2 MEUR (495.2), corresponding to an operating margin of 25.6 per cent (25.5).

Segments

MEUR	Operating net sales		Operating earnings (EBIT1)	
	2019	2018	2019	2018
Geospatial Enterprise Solutions	1,934.2	1,820.2	492.3	459.2
Industrial Enterprise Solutions	1,973.5	1,940.5	505.2	495.2
Group cost	-	-	-25.0	-25.4
Total	3,907.7	3,760.7	972.5	929.0

Gross earnings

Gross earnings amounted to 2,454.0 MEUR (2,336.9). The gross margin was 62.8 per cent (62.1).

Financial income and expenses

The financial net amounted to -26.9 MEUR (-22.8) in 2019.

Non-recurring items

During 2019 non-recurring items amounted to -80.3 MEUR (-3.9). Non-recurring items relates to the launch of a restructuring programme in the second quarter and acquisitions during the first and fourth quarter.

Earnings before tax

Earnings before tax, excluding non-recurring items, amounted to 945.6 MEUR (906.2). Including non-recurring items, earnings before tax were 865.3 MEUR (902.3).

Effective tax rate

Hexagon's tax expense for the year totaled -156.7 MEUR (-164.2), corresponding to an effective tax rate of 18.1 per cent (18.2). The tax rate, excluding non-recurring items, was 18.0 per cent (18.0) for 2019.

Non-controlling interest

The non-controlling interest's share of net earnings was 6.2 MEUR (8.1).

Net earnings

Net earnings, excluding non-recurring items, amounted to 775.4 MEUR (743.1) or 2.11 EUR per share (2.04). Net earnings, including non-recurring items, amounted to 708.6 MEUR (738.1) or 1.92 EUR per share (2.02).

Cash flow

Cash flow from operations before changes in working capital and non-recurring items amounted to 1,125.5 MEUR (1,004.8), corresponding to 3.08 EUR per share (2.78). Including changes in working capital, but excluding non-recurring items, cash flow from operations was 1,103.6 MEUR (944.1), corresponding to 3.02 EUR per share (2.62). Cash flow from other investment activities was -355.2 MEUR (-438.2). Cash flow after other investments amounted to 308.0 MEUR (124.6). The change in borrowings was -166.3 MEUR (93.5). Cash dividends to the Parent Company shareholders amounted to -215.6 MEUR (-191.0), corresponding to 0.59 EUR per share (0.53).

Profitability

Capital employed, defined as total assets less non-interest bearing liabilities, increased to 8,660.9 MEUR (7,783.2). Return on average capital employed, excluding non-recurring items, for the last 12 months was 11.7 per cent (12.6). Return on average shareholders' equity for the last 12 months was 12.3 per cent (15.0). The capital turnover rate was 0.5 (0.5).

Financing and financial position

Shareholders' equity, including non-controlling interest, increased to 6,076.9 MEUR (5,319.2). The equity ratio increased to 57.3 per cent (54.9).

Hexagon's main sources of financing consist of:

- 1) A multicurrency revolving credit facility (RCF) established during 2014. The RCF amounts to 2,000 MEUR with maturity 2021.
- 2) A Swedish Medium Term Note Programme (MTN) established during 2014. The programme amounts to 15,000 MSEK and gives Hexagon the option to issue bonds with tenors of up to five years. On 31 December 2019, Hexagon had issued bonds for a total amount of 10,600 MSEK (10,600).
- 3) A Swedish commercial paper programme (CP) was established during 2012. The CP programme amounts to 15,000 MSEK and gives Hexagon the option to issue commercial paper with tenors of up to 12 months. On 31 December 2019, Hexagon had issued commercial paper for a total amount of 7,692 MSEK (8,815) and 66 MEUR (72).

On 31 December 2019, cash and unutilised credit limits totalled 1,832.8 MEUR (1,684.2). Hexagon's net debt was 2,115.7 MEUR (2,069.3). The net indebtedness was 0.31 times (0.35). Interest coverage ratio was 26.8 times (31.9).

Investments

Ordinary investments consist mainly of investments in production facilities, production equipment and intangible assets, primarily capitalised development expenses. Of the ordinary investments of 410.5 MEUR (390.8) during 2019, approximately 67 per cent (57) were capitalised expenses for development work. Development work is primarily performed in Hexagon's R&D centres with its primary units located in Switzerland, China and USA, that results in products and services that are sold worldwide. The remaining part of the current investments, approximately 33 per cent, comprised mostly of investments in new facilities in Hongdao and Detroit and in business equipment and machines. All current investments during the year have been financed by cash flow from operating activities. Investments corresponded to 9 per cent (10) of net sales. Hexagon does not expect any material change in the near future to current investment levels as a percentage of net sales. Depreciation, amortisation and impairment during the year amounted to -387.7 MEUR (-284.0).

Investments

MEUR	2019	2018
Investments in intangible fixed assets	285.1	234.3
Investments in tangible fixed assets	125.4	156.5
Divestments of tangible fixed assets	-11.4	-1.7
Total ordinary investments	399.1	389.1
Investments in subsidiaries	349.8	426.6
Divestments of subsidiaries	-	-4.0
Investments in financial fixed assets	12.4	18.2
Divestments of financial fixed assets	-7.0	-2.6
Total other investments	355.2	438.2
Total investments	754.3	827.3

Intangible fixed assets

As of 31 December 2019, Hexagon's carrying value of intangible fixed assets was 7,631.3 MEUR (7,100.8). Amortisation of intangible fixed assets was -218.5MEUR (-203.7). Impairment tests are made to determine whether the value of goodwill and/or similar intangible assets is justifiable or whether there is any impairment need in full or in part. Such a test was conducted at the end of 2019 and no

Acquisitions 2019

Hexagon's ambition is to generate profitable growth through a combination of organic growth and acquisitions. Acquisitions are an important part of Hexagon's long-term growth strategy. During 2019, Hexagon acquired the following companies:

Geospatial Enterprise Solutions

Company	Division	Area
Split Engineering	Geosystems	A leader in coarse rock fragmentation size measurement systems, software and services
Aciel Geomatics	Geosystems	A Leica distributor in South Africa
Thermopylae Sciences and Technology	Safety & Infrastructure	A software provider that specialises in geospatial applications, mobile frameworks, and cloud computing for enhanced location intelligence
Melown Technologies	Geosystems	A developer of advanced visualisation technologies for creating 3D models of urban and natural landscape environments

Industrial Enterprise Solutions

Company	Division	Area
Etalon	Manufacturing Intelligence	A provider of equipment calibration solutions that ensure the dimensional accuracy of manufactured parts
j5 International	PPM	A market-leading developer of operations management software for ensuring safe, efficient, and compliant operations of industrial sites
Volume Graphics	Manufacturing Intelligence	A market leader in the industrial computed tomography (CT) software industry

[Read about acquisitions on page 68. →](#)

impairment requirement arose. Goodwill at 31 December 2019 amounted to 5,357.7 MEUR (4,977.1), corresponding to 51 per cent (51) of total assets.

Goodwill

MEUR	2019	2018
Geospatial Enterprise Solutions	2,351.3	2,250.6
Industrial Enterprise Solutions	3,006.4	2,726.5
Total	5,357.7	4,977.1

Research and development

Hexagon places a high priority on investments in R&D. Being the most innovative supplier in the industry, it is important not only to improve and adapt existing products, but also to identify new applications and thereby increase the total market for Hexagon's products and services. Total expenditure for R&D during 2019 amounted to 514.7 MEUR (449.1), corresponding to 13 per cent (12) of net sales. Development expenses are capitalised only if they pertain to new products, the cost is significant and the product is believed to have future economic benefits. The current level of R&D costs is in line with other leading suppliers in the industry.

R&D cost

MEUR	2019	2018
Capitalised	275.6	224.2
Expensed (excluding amortisation)	239.1	224.9
Total	514.7	449.1

Amortisation

158.0 147.7

Environmental impact

Hexagon's R&D team develops solutions that drive productivity and quality across geospatial and industrial landscapes. Hexagon's solutions integrate sensors, software, domain knowledge and customer workflows into intelligent ecosystems that deliver actionable information. These solutions are used in a broad range of vital industries. High-quality measurement systems contribute to reduced waste and thus to a decreased consumption of materials and raw materials. Hexagon's products and services are used in thousands of applications that all have one thing in common: making various processes more efficient, cheaper and more environmentally friendly. This may involve measuring the quality in production processes, using a plot of land in an optimal way or reducing waste and loss in the construction industry. Hexagon develops and assembles high-technology products under laboratory-like conditions. Hexagon has implemented ISO 14001 at the majority of the largest production sites and a programme for monitoring the suppliers is in place.

Hexagon aims for development of sustainable products and uses environmentally friendly resources in production to the extent possible. Hexagon satisfies environmental requirements pursuant to legislation, ordinances and international accords. Decisions regarding operations that affect the environment are guided by what is ecologically justifiable, technically feasible and economically viable. Hexagon's subsidiaries have ISO quality accreditation wherever this is warranted. For more information about sustainability in Hexagon see the complete sustainability report on hexagon.com.

Share capital and ownership

On December 31, 2019, Hexagon's share capital was 81,554,880 EUR, represented by 367,539,302 shares. Total shares outstanding was 15,750,000 Class A shares, each carrying ten votes and 351,789,302 Class B shares, each carrying one vote. On December 31, 2019, Melker Schörling AB, the single largest shareholder in Hexagon, held a total of 15,750,000 Class A shares and 70,035,920 Class B shares, representing 44.8 per cent of the votes and 23.4 per cent of the capital.

Significant agreements

To the best of the Board's knowledge, there are no shareholder agreements or similar agreements between the shareholders of Hexagon with the purpose of exercising joint control of the company. Neither is the Board aware of any agreements that could lead to a change of control of the company.

As far as the Board knows, there is no shareholder agreement that could prevent the transfer of shares. Nor are there agreements between the company, directors or employees, other than as described in Note 29 on page 70, which stipulate the right to compensation if such a person voluntarily leaves the company, is dismissed without cause or if such a person's employment is terminated as a result of a public offer for shares of the company.

Management of Hexagon's capital

Hexagon's reported shareholders' equity, including non-controlling interest, was 6,076.9 MEUR (5,319.2) at year-end. Hexagon's overall long-term objective is to increase earnings per share by at least 15 per cent annually and to achieve a return on capital employed of at least 15 per cent. Another Group objective is to achieve an equity ratio of 25 per cent as Hexagon is seeking to minimise the weighted average cost of capital for the company's financing.

Hexagon has undertaken to comply with a requirement regarding a key financial ratio (covenant) towards lenders. The key financial ratio is reported to lenders in conjunction with the quarterly reports. If the requirement is not complied with, the terms and conditions are renegotiated and there is a risk of a temporary increase in borrowing costs. In addition, lenders have a right to terminate loan agreements. Hexagon has never breached any covenants, not in 2019 nor in prior years.

The company's strategy, as well as its financial position and other financial objectives, are taken into account in connection with the annual decision concerning the dividend.

Corporate governance

In accordance with the Swedish Annual Accounts Act, Hexagon has prepared a Corporate Governance report separate from the annual report. It can be found in this document on pages 21–25. The Corporate Governance report contains the Board of Directors' report on internal control.

Dividend

The dividend policy of Hexagon provides that, over the long term, the dividend should comprise 25–35 per cent of earnings per share after tax, assuming that Hexagon satisfies its equity ratio objective.

Due to the uncertainty in global demand caused by the Covid-19 pandemic, the Board of Directors of Hexagon AB has decided to propose a postponement of the decision on the dividend for fiscal year 2019. The Board's ambition is to fulfil its previously communicated dividend proposal of 0.62 EUR per share at an extraordinary general meeting during the autumn of 2020, which is in line with the dividend policy.

Remuneration of senior executives

The following guidelines for remuneration to senior executives in Hexagon were adopted by the 2019 AGM. Remuneration shall consist of a basic salary, a variable remuneration, other benefits and pension and that all in all this remuneration shall be competitive and in accordance with market practice.

The variable remuneration shall be maximised up to 150 per cent in relation to the basic remuneration, related to the earnings trend which the relevant individual may influence and based on the outcome in relation to individual targets. Variable remuneration is not pension-qualifying income.

The Board annually considers whether a share or share-based incentive programme shall be proposed to the Annual General Meeting.

Pension benefits shall, as a main rule, be defined contribution. Currently, all senior executives have defined-contribution pension plans. Deviation from this main rule may be permitted when appointing new senior executives whose previous employment agreement included a defined benefit pension plan. The pension age for senior executives is individual, although not lower than 60 years.

The notice period shall normally be six months on the part of the executive. In case of notice of termination by the company, the notice period and the period during which severance payment is paid shall, all in all, not exceed 24 months.

The proposed guidelines for remuneration to senior executives that will be proposed to for the Annual General Meeting 2020 have been adjusted compared to the guidelines adopted by the Annual General Meeting 2019. The adjustments have been done as a result of new legislation aimed to increase the transparency of remuneration issues. The adjusted guidelines will be published in the notice for the Annual General Meeting.

Incentive programmes

See Note 29 on page 70.

Parent company

The Parent Company's earnings before tax were 466.4 MEUR (307.8). The equity was 5,123.2 MEUR (4,735.6). The equity ratio of the Parent Company was 54 per cent (54). Liquid funds including unutilised credit limits were 1,369.5 MEUR (1,277.4).

Hexagon's activities are financed via equity and external borrowings in the Parent Company. Substantial currency effects arise due to Intra-Group and external lending and borrowing transactions in multiple currencies.

Subsequent events after the fiscal year

On January 8, Hexagon announced the acquisition of Blast Movement Technology (BMT), a pioneer in blast movement monitoring and analysis for open pit mines. BMT's technologies complement Hexagon's drill and blast solutions with accurate ore location information, enabling customers to extract greater profit from every blast. 2019 sales amounted to 19 MEUR.

On January 29, Hexagon signed an agreement to acquire COWI's aerial mapping business. COWI is a leading international consulting group within engineering, economics and environmental sciences with a mapping business that serves as Europe's largest provider of airborne surveying and spatial data processing. The acquisition is expected to be completed during the second quarter 2020, subject to regulatory approvals. 2019 sales, less intra-group sales, amounted to 14 MEUR.

On February 28, Hexagon signed an agreement to acquire Romax Technology Limited, a leading provider of Computer Aided Engineering (CAE) software for electromechanical drivetrain design and simulation. Completion of the transaction (closing) is subject to standard regulatory approvals. 2019 sales amounted to 27 MEUR.

The outbreak of Covid-19 affects everyone on a global scale. We must all work together to limit the spread of the virus and protect the people at risk. Hexagon prioritises to keep its employees and customers safe, and the company follows all guidelines and recommendations set up at national, regional and local levels. Hexagon monitors the development of the situation closely but at the time the annual report was published it was too early to quantify the impact.

Corporate Governance Report

Hexagon AB is a public company listed on Nasdaq Stockholm. The corporate governance of Hexagon is based on Swedish legislation, primarily the Swedish Companies Act, Hexagon's Articles of Association, the Board of Directors' internal rules, Nasdaq Stockholm's rules and regulations, the Swedish Code of Corporate Governance (the "Code") and regulations and recommendations issued by relevant organisations.

Hexagon applies the Code, which is based on the principle "comply or explain". Hexagon does not report any deviations from the Code for the 2019 financial year.

This corporate governance report has been prepared in accordance with the provisions of the Annual Accounts Act and the Code and has, by virtue of Section 6, paragraph 8 of the Annual Accounts Act, been drawn up as a document separate from the annual report.

Ownership structure and share information

At 31 December 2019, Hexagon's share capital was EUR 81,554,880, represented by 367,539,302 shares, of which 15,750,000 are of Class A with ten votes each and 351,789,302 are of Class B with one vote each. Hexagon AB held no treasury shares at year-end.

Melker Schörling AB, the single largest shareholder in Hexagon, held a total of 15,750,000 Class A shares and 70,035,920 Class B shares at year-end 2019, representing 44.8 per cent of the votes and 23.4 per cent of the capital. No other shareholder has any direct or indirect shareholding representing more than 10 per cent of the total votes.

To the best of the knowledge of the Board of Directors (the "Board"), there are no shareholder agreements or similar agreements between the shareholders of Hexagon with the purpose of exercising joint control of the company. The Board also is not aware of any agreements that could lead to a change in control of the company or that could prevent the transfer of shares of the company.

Annual General Meeting

The General Meeting is Hexagon's supreme decision-making body in which all shareholders are entitled to participate. The Articles of Association of the company contain no restrictions regarding the number of votes that may be cast by a shareholder at general meetings. At the Annual General Meeting (AGM), the Board presents the annual report (including the consolidated accounts) and the audit report. Hexagon issues the notice convening the AGM no later than four weeks prior to the meeting. To attend the AGM, a shareholder must be recorded in the share register and notify the company of his/her intention to attend the AGM within the time limits set forth in the Articles of Association. The AGM is held in Stockholm, Sweden, usually at the end of April or in the beginning of May. The AGM provides shareholders with an opportunity to address a number of issues, such as the adoption of the income statement and balance sheet, the appropriation of the company's profit or loss according to the adopted balance sheet, the discharge from liability to the company of the Board members and the President and CEO, the remuneration of the Board and auditors, the principles for remuneration and

employment terms for the President and CEO and other senior executives, the election of members and the Chairman of the Board of Directors, the election of the auditor, and any amendments to the Articles of Association.

Nomination Committee

The AGM has resolved that the Nomination Committee's assignment shall comprise the preparation and presentation of proposals to the shareholders at the AGM on the election of Board members, Chairman of the Board, Chairman of the AGM and the company's auditors. In addition, the Nomination Committee presents proposals regarding remuneration of the Board of Directors (including for committee work) and the auditors.

The Nomination Committee shall consist of representatives for major shareholders of the company elected by the AGM. In case a shareholder, who a member of the Nomination Committee represents, is no longer one of the major shareholders of Hexagon or if a member of the Nomination Committee is no longer employed by such shareholder or for any other reason leaves the Committee before the next AGM, the Committee is entitled to appoint another representative among the major shareholders to replace such a member. No fees are paid to the members of the Nomination Committee.

Board of Directors

In accordance with the Articles of Association, the Board of Directors of Hexagon shall consist of no less than three and not more than nine members, elected annually by the AGM for the period until the end of the next AGM. The Articles of Association of the company contain no special provisions regarding the election and discharge of Board members or regarding changes to the Articles of Association. The 2019 AGM elected seven members, including the President and Chief Executive Officer. The Chief Financial Officer and Executive Vice President, the General Counsel and the Chief Strategy Officer participate in the Board meetings. Other Hexagon employees participate in the Board meetings to make presentations on particular matters if requested.

The Nomination Committee's conclusions regarding the board members' independence in relation to the company, its management and major shareholders is presented on page 28. According to the requirements set out in the Code, the majority of the Board members elected by the AGM must be independent in relation to the company and its management and at least two of such Board members shall also be independent in relation to the company's major shareholders. The criteria set forth in the Code and other relevant factors were considered in making determinations about independence.

The Board of Directors is responsible for determining Hexagon's overall objectives, developing and monitoring the overall strategy, deciding on major acquisitions, divestments and investments, and ongoing monitoring of operations. The Board is also responsible for ongoing evaluation of management, as well as systems for monitoring internal controls and the company's financial position. The Board ensures that the company's external disclosure of information is characterised by openness and that it is accurate, relevant and clear. Procedural rules and instructions for the Board and the President

and CEO govern issues requiring Board approval and financial information and other reporting to be submitted to the Board.

The Chairman directs the Board's activities to ensure that they are conducted pursuant to the Swedish Companies Act, the prevailing regulations for listed companies and the Board's internal control instruments.

At all scheduled Board meetings, information concerning Hexagon's financial position and important events affecting the company's operations is presented.

Audit Committee

The Audit Committee, which is a preparatory body in the Board's contacts with the company's auditors, is appointed annually by the Board and regularly submits reports to the Board about its work. The Audit Committee follows written instructions and is, through its activities, to meet the requirements stipulated in the Swedish Companies Act and in the EU's audit regulation. The Committee's tasks include assisting the Nomination Committee in drawing up proposals for AGM resolutions on the election of auditors and remuneration to auditors, monitoring that the auditor's term of office does not exceed applicable rules, procuring the audit and making a recommendation in accordance with the EU's audit regulation. Furthermore, the Audit Committee shall review and monitor the auditors' impartiality and independence, paying particular attention to whether the auditor provides the company with other services than the audit. The Audit Committee shall also issue guidelines for services in addition to auditing services provided by the auditors and in applicable cases approve these services according to the issued guidelines. The Audit Committee shall take part in planning auditing services and related reporting and regularly meet with the external auditors to stay informed on the orientation and scope of the audit. The Audit Committee shall also review and monitor the Group's financial reporting, the activities of the external auditors, the company's internal controls, the current risk situation and the company's financial information to the market. The Audit Committee's tasks also include submitting recommendations and proposals to ensure the reliability of financial reporting and other issues that the Board assigns the Committee to consider. The Committee has not, other than pursuant to written instructions approved by the Board specifically for the Audit Committee, been authorised to make any decisions on behalf of the Board.

Remuneration Committee

The Remuneration Committee is appointed by the Board annually and its task is, on behalf of the Board, to consider issues regarding remuneration of the President and CEO and executives that report directly to the President and CEO and

other similar issues that the Board assigns the Committee to consider. The Committee shall also follow and evaluate ongoing programmes or programmes completed during the year for variable remuneration to Group Management, as well as the application of the guidelines for remuneration to senior executives as resolved by the AGM. The Committee has not been authorised to make any decisions on behalf of the Board.

External auditors

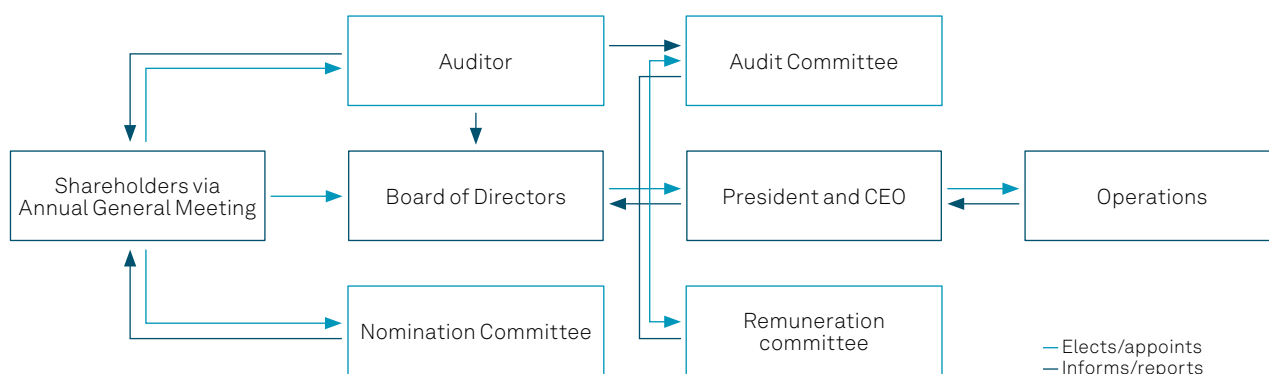
The AGM appoints the company's auditors. On behalf of the shareholders, the auditors' task is to examine the company's Annual Report and accounting records and the administration by the Board of Directors and the President and CEO. In addition to the audit, the auditors occasionally have other assignments, such as work relating to acquisitions and tax. Hexagon's auditors normally attend the first Board meeting each year, at which the auditors report observations from the examination of Hexagon's internal controls and the annual financial statements. Moreover, the auditors report to and regularly meet with the Audit Committee. In addition, the auditors participate in the AGM to present the auditors' report, which describes the audit work and observations made.

Internal control

The responsibility of the Board for internal control is regulated in the Swedish Companies Act and in the Code. It is the duty of the Board to ascertain that the internal control and formalised routines of the company ensure that the principles for internal control and financial reporting are adhered to and that the financial reports comply with the law and other requirements applicable to listed companies. The Board bears the overall responsibility for internal control of the financial reporting. The Board has established written formal rules of procedure that clarify the Board's responsibilities and regulate the internal distribution of work between the Board and its committees.

President and CEO and Group Management

The President and CEO is responsible for leading and controlling Hexagon's operations in accordance with the Swedish Companies Act, other legislation and regulations, applicable rules for listed companies, as well as the Code, the Articles of Association and the instructions and strategies determined by the Board. The President and CEO shall ensure that the Board is provided with objective, detailed and relevant information required in order for the Board to make well-informed decisions. Furthermore, the President and CEO is responsible for keeping the Board informed of the company's development between Board meetings.



Key data for board members

Board Member ¹	Committee membership				Meeting attendance		
	Elected	Independent	Audit Committee	Remuneration Committee	Board of Directors	Audit Committee	Remuneration Committee
Gun Nilsson	2008	No ²	⊙	⊙	16/16	6/6	2/2
John Brandon	2017	Yes			16/16		
Ulrika Francke	2010	Yes	⊙		16/16	6/6	
Henrik Henriksson	2017	Yes			16/16		
Ola Rollén	2000	No ³			16/16		
Märta Schörling Andreen	2017	No ²			16/16		
Sofia Schörling Högberg	2017	No ²	⊙	⊙	16/16	6/6	2/2

1) A complete presentation of the Board Members is included on pages 28–29.

2) Gun Nilsson, Märta Schörling Andreen and Sofia Schörling Högberg are not deemed to be independent of the company's major shareholders.

3) Ola Rollén is not deemed to be independent of the company as a result of his position as Hexagon's President and CEO.

Board and committee meetings

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Board of Directors		⊙ ⊙ ⊙		⊙ ⊙ ⊙	⊙	⊙ ⊙	⊙			⊙ ⊙ ⊙		⊙ ⊙ ⊙
Audit Committee		⊙		⊙			⊙		⊙	⊙		⊙
Remuneration Committee		⊙										⊙

The Group Management, comprising the President and CEO, presidents of application areas, heads of geographical regions and certain specific Group staff functions, totals 13 persons. Group Management is responsible for the overall business development and the apportioning of financial resources between the business areas, as well as matters involving financing and capital structure. Regular management meetings constitute Hexagon's forum for implementing overall controls down to a particular business operation and in turn, down to the individual company level.

Operations

In financial terms, Hexagon's business operations are controlled on the basis of the return on capital employed. This requires focus on maximising operating earnings and minimising working capital. Hexagon's organisational structure is characterised by decentralisation. Targets, guidelines and strategies are set centrally in collaboration with the business units. Managers assume overall responsibility for their respective business and pursue the clearly stated objectives.

ACTIVITIES DURING THE YEAR

2019 Annual General Meeting

The AGM, held on 8 April 2019 in Stockholm, Sweden, was attended by shareholders representing 64 per cent of the total number of shares and 74 per cent of the total number of votes. Gun Nilsson was elected Chairman of the AGM.

The following main resolutions were passed at the 2019 AGM:

- Re-election of Directors Gun Nilsson, John Brandon, Ulrika Francke, Henrik Henriksson, Ola Rollén, Märta Schörling Andreen and Sofia Schörling Högberg
- Re-election of Gun Nilsson as Chairman of the Board
- Re-election of the accounting firm Ernst & Young AB for a one-year period of mandate. Ernst & Young AB has appointed the authorised public accountant Rickard Andersson as auditor in charge
- Dividend of 0.59 EUR per share for 2018 as per the Board's proposal
- Principles for remuneration to Hexagon's senior executives

Nomination Committee

For the proposal for the AGM 2019, the Nomination Committee applied rule 4.1 of the Code as the diversity policy related to the Committee's nomination work. The Nomination Committee confirmed that the Board of Hexagon has an equal gender balance and an appropriate composition in general. Additional criteria, such as background, experience, previous leadership roles, relevant insights into Hexagon's industries and other customary attributes were considered when nominating the directors.

In respect of the 2020 AGM, the Nomination Committee comprises:

- Mikael Ekdahl, Melker Schörling AB (Chairman)
- Jan Andersson, Swedbank Robur fonder
- Johan Strandberg, SEB Investment Management
- Ossian Ekdahl, Första AP-fonden

During 2019, the Nomination Committee held two minuted meetings at which the Chairman gave an account of the process of evaluation of the Board of Directors' work. The Committee discussed and decided on proposals to submit to the 2020 AGM concerning the election of Chairman of the AGM, the election of Chairman and other Board Members, remuneration to the Board, including remuneration for committee work, and fees to the auditors. Shareholders wishing to submit proposals have been able to do so by contacting the Nomination Committee via mail or email. Addresses have been made available on Hexagon's website.

Board of Directors' activities

In 2019, the Board held 16 minuted meetings, including the statutory Board meeting. At the Board meetings, the President and CEO presented the financial and market position of Hexagon and important events affecting the company's operations. On different occasions, Hexagon senior executives presented their operations and business strategies to the Board. In addition, items such as the approval of the interim reports and the annual report are part of the Board's work plan and the company's auditors presented a report on their audit work during the year. At the Board meeting in December 2019, the Board approved the operational strategy and the financial plan for 2020.

Evaluation of the board's work

The Board continuously evaluates its work and the format of its activities. This evaluation considers factors such as how the Board's work can be improved, whether the character of meetings stimulates open discussion and whether each Board member participates actively and contributes to discussions. The evaluation is coordinated by the Chairman of the Board. In 2019, the Chairman conducted a written survey with all of the Board members. The result of the evaluation has been reported to and discussed by the Board and the Nomination Committee. The Board is also evaluated within the framework of the Nomination Committee's activities.

Audit Committee

During 2019 the Audit Committee comprised:

- Gun Nilsson (Chairman)
- Sofia Schörling Högberg
- Ulrika Francke

In 2019, the Committee held six minuted meetings where the financial reporting and risks of Hexagon were monitored and discussed. The Committee dealt with relevant accounting issues, audit work and reviews, new financing, and testing for impairment of goodwill.

Remuneration Committee

During 2019, the Remuneration Committee comprised:

- Gun Nilsson (Chairman)
- Sofia Schörling Högberg

In 2019, the Committee held two minuted meetings where remuneration and other employment terms and conditions for the President and CEO and other Group Management were discussed. The Remuneration Committee also monitored and evaluated the ongoing programmes for variable remuneration to senior executives as well as the application of the guidelines for remuneration to senior managers and the structure and levels of remuneration in the company.

External auditors

The 2019 AGM reelected the accounting firm Ernst & Young AB as auditor for a one-year period of mandate. Ernst & Young AB has appointed authorised public accountant Rickard Andersson as auditor in charge. In addition to Hexagon, he conducts auditing assignments for such companies as Alimak Group AB, Munters AB, Pricer AB, SSAB AB and Volati AB.

Hexagon's auditors attended the first Board meeting of the year, at which they reported observations from their examination of Hexagon's internal controls and the annual financial statements. The auditors met with the Audit Committee on five occasions during 2019.

The address of the auditors is Ernst & Young AB, Box 7850, SE-103 99, Stockholm, Sweden.

Remuneration principles

The following principles for remuneration to senior executives in Hexagon were adopted by the 2019 AGM.

Remuneration shall consist of a basic salary, variable remuneration, pension and other benefits and all remuneration shall be competitive and in accordance with market practice. The variable remuneration shall be maximised at up to 150 per cent in relation to the basic remuneration, related to the earnings trend which the relevant individual may influence and based on the outcome in relation to individual targets.

The Board annually considers whether a share or share-based incentive programme shall be proposed to the AGM.

The notice period shall normally be six months when notice of termination of employment is delivered by the employee. In case of notice of termination of employment delivered by the company, the notice period and the period during which severance payment is paid shall, all in all, not exceed 24 months. Pension benefits shall, as a main rule, be defined contribution. Deviation from this main rule may be permitted when appointing new senior executives whose previous employment agreement included a defined-benefit pension plan. The pension age for senior executives is individually determined, although not less than 60 years of age.

The proposed guidelines for remuneration to senior executives that will be proposed to for the Annual General Meeting 2020 have been adjusted compared to the guidelines adopted by the Annual General Meeting 2019. The adjustments have been done as a result of new legislation aimed to increase the transparency of remuneration issues. The adjusted guidelines will be published in the notice for the Annual General Meeting.

Remuneration of Group Management

Remuneration of the President and CEO and other senior executives is presented in Note 29 on page 70.

There are no agreements between the company and its directors or employees, other than as described in Note 29, which stipulate the right to compensation if such person voluntarily leaves the company, such person is dismissed with cause or if such person's employment is terminated as a result of a public offer for shares in the company.

Incentive programmes

Details of the warrants programme are presented on page 77 (The Share section) and in Note 29 on page 70.

Remuneration of Board of Directors

Remuneration of the Board of Directors is resolved by the AGM upon proposal from the Nomination Committee. During 2019, the Chairman of the Board and other Board Members received remuneration totaling KEUR (516.0). Remuneration of the Board of Directors is presented in Note 29 on page 70.

Remuneration of external auditors

Remuneration for services in addition to auditing services primarily refers to work related to acquisitions and tax. Remuneration of the external auditors is presented in Note 30 on page 71.

For more details about principles practised →

- The Swedish Companies Act, regeringen.se
- The Swedish Code of Corporate Governance, corporategovernanceboard.se

More information is available at hexagon.com →

- Articles of Association
- Information from earlier Annual General Meetings
- Information about the Nomination Committee
- Information ahead of the Annual General Meeting 2020

Internal control pertaining to financial reporting

The Annual Accounts Act and the Code stipulate that the Board of Directors must submit a report on the key aspects of the company's systems for internal controls and risk management regarding financial reports. Internal control pertaining to financial reporting is a process that involves the Board, company management and other personnel. The process has been designed so that it provides assurance of the reliability of the external reporting. According to a generally accepted framework that has been established for this purpose, internal control is usually described from five different perspectives:

1. Control environment

Hexagon's organisation is designed to facilitate rapid decision making. Accordingly, operational decisions are taken at the business area or subsidiary level, while decisions concerning strategies, acquisitions and company-wide financial matters are taken by the company's Board and Group Management. The organisation is characterised by well-defined allocation of responsibility and well-functioning and well-established governance and control systems, which apply to all Hexagon units. The basis for the internal control pertaining to financial reporting is comprised of an overall control environment in which the organisation, decision-making routes, authorities and responsibilities have been documented and communicated in control documents, such as Hexagon's finance policy and reporting instructions and in accordance with the authorisation arrangements established by the President and CEO.

Hexagon's functions for financial control are integrated by means of a group-wide reporting system. Hexagon's financial control unit engages in close and well-functioning cooperation with the subsidiaries' controllers in terms of the financial statements and the reporting process. The Board's monitoring of the company's assessment of its internal control includes contacts with the company's auditor. Hexagon has no internal audit function, since the functions described above satisfy this need. All of Hexagon's subsidiaries report complete financial statements on a monthly basis. This reporting provides the basis for Hexagon's consolidated financial reporting. Each legal entity has a controller responsible for the financial control and for ensuring that the financial reports are correct, complete and delivered in time for consolidated financial reporting.

2. Risk assessment

The significant risks affecting the internal control of financial reporting are identified and managed at group, business area, subsidiary and unit level. Within the Board, the Audit Committee is responsible for ensuring that significant financial risks and the risk of error in financial

reporting are identified and managed in a manner that ensures correct financial reporting. Special priority has been assigned to identifying processes that, to some extent, give rise to a higher risk of significant error due to the complexity of the process or of the contexts in which major values are involved.

3. Control activities

The risks identified with respect to the financial reporting process are managed via the company's control activities. The control activities are designed to prevent, uncover and correct errors and non-conformities. Their management is conducted by means of manual controls in the form of, for example, reconciliations, automatic controls using IT systems and general controls conducted in the underlying IT environment. Detailed analyses of financial results and evaluation in relation to budget and forecasts supplement the business-specific controls and provide general confirmation of the quality of the financial reporting.

4. Information and communication

To ensure the completeness and correctness of financial reporting, Hexagon has formulated information and communication guidelines designed to ensure that relevant and significant information is exchanged within the business, within the particular unit and to and from management and the Board. Guidelines, handbooks and job descriptions pertaining to the financial process are communicated between management and personnel and are accessible electronically and/or in a printed format. The Board receives regular feedback in respect of the internal control process from the Audit Committee. To ensure that the external communication of information is correct and complete, Hexagon complies with a Board approved information policy that stipulates what may be communicated, by whom and in what manner.

5. Monitoring activities

The efficiency of the process for risk assessment and the implementation of control activities are reviewed continuously. The follow-up pertains to both formal and informal procedures used by the officers responsible at each level. The procedures incorporate the review of financial results in relation to budget and plans, analyses and key figures. The Board obtains current and regular reports on Hexagon's financial position and performance. At each Board meeting, the company's financial position is addressed and, on a monthly basis, management analyses the company's financial reporting at a detailed level. The Audit Committee follows up the financial reporting at its meetings and receives reports from the auditors describing their observations.

Auditor's report on the corporate governance statement

To the general meeting of the shareholders of Hexagon AB (publ), corporate identity number 556190-4771

Engagement and responsibility

It is the Board of Directors who is responsible for the corporate governance statement for the year 2019 on pages 21–25 and that it has been prepared in accordance with the Annual Accounts Act.

The scope of the audit

Our examination has been conducted in accordance with FAR's auditing standard RevU 16 The auditor's examination of the corporate governance statement. This means that our examination of the corporate governance statement is different and substantially less in scope than an audit conducted in accordance with International Standards on Auditing and generally accepted auditing standards in Sweden. We believe that the examination has provided us with sufficient basis for our opinions.

Opinions

A corporate governance statement has been prepared. Disclosures in accordance with chapter 6 section 6 the second paragraph points 2–6 the Annual Accounts Act and chapter 7 section 31 the second paragraph the same law are consistent with the annual accounts and the consolidated accounts and are in accordance with the Annual Accounts Act.

Stockholm 1 April 2020

Ernst & Young AB

Rickard Andersson

Authorised Public Accountant

“ We have been focusing on sustainability issues as part of our business for a long time, but we are not perfect.”



Dear shareholders,

When reflecting on what characterised 2019 and impacted our business the most I think about the many great successes we accomplished to support our long-term objectives. We continued to invest in the future with the acquisitions of companies such as Etalon, j5, Thermopylae, Melown Technologies and Volume Graphics. We invested 514.7 MEUR corresponding to 13 per cent of sales in R&D to develop the next generation revolutionary solutions. We also had to deal with unexpected challenges as a result of increasing geopolitical tensions and a slowing macro economy.

Another big part of 2019 that received a substantial amount of attention was the rising movement impacting how companies operate and do business. A movement addressing the importance values and procedures play in justifying a company's "license to operate" – ensuring that it operates in a sustainable manner with society's continued trust and confidence in its business and operations.

This makes me think about the responsibility we as board members have. One of the Board's most important responsibilities is to ensure Hexagon has a solid financial position so we can continually build the company for a sustainable future and create shareholder value in the long run. For years, we have focused on investing in innovative technology solving our customer's challenges and supporting our long-term growth objectives. Knowing our customers' challenges is key for us but understanding how our business can continue to impact, influence and contribute to our society in the best possible way is just as, if not more, important.

Our responsibility goes beyond ensuring our finances and investing in groundbreaking technology. We, as board members and Chairmen, can always do much more.

You, as shareholders, have put your confidence in us, and it is our responsibility to influence and drive change.

We have been focusing on sustainability issues as part of our business for a long time, but we are not perfect. Yes, we can proudly say we have a gender balance in our Board, but we have a long way to go achieving diversity in our management. And we can do much more to achieve our full potential in managing our environmental and social impact. Although we have made great strides in the past years, this is becoming an ever more important focus, ensuring the future of not only Hexagon but also of our customers and coming generations. During 2019, these efforts were evident. Hexagon continued to develop its sustainability report, evaluating relevant key performance indicators and targets. A supplier code of conduct was launched which will be implemented across the group and its supply chain in 2020. Data security was a continuous topic during the Board meetings and Hexagon further developed its Data Protection Programme with the introduction of new training courses, tools and guidance for risk assessments of protection of data and intellectual property. Even though these issues have become an integral part of the Boards work, this is a work in progress, and we are committed to do our utmost to ensure a sustainable future for Hexagon.

On behalf of the board, I would like to thank our shareholders for your continued trust and confidence in us. I would also like to thank our over 20,000 employees who are key to Hexagon's success.

Stockholm, Sweden, March 2020

Gun Nilsson
Chairman of the Board

Board of Directors

Gun Nilsson

Born in 1955
Member of the Board since 2008
Chairman of the Board since 2017
Chairman of the Audit Committee and the Remuneration Committee
Education: B.Sc. (Econ.)
Work experience: President of Melker Schörling AB, CFO of IP-Only Group, Sanitec Group and Nobia Group, CEO of Gambro Holding AB, Deputy CEO and CFO of Duni AB
Other assignments: Board Member of Hexpol AB, AAK AB and Bonnier Group AB. Member of The Swedish Corporate Governance Board

Previous assignments in the past five years: Board Member of Capio AB, Loomis AB and Dometic Group

Shareholding¹: 12,666 shares of series B
Independent of the company and its management

John Brandon

Born in 1956
Member of the Board since 2017
Education: B.A. (History)
Work experience: Advisor at Conductive Ventures, Vice President International of Apple Inc., CEO Academic Systems Inc., Vice President and General Manager at North America of Adobe Systems Inc.
Other assignments: Board Member of Securitas AB

Previous assignments in the past five years: –
Shareholding¹: 3,000 shares of series B
Independent of the company, its management and major shareholders

Ulrika Francke

Born in 1956
Member of the Board since 2010
Member of the Audit Committee
Education: University studies
Work experience: President and CEO of Tyréns AB, City Planning Director and Street and Property Director at City of Stockholm and CEO of SBC AB

Other assignments: Chairman of Vasakronan and Knightec AB, Vice Chairman of Swedish Standards Institute (SIS). Board Member of Sven Tyréns stiftelse

Previous assignments in the past five years: Vice Chairman of Swedbank AB, Chairman of BIM Alliance Sweden and Stockholm Stadsteater AB. Board Member of Tyréns AB, Almega – the Employer's Organisation for the Swedish Service Sector and Wåhlin Fastighets AB

Shareholding¹: 6,000 shares of series B
Independent of the company, its management and major shareholders

Henrik Henriksson

Born in 1970
Member of the Board since 2017
Education: B. Sc. (Business Administration)
Work experience: President and CEO of Scania AB, Executive Vice President of Sales and Marketing Scania, Senior Vice President of Scania Trucks, Export Director of Scania South Africa

Other assignments: Board Member of Scania AB, the Association of Swedish Engineering Industries and The Confederation of Swedish Enterprise

Previous assignments in the past five years: –
Shareholding¹: 7,992 shares of series B
Independent of the company, its management and major shareholders

Ola Rollén

Born in 1965
President and Chief Executive Officer since 2000
Member of the Board since 2000
Education: B.Sc. (Econ.)

Work experience: President of Sandvik Materials Technology and Kanthal, Executive Vice President of Avesta-Sheffield

Other assignments: Board Member of Greenbridge Investment Partners Ltd.

Previous assignments in the past five years: –
Shareholding¹: 286,900 shares of series B
Independent of major shareholders

Märta Schörling Andreen

Born in 1984
Member of the Board since 2017
Education: B.Sc. (Econ.)
Work experience: Brand and innovation consultant at Pond Innovation & Design
Other assignments: Board Member of Melker Schörling AB, Hexpol AB, AAK AB and Absolent Group
Previous assignments in the past five years: –
Shareholding¹: 15,750,000 shares of series A and 68,750,920 shares of series B through Melker Schörling AB
Independent of the company and its management

Sofia Schörling Högberg

Born in 1978
Member of the Board since 2017
Member of the Audit Committee and the Remuneration Committee
Education: B. Sc. (Econ.)
Work experience: Trademark consultant at Essen International
Other assignments: Vice Chairman of Melker Schörling AB, Board Member of Securitas AB and Assa Abloy AB
Previous assignments in the past five years: –
Shareholding¹: 15,750,000 shares of series A and 68,750,920 shares of series B through Melker Schörling AB
Independent of the company and its management

¹) Shareholdings and warrant holdings based on information per 27 March 2020 and also include related-party holdings.



Gun Nilsson



John Brandon



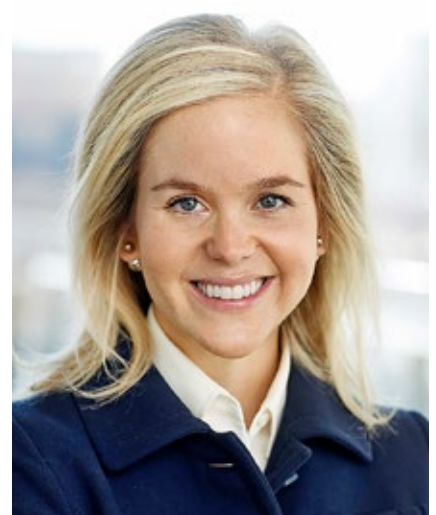
Ulrika Francke



Henrik Henriksson



Ola Rollén



Märta Schörling Andreen



Sofia Schörling Högberg

Group Management

Ola Rollén

Born in 1965
President and Chief Executive Officer since 2000
Employed since 2000
Education: B.Sc. (Econ.)
Work experience: President at Sandvik Materials Technology and Kanthal, Executive Vice President at Avesta-Sheffield
Other assignments: Board Member of Greenbridge Investment Partners Ltd.
Previous assignments in the past five years: –
*Shareholding*¹: 286,900 shares of series B

Robert Belkic

Born in 1970
Chief Financial Officer and Executive Vice President
Employed since 2009
Education: B.Sc. (Business Administration and Economics)
Work experience: Group Treasurer at Hexagon AB, Group Treasurer at EF Education First Ltd and Assistant Group Treasurer at Autoliv Inc.
Other assignments: –
Previous assignments in the past five years: –
*Shareholding*¹: –

Kristin Christensen

Born in 1971
Chief Marketing Officer
Employed since 2004
Education: B.Sc., MBA (Marketing)
Work experience: Vice President of Corporate Communications Hexagon AB, various marketing management positions at Intergraph, Solution 6 North America and other software companies
Other assignments: –
Previous assignments in the past five years: –
*Shareholding*¹: –

Steven Cost

Born in 1967
President, Security & Infrastructure division
Employed since 2007
Education: B.Sc., MBA (Accounting)
Work experience: Chief Accountant Officer/Controller/Treasurer at Intergraph Security & Infrastructure and Senior management positions with Adtran, AVEX Electronics and Benchmark Electronics
Other assignments: –
Previous assignments in the past five years: –
*Shareholding*¹: –

Jürgen Dold

Born in 1962
President, Geosystems division
Employed since 1995
Education: M.Sc., PhD (Engineering)

Work experience: Academic counsel at the Technical University of Braunschweig in Germany and various management positions within Leica Geosystems AG
Other assignments: Member of the Supervisory Board of Basler & Hofmann AG
Previous assignments in the past five years: –
*Shareholding*¹: 30,000 shares of series B

Norbert Hanke

Born in 1962
President, Manufacturing Intelligence division
Employed since 2001
Education: Diploma of Business Administration
Work experience: Chief Financial Officer at Brown & Sharpe and various positions within the Kloeckner Group
Other assignments: –
Previous assignments in the past five years: –
*Shareholding*¹: 23,632 shares of series B

Li Hongquan

Born in 1966
Vice President and President of China Region
Employed since 2001.
Education: M.Sc. (Engineering)
Work experience: President of Qingdao Brown & Sharpe and Qianshao Technology Co. Ltd. Various positions in the Chinese manufacturing industry
Other assignments: –
Previous assignments in the past five years: –
*Shareholding*¹: 120,000 shares of series B

Ben Maslen

Born in 1972
Chief Strategy Officer
Employed since 2017
Education: B.Sc. (Economics/Politics), Chartered Accountant.
Work experience: Co-head of European capital goods equity research Morgan Stanley and equity analyst at BoAML
Other assignments: –
Previous assignments in the past five years: –
*Shareholding*¹: 1,000 shares of series B

Edgar Porter

Born in 1959
Chief Human Resources Officer
Employed since 2004
Education: B.Sc. (Business Administration)
Work experience: Executive Vice President of Human Resources at Intergraph. Vice President of Human Resources at Solution 6 North America
Other assignments: –
Previous assignments in the past five years: –
*Shareholding*¹: –

Michael Ritter

Born in 1963
President, Autonomy & Positioning division
Employed since 2009
Education: M.Sc. (Engineering)
Work experience: Staff and management positions at Schlumberger Oilfield Services and Trimble Inc.
Other assignments: –
Previous assignments in the past five years: –
*Shareholding*¹: –

Claudio Simão

Born in 1957
Chief Technology Officer
Employed since 2002
Education: M.Sc. (Mechanical Engineering) and B.Sc. (Physics)
Work experience: President, Hexagon South America and President, Manufacturing Intelligence in Asia-Pacific
Other assignments: –
Previous assignments in the past five years: –
*Shareholding*¹: –

Mattias Stenberg

Born in 1977
President, PPM division
Employed since 2009
Education: B.Sc. (Econ.)
Work experience: Chief Strategy Officer and Vice President of Strategy and Communications at Hexagon AB, various Investor Relations positions at Teleca AB and Autoliv Inc.
Other assignments: –
Previous assignments in the past five years: –
*Shareholding*¹: 6,000 shares of series B

Mladen Stojic

Born in 1970
President, Geospatial division
Employed since 1996
Education: B.Tech (Engineering), M.Sc (Geography)
Work experience: Director of Product Management within Leica Geosystems GIS & Mapping, Vice President at Intergraph Geospatial
Other assignments: –
Previous assignments in the past five years: –
*Shareholding*¹: –

¹ Shareholdings and warrant holdings based on information per 27 March 2020 and also include related-party holdings.



Ola Rollén



Robert Belkic



Kristin Christensen



Steven Cost



Jürgen Dold



Norbert Hanke



Li Hongquan



Ben Maslen



Edgar Porter



Michael Ritter



Claudio Simão



Mattias Stenberg



Mladen Stojic

Managing risks

Hexagon's risk management activities are designed to identify, control and reduce risks associated with its business. The majority of these activities are managed within each subsidiary of Hexagon. However, certain legal, strategic and financial risks are managed at the Group level.

Market risk management

Market risk concerns risks such as economic trends, competition and risks related to acquisitions and integration. Market risks are primarily managed within each subsidiary of Hexagon.

Risk	Risk management
<p data-bbox="119 761 782 806">Acquisitions and integration</p> <p data-bbox="119 806 782 1019">An important part of Hexagon's strategy is to actively pursue acquisitions of companies and businesses. Strategic acquisitions will continue to be part of Hexagon's growth strategy going forward. It cannot be guaranteed, however, that Hexagon will be able to find suitable acquisition targets, nor can it be guaranteed that the necessary financing for future acquisition targets can be obtained on terms acceptable to Hexagon or at all. A lack of acquisition financing may lead to a decreasing growth rate for Hexagon.</p> <p data-bbox="119 1030 782 1265">Acquisitions entail risk. The acquired entities' relations with customers, suppliers and key personnel may be negatively affected by the acquisition. There is also a risk that integration processes may prove more costly or more time consuming than estimated and that anticipated synergies in whole or in part fail to materialise. An acquisition of a company that is not conducting its business in a sustainable way or in compliance with Hexagon's Code of Business Conduct and Ethics may have a negative impact on Hexagon's reputation.</p>	<p data-bbox="782 761 1461 1019">Hexagon monitors a large number of companies to find acquisitions that can strengthen the Group's product portfolio or improve its distribution network. Potential targets are regularly evaluated based on financial, technology and commercial grounds. Every acquisition candidate's potential place in the Group is determined on the basis of synergy simulations and implementation strategies. Thorough due diligence is performed to evaluate potential risks.</p> <p data-bbox="782 1030 1461 1420">From 2000 to 2019, Hexagon completed more than 150 acquisitions. Based on its extensive experience in acquisitions and integration and clear strategies and goals, Hexagon is strongly positioned to successfully integrate acquired companies into the Group. In Hexagon's standard due diligence process, a number of sustainability elements are included, such as detailed consideration about the internal controls of the target company, quality business practices, environmental matters, employee matters, ISO (International Organization for Standardization), LEED (Leadership in Energy and Environmental Design) or other industry certifications, and anti-corruption/FCPA (Foreign Corrupt Practices Act) and export controls. Hexagon also evaluates whether target companies are following a robust code of conduct and whether their own corporate responsibility and sustainability programmes are effective.</p>

Risk

Impact of the economy and financial markets

Hexagon engages in worldwide operations that are dependent on global economic and financial market conditions, as well as conditions that are unique to certain countries or regions. As in virtually all businesses, general economic and financial market conditions affect the inclination and the capabilities of Hexagon's existing and potential customers to invest in design, measurement and visualisation technologies. Weak macroeconomic conditions globally or in part of the world may therefore result in lower market growth that falls below expectations.

Geopolitical risks

Understanding geopolitical risk, how geography and economics influence politics and the relations between countries, is important in a world that has become more closely intertwined thanks to the rise of globalisation.

Examples of current geopolitical risks include political and economic uncertainty surrounding Great Britain's planned exit from the European Union ("Brexit") and the potential for further escalation of the trade war between the US and China. Understanding how these geopolitical risks may affect Hexagon's organisation, operating results and strategies are of utmost importance. However, what impact Brexit and/or an escalating trade war between the US and China will have on world trade and the global markets, and the demand for our products, over the coming years is still fairly uncertain and will to some extent depend upon whether or not agreements regarding access to the markets can be settled.

Competition and price pressure

Parts of Hexagon's operation are carried out in sectors which are subject to price pressure and rapid technological change. Hexagon's ability to compete in the market by introducing new and successful products with enhanced functionality while simultaneously cutting costs on new and existing products is of the utmost importance in order to avoid erosion of market share. Other inherent risk exists with competitors, such as consolidation or entry into our markets by companies with significant resources. R&D efforts are costly and new product development always entails a risk of unsuccessful product launches or commercialisation, which could have material adverse consequences on Hexagon.

Risk management

Hexagon's business is widely spread geographically, with a broad customer base within numerous market segments. Potential negative effects of a downturn in the developed world may, for example, be partially off-set by growth in emerging markets and vice-versa.

In order to eliminate risks that may occur due to geopolitics, such as disruption to international commerce or the global economy, Hexagon is following developments closely while evaluating different strategies in order to prepare for and handle possible scenarios that may affect Hexagon's organisation and the ability to do business in different parts of the world over the coming years.

Hexagon invests annually approximately 10–12 per cent of its net sales in R&D. A total of about 3,800 employees are engaged in R&D at Hexagon. The objective for Hexagon's R&D division is to transform customer needs into products and services and to detect market and technology opportunities early on.

Operational risk management

Operational risks concern risks related to reception of new products and services, dependence on suppliers and risks related to human capital. Since the majority of operational risks are attributable to Hexagon's customer and supplier relations, ongoing risk analyses of customers and suppliers are conducted to assess business risks. Operational risks are primarily managed within each subsidiary of Hexagon.

Risk	Risk management
<p>Customers</p> <p>Hexagon's business activities are conducted in a large number of markets with multiple customer categories. In 2019, Surveying was the single largest customer category and accounted for 20 per cent of net sales. For Hexagon, this customer category may involve certain risks as a downturn or weak development in the surveying sector can have a negative impact on Hexagon's business. Surveying is followed by customer categories Electronics and Manufacturing with 14 per cent, Infrastructure and Construction with 14 per cent and Power and Energy with 13 per cent. Changing demand of Hexagon's customers is possible as technology needs and consumption change over time.</p> <p>Hexagon may face risks, including reputational risks, if customers are misusing the company's products in ways that negatively impact human rights.</p>	<p>Hexagon has a favourable risk diversification in products and geographical areas, and dependence on a single customer or customer category is not decisive for the Group's performance. The largest customer represents approximately 1 per cent of the Group's total net sales. Credit risk in customer receivables accounts for the majority of Hexagon's counterparty risk. Hexagon believes there is no significant concentration of counterparty risk.</p> <p>Hexagon's compliance programme addresses all principles contained in the Code of Business Conduct and Ethics, including export controls. Hexagon is committed to complying with appropriate export controls, and the company's compliance efforts aim to safeguard peace and security by preventing the unlawful trading of items (i.e., goods, software or technology) or diversion to destinations where they may be used for illegal purposes.</p>
<p>Suppliers</p> <p>Hexagon's products consist of components from several different suppliers. To be in a position to sell and deliver solutions to customers, Hexagon is dependent upon deliveries from third parties in accordance with agreed requirements relating to, for example, quantity, quality and delivery times. Erroneous or default deliveries by suppliers can cause delay or default in Hexagon's deliveries, which can result in reduced sales. Further, Hexagon uses subcontractors, distributors, resellers and other representatives.</p> <p>If there were to be unmanaged negative impacts following a supplier's noncompliance with Hexagon's Code of Business Conduct and Ethics, it may result in reputational risks for Hexagon.</p>	<p>Hexagon has a favourable risk diversification, and dependence on a single supplier is not decisive for the Group's performance. The largest supplier accounted for approximately 1 per cent of Hexagon's total net sales in 2019. To minimise the risk of supply shortages or of excessive price variations among suppliers, Hexagon works actively to coordinate sourcing within the Group and to identify alternative suppliers for strategic components. Supplier risk surveys are performed (by Hexagon's external partner) in order to identify and mitigate risks associated with the suppliers' operations.</p> <p>Hexagon has a compliance programme in place for suppliers to manage social and ethical risks. Hexagon regularly conducts supplier audits to ensure suppliers are compliant with the Hexagon's Code of Business Conduct and Ethics.</p>

Risk

Risk management

Human capital

The resignation of key employees or Hexagon's failure to attract skilled and diverse personnel to all different levels within the organisation may have an adverse impact on the Group's operations. Further, maintaining Hexagon's company culture is critical to attracting and retaining top talent.

Since future success is largely dependent on the capacity to retain, recruit and develop skilled staff, being an attractive employer to both potential and existing employees is an important success factor for Hexagon. Group and business area management jointly handle risks associated with human capital. Hexagon works with a structured approach to HR and market-based remuneration to ensure employee satisfaction. Hexagon uses employee engagement as the overall measure in the bi-annual employee survey.

In order to attract skilled employees, Hexagon cooperates with multiple universities and colleges around the world, aiming at training and hiring students with industry-ready skills.

Production and distribution units

Hexagon's production and distribution units are exposed to risks (fire, explosion, natural hazards, machinery damages, cyber threats, infrastructure failures, power outages, etc.) that could lead to property damage and business interruption.

Risk grading surveys are performed (by Hexagon's external partner) in order to identify and mitigate risks as well as support local management in their loss prevention work. Surveys are conducted with each subsidiary in accordance with a long term plan. Hexagon has implemented ISO 9001 at the majority of the largest production sites.

Business ethics and corruption

Corruption negatively impacts communities and overall global economic development and erodes the trust necessary to build a stable business environment. Additionally, businesses such as Hexagon may be held liable for the corrupt actions taken by employees, strategic or local partners or other representatives. If Hexagon or its intermediaries fail to comply with anti-corruption laws, governmental authorities could seek to impose civil and/or criminal fines and penalties which could have an adverse effect on Hexagon's business. For Hexagon, anti-corruption compliance is of utmost importance, as it helps Hexagon advance its financial interests and brand value.

Hexagon has a robust Code of Business Conduct and Ethics and Anti-Corruption Compliance Programme in place, covering the entire Group, including policies, processes and training. The anti-corruption compliance documents include policies in such areas as gifts and entertainment (both to and from third parties), hiring candidates with government connections and engaging in and transacting business with third parties.

Cyber risks and data protection

Hexagon relies on IT systems in its operations. Disruptions or faults in critical systems may have a negative impact on Hexagon's operations, including impact on production, Hexagon's tangible and intellectual property and, in some cases, the intellectual property and operations of external parties.

Cyber security risks are increasing in society in general and Hexagon works continuously to keep the company's IT systems protected. In addition, Hexagon invests in enhanced disaster recovery and data storage capabilities, cyber security expertise, and adequate insurance protection. Hexagon also mitigates IT related risks through contracts with external parties.

Incidents may also lead to data privacy infringements such as unauthorised access, leakage or loss of data. Data security and integrity are critical issues for the Hexagon Group. Under the GDPR, and other analogous legislation in various jurisdictions, and ePrivacy regulations, Hexagon has firm legal requirements to protect against personal information (PI) data breaches. The regulations extend to all vendors that Hexagon uses to collect, store and process PI data on its behalf. In China, there is a similar law recently adopted to protect various data types, including PI data. It is of utmost importance for Hexagon to protect and secure all data as the costs of remediating a serious breach are high and can also be damaging to Hexagon's reputation.

Hexagon has mandated that all divisions must implement a recognised cybersecurity framework. Hexagon has set the minimum standard of implementing the NIST-800171 framework as the entry-level approach. Divisions will assess their needs as they relate to customer requirements and may need to implement more stringent frameworks such as ISO27001/NIST-800-53.

Financial risk management

Financial risks are managed at the Group level. The Group Treasury Policy, which is updated and approved annually by the Board of Directors, stipulates the rules and limitations for the management of financial risks throughout the Group. Hexagon's internal bank coordinates the management of financial risks and is also responsible for the Group's external borrowing and internal financing. Additional financial risks include, but are not limited to, the risks of varying business results, seasonal variation, and changes to accounting principles (or application thereof).

Risk	Risk management																				
<p>Currency</p> <p>Hexagon's operations are mainly conducted internationally. During 2019, total operating earnings, excluding non-recurring items, from operations in currencies other than EUR amounted to an equivalent of 724.7 MEUR (612.8). Of these currencies, CHF, CNY and USD have the biggest impact on Hexagon's earnings and net assets. Currency risk is the risk that currency exchange rate fluctuations will have an adverse effect on the income statement, balance sheet or cash flow.</p> <p>Sales and purchases of goods and services in currencies other than the subsidiary's functional currency give rise to transaction exposure.</p> <p>Translation exposure arises when the income statement and balance sheet are translated into EUR. The balance sheet translation exposure might substantially affect other comprehensive income negatively. Furthermore, the comparability of Hexagon's earnings between periods is affected by changes in currency exchange rates. The income statement translation exposure is described in the table below for the currencies having the largest impact on Hexagon's earnings and net assets, including the effect on Hexagon's operating earnings in 2019.</p> <table border="1"> <thead> <tr> <th></th> <th style="text-align: center;">Movement¹</th> <th style="text-align: center;">Net of income and cost</th> <th style="text-align: center;">Profit impact</th> </tr> </thead> <tbody> <tr> <td>CHF</td> <td style="text-align: center;">Strengthened 4%</td> <td style="text-align: center;">Negative</td> <td style="text-align: center;">Positive</td> </tr> <tr> <td>USD</td> <td style="text-align: center;">Strengthened 5%</td> <td style="text-align: center;">Positive</td> <td style="text-align: center;">Positive</td> </tr> <tr> <td>CNY</td> <td style="text-align: center;">Strengthened 1%</td> <td style="text-align: center;">Positive</td> <td style="text-align: center;">Positive</td> </tr> <tr> <td>EBIT1, MEUR</td> <td></td> <td></td> <td style="text-align: center;">26.3</td> </tr> </tbody> </table> <p>¹⁾ Compared to EUR and 2018.</p>		Movement ¹	Net of income and cost	Profit impact	CHF	Strengthened 4%	Negative	Positive	USD	Strengthened 5%	Positive	Positive	CNY	Strengthened 1%	Positive	Positive	EBIT1, MEUR			26.3	<p>Hexagon's reporting currency is EUR, which has a stabilising effect on certain key ratios that are of importance to Hexagon's cost of capital.</p> <p>As much as possible, currency transaction exposure is concentrated in the countries where the manufacturing entities are located. This is achieved by invoicing the sales entities in their respective functional currency by the manufacturing entities. According to the Group's financial policy, currency transaction exposure should not be hedged using external financial instruments. The rationale for this is that the vast majority of transactions entail a short period of time from order to payment. Moreover, a transaction hedge only postpones the effect of a change in currency rates.</p> <p>The translation exposure can be mitigated by denominating borrowings in the same currency as the corresponding net assets. But in order to have the volatility in net debt at an acceptable level, currently the majority of the borrowings is denominated in EUR.</p>
	Movement ¹	Net of income and cost	Profit impact																		
CHF	Strengthened 4%	Negative	Positive																		
USD	Strengthened 5%	Positive	Positive																		
CNY	Strengthened 1%	Positive	Positive																		
EBIT1, MEUR			26.3																		

Interest

The interest rate risk is the risk that changes in market interest rates will adversely affect the Group's net interest expense and/or cash flow. Interest rate exposure arises primarily from outstanding loans. The impact on the Group's net interest expense depends, among other things, on the average interest rate for borrowings.

In accordance with the Group Treasury Policy, the average interest rate duration of the external debt is to be between 6 months and 3 years. During 2019, interest rate derivatives were used to manage the interest rate risk.

Risk

Risk management

Credit

Credit risk, i.e., the risk that customers may be unable to fulfil their payment obligations, accounts for the majority of Hexagon's counterparty risk.

Financial credit risk is the exposure to default of counterparties with which Hexagon has invested cash or with which it has entered into forward exchange contracts or other financial instruments.

Through a combination of geographical and industry diversification of customers, the risk for significant credit losses is reduced.

To reduce Hexagon's financial credit risk, surplus cash is only invested with a limited number of approved banks and derivative transactions are only conducted with counterparties where an ISDA (International Swaps and Derivatives Association) netting agreement has been established. As Hexagon is a net borrower, excess liquidity is primarily used to repay external debt and therefore the average surplus cash invested with banks is kept as low as possible.

Liquidity

Liquidity risk is the risk of not being able to meet payment obligations in full as they become due or only being able to do so at materially disadvantageous terms due to lack of cash resources.

The Group Treasury Policy states that the total liquidity reserve shall at all times be at least 10 per cent of forecasted annual net sales. At year-end 2019, cash and unutilised credit limits totaled 1,832.8 MEUR (1,684.2).

Refinancing

Refinancing risk refers to the risk that Hexagon does not have sufficient financing available when needed to refinance maturing debt, because existing lenders decline to provide additional credit or difficulties arise in procuring new lines of credit at a given point in time. Hexagon's ability to satisfy future capital needs is to a large degree dependent on successful sales of the company's products and services. There is no guarantee that Hexagon will be able to generate necessary capital from sales or from third party financing arrangements. In this regard, the general development of the capital and credit markets is also of major importance. Hexagon, moreover, requires sufficient financing in order to refinance maturing debt. Securing these requirements demands a strong financial position of the Group, combined with active measures to ensure access to credit. There is no guarantee that Hexagon will be able to raise sufficient funds in order to refinance maturing debt.

In order to ensure that appropriate financing is in place and to decrease refinancing risk, no more than 20 per cent of the Group's gross debt, including committed credit facilities, is allowed to mature within the succeeding 12 months unless replacement facilities have been entered into.

Hexagon's main sources of financing consist of:

- A multicurrency revolving credit facility (RCF) established during 2014. The RCF amounts to 2,000 MEUR with maturity 2021.
- A Swedish Medium Term Note Programme (MTN) established during 2014. The MTN programme amounts to 15,000 MSEK and gives Hexagon the option to issue bonds with tenors of up to 5 years.
- A Swedish Commercial Paper Programme (CP) established during 2012. The CP programme gives Hexagon the option to issue commercial paper for a total amount of 15,000 MSEK with tenor up to 12 months.

Insurable risk

Hexagon's operations, assets and staff are to a certain degree exposed to various risks of damages, losses and injuries which could tentatively threaten the Group's business continuity, earnings, financial assets and personnel.

To ensure a well-balanced insurance coverage and financial economies of scale, Hexagon's insurance programme includes, among other things, group-wide property and liability insurance, travel insurance, errors and omissions insurance and transport insurance, combined with local insurance coverage wherever needed. The insurance programme is periodically amended so that owned risk and insured risk are optimally balanced.

Legal risk management

Legal risks are primarily managed within each subsidiary of Hexagon. The Group legal function supports the subsidiaries and manages certain legal risks at the Group level.

Risk	Risk management
Legislation and regulation <p>Hexagon's main markets are subject to extensive regulation. Hexagon's operations may be affected by regulatory changes, changes to customs duties and other trading obstacles, and pricing and currency controls, as well as other government legislation and restrictions in the countries where Hexagon is active. For example, more stringent regulations have been passed or are being developed in several jurisdictions, causing increased responsibilities for companies regarding the privacy and processing of personal data. These changing requirements and more stringent rules impose a risk of non-compliance with these data protection regulations, which could result in substantial legal fees and damage to Hexagon's reputation.</p>	Hexagon closely monitors legislation, regulations and applicable ordinances in each market and seeks to adapt the business to identified future changes in the area. To manage country-specific risks, Hexagon observes local legislation and monitors political developments in the countries where the Group conducts operations. To this effect, Hexagon has adopted a worldwide compliance programme across the Group to ensure that its subsidiaries at all times comply with all applicable legislation, rules and ordinances.
Intellectual property rights <p>Intellectual property infringement and plagiarism by third parties are risks to which Hexagon is exposed. There is no guarantee that Hexagon will be able to protect obtained patents, trademarks and other intellectual property rights or that submitted applications for registration will be granted. Furthermore, there is a risk that new technologies and products are developed which circumvent or replace Hexagon's intellectual property rights. Infringement disputes can, like disputes in general, be costly and time consuming and may therefore adversely affect Hexagon's business. Additionally, third parties may assert that Hexagon's products infringe their intellectual property rights.</p>	Hexagon seeks to protect its technology innovations to safeguard the returns on the resources that Hexagon assigns to R&D. The Group strives to protect its technical innovations through patents and protects its intellectual property rights through legal proceedings when warranted. Such intellectual property rights can generally only be enforced in jurisdictions that have granted such protections or recognise these rights.
Environment <p>Certain companies within Hexagon have operations that have environmental impact. Stricter regulation of environmental matters can result in increased costs or further investments for the companies within Hexagon which are subject to such regulation.</p>	Hexagon believes that it is in material compliance with all applicable laws and obligations and obtains relevant approvals where needed. Hexagon continuously monitors anticipated and implemented changes in legislation in the countries in which it operates. Hexagon has implemented ISO 14001 at the majority of the largest production sites.
Tax <p>Hexagon operates through subsidiaries in a number of jurisdictions and all cross-border transactions are normally a tax risk because there are no global transfer pricing rules. Local tax authorities follow their own local transfer pricing rules and authorities interpret transfer pricing guidelines differently. Hexagon frequently interacts with local taxing authorities and frequently has several ongoing tax audits in progress.</p> <p>Hexagon's interpretation of prevailing tax law, tax treaties, OECD guidelines and agreements entered into with foreign tax authorities may be challenged by tax authorities in some countries. Rules and guidelines may also be subject to future changes which can have an adverse effect on the Group's tax position. Furthermore, a change in the business or part of the business can have an impact on agreements entered into with tax authorities in some tax jurisdictions.</p> <p>The tax rate may increase if large acquisitions are made in high tax jurisdictions or if the corporate tax rates change in countries where Hexagon carries out substantial business.</p>	Transactions between Group companies are carried out in accordance with Hexagon's interpretation of prevailing tax laws, tax treaties, OECD's guidelines and agreements entered into with foreign tax authorities. Risks are also presented by new accounting rules or interpretations by the applicable governing bodies.

Financial reports

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Consolidated Income Statement

MEUR	Note	2019	2018
Net sales	3, 5, 24	3,907.7	3,760.7
Cost of goods sold	6, 12	-1,453.7	-1,423.8
Gross earnings		2,454.0	2,336.9
Sales expenses	6, 12	-764.1	-704.3
Administration expenses	6, 12	-322.1	-309.3
Research and development expenses	6, 12	-444.8	-406.5
Other operating income	7, 12	70.4	96.0
Other operating expenses	7, 12	-101.2	-88.3
Share of income in associated companies		-	-0.1
Capital gain/loss from sale of shares in group companies	9, 26	-	0.7
Operating earnings^{1,2}	3, 21, 28, 29, 30	892.2	925.1
Financial income and expenses			
Financial income	10, 24	6.6	6.4
Financial expenses	10, 15, 24	-33.5	-29.2
Earnings before tax	3	865.3	902.3
Tax on earnings for the year	11	-156.7	-164.2
Net earnings		708.6	738.1
Attributable to:			
Parent company shareholders		702.4	730.0
Non-controlling interest		6.2	8.1
¹ Of which non-recurring items	12	-80.3	-3.9
Earnings include depreciation, amortisation and impairment of - of which amortisation of surplus values		-387.7 -51.1	-284.0 -49.0
Average number of shares, thousands	20	364,898	360,942
Average number of shares after dilution, thousands	20	365,242	362,301
Earnings per share, EUR		1.92	2.02
Earnings per share after dilution, EUR		1.92	2.01

²Numbers for 2018 have not been restated with respect to IFRS 16

Consolidated Statement of Comprehensive Income

MEUR	Note	2019	2018
Net earnings		708.6	738.1
Other comprehensive income:			
Items that will not be reclassified to income statement			
Remeasurement of pensions	21	8.7	-25.3
Tax attributable to items that will not be reclassified to income statement	11	-1.0	2.9
Total items that will not be reclassified to income statement, net of tax		7.7	-22.4
Items that may be reclassified subsequently to income statement			
Exchange rate differences		121.9	117.5
Tax attributable to items that may be reclassified subsequently to income statement:			
Tax attributable to effect of translation differences	11	-8.7	-6.2
Total items that may be reclassified subsequently to income statement, net of tax		113.2	111.3
Other comprehensive income, net of tax		120.9	88.9
Total comprehensive income		829.5	827.0
Attributable to:			
Parent company shareholders		823.1	819.0
Non-controlling interest		6.4	8.0

Consolidated Balance Sheet

MEUR	Note	2019-12-31	2018-12-31
ASSETS			
Fixed assets			
Intangible fixed assets	8, 13	7,631.3	7,100.8
Tangible fixed assets	14	485.3	384.2
Right-of-use assets	15	223.2	-
Other long-term securities holdings	16, 24	1.6	1.0
Other long-term receivables	16, 17	54.7	52.9
Deferred tax assets	11	86.1	83.6
Total fixed assets		8,482.2	7,622.5
Current assets			
Inventories	18	409.3	463.0
Customer receivables	5, 17, 24	999.2	959.1
Current tax receivables	11	27.4	37.9
Other receivables – interest bearing	24	1.0	1.5
Other receivables – non-interest bearing	17, 24	70.0	72.4
Prepaid expenses and accrued income	19, 24	143.2	133.1
Short-term investments	24	167.2	111.8
Cash and cash equivalents	24	301.1	282.8
Total current assets		2,118.4	2,061.6
TOTAL ASSETS		10,600.6	9,684.1
SHAREHOLDERS' EQUITY AND LIABILITIES			
Shareholders' equity			
Share capital	20	81.6	80.5
Other capital contributions		1,631.2	1,481.3
Revaluation reserve		-4.8	-4.8
Translation reserve		293.7	180.5
Retained earnings		4,062.1	3,567.8
Shareholders' equity attributable to parent company shareholders		6,063.8	5,305.3
Non-controlling interest		13.1	13.9
Total shareholders' equity		6,076.9	5,319.2
Long-term liabilities			
Provisions for pensions	21	97.2	108.2
Other provisions	22	9.7	8.6
Deferred tax liabilities	11	457.8	448.7
Long-term liabilities – interest bearing	24	1,831.3	1,813.9
Lease liabilities	15	168.3	-
Other long-term liabilities – non-interest bearing	24	157.7	154.3
Total long-term liabilities		2,722.0	2,533.7
Current liabilities			
Accounts payable	24	226.2	251.1
Advance payments from customers	24	50.6	45.9
Current tax liabilities	11	109.6	110.7
Current liabilities – interest bearing	24	425.9	541.8
Lease liabilities	15	61.3	-
Other liabilities – non-interest bearing	24	129.0	123.1
Other provisions	22	36.5	21.5
Deferred income	19, 24	463.1	405.0
Accrued expenses	19, 24	299.5	332.1
Total current liabilities		1,801.7	1,831.2
TOTAL SHAREHOLDERS' EQUITY AND LIABILITIES		10,600.6	9,684.1

Consolidated Statement of Changes in Equity

MEUR	Share capital	Other capital contributions	Revaluation reserve	Translation reserve	Retained earnings	Shareholders equity attributable to parent company shareholders	Non-controlling interest	Total shareholders' equity
Opening shareholders' equity, 2018-01-01	80.0	1,397.8	-4.8	69.2	3,050.3	4,592.5	11.9	4,604.4
Total comprehensive income	-	-	-	111.3	707.7	819.0	8.0	827.0
New share issue	0.5	82.5	-	-	-	83.0	-	83.0
New share issue in progress	-	1.0	-	-	-	1.0	-	1.0
Dividend	-	-	-	-	-191.0	-191.0	-5.5	-196.5
Effect of acquisitions and divestments of subsidiaries	-	-	-	-	0.8	0.8	-0.5	0.3
Closing shareholders' equity, 2018-12-31	80.5	1,481.3	-4.8	180.5	3,567.8	5,305.3	13.9	5,319.2
Total comprehensive income	-	-	-	113.2	709.9	823.1	6.4	829.5
New share issue	1.1	149.5	-	-	-	150.6	-	150.6
New share issue in progress	-	0.4	-	-	-	0.4	-	0.4
Dividend	-	-	-	-	-215.6	-215.6	-7.2	-222.8
Closing shareholders' equity, 2019-12-31	81.6	1,631.2	-4.8	293.7	4,062.1	6,063.8	13.1	6,076.9

Share capital is described in detail in Note 20.

Other contributed capital includes, among others, premium reserves and statutory reserves.

The revaluation reserve relates to fair value adjustments related to financial assets measured at fair value through other comprehensive income.

The translation reserve is the net of currency translation differences related to foreign subsidiaries and the effect after tax of the currency hedging of net assets made in foreign subsidiaries.

Retained earnings include all historical net earnings after tax excluding non-controlling interest less dividends paid, including remeasurements of pensions posted in other comprehensive income.

Non-controlling interest are the shares of equity that pertain to non-controlling interest (minority) in certain subsidiaries.

Consolidated Statement of Cash Flows

MEUR	Note	2019	2018
Cash flow from operating activities			
Operating earnings		892.2	925.1
Adjustments for items in operating earnings not affecting cash flow:			
Depreciation, amortisation and impairment		387.7	284.0
Change in provisions		0.0	-24.8
Capital gain/loss on divestments of fixed assets		0.5	-20.5
Capital gain from sale of shares in group companies		-	-0.7
Earnings from shares in associated companies		-	0.1
Proceeds from divestment of financial investments		-	24.8
Interest received		6.3	5.9
Interest paid		-29.3	-28.0
Tax paid		-173.2	-153.3
Cash flow from operating activities before changes in working capital		1,084.2	1,012.6
Cash flow from changes in working capital			
Change in inventories		9.3	-19.0
Change in current receivables		-10.2	-115.0
Change in current liabilities		-21.0	73.3
Cash flow from changes in working capital		-21.9	-60.7
Cash flow from operating activities¹		1,062.3	951.9
Cash flow from ordinary investing activities			
Investments in intangible fixed assets	13	-285.1	-234.3
Investments in tangible fixed assets	14	-125.4	-156.5
Divestments of tangible fixed assets	14	11.4	1.7
Cash flow from ordinary investing activities		-399.1	-389.1
Operating cash flow		663.2	562.8
Cash flow from other investing activities			
Investments in subsidiaries	26	-349.8	-426.6
Divestments of subsidiaries	26	-	4.0
Investments in financial fixed assets	16	-12.4	-18.2
Divestments of financial fixed assets	16	7.0	2.6
Cash flow from other investing activities		-355.2	-438.2
Cash flow from financing activities			
Borrowings	23, 24	546.3	277.8
Repayment of debt		-712.6	-184.3
New share issues, net of expenses		151.0	84.0
Dividend to parent company shareholders		-215.6	-191.0
Dividend to non-controlling interests in subsidiaries		-7.2	-5.5
Cash flow from financing activities		-238.1	-19.0
Cash flow for the year		69.9	105.6
Cash and cash equivalents, beginning of year²		394.6	309.4
Effect of translation differences on cash and cash equivalents		3.8	-20.4
Cash flow for the year		69.9	105.6
Cash and cash equivalents, end of year²		468.3	394.6
		-41.3	7.8

1) Of which non-recurring cash flow

2) Cash and cash equivalents include short-term investments and cash and bank balances.

Parent Company Income Statement

MEUR	Note	2019	2018
Net sales	4	17.6	17.9
Administration expenses	4, 6, 28, 29, 30	-49.9	-24.9
Operating earnings		-32.3	-7.0
Financial income and expense			
Earnings from shares in group companies	9	399.6	227.0
Financial income	10	207.8	265.4
Financial expenses	10	-78.7	-153.9
Earnings before tax and appropriations		496.4	331.5
Appropriations			
Group contribution, net		-7.2	-5.2
Change in profit equalisation reserves		-22.8	-18.5
Earnings before tax		466.4	307.8
Tax on earnings for the year	11	-14.2	-18.2
Net earnings		452.2	289.6

Parent Company Statement of Comprehensive Income

MEUR	2019	2018
Net earnings	452.2	289.6
Other comprehensive income	-	-
Total comprehensive income	452.2	289.6

Parent Company Balance Sheet

MEUR	Note	2019-12-31	2018-12-31
ASSETS			
Fixed assets			
Intangible fixed assets	13	0.1	0.1
Tangible fixed assets	14	0.0	0.0
Total intangible and tangible assets		0.1	0.1
Financial fixed assets			
Shares in group companies	16	5,686.4	4,825.0
Receivables from group companies	16	2,213.0	2,761.4
Other financial fixed assets	16	0.7	0.6
Total financial fixed assets		7,900.1	7,587.0
Total fixed assets		7,900.2	7,587.1
Current assets			
Current receivables			
Receivables from group companies		1,544.2	1,091.0
Other receivables		0.3	0.4
Prepaid expenses and accrued income	19	0.5	0.3
Total current receivables		1,545.0	1,091.7
Cash and bank balances		60.9	15.5
Total current assets		1,605.9	1,107.2
TOTAL ASSETS		9,506.1	8,694.3
SHAREHOLDERS' EQUITY AND LIABILITIES			
Shareholders' equity			
Restricted equity			
Share capital	20	81.6	80.5
Paid-in, non-registered share capital		0.0	0.0
Reserve for capitalised development expenses		0.1	0.1
Statutory reserve		314.3	314.3
Total restricted equity		396.0	394.9
Non-restricted equity			
Premium reserve		1,155.8	1,005.9
Retained earnings		3,571.4	3,334.8
Total non-restricted equity		4,727.2	4,340.7
Total shareholders' equity		5,123.2	4,735.6
Untaxed reserves		41.0	18.5
Total untaxed reserves		41.0	18.5
Provisions			
Other provisions		0.7	0.6
Total provisions		0.7	0.6
Long-term liabilities			
Liabilities to credit institutions	24	1,824.9	1,806.7
Total long-term liabilities		1,824.9	1,806.7
Current liabilities			
Liabilities to credit institutions	24	416.8	529.9
Accounts payable		0.1	0.6
Liabilities to group companies		2,076.3	1,583.0
Current tax liabilities	11	14.1	11.9
Other liabilities		0.3	0.2
Accrued expenses and deferred income	19	8.7	7.3
Total current liabilities		2,516.3	2,132.9
TOTAL SHAREHOLDERS' EQUITY AND LIABILITIES		9,506.1	8,694.3

Parent Company Statement of Changes in Equity

MEUR	Restricted shareholders' equity				Unrestricted shareholders' equity		
	Share capital	Paid-in, non-registered share capital	Reserve for capitalised development expenses	Statutory reserve	Premium reserve	Retained earnings	Total shareholders' equity
Opening balance 2018-01-01	80.0	-	-	314.3	922.4	3,236.3	4,553.0
Total comprehensive income	-	-	-	-	-	289.6	289.6
Capitalisation of development expenses	-	-	0.1	-	-	-0.1	-
Dividend	-	-	-	-	-	-191.0	-191.0
New share issues	0.5	-	-	-	82.5	-	83.0
New share issues in progress	-	0.0	-	-	1.0	-	1.0
Closing balance 2018-12-31	80.5	0.0	0.1	314.3	1,005.9	3,334.8	4,735.6
Total comprehensive income	-	-	-	-	-	452.2	452.2
Capitalisation of development expenses	-	-	0.0	-	-	-0.0	-
Dividend	-	-	-	-	-	-215.6	-215.6
New share issues	1.1	-	-	-	149.5	-	150.6
New share issues in progress	-	0.0	-	-	0.4	-	0.4
Closing balance 2019-12-31	81.6	0.0	0.1	314.3	1,155.8	3,571.4	5,123.2

Parent Company Statement of Cash Flows

MEUR	Note	2019	2018
Cash flow from operating activities			
Operating earnings		-32.3	-7.0
Adjustment for operating earnings items not affecting cash flow:			
Depreciation, amortisation and impairment		0.0	0.1
Unrealised exchange rate gains and losses		-27.4	-27.6
Dividends received		398.5	236.4
Interest received		205.6	263.8
Interest paid		-78.9	-154.0
Tax paid		-12.2	-0.7
Cash flow from operating activities before changes in working capital		453.3	311.0
Cash flow from changes in working capital			
Change in current receivables		-458.3	-145.9
Change in current liabilities		494.5	53.9
Cash flow from changes in working capital		36.2	-92.0
Cash flow from operating activities		489.5	219.0
Cash flow from investing activities			
Investments in intangible fixed assets	13	0.0	-0.1
Investments in financial fixed assets	16	-861.9	-121.8
Divestments of financial fixed assets	9, 16	1.5	-
Change in long-term receivables in group companies		587.0	-51.6
Cash flow from investing activities		-273.4	-173.5
Cash flow from financing activities			
Borrowings		545.1	277.2
Repayment of debt		-641.2	-175.8
New share issues		151.0	84.0
Provisions		0.1	0.2
Dividend to shareholders		-215.6	-191.0
Cash flow from financing activities		-160.6	-5.4
Cash flow for the year		55.5	40.1
Cash and cash equivalents, beginning of year ¹		15.5	0.7
Effect of translation differences on cash and bank		-10.1	-25.3
Cash flow for the year		55.5	40.1
Cash and cash equivalents, end of year¹		60.9	15.5

¹⁾ Cash and cash equivalents include cash and bank balances.

Notes

NOTE 1 Accounting policies

The consolidated accounts of Hexagon have been prepared in accordance with the International Financial Reporting Standards (IFRS) issued by the International Accounting Standards Board (IASB) and interpretation statements by the International Financial Reporting Interpretations Committee (IFRIC), which have been approved by the European Commission for application within the EU.

Furthermore, the recommendation RFR 1 Supplementary accounting rules for corporate groups issued by the Swedish Financial Reporting Board have been applied.

The Parent Company applies the Annual Accounts Act and the recommendation RFR 2 Accounting for legal entities. The recommendation means that the Parent Company applies the same accounting policies as the Group, except in those cases when the Annual Accounts Act or current tax rules limits the opportunities to apply IFRS. Differences between the accounting principles applied by the Parent Company and the Group are outlined under Accounting Policies in the Parent Company below.

The accounting policies and calculation methods applied by the Group are consistent with those of the previous financial year except as below.

On 1 April 2020, the Board of Directors and the President and CEO approved this annual report and consolidated accounts for publication and they will be presented to the Annual General Meeting on 29 April 2020 for adoption.

Application of new and amended standards from 2019

The following standards and interpretations are applied for the first time for the financial years beginning 1 January 2019:

IFRS 16 Leases – the standard replaces all former published standards and interpretations about lease contracts. The former IAS 17 Leases required the lessee to classify their lease contracts as either finance leases or operating leases, which were accounted for differently. The operating leases did not require lessees to recognise assets and liabilities (off balance sheet leases).

The new standard does not require the lessees to distinguish between operating and finance lease contracts. The obligation to pay lease fees must be recognised as a lease liability in the balance sheet and the right to use the underlying asset during the lease term is recognised as an asset. Depreciation of the asset is recognised in the income statement as is an interest of the liability. Paid lease fees are recognised partly as a payment of the interest and partly as a repayment of the liability. A change in the lease contract could lead to a remeasurement of the liability and an adjustment of the right-of-use asset.

Lessor accounting remains substantially unchanged from the requirements in IAS 17. A lessor will continue to classify lease contracts as operating or finance leases. The Group's activities as a lessor are not material and hence, the Group does not expect any significant impact on the financial statements. However, some additional disclosures will be required from 2019.

The standard is applied as of 1 January 2019. Hexagon has chosen to apply the new principles for lease accounting on lease contracts that were identified as contracts containing a lease also under previous regulation. Hexagon will apply the practical expedient to not separate non-lease components from lease components in the lease contracts but account for all components as one single lease component. Furthermore, Hexagon has also chosen to exclude lease contracts with a lease period of less than 12 months and leases of assets of low value. The transition to IFRS 16 will be implemented according to the simplified method, according to which an opening lease liability and an opening right-of-use asset are recognised to the same amount on the 1 of January 2019.

Following a review of all the Group's leasing agreements in 2018, Hexagon's total assets as of January 1, 2019 increased by 237.8 MEUR as a result of the implementation of IFRS 16. The weighted average borrowing rate at the transition date was 2.3%.

The future minimum lease payments regarding non-cancellable lease contracts amounted to 269.1 MEUR on the 31 of December 2018. The difference between that amount and the opening lease liability as per the 1 of January 2019 consists of effect from discounting, exercise of prolongation options, lease contracts with a lease period of less than 12 months and low value lease contract.

The Parent Company will apply the exception in RFR 2, which means the regulation of IFRS 16 will not be applied in the legal entity.

For leasing disclosures, see Note 15 Leasing.

Other changes in standards and interpretations that enter into force from 1 January 2019 are not expected to have any material impact on the financial statements of Hexagon.

Application of new standards from 2020

New standards, amended standards and interpretations that have not entered into force, have not been applied in advance in the financial reports of Hexagon and are not expected to have any material impact on the financial statements of Hexagon.

Basis of reporting for the Parent Company and the Group

The functional currency of the Parent Company is EUR as is the presentation currency for the Parent Company and the Group. The financial reports are presented in EUR. All amounts, unless indicated otherwise, are rounded off to the nearest million with one decimal.

No comparison numbers have been restated with respect to IFRS 16.

Assets and liabilities are reported at historical cost except for certain financial instruments which are reported at fair value.

Receivables and liabilities or income and expenses are only offset if required or explicitly permitted by an accounting standard.

Preparing the financial statements in compliance with IFRS requires that Management make judgements and estimates as well as make assumptions that affect the application of accounting principles and the amounts recognised as assets, liabilities, income and expenses. The actual outcome may diverge from these estimates and assumptions. Estimates and assumptions are reviewed continuously. Changes of estimates are recognised in the period when the change is made if the change only affects current period or in that period when the change is made and coming periods if the change affects both current period and coming periods.

Judgements made by Management for the application of IFRS that have a substantial impact on the financial reports and estimates made that may lead to significant adjustments in coming years' financial reports are described in more detail in Note 2.

Classification

Fixed assets and long-term liabilities essentially consist of amounts expected to be realised or settled after twelve months from the balance sheet date. Current assets and short-term liabilities essentially consist only of amounts expected to be realised or settled within twelve months from the balance sheet date. The Group's operating cycle is assessed to be less than one year.

Consolidated financial statements

The consolidated financial statements consolidate the Parent Company and the other companies in which the Parent Company has a controlling influence, that is, is exposed or has right to variable returns from its involvement and has the ability to affect those returns through its involvement.

NOTE 1 Accounting policies, cont.

Companies or businesses acquired (acquisitions) are accounted for under the purchase method. The method involves a business combination to be regarded as a transaction in which the Group indirectly acquires the assets of the business and assumes its liabilities. The Group's acquisition cost is determined through a purchase price allocation in connection with the acquisition. The acquisition cost is the sum of the fair value at the acquisition date of what is paid in cash, assumed liabilities or issue of own shares.

Contingent considerations are often conditional by future goals on sales or performance. At acquisition date, an estimation of the fulfilment of the goals is made. The contingent consideration is measured at fair value and included in the acquisition cost and recognised as a financial liability in accordance with IFRS. Long-term contingent considerations are discounted to present value. The measurement to fair value is initially based on the expected outcome of the acquired company's sales or performance. Contingent considerations are subsequently measured at fair value and essential effects of remeasurements are recognised in the income statement in accordance with IFRS. If a revenue is recognised as a consequence of a change in estimation, the surplus values from the acquisition will be tested for impairment. If the impairment test results in an impairment, the expense will meet the revenue from the remeasurement of the contingent consideration. Transaction costs are expensed in the income statement when incurred.

Identifiable assets acquired and liabilities assumed are recognised initially at their fair values at the acquisition date. Exceptions are made for acquired tax assets and liabilities, employee benefits, stock-based compensation and assets held for sale, valued in accordance with the principles described for each item in each standard.

Goodwill recorded represents the difference between the acquisition cost of group companies' shares, the value of non-controlling interest in the acquired business and the fair value of previously owned shares and on the other hand, the purchase price allocation of the assets acquired and liabilities assumed. For goodwill disclosures, see Note 14 Intangible fixed assets. Non-controlling interests are recognised at the acquisition date, either at its fair value or at its proportionate share of the carrying value of the acquires identifiable assets and liabilities. Acquisition of non-controlling interest is reported as transactions between shareholders, i.e. within equity.

Group companies' financial statements are included in the consolidated accounts as of the date when control occurs (acquisition date) until the control ceases. When control of the Group company ceases, but the Group retains shares in the company, remaining shares are initially reported at fair value. The gain or loss from remeasurement is recorded in the income statement.

Translation of financial reports to EUR

Hexagon applies the current method meaning that assets and liabilities in operations with a functional currency other than EUR are translated at the closing day exchange rate and income statements are translated at average exchange rates for the period. The resulting translation differences are recognised directly in other comprehensive income. The amount is recognised separately as a translation reserve in equity. In case of divestment of an operation with a functional currency other than EUR the accumulated translation differences related to the divested operation are reclassified from equity to income statement at the time of recognition of capital gain or loss from the divestment.

Monetary long-term items towards businesses with a functional currency other than EUR, for which settlement is not planned or will probably not occur within the foreseeable future, are part of the company's net investment. Translation differences on such monetary items, which comprise part of the company's net investment are recognised in other comprehensive income and accumulated in the translation reserve in equity.

Transactions, assets and liabilities other currencies than EUR

Transactions in non-EUR currencies are recognised in the functional currency at the exchange rate on the transaction day. Monetary assets and liabilities are translated to the functional currency on the closing day at the exchange rate then in effect. Exchange rate differences that arise through these translations are recognised in the income statement.

Eliminated transactions

Intra-Group receivables and liabilities, revenue or expenses and gains or losses that arise from transactions between group companies are eliminated in their entirety in the preparation of the consolidated accounts. Losses are eliminated in the same way as gains, but only to the extent that there is no impairment loss.

Earnings per share

The calculation of earnings per share is based on net earnings attributable to the Parent Company shareholders and on the weighted number of shares outstanding during the year. The calculation of earnings per share after dilution takes into account the quarterly calculated dilutive effect from any potential common shares stemming from options issued to employees. Dilution occurs only when the strike price is lower than the share price.

Accounting policies in the Parent Company

The Parent Company applies the same accounting policies as the Group with the following exceptions:

- The Parent Company does not apply IFRS 9.
- In the Parent Company, all leases are treated as operational leases.
- In the Parent Company, the shares in subsidiaries are recognised at acquisition value less any impairment.
- Acquisition value of shares in subsidiaries includes transaction costs and contingent consideration.
- Non-monetary assets acquired in other currencies than EUR are recognised at the historical exchange rate. Other assets and liabilities are recognised at the exchange rate prevailing on the balance sheet date.
- Group contributions are accounted for as appropriations in the income statement.

Dividends

The dividend proposed by the Board of Directors reduces earnings available for distribution and is recognised as a liability when the Annual General Meeting has approved the dividend.

Approval of accounts

The Parent Company's and the consolidated financial statements will be presented to the Annual General Meeting for adoption on 29 April 2020.

NOTE 2 Critical accounting estimates and assumptions

The critical accounting estimates and assumptions that are addressed in this section are those that Company Management and the Board of Directors regard as the most important for understanding Hexagon's financial reporting. The information is limited to areas that are significant considering the degree of impact and underlying uncertainty. Hexagon's accounting estimates and assumptions are based on historical experience and assumptions that company management and the Board of Directors regard as reasonable under the current circumstances. The conclusions based on these accounting estimates constitute the foundation for the carrying amounts of assets and liabilities, in the event that they cannot be established through information from other sources. The actual outcome may differ from these accounting estimates and assumptions.

Customer contracts

Parts of Hexagon's sales derive from major and complex customer contracts. In order to establish the amounts that are to be recognised as income and whether any loss provision should be posted, company management makes estimates of completed performance in relation to the contractual terms and conditions, the estimated total contractual costs and the proportion of the contract that has been completed.

Hexagon also enters into revenue agreements that contain multiple elements, such as hardware, software and/or services. For these agreements, Hexagon need to assess if revenue should be allocated to each element as different accounting principles apply for these elements.

Intangible assets

Intangible assets within Hexagon concern essentially pertain to goodwill, trademarks and other assets as a result of acquisition, such as customer relationships and technology. Goodwill and other acquired intangible assets with an indefinite life are not subject to annual amortisation, while other intangible assets are amortised. Insofar as the underlying operations develop negatively, an impairment requirement may arise. Impairment test is implemented if necessary, but at least once a year. Such intangible assets are subject to annual impairment testing, which is essentially based on the value in use, making assumptions about the sales trend, the Group's profit margins, on-going investments, changes in working capital and discount interest rate. Company management considers the assumptions applied to be compatible with the data received from external sources of information or from previous experience. Hexagon's goodwill at 31 December amounted to 5,357.7 MEUR (4,977.1). Other intangible assets not subject to amortisation amount to 1,023.5 MEUR (998.2) as of this date. Performed impairment tests demonstrate that reported values are defensible.

Tax assets and liabilities

The Board of Directors and Company Management continuously assess the carrying amount of both current and deferred tax assets and liabilities. For deferred tax assets, Hexagon has to assess the probability of whether it will be possible to utilise the deductible temporary differences that give rise to deferred tax assets to offset future taxable profits. In addition, in certain situations, the value of the deferred tax assets and liabilities may be uncertain due to ongoing tax processes, for example. Accordingly, the value of deferred tax assets and liabilities may deviate from these estimates due to a change in future earning capacity, changed tax regulations or the outcome of examinations by authorities or tax courts of issued or not yet issued tax returns. When assessing the value of deferred tax assets and liabilities, Hexagon has to form an opinion of the tax rate that will apply at the time of the reversal of the temporary differences. Hexagon recognised deferred tax liabilities, net in an amount of 371.7 MEUR (365.1) net, at the end of 2019. At the same date, the Group had tax-loss carry-forwards with a value of 47.1 MEUR (43.5) that were not recognised as assets. These assets could not be capitalised based on assessments of the opportunity to utilise the tax deficits. In comparison with the final outcome, the estimates made concerning both deferred tax assets and liabilities could have either a positive or a negative impact on earnings.

Pension obligations

Within Hexagon, there are defined-benefit pension schemes based on significant assumptions concerning future benefits pertaining to either the current or prior workforce. Pension obligations amounted to 96.7 MEUR (103.4) at the end of 2019. When calculating the pension liability, a number of actuarial assumptions are of major significance to the outcome of the calculation. The most critical pertain to the discount interest rate on the obligation and the anticipated return on the plan assets. Other significant assumptions include the rate of pay increases, employee turnover and estimated length of life. A reduced discount interest rate increases the recognised pension liability. The actual outcome could deviate from the recognised amount if the applied assumptions prove to be wrong.

Business combination

Hexagon acquire companies on a continuous basis. In connection with the acquisitions, acquired assets and assumed liabilities are valued to fair value in a purchase price allocation analysis. The valuation is to a certain extent based on management assessment of the future earnings of the acquired company. Many of the acquisitions deals contain contingent consideration which is based on the outcome of the acquired company earnings for a predetermined period. The fair value of contingent considerations recognised as a liability is reviewed on a regular basis, which requires management to assess the future performance of the acquired company. An inaccurate assessment of this might result in overstated acquired assets or liabilities for contingent considerations.

NOTE 3 Segment reporting

Hexagon's Board of Directors is responsible for determining the Group's overall objectives, developing and monitoring the overall strategy, decisions on major acquisitions, divestments and investments and ongoing monitoring of operations.

The President is responsible for leading and controlling Hexagon's operations in accordance with the strategy determined by the Board. The President is therefore the Group's chief operating decision maker (CODM) and is the function that internally within the Hexagon Group allocates resources and evaluates results. The Group's chief operating decision maker assesses the performance in the operating segments based on earnings before financial items and non-recurring items. Financial items and taxes are reported for the Group as a whole.

Hexagon's operations are organised, governed and reported based on the two operating segments Geospatial Enterprise Solutions and Industrial Enterprise solutions. The operating segment Geospatial Enterprise Solutions has sensors for capturing data from land and air as well as sensors for positioning via satellites.

The sensors are complemented by software (GIS) for creation of 3D maps and models, which are used for decision-making in a range of software applications, covering areas such as surveying, construction, public safety and agriculture. The operating segment Industrial Enterprise Solutions provides metrology systems that incorporate the latest in sensor technology for fast and accurate measurements, as well as CAD (computer-aided design) and CAM (computer-aided manufacturing) software. The solutions within this segment optimise design, processes and throughput in manufacturing facilities and create and leverage asset management information critical to the planning, construction and operation of plants and process facilities in a number of industries such as automotive, aerospace and oil and gas.

The two segments have separate product offerings and customer groups and hence differentiated risk composition. There is marginal sales between the two operating segments. Both segments are applying the same accounting principles as the Group. Hexagon's internal reporting, representing the base for detailed review and analysis, is designed in alignment with the described division into operating segments. Sales within each operating segment are additionally analysed geographically.

2019	IES	GES	Total segments	Group expenses and eliminations	Group
Net sales	1,973.5	1,934.2	3,907.7	-	3,907.7
Operating expenses	-1,468.3	-1,441.9	-2,910.2	-25.0	-2,935.2
Operating earnings (EBIT1)	505.2	492.3	997.5	-25.0	972.5
Non-recurring items	-27.4	-50.8	-78.2	-2.1	-80.3
Operating earnings (EBIT)	477.8	441.5	919.3	-27.1	892.2
Net interest income/expenses				-26.9	-26.9
Earnings before tax				-54.0	865.3
Operating assets	5,317.3	4,856.4	10,173.7	-212.2	9,961.5
Operating liabilities	-776.8	-608.9	-1,385.7	235.4	-1,150.3
Net operating assets	4,540.5	4,247.5	8,788.0	23.2	8,811.2
Investments in fixed assets	206.2	243.4	449.6	6.6	456.2
Average number of employees	11,255	8,916	20,171	79	20,250
Number of employees at year-end	11,337	9,113	20,450	82	20,532
Depreciation, amortisation and impairment	-165.6	-220.8	-386.4	-1.3	-387.7

2018	IES	GES	Total segments	Group expenses and eliminations	Group
Net sales	1,940.5	1,820.2	3,760.7	-	3,760.7
Operating expenses	-1,445.3	-1,361.0	-2,806.3	-25.4	-2,831.7
Operating earnings (EBIT1)	495.2	459.2	954.4	-25.4	929.0
Non-recurring items	-11.4	-13.8	-25.2	21.3	-3.9
Operating earnings (EBIT)	483.8	445.4	929.2	-4.1	925.1
Net interest income/expenses				-22.8	-22.8
Earnings before tax				-26.9	902.3
Operating assets	4,796.2	4,522.0	9,318.2	-204.8	9,113.3
Operating liabilities	-757.7	-597.3	-1,355.0	213.4	-1,141.6
Net operating assets	4,038.5	3,924.7	7,963.2	8.6	7,971.7
Investments in fixed assets	131.4	257.3	388.7	2.1	390.8
Average number of employees	10,741	8,428	19,169	80	19,249
Number of employees at year-end	11,174	8,795	19,969	79	20,048
Depreciation, amortisation and impairment	-124.5	-158.6	-283.1	-0.9	-284.0

	Net sales by country ⁵		Operating assets ¹						Fixed assets	
			Assets		Liabilities		Net			
	2019	2018	2019	2018	2019	2018	2019	2018	2019	2018
EMEA ²	1,462.6	1,415.0	4,670.9	4,176.7	-584.8	-573.6	4,086.1	3,603.1	3,744.8	3,246.9
Americas ³	1,372.2	1,239.6	5,201.1	4,925.2	-575.2	-571.8	4,625.9	4,353.4	4,393.8	4,100.5
Asia ⁴	1,072.9	1,106.1	669.7	606.9	-570.5	-591.7	99.2	15.2	201.2	137.6
Elimination of intra-group items/adjustments	-	-	-580.2	-595.5	580.2	595.5	-	-	-	-
Group	3,907.7	3,760.7	9,961.5	9,113.3	-1,150.3	-1,141.6	8,811.2	7,971.7	8,339.8	7,485.0

1) Net operating assets correspond with operating earnings in as much as items such as cash and cash equivalents, tax, interest and interest bearing liabilities and provisions are not included.

2) Sweden is included in EMEA with net sales of 70.0 MEUR (77.1) and fixed assets of 32.8 MEUR (27.8).

3) USA is included in Americas with net sales of 1,044.3 MEUR (920.3).

4) China is included in Asia with net sales of 490.4 MEUR (590.8).

5) Relates to the country where the customer has its residence. No single customer represented more than 1.4 per cent (2.3) of net sales.

NOTE 4 Parent company intra-group purchases and sales

Of the Parent Company's net sales, 100 per cent (100) refers to sales to other group companies. Of the year's purchases in the Parent Company, 93 per cent (80) refers to purchases from group companies.

NOTE 5 Revenue from contracts with customers

Hexagon sells information technology solutions in which hardware and software are integrated as well as services, licenses and other assignments. Revenue from agreements with customers is reported in the income statement as Net sales.

Sale of goods

Revenue is recognised when control of the good is transferred to the customer, which coincide with the good being delivered to the customer and Hexagon has objective evidence that the customer will approve the good. The amount of the revenue will equal the consideration stated in the contract minus rebates. There is no financing component in the contract as the expected credit do not exceed one year. The Group's obligation to offer a repayment for defected goods in accordance with standard warranty terms, is accounted for as a provision, see Note 22.

Sale of services, licenses and other assignments

Parts of contracts with customers not being sale of goods compose sale of installations, service, training, licenses and software subscriptions.

Revenue from sale of services such as installations, services and training is recognised in the period when the services are performed. Licenses are classified either as a license that gives right to use the underlying immaterial asset as it is constituted at the issuing of the license (right-to-use) or as a license that gives right to access the underlying intangible asset during the license period (right-to-access). Revenue from sale of right-to-use licenses is recognised when the license is transferred to the customer. Revenue from sale of right-to-access licenses is recognised during the license period. Revenue from sale of software subscriptions is recognised straight-line as the performance obligation is fulfilled, during the subscription period.

Revenue from contracts where there is no alternative use of Hexagon's performance and where Hexagon has right to cost compensation if the customer cancels the contract is recognised over time. The degree of completion is determined by comparing the expenditure that has arisen in relation to the total estimated expenditure for the assignment. If the degree of completion can-

not be reliably determined, only those amounts corresponding to the expenditure that has arisen are recognised as revenue, but only to the extent that it is likely that they will be remunerated by the buyer. If it appears likely that all the expenditure for an assignment will exceed total revenue, the probable loss is accounted immediately and fully, as an expense.

Some contracts contain several performance obligations. A performance obligation that does not contain an integration service with the other obligations in the contract, does not lead to a significant modification or adaptation of the other obligations in the contract and that is not strongly dependent on or integrated with the other obligations in the contract is distinct and represents a separate performance obligation. The transaction price of the contract is allocated to the separate performance obligations according to their stand-alone selling prices. Revenue from each performance obligation is recognised as the obligation has been fulfilled.

Estimation of revenue, cost and degree of completion is being revised if conditions change. Changes in estimations is recognised in the income statement in the period when the group management has knowledge of the circumstances causing the change.

In fixed price contracts, the customers pay a fixed price according to an agreed payment plan. If the value of the services performed by Hexagon exceeds the payments, a contract asset will be recognised. If the payments exceed the value of the performed services, a contract liability will be recognised.

If the contract contains a fee per hour, revenue is recognised to the extent Hexagon has right to invoice the customer. Customers are invoiced on a monthly basis and right to consideration exists when the invoice has been generated.

Main part of recognised revenue reflects performance obligations fulfilled during current year. The performance obligations are usually fulfilled within 12 months, why disclosure about transaction price allocated to the remaining performance obligations is exempted.

Contract costs

Additional costs to obtain a contract are recognised as an asset if the Group expects to recover those costs. If time of depreciation of the asset that would have been recognised is below one year, the additional costs are recognised as cost when they occur.

Financing component

The Group does not have any contracts with customers where the period between transferring of goods and services to the customer and payment from the customer exceeds one year. As a consequence of this, the Group does not adjust transaction prices for time value of money.

NOTE 5 Revenue from contracts with customers, cont.

Disaggregation of revenue from contracts with customers

No other revenue than revenue from contracts with customers is recognised in Net sales. The Group derives revenue from the transfer of goods and services in the following operating and customer segment.

2019	Surveying	Power & energy	Infrastructure & construction	Auto-motive	Public safety	Electronics & manufacturing	Aerospace & defence	Natural resources	Other	Group
Industrial Enterprise Solutions (IES)	0.8	510.5	27.7	365.6	3.4	594.9	264.2	4.5	202.0	1,973.6
Geospatial Enterprise Solutions (GES)	778.8	0.9	509.0	33.0	133.7	4.4	178.5	225.5	70.3	1,934.1
Total	779.6	511.4	536.7	398.6	137.1	599.3	442.7	230.0	272.3	3,907.7

2018	Surveying	Power & energy	Infrastructure & construction	Auto-motive	Public safety	Electronics & manufacturing	Aerospace & defence	Natural resources	Other	Group
Industrial Enterprise Solutions (IES)	0.6	457.9	14.1	426.8	1.6	620.1	252.2	3.8	163.4	1,940.5
Geospatial Enterprise Solutions (GES)	767.2	-	471.4	28.3	148.2	5.1	138.3	180.3	81.4	1,820.2
Total	767.8	457.9	485.5	455.1	149.8	625.2	390.5	184.1	244.8	3,760.7

Contract balances

Group	2019-12-31	2018-12-31
Customer receivables	999.2	959.1
Contract assets	49.7	52.9
Contract liabilities	513.7	450.9

For information on impairment of receivables and contract assets, see Note 17.

Contract assets include accrued income from fulfilling performance obligations over time. Contract liabilities include advance payments and deferred income. Deferred income relates to revenue from service, installation and training. Main portion of contract liabilities at the beginning of the year has been recognised as revenue during 2019.

NOTE 6 Operating expenses

	Group		Parent company	
	2019	2018	2019	2018
Cost of goods sold				
Cost of goods	728.0	705.5	-	-
Personnel cost	416.3	402.3	-	-
Depreciation and amortisation	63.2	27.1	-	-
Other	246.2	288.9	-	-
Total	1,453.7	1,423.8	-	-
Sales expenses				
Personnel cost	522.1	484.7	-	-
Depreciation and amortisation	39.7	16.9	-	-
Other	202.3	202.7	-	-
Total	764.1	704.3	-	-
General and administrative cost				
Personnel cost	207.4	208.1	7.7	7.3
Depreciation and amortisation	56.3	22.6	0.1	0.1
Other	58.4	78.6	42.1	17.5
Total	322.1	309.3	49.9	24.9
Research and development cost				
Personnel cost	220.3	204.5	-	-
Depreciation and amortisation	201.2	185.6	-	-
Other	23.3	16.4	-	-
Total	444.8	406.5	-	-

NOTE 7 Other operating income/expenses

Other operating income and operating expenses consist of exchange rate gains and exchange rate losses of an operating nature. In addition, items that do not belong to the primary business are reported in this function, such as impairments and fair value changes.

Group	2019	2018
Other operating income		
Capital gain on divestment of fixed assets	0.3	0.5
Gain on divestment of financial assets	-	21.7
Exchange rate gains	53.6	49.2
Government grants	2.1	4.3
Reversal of unutilised amounts	11.3	16.7
Rental income	1.3	1.1
Other	1.8	2.5
Total	70.4	96.0
Other operating expenses		
Capital loss on divestment of fixed assets	-0.8	-0.5
Exchange rate losses	-59.9	-48.8
Rental related expenses	-2.1	-1.6
Impairment	-25.6	-25.9
Acquisition related expenses	-8.5	-4.7
Other	-4.3	-6.8
Total	-101.2	-88.3

NOTE 8 Impairment

Cash-generating units

Goodwill and other intangible assets with indefinite lives acquired through business combinations has been allocated to the five (five) cash generating units (CGU) below, which complies with the Group's organisation:

- Geosystems
- Manufacturing Intelligence
- Autonomy & Positioning
- Safety & Infrastructure
- PPM

Carrying amount of goodwill and other intangible assets allocated to each of the CGUs:

	Geosystems		Manufacturing Intelligence		Autonomy & Positioning		Safety & Infrastructure		PPM		Total	
	2019	2018	2019	2018	2019	2018	2019	2018	2019	2018	2019	2018
Goodwill	1,215.5	1,196.3	1,398.7	1,176.5	571.3	593.2	564.6	461.1	1,607.6	1,550.0	5,357.7	4,977.1
Other intangible assets with indefinite useful lives ¹	433.5	432.2	165.5	154.7	23.2	28.6	89.1	79.2	312.2	303.5	1,023.5	998.2
Intangible assets subject to amortisation ²	366.7	336.8	443.5	392.6	105.3	96.2	144.3	120.4	190.3	179.6	1,250.1	1,125.5
Total	2,015.7	1,965.3	2,007.7	1,723.8	699.8	718.0	798.0	660.7	2,110.1	2,033.1	7,631.3	7,100.8

1) Comprises brands.

2) Comprises capitalised development costs, patents, technology and other intangible assets.

Hexagon performed its annual impairment test during the fourth quarter 2019 and tested if the carrying value of the CGU's exceed their recoverable value. The recoverable value is the higher of the units net realisable value and value in use, which is the discounted present value of future cash flows.

Calculation of recoverable value

The recoverable values of the cash-generating units consist of its value in use. The utilisation values are calculated using cash flow forecasts based on budgets approved by the management that extend over a period of five years. The pre-tax discount rates applied to cash flow forecasts are shown in the table below. The annual growth rate for extrapolating cash flows beyond the five-year period was 2.0 per cent (2.0) for all cash-generating units. Annual growth is a conservative assessment and is set equal to expected inflation. The result of a write-down test has resulted in the management not identifying any write-down need for any cash-generating unit.

	Discount rate after tax	
	2019	2018
Geosystems	7.6%	7.5%
Manufacturing Intelligence	8.7%	9.0%
Autonomy & Positioning	8.7%	9.5%
Safety & Infrastructure	9.5%	10.2%
PPM	9.5%	10.2%

Key assumptions

The calculation of value in use for all CGU is most sensitive to the following assumptions:

- Forecasts, including operating margins and sales growth
- Discount rates
- Growth rates used to extrapolate cash flow beyond the forecast period

Forecasts

Projected cash flows, approved by management, is based on an analysis of historic performance as well as a best estimation regarding the future. Hexagon has since 2001 shown systematically rising operating margins and virtually continuous good organic growth.

The operating margins are based on average values achieved historically. The margins are increased over the period to reflect anticipated efficiency improvements. The organic growth is based on an analysis of how the competition situation is judged to develop over time.

Discount rates

Discount rates represent the current market assessment of the risks specific to respective CGU, taking into consideration the time value of money as well as individual risks. The discount rate calculation is based on the specific circumstances of respective CGU and is derived from its weighted average cost of capital (WACC). The WACC takes into account both debt and equity. The cost of equity is derived from the expected return on investment by the Group investors. The cost of debt is based on the interest bearing borrowings. Specific risks are incorporated by applying individual beta factors. The beta factors are evaluated annually based on publicly available market data.

Growth rates used to extrapolate cash flow

To extrapolate cash flows over the forecast period, growth figures start based on published research of each respective industry. The long term rate are conservatively estimated as equal to the expected long term inflation rate.

Sensitivity to changes in assumptions

A sensitivity analysis including all key assumptions is performed and management believe that no reasonably possible change in any of the above key assumptions would cause the carrying value to materially exceed the recoverable value. For all cash generating units there is a significant headroom before any changes in key assumptions would cause a valuation adjustment, since the recoverable value totally is nearly double the book value. The performed sensitivity analysis demonstrates that the value of goodwill and other intangible assets with indefinite useful life is more than defensible even if the discount rate is increased with one percentage point or if the growth rate after the forecast period is decreased with one percentage point for all cash generating units. Even forecasts for sales growth and operating margin are included in the sensitivity analysis and no reasonable changes in these would cause a need of impairment.

NOTE 9 Earnings from shares in group companies

	Group		Parent company	
	2019	2018	2019	2018
Earnings from shares in group companies				
Dividend from subsidiaries	-	-	398.5	236.4
Impairment loss of shares in group companies	-	-	-	-9.4
Capital gain/loss from sale of shares in group companies	-	0.7	1.1	-
Total	-	0.7	399.6	227.0

NOTE 10 Financial income and expenses

	Group		Parent company	
	2019	2018	2019	2018
Financial income				
Interest income	6.2	5.8	0.5	0.3
Interest income, intercompany receivables	-	-	121.6	117.5
Other financial income	0.4	0.6	85.7	147.6
Total	6.6	6.4	207.8	265.4
Financial expenses				
Interest expenses	-14.2	-17.2	-12.5	-14.6
Interest expenses, lease liabilities	-8.7	-	-	-
Interest expenses, intercompany liabilities	-	-	-17.3	-14.4
Net interest on pensions	-0.8	-1.3	-	-
Other financial expenses	-9.8 ¹⁾	-10.7 ¹⁾	-48.9	-124.9
Total	-33.5	-29.2	-78.7	-153.9

1) Mainly bank costs.

NOTE 11 Income taxes

Income taxes comprise of:

- Current tax, meaning the tax calculated on taxable earnings for the period and adjustments regarding prior periods and;
- Deferred tax, meaning the tax attributable to taxable temporary differences to be paid in the future and the tax that represents a reduction of future tax attributable to deductible temporary differences, deductible loss carry-forwards and other tax deductions.

The income tax expenses for the year consist of current and deferred tax. Transactions recognised in other comprehensive income are including tax effects, i.e. tax related to these transactions are also posted in other comprehensive income. Tax related to transactions directly recognised in equity, is posted in equity.

GROUP

Tax on earnings for the year

	2019	2018
Current tax	-179.8	-172.0
Deferred tax	23.1	7.8
Total tax on earnings for the year	-156.7	-164.2

Specification of deferred tax

	2019-12-31	2018-12-31
Deferred tax assets (liabilities) comprise:		
Fixed assets	-496.3	-462.1
Inventories	19.8	14.4
Receivables	2.9	12.6
Provisions	1.7	9.6
Other	87.0	48.4
Unutilised loss carry-forwards and similar deductions	60.3	55.5
Less items not satisfying criteria for being recognised as assets	-47.1	-43.5
Total	-371.7	-365.1
According to the balance sheet:		
Deferred tax assets	86.1	83.6
Deferred tax liabilities	-457.8	-448.7
Total, net	-371.7	-365.1

Deferred tax assets that depend on future taxable surpluses have been valued on the basis of both historical and forecast future taxable earnings. Hexagon is striving for a corporate structure that enables tax exemption when companies are divested and favourable taxation of dividends within the Group. Certain potential tax on dividends and divestments remain within the Group.

NOTE 11 Income taxes, cont.

Reconciliation of the year's change in current and deferred tax assets/liabilities

Deferred tax	2019	2018
Opening balance, net	-365.1	-358.9
Change via income statement		
Deferred tax on earnings	-5.9	1.0
Change in reserve for deductions not satisfying criteria for being recognised as assets	17.9	1.6
Change in tax rates and tax reforms	18.7	8.2
Items pertaining to prior years	-7.6	-3.0
Total	23.1	7.8
Change via other comprehensive income		
Deferred tax on other comprehensive income	-9.7	-3.3
Total	-9.7	-3.3
Change via equity		
Change via acquisitions and divestments	-14.8	-0.7
Reclassification	-0.6	-4.5
Translation difference	-4.6	-5.5
Closing balance, net	-371.7	-365.1
Current tax	2019	2018
Opening balance, net	-72.8	-55.0
Change via income statement		
Current tax on earnings	-181.7	-161.3
Items pertaining to prior years	1.9	-10.7
Total	-179.8	-172.0
Change via acquisitions and divestments	-2.4	-2.1
Payments, net	173.2	153.3
Reclassification	0.6	4.5
Translation difference	-1.0	-1.5
Closing balance, net	-82.2	-72.8

The Group's unutilised loss carry-forwards and similar deductions mature as follows:

	2019-12-31	
2020		8.2
2021		1.0
2022		1.9
2023		4.3
2024 and later		53.4
Indefinitely		175.7
Total		244.5

The difference between nominal Swedish tax rate and effective tax rate arises as follows:

	2019	2018
Earnings before tax	865.3	902.3
Tax pursuant to Swedish nominal tax rate 21.4%	-185.2	-198.5
Difference in tax rates between Swedish and foreign tax rate	10.5	24.7
Revaluation of loss carry-forwards, etc.	9.8	1.6
Income not subject for tax	14.1	9.9
Expenses not tax deductible	-7.4	-13.4
Change in tax rates and tax reforms	18.2	8.2
Items not included in the booked result	-10.9	17.0
Items pertaining to prior years	-5.8	-13.7
Tax, income statement	-156.7	-164.2

PARENT COMPANY Tax on earnings for the year

	2019	2018
Current tax	-14.2	-12.2
Deferred tax	-	-6.0
Total tax on earnings for the year	-14.2	-18.2

Reconciliation of the year's change in current and deferred tax assets/liabilities

Deferred tax	2019	2018
Opening balance, net	-	6.0
Change via income statement		
Deferred tax on earnings	-	-6.0
Total	-	-6.0
Closing balance, net	-	0.0
Current tax		
Opening balance, net	-11.9	-0.4
Change via income statement		
Current tax on earnings	-14.2	-12.2
Total	-14.2	-12.2
Payments, net	12.2	0.7
Translation difference	-0.2	-
Closing balance, net	-14.1	-11.9

The Parent Company has no unutilised loss carry-forwards.

NOTE 12 Non-recurring items

Group	2019	2018
Cost nature		
Personnel costs	-43.7	-6.9
Transaction costs	-4.3	-0.5
Impairments	-21.1	-16.0
Integration costs	-6.2	-
Other expenses	-5.0	-2.2
Gain on divestment of financial assets	0.0	21.7
Total non-recurring items	-80.3	-3.9
Function		
Cost of goods sold	-14.5	-0.8
Sales expenses	-15.3	-2.4
Administration expenses	-11.4	-2.5
Research and development expenses	-13.7	-1.2
Other operating income	-	21.7
Other operating expenses	-25.4	-18.7
Total non-recurring items	-80.3	-3.9

Non-recurring items relate mainly to impairment of overlapping technologies, transaction costs and reduction in workforce.

NOTE 13 Intangible fixed assets

Intangible fixed assets could be acquired separately, as part of a business combination or internally generated. The Group's intangible fixed assets include mainly capitalised development expenses, patents, trademarks and goodwill. Trademarks, goodwill, technology and customer relations are often acquired as part of a business combination, while capitalised development expenses are internally generated.

Any write-downs are reported as Other operating expenses in the income statement. See Note 8 for disclosures about impairment.

Capitalised development expenses

An internally generated intangible asset that will generate expected future economic benefit and whose cost could be determined reliably must, according to IAS 38, be recognised as an asset in the balance sheet. To assess if those criteria are fulfilled, the generation of the asset is classified into a research phase and a development phase. The research phase includes activities such as obtaining new knowledge, new products, systems, methods or materials. At a certain point in time, the activities change and include design, construction and testing of chosen alternatives. This point in time differs between different projects and constitutes the inflection point between research phase and development phase. Hexagon expenses expenditure on research in the income statement and expenditures arising in the development phase must be recognised as an intangible asset in the balance sheet. If the research phase could not be distinguished from the development phase, all expenditures will be expenses in the income statement.

Capitalised development expenses are measured at cost less accumulated depreciations and impairment. Depreciation is accounted for linearly based on estimated useful life and expensed as a research and development expense. Useful life for capitalised development expenses is 2-6 years. The assets' residual value and useful life are tested on each closing date and are adjusted if necessary.

Intangible fixed assets

Group 2019	Capitalised development expenses	Patents	Trademarks	Goodwill	Other intangible fixed assets	Total
Acquisition value, opening balance	1,660.9	127.9	999.5	4,977.1	757.8	8,523.2
Investments	275.6	0.8	-	-	8.7	285.1
Investments/divestments of business	0.4	-	13.5	290.6	68.1	372.6
Sales/disposals	-5.0	-0.1	-	-	-0.9	-6.0
Reclassification	-5.5	0.0	-	-	4.5	-1.0
Translation differences	15.0	1.0	11.8	90.0	13.1	130.9
Acquisition value, closing balance	1,941.4	129.6	1,024.8	5,357.7	851.3	9,304.8
Amortisation, opening balance	-869.7	-92.1	-	-	-302.0	-1,263.8
Amortisation for the year	-158.0	-7.7	-	-	-52.8	-218.5
Investments/divestments of business	-	-	-	-	-0.1	-0.1
Sales/disposals	4.6	0.0	-	-	0.9	5.5
Reclassification	1.7	0.0	-	-	0.0	1.7
Translation differences	-7.0	-0.7	-	-	-4.9	-12.6
Amortisation, closing balance	-1,028.4	-100.5	-	-	-358.9	-1,487.8
Impairments, opening balance	-133.7	-	-1.3	-	-23.6	-158.6
Impairment for the year	-24.8	-	-	-	-	-24.8
Reclassification	0.1	-	-	-	-	0.1
Translation differences	-1.2	-	-	-	-1.2	-2.4
Impairments, closing balance	-159.6	-	-1.3	-	-24.8	-185.7
Carrying value	753.4	29.1	1,023.5	5,357.7	467.6	7,631.3

Patent and trademarks

Separately acquired patent and trademarks are measured at cost. Patents and trademarks acquired as part of a business combination are measured at fair value at acquisition date. In cases where the assets have a limited useful life, amortisation is estimated to 5 years. If the trademark can be used without any time limitations, it is not subject to amortisation according to plan. A new assessment is done yearly. The right to use the name Leica derives from a contractual useful life under an agreement that expires in 84 years' time. The agreement contains clauses stipulating extension opportunities. Since Hexagon is of the opinion that there is reason to believe that it will be possible to extend the agreement without considerable expenditure, the value of the right to use the name Leica is not subject to amortisation.

Goodwill

Goodwill comprises the difference between the acquisition cost and fair value of the Group's share of acquired business' identifiable net assets on the date of acquisition. Goodwill is not amortised, but impairment is tested annually or more often if events or changes in circumstances indicate a possible impairment. Goodwill is recognised at acquisition value less accumulated impairment losses.

Other intangible assets

Both acquisition-related and separately acquired intangible assets are reported at acquisition value less accumulated amortisation and impairment losses, if any. Other intangible assets consist of customer relations and technology identified upon acquisitions. Depreciation is linear and is calculated on the original acquisition value and based on the asset's estimated useful life. For other intangible assets, the estimated useful life varies between 2 and 20 years. Both the residual value of the assets and the useful life are tested each closing date and adjusted if necessary.

Group 2018	Capitalised development expenses	Patents	Trademarks	Goodwill	Other intangible fixed assets	Total
Acquisition value, opening balance	1,432.2	128.8	945.2	4,412.3	694.1	7,612.6
Investments	224.2	1.0	-	-	9.1	234.3
Investments/divestments of business	-5.4	-5.9	36.7	440.5	69.8	535.7
Sales/disposals	-7.4	-	-	-	-1.6	-9.0
Reclassification	6.9	3.1	-1.4	-	-21.9	-13.3
Translation differences	10.4	0.9	19.0	124.3	8.3	162.9
Acquisition value, closing balance	1,660.9	127.9	999.5	4,977.1	757.8	8,523.2
Amortisation, opening balance	-713.7	-81.0	-	-	-258.5	-1,053.2
Amortisation for the year	-147.7	-7.5	-	-	-48.5	-203.7
Investments/divestments of business	2.3	-	-	-	-0.9	1.4
Sales/disposals	3.6	-	-	-	1.5	5.1
Reclassification	-8.5	-2.9	-	-	7.7	-3.7
Translation differences	-5.7	-0.7	-	-	-3.3	-9.7
Amortisation, closing balance	-869.7	-92.1	-	-	-302.0	-1,263.8
Impairments, opening balance	-118.2	-	-	-	-32.9	-151.1
Impairment for the year	-20.0	-	-1.3	-	-3.8	-25.1
Sales/Disposals	3.0	-	-	-	-	3.0
Reclassification	4.1	-	-	-	12.9	17.0
Translation differences	-2.6	-	0.0	-	0.2	-2.4
Impairments, closing balance	-133.7	-	-1.3	-	-23.6	-158.6
Carrying value	657.5	35.8	998.2	4,977.1	432.2	7,100.8

Amortisation of intangible fixed assets allocated by function:

Group	2019	2018
Cost of goods sold	-7.4	-4.0
Sales expenses	-12.6	-10.8
Administration expenses	-7.8	-6.0
Research and development expenses	-190.3	-180.1
Other operating expenses	-0.4	-2.8
Total	-218.5	-203.7

Other intangible fixed assets

Parent company	2019	2018
Acquisition value, opening balance	0.4	0.3
Investments	0.0	0.1
Acquisition value, closing balance	0.4	0.4
Amortisation, opening balance	-0.3	-0.2
Amortisation for the year	0.0	-0.1
Amortisation, closing balance	-0.3	-0.3
Carrying value	0.1	0.1

NOTE 14 Tangible fixed assets

Tangible fixed assets are recognised at acquisition value less accumulated depreciation and impairment losses. Acquisition value includes expenditure that is directly attributable to acquisition of the asset.

Gains and losses on the divestment of a tangible fixed asset are recognised in the income statement as other operating income or expenses and comprise the difference between the sales revenue and the carrying amount. Amounts that can be depreciated comprise acquisition value less estimated residual value. The assets' carrying value and useful life are impairment tested on every balancesheet date and adjusted if necessary.

Depreciation and amortisation

Depreciation and amortisation is calculated on the original acquisition value and based on the asset's estimated useful life. The depreciation terms for various asset classes are:

- Computers 3–8 years
- Machinery and equipment 3–15 years
- Office buildings 20–50 years
- Industrial buildings 20–50 years
- Land improvements 5–25 years

Tangible fixed assets

Group 2019	Buildings	Land and other real estate	Machinery and other technical plants	Equipment, tools and installation	Construction in progress and advances to suppliers	Total
Acquisition value, opening balance	288.6	35.9	324.7	230.0	14.4	893.6
Investments	11.3	0.2	25.7	51.4	36.8	125.4
Investments/divestments of business	0.5	-	0.0	2.2	0.3	3.0
Sales/disposals	-3.1	-1.3	-2.8	-32.7	-1.4	-41.3
Reclassification	5.8	0.0	-7.4	76.3	-2.6	72.1
Translation differences	8.9	0.6	2.6	4.7	-0.2	16.6
Acquisition value, closing balance	312.0	35.4	342.8	331.9	47.3	1,069.4
Depreciation, opening balance	-102.6	-0.9	-233.4	-169.3	-3.2	-509.4
Depreciation for the year	-13.6	-0.4	-23.7	-38.0	-0.3	-76.0
Investments/divestments of business	-0.1	-	-	-0.7	-0.1	-0.9
Sales/disposals	2.1	0.1	2.5	23.1	1.3	29.1
Reclassification	-1.9	0.0	4.7	-23.1	0.0	-20.3
Translation differences	-2.6	0.0	-1.8	-2.2	0.0	-6.6
Depreciation, closing balance	-118.7	-1.2	-251.7	-210.2	-2.3	-584.1
Impairments, opening balance	-	-	-	-	-	-
Impairments of the year	-0.6	-	-	-0.2	-	-0.8
Sales/disposals	0.6	-	-	0.2	-	0.8
Impairments, closing balance	-	-	-	-	-	-
Carrying value	193.3	34.2	91.1	121.7	45.0	485.3

Group 2018	Buildings	Land and other real estate	Machinery and other technical plants	Equipment, tools and installation	Construction in progress and advances to suppliers	Total
Acquisition value, opening balance	213.2	28.4	296.9	207.5	7.0	753.0
Investments	74.8	13.3	29.8	29.5	9.1	156.5
Investments/divestments of business	1.0	0.2	0.7	3.0	0.6	5.5
Sales/disposals	-4.0	-5.2	-5.6	-14.4	-0.1	-29.3
Reclassification	0.6	0.0	0.8	1.4	-2.2	0.6
Translation differences	3.0	-0.8	2.1	3.0	0.0	7.3
Acquisition value, closing balance	288.6	35.9	324.7	230.0	14.4	893.6
Depreciation, opening balance	-92.5	-5.2	-215.3	-154.7	-4.1	-471.8
Depreciation for the year	-11.2	-0.7	-20.2	-22.7	-0.4	-55.2
Investments/divestments of business	-0.5	-	-0.3	-2.1	-0.5	-3.4
Sales/disposals	3.8	5.0	5.1	13.5	0.1	27.5
Reclassification	0.0	-	-1.4	-0.8	1.7	-0.5
Translation differences	-2.2	-	-1.3	-2.5	0.0	-6.0
Depreciation, closing balance	-102.6	-0.9	-233.4	-169.3	-3.2	-509.4
Carrying value	186.0	35.0	91.3	60.7	11.2	384.2

Depreciation of tangible fixed assets allocated by function:

Group			Equipment		
	2019	2018	Parent company	2019	2018
Cost of goods sold	-43.7	-23.1	Acquisition value, opening balance	0.0	0.0
Sales expenses	-6.3	-6.1	Acquisition value, closing balance	0.0	0.0
Administration expenses	-18.4	-16.6	Depreciation, opening balance	0.0	0.0
Research and development expenses	-7.0	-5.5	Depreciation for the year	0.0	0.0
Other operating expenses	-0.6	-3.9	Depreciation, closing balance	0.0	0.0
Total	-76.0	-55.2	Carrying value	0.0	0.0

NOTE 15 Leasing

Hexagon as lessee

Hexagon has the role of lessee mainly in contracts regarding real estate, vehicles, machinery and office equipment. The leases are recognised as a right-of-use asset and a corresponding liability at the date at which the leased asset is available for use. Lease payments are allocated to interest and repayment of debt. The interest part is presented as paid interest in the cash flow analysis and the repayment part in the financing activities. The right-of-use asset is depreciated on a linear basis over the shorter of the asset's useful life and the lease period.

Assets and liabilities arising from lease contracts are measured on a present value basis. Lease liabilities include the net present value of fixed payments, variable payments based on an index or a rate, amounts expected to be paid under residual value guaran-

tees, exercise price of purchase options that will reasonably certainly be exercised and payments of penalties for terminating the lease, if such option will be exercised.

The future payments are discounted using the implicit interest rate in the contract. If that rate could not be determined, the Group's incremental borrowing rate could be used.

The right-of-use asset is measured at cost and comprises, besides the amount of the initial measurement of the lease liability, of payments (less incentives received) made before the date of commencement, initial indirect costs and restoration costs.

Payments of lease contracts with a lease period below 12 months and lease contracts of low value assets are expensed straight-line in the income statement. Low value assets are mainly IT-equipment, office furniture and other office equipment.

Group 2019	Real estate	Vehicles	Machinery	Office equipment	Total
At the beginning of the year	206.2	27.5	0.7	3.4	237.8
New contracts	31.1	11.7	2.3	0.6	45.7
Termination of contracts	-7.1	-1.3	-	-0.3	-8.7
Remeasurements	8.6	0.1	-	0.0	8.7
Translation differences	3.0	0.1	0.0	0.0	3.1
Acquisition value, closing balance	241.8	38.1	3.0	3.7	286.6
Depreciation, opening balance	-	-	-	-	-
Depreciation for the year	-51.9	-13.5	-0.5	-1.7	-67.6
Termination of contracts	3.7	0.4	-	0.1	4.2
Translation differences	0.0	0.0	0.0	0.0	0.0
Amortisation, closing balance	-48.2	-13.1	-0.5	-1.6	-63.4
Carrying value	193.6	25.0	2.5	2.1	223.2

Depreciation of right-of-use assets allocated by function:

Group	2019
Cost of goods sold	-12.1
Sales expenses	-20.8
Administration expenses	-30.1
Research and development expenses	-3.9
Other operating expenses	-0.7
Total	-67.6

Set out below are the carrying amounts of the lease liabilities and the movements during the period.

Group	2019
At the beginning of the year	237.8
Additions	45.7
Accretion of interest	8.8
Payments	-62.2
Translation difference	-0.5
Closing balance	229.6
Of which current liabilities	61.3
Of which non-current liabilities	168.3

The maturity structure of the lease liabilities is presented in the table Group's maturity structure of interest-bearing financial liabilities – undiscounted cashflows in Note 23.

The Group had total cash outflows for leasing of 71 MEUR in 2019.

Expenses regarding short-term leases and leases of low-value are insignificant.

Hexagon as lessor

There are a few contracts in which Hexagon is the lessor. Those contracts are classified as finance lease contract and the revenue is allocated to sale of hard- and software and service. Revenue from sale is recognised at the commencement date. Revenue from service is recognised during the lease term.

Agreements where a group entity is lessor

Group 2019-12-31	Machinery, equipment, etc.
Expenses due for payment in	
2020	1.3
2021-2024	0.7
Total	2.0
Group 2018-12-31	Machinery, equipment, etc.
Expenses due for payment in	
2019	6.9
2020-2023	1.3
Total	8.2

NOTE 16 Financial fixed assets

Group	Shares in associated companies		Other long-term securities holdings		Other long-term receivables	
	2019	2018	2019	2018	2019	2018
Opening balance	0.0	0.1	1.0	4.2	52.9	36.1
Investments	0.0	-	0.6	-	11.7	18.4
Acquired as subsidiary	-	-	-	-	0.2	-
Capital gains/losses	-	-	-	21.7	-	-
Sales	-	-0.1	-	-24.8	-6.9	-2.6
Reclassification	-	-	-	-	-4.4	-0.6
Translation differences	-	-	-	-0.1	1.2	1.6
Closing balance	0.0	0.0	1.6	1.0	54.7	52.9

Parent company	Shares in group companies		Receivables from group companies		Other financial fixed assets	
	2019	2018	2019	2018	2019	2018
Opening balance	4,825.0	4,712.8	2,761.4	2,656.3	0.6	0.4
Shareholders contribution	861.4	121.6	-	-	-	-
Impairment	-	-9.4	-	-	-	-
Investments	0.4	-	-	-	-	-
Divestments	-0.4	-	-	-	-	-
Increase/decrease in receivables	-	-	-548.4	105.1	0.1	0.2
Closing balance	5,686.4	4,825.0	2,213.0	2,761.4	0.7	0.6

Other long-term securities holdings

Group	2019-12-31	2018-12-31
Clothing Tech LLC	0.6	-
Euclidean PTY	1.0	1.0
Other	0.0	0.0
Total	1.6	1.0

Subsidiaries of Hexagon AB

	Corp ID. No.	Reg. Office/ Country	No. of shares	Portion of share capital and voting rights, %	Carrying amount	
					2019-12-31	2018-12-31
Clever Together AB	556070-5138	Stockholm, Sweden	2,500	100	0.0	0.0
Hexagon Corporate Services Ltd	-	Hong Kong	10,000	100	0.0	0.0
Hexagon Corporate Solutions Ltd	-	England	1	100	0.0	0.0
Hexagon Förvaltning AB	556016-3049	Stockholm, Sweden	200,000	100	21.0	21.0
Hexagon Global Services AB	556788-2401	Stockholm, Sweden	1,000	100	0.0	0.0
Hexagon Intergraph AB	556370-6828	Stockholm, Sweden	1,000	100	0.0	0.0
Hexagon Metrology AB	556365-9951	Stockholm, Sweden	1,000	100	1,355.8	1,129.1
Hexagon Positioning Intelligence Ltd	-	England	3	100	261.0	261.0
Hexagon Solutions AB	556083-1124	Stockholm, Sweden	100,000	100	1.6	1.6
Hexagon Technology Center GmbH ¹	-	Switzerland	583	75.1	2,388.0	2,388.0
Intergraph Holding Company ²	-	USA	1	100	-	1,022.7
Intergraph Corporation	-	USA	1,000	100	1,657.4	-
Johnson Industries AB	556099-2967	Stockholm, Sweden	100,000	100	-	0.0
Röomned AB	556394-3678	Stockholm, Sweden	1,439,200	100	0.0	0.0
Tecla AB	556068-1602	Stockholm, Sweden	160,000	100	1.6	1.6
Östgötaeken AB	556197-2380	Stockholm, Sweden	2,000	100	0.0	0.0
Total					5,686.4	4,825.0

1) The remaining part of share capital and voting rights in the company are owned by wholly owned subsidiaries in the Group.

2) Intergraph Holding Company was merged into Intergraph Corporation during 2019.

NOTE 17 Receivables

Group	Not due	Due less than 30 days	Due between 30–60 days	Due between 61–90 days	Due between 91–120 days	Older than 120 days	Total
Aging analysis of receivables, 31 December 2019, net of impairment losses							
Other non-current receivables	45.5	8.1	0.1	0.1	0.1	0.8	54.7
Accounts receivable	741.4	98.8	48.6	29.6	13.5	67.3	999.2
Other current receivables – non interest-bearing	66.0	0.7	0.1	0.1	0.0	3.1	70.0
Total	852.9	107.6	48.8	29.8	13.6	71.2	1,123.9

Aging analysis of receivables, 31 December 2018, net of impairment losses							
Other non-current receivables	46.3	5.6	-	0.0	0.0	1.0	52.9
Accounts receivable	711.3	96.7	41.5	25.0	15.7	68.9	959.1
Other current receivables – non interest-bearing	66.7	1.1	0.1	0.5	0.0	4.0	72.4
Total	824.3	103.4	41.6	25.5	15.7	73.9	1,084.4

The Group applies the simplified approach to measuring expected credit losses. The method uses a lifetime expected loss allowance for all trade receivables.

To measure the expected credit losses, trade receivables have been grouped based on shared credit risk characteristics and the days past due. The expected loss rates for trade receivables are a reasonable approximation of the loss rates for the contract assets too, as the contract assets have substantially the same risk characteristics as the trade receivables for the same types of contracts.

The expected loss rates are based on the payments profiles of sales and the corresponding historical credit losses. The historical loss rates are adjusted to reflect current and forward-looking information on macroeconomic factors affecting the ability of the consumers to settle the receivables.

Trade receivables are written off when there is no reasonable expectation of recovery. Impairment losses are presented within operating profit. Any recoveries of amounts previously written off are credited against the same line item.

The closing loss allowances for trade receivables reconcile to the opening loss allowances as follows:

Reserve for doubtful receivables

Group	2019-12-31	2018-12-31
Opening balance	28.4	28.8
Reserve for anticipated losses	9.1	10.1
Adjustment for actual losses	-2.7	-2.8
Reclaimed expected losses	-5.8	-6.7
Increase through acquisition	0.5	-
Translation differences	0.8	-1.0
Closing balance	30.3	28.4

NOTE 18 Inventories

Inventories are accounted according to the FIFO (first-in first-out) principle. Raw materials and purchased finished and semi-finished goods are recognised at the lower of cost and net realisable value. Manufactured finished and semi-finished goods are recognised at the lower of manufacturing cost (including a reasonable portion of indirect manufacturing costs) and fair value. Market terms are applied for intra-group transactions. The necessary provisions and eliminations are made for obsolescence and intra-group gains respectively.

Group	2019-12-31	2018-12-31
Raw materials and supplies	185.1	189.7
Work in progress	32.9	32.8
Finished goods and goods for sale	191.3	240.5
Total	409.3	463.0
Value adjustment reserve includes provisions for obsolescence etc of	-51.3	-71.8

NOTE 19 Prepaid expenses and accrued income/accrued expenses and deferred income

Prepaid expenses and accrued income

	Group		Parent company	
	2019-12-31	2018-12-31	2019-12-31	2018-12-31
Accrued invoicing	25.0	23.0	-	-
Accrued interest income	1.0	0.7	-	-
Work in progress	24.7	29.9	-	-
Prepaid maintenance costs	8.2	6.0	-	-
Prepaid license costs	14.9	12.9	-	-
Prepaid products and services	45.7	39.7	-	-
Prepaid rent	3.7	4.0	0.1	0.1
Prepaid insurance	3.5	2.5	0.1	0.1
Other items	16.5	14.4	0.3	0.1
Total	143.2	133.1	0.5	0.3

Accrued expenses and deferred income

	Group		Parent company	
	2019-12-31	2018-12-31	2019-12-31	2018-12-31
Accrued personnel-related expenses	182.8	209.7	3.1	2.0
Accrued sales commission	21.9	23.3	-	-
Accrued installation and training expenses	0.4	0.6	-	-
Accrued R&D expenses	4.1	2.7	-	-
Accrued fees	8.5	6.3	0.1	0.1
Accrued royalties	4.3	4.5	-	-
Accrued interest expenses	5.0	4.5	5.0	4.5
Work in progress	18.6	28.4	-	-
Prepaid revenues	463.1	405.0	-	-
Other items	53.9	52.1	0.5	0.7
Total	762.6	737.1	8.7	7.3

NOTE 20 Share capital and number of shares

Parent company

	Quota value per share, EUR	Number of shares						Share capital, MEUR
		Outstanding			Total issued			
		Class A	Class B	Total	Class A	Class B	Total	
Opening balance 2018	0.22	15,750,000	344,693,142	360,443,142	15,750,000	344,693,142	360,443,142	80.0
New share issues - exercise of warrants	0.22	-	2,481,550	2,481,550	-	2,481,550	2,481,550	0.5
Closing balance 2018	0.22	15,750,000	347,174,692	362,924,692	15,750,000	347,174,692	362,924,692	80.5
New share issues - exercise of warrants	0.22	-	4,614,610	4,614,610	-	4,614,610	4,614,610	1.1
Closing balance 2019	0.22	15,750,000	351,789,302	367,539,302	15,750,000	351,789,302	367,539,302	81.6

Warrants exercised until 2019-12-31 has resulted in new share issues of total 10,500 new shares of series B. A new share issue will be finalised during the first quarter of 2020.

Each series A share entitles the holder to 10 votes and each series B share to 1 vote. All shares entail the same right to share of profits in Hexagon. Dividend per share paid in 2019 regarding the financial year of 2018 amounted to 0.59 EUR (0.53).

Average number of shares before and after dilution, thousands

	2019	2018
Average number of shares before dilution	364,898	360,942
Estimated average number of potential shares pertaining to warrants plans	344	1,359
Average number of shares after dilution	365,242	362,301

NOTE 21 Pension provisions

Within the Group there are defined contribution plans as well as defined benefit plans.

For the defined contribution plans, Hexagon pays a fixed amount. Expenditure for defined contribution plans are expensed as incurred.

Expected expenditure under defined benefit plans are recognised as a liability calculated in accordance with actuarial models, consisting of an estimate of future benefits that employees have earned through their employment during the current and prior periods. This benefit is discounted to its present value. The discount rate is the yield on high-quality corporate bonds or if there is no deep market for such bonds, government bonds – that have maturity dates approximating the terms of the Group's obligations.

Changes of the defined benefit obligation related to changed actuarial assumptions including currency revaluation on defined benefit obligation in another currency than functional currency and experience based adjustment are reported in other comprehensive income. Pension expense for the year consists of pensions earned in the current period and pensions earned from prior periods resulting from any changes in the plan. Pension liabilities, -assets net is multiplied with discount rate and accounted for as a financial expense. Obligations related to defined benefit plans are recognised net in the balance sheet as a provision, meaning after a deduction of the value of any plan assets.

Defined benefit plans for which the insurer (Alecta) cannot specify Hexagon's share of the total plan assets and pension obligations, pending this information becoming available, are recognised as defined contribution plans. This only exist in limited extent in Sweden.

GROUP

Provisions – defined-benefit plans

	2019-12-31	2018-12-31
Pension obligations	738.3	659.5
Fair value of plan assets	-641.6	-556.1
Pension obligations less plan assets	96.7	103.4

Pension expenses - defined-benefit plans

	2019	2018
Current service cost	28.2	27.1
Interest expense	8.0	6.3
Calculated interest income	-6.6	-5.0
Change in terms and conditions	0.0	-0.8
Total	29.6	27.6

Total pension expenses impact on the income statement

	2019	2018
Operating expenses		
– defined-benefit plans	28.2	26.3
Operating expenses		
– defined contribution plans	43.4	50.9
Operating earnings impact	71.6	77.2
Net interest expenses		
– defined-benefit plans	1.4	1.3
Earnings before tax impact	73.0	78.5

Defined-benefit obligations

2019-12-31	Plan assets	Pension obligations	Net
Switzerland	584.3	-625.5	-41.2
Other countries	57.3	-112.8	-55.5
Total (fair/present value)	641.6	-738.3	-96.7

Of which:

Reported as asset (other non-current receivables)	0.5
Reported as liability	-97.2

2018-12-31	Plan assets	Pension obligations	Net
Switzerland	498.6	-555.4	-56.8
Other countries	57.5	-104.1	-46.6
Total (fair/present value)	556.1	-659.5	-103.4

Of which:

Reported as asset (other non-current receivables)	4.8
Reported as liability	-108.2

Three year summary

	2019-12-31	2018-12-31	2017-12-31
Fair value of plan assets	641.6	556.1	553.1
Pension obligations	-738.3	-659.5	-630.7
Net	-96.7	-103.4	-77.6

Pension obligations

	2019-12-31	2018-12-31
Opening balance	659.5	630.7
Change in terms and conditions	-3.9	-0.4
Current service cost	28.2	27.1
Interest expense	8.0	6.3
Benefits paid	-25.6	-21.3
Acquired/divested subsidiaries	0.1	0.1
Settlement of pension obligations	-0.1	-0.2
Actuarial gains/losses		
– Financial assumptions	63.4	10.1
Actuarial gains/losses		
– Demographic assumptions	-5.5	-5.3
Actuarial gains/losses		
– Experience adjustments	7.6	8.0
Currency translation differences	6.6	4.4
Closing balance	738.3	659.5

Plan assets

	2019-12-31	2018-12-31
Opening balance	556.1	553.1
Change in terms and conditions	-7.3	-
Calculated interest income	6.6	5.0
Contributions – employer	18.5	17.2
Contributions – employee	13.2	11.6
Benefits paid	-25.1	-21.7
Return on plan assets excluding calculated interest income as above	74.2	-12.5
Currency translation differences	5.4	3.4
Closing balance	641.6	556.1

Fair value of plan assets

	2019-12-31	2018-12-31
Equities and similar financial instruments	235.0	209.1
Interest bearing securities, etc.	211.8	179.3
Real estate	194.8	167.7
Total	641.6	556.1

For 2020, the contributions to defined benefit plans are estimated at 32.6 MEUR, of which employer's contribution 18.9 MEUR.

NOTE 21 Pension provisions, cont.

Characteristics of the pension obligations

The following applies for the Swiss plans which represent 85 per cent of the total pension obligations. The Swiss plans include the following sub-plans: Retirement pension (main plan), disability pension, management plan, early retirement plan and jubilee plan. The main plan, retirement pension, is financed through an individual savings account. The plan defines a retirement credit in per cent of insured salary depending of the age of the plan member and it guarantees an interest rate, which is annually determined by the Pension Fund. The minimum legal rate as fixed by the Swiss government has to be credited to the minimum savings account. The interest is not allowed to negative, even if the actual return on assets is negative (capital protection). The other kind of plans in Switzerland are of similar nature.

Shortfall in the schemes in Switzerland must be covered by the employer, while surpluses can only become due to the beneficiaries. The value of plan assets has been reduced accordingly.

Remaining duration is in average 20 year.

Actuarial assumptions for the defined-benefit pension schemes

(weighted average, where applicable)	2019	2018
Discount interest rate, %	0.5	1.1
Inflation, %	0.9	0.7
Future salary increase, %	1.5	0.8

NOTE 22 Other provisions

A provision is recognised in the balance sheet when the Group has a legal or constructive obligation as a result of a past event and it is probable that an outflow of resources will be required to settle the obligation and a reliable estimate of the amount can be made.

If the effect is material, the provision is determined by discounting the expected future cash flows at a pre-tax rate that reflects the current market assessments of the time value of money and, where appropriate, the risks specific to the liability.

Warranties

A provision for warranties is recognised when the underlying products or services are sold. The provision is based on historical

Group

	Restructuring provisions	Warranty provisions	Other provisions	Total
Opening balance 2018-01-01	13.5	15.1	8.0	36.6
Provision for the year	8.8	13.3	1.0	23.1
Increase through acquisition of businesses	-	-	0.1	0.1
Utilisation	-16.4	-11.1	-0.7	-28.2
Reversal of unutilised amounts	-1.0	-0.7	-0.1	-1.8
Translation difference	0.1	0.0	0.2	0.3
Closing balance 2018-12-31	5.0	16.6	8.5	30.1
Provision for the year	55.1	12.5	2.4	70.0
Increase through acquisition of businesses	-	0.3	-	0.3
Utilisation	-33.4	-13.3	-1.2	-47.9
Reversal of unutilised amounts	-3.6	-0.7	-2.1	-6.4
Reclassification	-0.3	-	-	-0.3
Translation difference	0.2	0.2	0.0	0.4
Closing balance 2019-12-31	23.0	15.6	7.6	46.2

Restructuring provisions

Restructuring provisions primarily relates to a cost savings programme that was introduced in the second quarter of 2019 and a reduction in work force in the third quarter of 2018. The remaining part of restructuring provisions are mainly related to personnel and are expected to become due within 12 months.

Warranty provisions

Warranty provisions are estimated based on previous years statistical data and are valued on a regular basis. Since the warranty provisions are based on historical statistical data, the provided

For 85 per cent of the defined benefit obligation, the Swiss BVG 2015 tables have been used for the actuarial assumptions regarding employee turnover and life expectancy.

Sensitivity analysis

The table below describes the effect on the value of the defined benefit obligations of an isolated change in assumptions as described.

	Change in assumption, %	Effect, MEUR	Change in assumption, %	Effect, MEUR
Discount rate	-0.3	-32.4	+0.3	20.4
Salary increase	-0.5	-2.5	+0.5	-6.3
Employee turnover	-1.0	-11.0	+1.0	1.6

	Change in assumption, no. of years	Effect, MEUR	Change in assumption, no. of years	Effect, MEUR
Life expectancy	-1.0	22.9	+1.0	-29.7

warranty data and a weighing of all possible outcomes with their associated probabilities.

Restructuring

A provision for restructuring is recognised when the Group has approved a detailed and formal restructuring plan and the restructuring has either commenced or has been publicly announced. No provision is posted for future operating losses.

Onerous contracts

A provision for onerous contracts is recognised when the expected benefits to be derived by the Group are lower than the unavoidable cost of meeting its obligations under the contract.

amount has a low uncertainty regarding the amount and timing of outflow. The majority of warranty provisions run over a period of 1-3 years. Estimated costs for product warranties are recognised when the products are sold.

Other provisions

Other provisions primarily consists of provisions for buildings, tax and legal disputes and also legally required personnel related provisions. The personnel related provisions are considered as long-term.

NOTE 23 Financial risk management

Risk management

Hexagon is a net borrower and has extensive international operations and is therefore exposed to various financial risks. The Group Treasury Policy, approved by the Board, stipulates the rules and limitations for the management of the different financial risks within the Group. Hexagon's treasury operations are centralised to the Group's internal bank, which is in charge of coordinating the financial risk management. The internal bank is also responsible for the Group's external borrowing and its internal financing. Centralisation entails substantial economies of scale, lower financing cost and better control and management of the Group's financial risks. The internal bank has no mandate to conduct independent trading in currencies and interest rate instruments. All relevant exposures are monitored continuously and are reported to the Group Management and the Board of Directors on a regular basis.

Currency risk

Currency risk is the risk that exchange rate fluctuations will have an adverse effect on income statement, balance sheet and cash flow. Furthermore, the comparability of Hexagon's earnings between periods will be affected by changes in currency exchange rates. Hexagon's operations are mainly conducted internationally and sales, costs and net assets are therefore denominated in a number of currencies. As of 1 January 2011 the presentation currency is EUR for the Group. The change decreases the currency exposure in both the income statement and balance sheet as well as in other comprehensive income. It also allows the Hexagon Group to better match debt to net assets. Currency exposure originates both from transactions in non-domestic currencies in the individual operating entities, i.e. transaction exposure and from translation of earnings and net assets into EUR upon consolidation of the Group, translation exposure.

Transaction exposure

Sales and purchase of goods and services in currencies other than respective subsidiary's functional currency give rise to transaction exposure. Transaction exposure is, as far as possible, concentrated to the countries where manufacturing entities are located. This is achieved by invoicing the sales entities in their respective functional currency.

In accordance with the Group Treasury Policy the transaction exposure should not be hedged.

Translation exposure – Balance sheet

Translation exposure arises when the net assets are translated into EUR upon consolidation. Translation differences from net assets in other currencies than EUR reported in other comprehensive income during 2019 were 121.9 MEUR (117.5).

Net exposure per currency

	2019-12-31	Hedging rate
USD	4,102.4	0%
GBP	401.8	1%
CAD	387.8	0%
CNY	386.3	-
BRL	133.1	0%
CHF	-105.5	-9%
INR	70.8	10%
Other	251.3	2%
Total	5,628.0	1%

Translation exposure – Income statement

The consolidated operating income and expense is mainly generated in subsidiaries outside the Euro-area. Changes in exchange rates therefore have a significant impact on the Group's earnings when the income statements are translated into EUR. Translation exposure related to actual and forecasted earnings is not hedged.

Net sales per currency

	2019	2018
USD	1,498.9	1,395.4
EUR	926.3	884.0
CNY	413.7	471.7
JPY	174.1	146.1
GBP	150.2	157.0
CAD	89.2	80.8
Other	655.3	625.7
Total	3,907.7	3,760.7

Interest rate risk

The interest rate risk is the risk that changes in interest rates will adversely affect the Group's net interest expense and/or cash flow negatively. Interest rate exposure arises primarily from the external interest bearing debt. In accordance with the Group Treasury Policy the average interest rate duration for the external debt should be in a range from 6 months to 3 years.

During 2019 interest rate derivatives were used in order to manage the interest rate risk.

Financial income and expenses

	2019	2018
Interest income	6.2	5.8
Interest expense	-23.5	-18.5
Other financial income and expense	-9.3	-10.1
Net	-26.9	-22.8

Credit risk

Credit risk is the risk that counterparts may be unable to fulfil their payment obligations. Financial credit risk arises when investing cash and cash equivalents and when trading in financial instruments. To reduce the Group's financial credit risk, surplus cash is only invested with a limited number by the company approved banks and derivative transactions are only conducted with counterparts where an ISDA netting agreement has been established.

As the Group is a net borrower, excess liquidity is primarily used to amortise external debt and therefore the average surplus cash invested with banks is kept as low as possible.

Credit risk also includes the risk that customers will not pay receivables that the company has invoiced or intends to invoice. Through a combination of geographical and business segmental diversification of the customers the risk for significant customer credit losses is reduced. An aging analysis of the receivables can be found in Note 17.

Liquidity risk

Liquidity risk is the risk of not being able to meet the Group's payment obligations in full as they fall due or can only do so at materially disadvantageous terms due to lack of cash resources. To minimise the liquidity risk, the Group Treasury Policy states that total liquidity reserves should at all times be at least 10 per cent of the Group's forecasted annual net sales.

On 31 December 2019, cash and unutilised credit limits totalled 1,832.8 MEUR (1,684.2).

The Group's maturity structure of interest-bearing financial liabilities - undiscounted cash flows

The table below presents the undiscounted cash flows of the Group's interest bearing liabilities related to financial instruments based on the remaining period at the balance sheet to the contractual maturity date. Floating interest cash flows with future fixing dates are based on the actual interest rates at year-end. Any cash flow in foreign currency is translated to EUR using the exchange rate at year-end.

	2020		2021–2022		2023 and later		Total	
	Capital	Interest	Capital	Interest	Capital	Interest	Capital	Interest
Liabilities to credit institutions								
Revolving credit	-	0.4	70.0	0.3	-	-	70.0	0.7
Term loan	150.0	0.2	-	-	-	-	150.0	0.2
Lease liability	66.4	5.2	95.9	10.4	100.7	17.8	263.0	33.4
Bond loans	240.1	9.7	712.9	9.7	260.3	2.3	1,213.3	21.7
Commercial paper ¹	-	-0.6	781.6	-0.4	-	-	781.6	-1.0
Other lenders	35.2	0.9	1.0	0.1	-	-	36.2	1.0
Total liabilities to credit institutions	491.7	15.8	1,661.4	20.1	361.0	20.1	2,514.1	56.0
Other interest bearing liabilities	0.6	0.3	2.3	0.4	3.2	0.5	6.1	1.2
Total interest bearing liabilities	492.3	16.1	1,663.7	20.5	364.2	20.6	2,520.2²	57.2

1) The Commercial Paper Program is supported by the long term revolving credit facilities as back-up and therefore classified as long term.

2) Interest bearing liabilities in the Parent Company, 2,241.7 MEUR.

There were interest rate derivatives pertaining to borrowing at 31 December 2019. The agreement governing the Revolving Credit Facility include a financial covenant for Net debt/EBITDA to be fulfilled to avoid additional financing costs.

Currency composition pertaining to interest bearing liabilities

	2019-12-31	2018-12-31
EUR	98%	98%
USD	1%	1%
CHF	0%	0%
INR	0%	0%
Other	1%	1%
Total	100%	100%

Refinancing risk

Refinancing risk refers to the risk that Hexagon does not have sufficient financing available when needed to refinance maturing debt, due to existing lenders do not extend or Hexagon has difficulties in procuring new lines of credit at a given point in time. Securing these requirements demands a strong financial position in the Group, combined with active measures to ensure access to credit.

In order to ensure that appropriate financing is in place and to decrease the refinancing risk, no more than 20 per cent of the Group's gross debt, including unutilised credit facilities, is allowed to mature within the next 12 months without replacing facilities agreed.

Following a refinancing in 2014, Hexagon's main sources of financing consist of:

- 1) A multicurrency revolving credit facility (RCF) established during Q3 2014. The RCF amounts to 2,000 MEUR with maturity 2021.
- 2) A Swedish Medium Term Note Programme (MTN) established during Q2 2014. The MTN programme enables Hexagon to issue bonds up to a total amount of 15,000 MSEK. On 31 December 2018, Hexagon had issued bonds of a total amount of 10,600 MSEK (10,600).
- 3) A Swedish Commercial Paper Program (CP) established during 2012. The CP programme enables Hexagon to issue commercial paper up to a total amount of 15,000 MSEK. Commercial paper with tenor up to 12 months can be issued under the programme. On 31 December 2018, Hexagon had issued commercial paper of a total amount of 7,692 MSEK (8,815) and 66 MEUR (72). The 2,000 MEUR multicurrency revolving facility support the commercial paper programme.

During Q2 2016 Hexagon issued a private placement bond to SEK (Swedish Export Agency) of 1,500 MSEK with a tenor of 6 years.

A two year term loan of 150 MEUR was established during Q4 2018, of which 150 MEUR was utilised as per 31 December, 2019.

Group's capital structure

	2019-12-31	2018-12-31
Interest bearing liabilities and provisions	2,584.0	2,463.9
Cash, bank and short-term investments	-468.3	-394.6
Net debt	2,115.7	2,069.3
Shareholders' equity	6,076.9	5,319.2

Sensitivity analysis

The Group's earnings are affected by changes in certain key factors, as described below. The calculations proceed from the conditions prevailing in 2019 and the effects are expressed on an annualised basis. Earnings in non-EUR subsidiaries are converted into EUR based on average exchange rates for the period when the earnings arise.

During the year there have been significant changes to the exchange rates of currencies that have the biggest impact on Hexagon's earnings and net assets, namely CHF, CNY and USD. Compared to last year the EUR has weakened against CHF, CNY and USD. Since Hexagon has a majority of the operating earnings denominated in CNY and USD, this had a positive impact on operating earnings. The strengthening of the CHF had a negative impact since a considerable part of the costs are denominated in CHF. An isolated strengthening in the exchange rate for EUR by 5 per cent for all assets and liabilities denominated in non-EUR currencies would have had an immaterial effect on net income but a negative effect on equity of 279.7 MEUR (262.0) net and vice versa, after the impact of hedging.

During 2019, total operating earnings, excluding non-recurring items, from operations in other currencies than EUR amounted to an equivalent of 724.7 MEUR (612.8). An isolated change in the exchange rate for EUR by 5 per cent against all other currencies would have a net effect on operating earnings of approximately 36.2 MEUR (30.6).

The average interest fixing period in the Group's total loan portfolio as of year-end 2019 was more than one year. A simultaneous 1 percentage point change in interest rates in all of Hexagon's funding currencies would entail a pre-tax impact of about 10.7 MEUR (11.5) in the coming 12 months earnings.

NOTE 24 Financial instruments

Financial instruments mainly comprise customer accounts receivable, loans, cash and cash equivalents and accounts payable.

Classification

The Group classifies financial assets in the following categories:

- Financial assets measured at fair value (through other comprehensive income or profit or loss)
- Financial assets measured at amortised cost

Classification depends on the Group's business model and on the contractual cash flows the Group will obtain from the financial asset.

Gains and losses from assets measured at fair value will be recognised either through comprehensive income or through profit or loss. For debt instruments, this depends on the Group's business model. For equity instruments not available for sale, recognition depends on if the Group initially has chosen to measure the equity instrument at fair value through other comprehensive income. Reclassification does only occur if the business model is changed.

Measurement

Financial assets are initially measured at fair value plus, if financial assets not measured at fair value through profit or loss, transaction costs directly attributable to the acquisition of the financial assets. Transaction cost for financial assets measured at fair value through profit or loss is recognised in the income statement.

Subsequent measurement of debt instruments depends on the Group's business model and the cash flows generated by the financial asset. Financial instruments are classified in three different measurement categories:

- Amortised cost: assets held for obtaining contractual cash flows and those cash flows consist of compensation for capital and interest, are measured at amortised cost. Gains or losses when debt instruments are derecognised or impaired are recognised in profit or loss. Interest income is classified as financial income according to the effective rate method.
- Fair value through other comprehensive income: assets held for obtaining contractual cash flows and for sale and where the contractual cash flows exclusively are compensation for capital and interest on outstanding capital is measured at fair value through other comprehensive income. Changes in recognised value is recognised in other comprehensive income except from impairments, interest income and currency effects recognised in profit or loss. When the financial asset is derecognised the accumulated profit or loss is reclassified from other comprehensive income in equity to the income statement. Interest income is recognised as financial income according to the effective rate method. Currency effects are recognised as other operating income or other operating cost and any impairment is recognised as other operating cost.
- Fair value through profit or loss: assets that do not meet the criteria for being measured at cost or fair value through other comprehensive income is measured at fair value through profit or loss. Gain or loss from a debt instrument measured at fair value through profit or loss is recognised in the income statement at net value, together with other profits and losses in the period they arise.

Derivatives are initially measured at fair value at the day of entering the contract and are subsequently measured at fair value at the end of every reporting period.

Impairment

The Group estimates on a forward-looking basis expected loss from debt instruments measured at amortised cost and fair value through other comprehensive income. The applied methodology for impairment depends on if there is a significant increase in credit risk.

For customer receivables, the Group applies the simplified methodology according to IFRS 9, which requires an initial provision for expected losses.

Financial instruments - Fair value

Assets	2019-12-31		2018-12-31	
	Carrying amount	Fair value	Carrying amount	Fair value
Available-for-sale financial assets				
Other long-term securities holdings	1.6	1.6	1.0	1.0
Loan receivables and account receivables				
Long-term receivables	54.7	54.7	52.9	52.9
Accounts receivable	999.2	999.2	959.1	959.1
Other current receivables	71.0	71.0	73.9	73.9
Accrued income	49.7	49.7	52.9	52.9
Accrued interest	1.0	1.0	0.7	0.7
Short-term investments	167.2	167.2	111.8	111.8
Cash and cash equivalents	301.1	301.1	282.8	282.8
Total	1,645.5	1,645.5	1,535.1	1,535.1

Liabilities	2019-12-31		2018-12-31	
	Carrying amount	Fair value	Carrying amount	Fair value
Financial liabilities valued at fair value through income statement				
Estimated supplementary payments for acquired companies	170.9	170.9	165.3	165.3
Currency forward and swap contracts – short term	-17.4	-17.4	-34.9	-34.9
Currency forward and swap contracts – long term	-21.1	-21.1	-35.8	-35.8
Financial liabilities valued at accrued acquisition value				
Long-term liabilities – interest bearing ¹	1,852.4	1,856.7	1,849.7	1,854.0
Other long-term liabilities – non-interest bearing	12.8	12.8	11.8	11.8
Current liabilities – interest bearing ¹	443.3	443.3	576.6	576.6
Accounts payable	226.2	226.2	251.1	251.1
Other current non-interest bearing liabilities	153.6	153.6	146.3	146.3
Accrued expenses	294.5	294.5	327.6	327.6
Accrued interest	5.0	5.0	4.5	4.5
Total	3,120.2	3,124.5	3,262.2	3,266.5

¹) Commercial papers and bonds have with currency forward and swap contract being swapped from SEK to EUR. The fair value of the derivatives is in the balance sheet included in current and long-term interest bearing liabilities.

Financial instruments valued at fair value

	2019-12-31			2018-12-31		
	Level 1	Level 2	Level 3	Level 1	Level 2	Level 3
- Currency forward and swap contracts	-	-38.5	-	-	-70.7	-
- Estimated supplementary payments for acquired companies	-	-	-170.9	-	-	-165.3
- Other long-term securities holdings	-	1.6	0.0	-	1.0	0.0
Total	-	-36.9	-170.9	-	-69.7	-165.3

The Group uses the following hierarchy for determining and disclosing the fair value of financial instruments by valuation technique:

Level 1: Quoted (unadjusted) prices in active markets for identical assets or liabilities

Level 2: Other techniques for which all inputs which have a significant effect on the recorded fair value are observable, either directly or indirectly.

Level 3: Techniques which use inputs that have a significant effect on the recorded fair value that are not based on observable market data.

For further information about estimated supplementary payments for acquired companies see below.

During the reporting period ending 31 December 2019, there were no transfers between levels.

Estimated supplementary payments for acquired companies

	2019	2018
Opening balance	165.3	59.4
Present value adjustment	1.4	0.6
Increase through acquisition of businesses	85.0	128.1
Adjustment of preliminary PPA	-52.7	-
Payment of supplementary acquisition considerations	-19.9	-9.5
Reversal of unutilised amounts	-11.3	-16.7
Reclassification	-	-0.2
Translation difference	3.1	3.6
Closing balance	170.9	165.3

The fair value of the estimated supplementary payments for acquisitions are evaluated regularly and includes management's assessment of future financial performance of the acquired companies. Estimated supplementary payments for acquired companies have been discounted to present value using an interest rate that is judged to be in line with the market rate at the time of acquisition. Adjustments for changes in market interest rates are not made on a regular basis, as this effect is considered to be immaterial.

The valuation method is unchanged compared to the previous period. In connection with the valuation of contingent considerations the assets acquired and liabilities assumed in the purchase price allocation are reviewed. Any indication of impairment due to the revaluation of contingent considerations is considered and adjustments are made to off-set the impact from revaluation.

Changes in liabilities arising from financing activities

	Group	Parent company
Opening balance 2018-01-01	2,262.0	2,234.6
Cash flow	93.5	101.4
Translation differences	0.2	0.6
Closing balance 2018-12-31	2,355.7	2,336.6
Cash flow	-166.3	-96.1
Lease liabilities	287.7	-
Translation differences	9.7	1.2
Closing balance 2019-12-31	2,486.8	2,241.7

NOTE 25 Assets pledged and contingent liabilities**Pledged assets to credit institutions for loans, bank overdrafts and guarantees**

	Group		Parent company	
	2019	2018	2019	2018
December 31				
Pledged assets	0.5	0.5	-	-
Total	0.5	0.5	-	-

Contingent liabilities

	Group		Parent company	
	2019	2018	2019	2018
December 31				
Guarantees in favour of group companies	-	-	18.8	32.8
Other contingent liabilities	5.7	2.2	0.1	0.1
Total	5.7	2.2	18.9	32.9

NOTE 26 Net assets in acquired and divested businesses

The fair values of assets and liabilities in businesses acquired and total cash flow from acquisitions is divided as follows:

	2019	2018
Intangible fixed assets	81.9	100.0
Tangible fixed assets	2.1	2.0
Right-of-use assets	0.0	-
Other fixed assets	0.5	1.6
Total fixed assets	84.5	103.6
Current receivables, inventories, etc.	18.9	27.6
Cash and cash equivalents	38.3	9.9
Total current assets	57.2	37.5
Total assets	141.7	141.1
Provisions	15.1	2.3
Long-term liabilities	0.6	2.3
Total long-term liabilities	15.7	4.6
Current liabilities, etc.	22.4	22.0
Total liabilities	38.1	26.6
Identifiable net assets at fair value	103.6	114.5
Non-controlling interest in equity in acquired companies	-	-0.3
Goodwill	290.6	440.5
Total purchase consideration transferred	394.2	554.7
Less cash and cash equivalents in acquired group companies	-38.3	-9.9
Less unpaid acquisition price	-26.0	-127.4
Plus payment of unpaid portion of acquisition price from prior years	19.9	9.2
Cash flow from acquisitions of group companies, net	349.8	426.6

During 2019, Hexagon acquired the following companies:

- Etalon, a provider of equipment calibration solutions that ensure the dimensional accuracy of manufactured parts
- j5 International, a market-leading developer of operations management software for ensuring safe, efficient, and compliant operations of industrial sites
- Split Engineering, a leader in coarse rock fragmentation size measurement systems, software and services
- Aciel Geomatics, a Leica distributor in South Africa
- Thermopylae Science and Technology, a software provider that specialises in geospatial applications, mobile frameworks and cloud computing for enhanced location intelligence

NOTE 26 Net assets in acquired and divested businesses, cont.

- Melown Technologies, a developer of advanced visualisation technologies for creating 3D models of urban and natural landscape environments
- Volume Graphics, a market leader in the industrial computed tomography (CT) software industry

Further information related to the acquisitions of Volume Graphics and Thermopylae Science and Technologies, is presented below. The other acquisitions are individually assessed as immaterial from a group perspective which why only aggregated information is presented. The analysis of the acquired net assets is preliminary and the fair value might be subject to change. Contingent considerations are recognised to fair value (level 3 according to definition in IFRS 13) each reporting period and based on the latest relevant forecast for the acquired company. The valuation method is unchanged compared to the previous period. The estimated liability for contingent considerations amounted to 170.9 MEUR as of 31 December (165.3), whereof the fair value adjustment in 2019 amounted to 11.3 MEUR, see Note 7 Other operating income/expenses. In connection with the valuation of contingent considerations the assets acquired, and liabilities assumed in the purchase price allocation are reviewed. Any indication of impairment due to the revaluation of contingent considerations is considered and adjustments are made to off-set the impact from revaluation.

Acquisitions analysis

Acquisition of Volume Graphics

In December 2019, Hexagon acquired Volume Graphics, a market leader in the industrial computed tomography (CT) software industry. The company's high-end analysis and visualisation CT software enables manufacturers to produce three-dimensional external and internal representations of scanned objects. In 2019 Volume Graphics generated sales of 26.0 MEUR.

Background and reasons for the transaction

Volume Graphics offers an invaluable toolset for leveraging CT data across many use cases - from flaw detection and failure analysis to reverse engineering applications. Using CT, the customers are able to "see" inside the complicated structures of components, otherwise inaccessible with traditional inspection methods. This allows hidden or hard to reach internal features to be measured and inspected for dimensional deviations and flaws without destroying the parts and compromising the integrity of the data in the process. Additionally, industrial CT scanning is fast becoming a critical asset to manufactures as more and more industries embrace additive manufacturing. The addition of CT software capabilities strengthens Hexagon's portfolio in this growth area.

From the date of acquisition, Volume Graphics has contributed 3.2 MEUR of net sales in 2019. If the acquisition had taken place at the beginning of the year, the contribution to net sales would have been 26.0 MEUR. The contribution to the group operating margin has been accretive.

Acquisition of Thermopylae Science and Technology

In April 2019, Hexagon acquired Thermopylae Science and Technology, a software provider primarily focused on the U.S. government and defence market that specialises in geospatial applications, mobile frameworks, and cloud computing for enhanced location intelligence. In 2018, Thermopylae Science and Technology generated sales of 48 MUSD.

Background and reasons for the transaction

Thermopylae's software and domain expertise nicely augment Hexagon's ability to deliver the visual location intelligence necessary for enabling autonomous connected ecosystems. Ultimately, the addition of Thermopylae will enrich the 5D experience delivered through Hexagon Smart M.App and Luciad portfolios - both of which enables smart digital realities with 3D, 4D (real-time sensor feed integration) and 5D (dynamic analytics) capabilities. Not only does the acquisition provide an avenue for international market adoption of Thermopylae's technologies but also an addition avenue for Hexagon to accelerate adoption of 5D visualisation capabilities in U.S. government agencies.

From the date of acquisition, Thermopylae Science and Technology has contributed 36.0 MEUR of net sales in 2019. If the acquisition had taken place at the beginning of the year, the contribution

to net sales would have been 42.5 MEUR. The contribution to the group operating margin has been accretive.

Acquisitions analysis 2018

Acquisition of NEXTSENSE

In May 2018, Hexagon acquired NEXTSENSE GmbH, an Austrian based company specialised in non-contract profile measurement and surface inspection solutions. In 2017 NEXTSENSE generated sales of 12 MEUR.

Background and reasons for the transaction

NEXTSENSE's advanced manual, inline and automated solutions, with the ability to automatically compensate for tilts and rotations during scanning, complement Hexagon's approach to enabling the smart factory vision. Additionally, the acquisition extends Hexagon's breadth of capabilities in automotive fit and finish as well as industries such as rail and steel, where Hexagon has a comparatively small footprint today. Together, the combination of sensors, software, and advanced analytics from both portfolios will bring added value to all customers while extending the global reach of NEXTSENSE's solutions to new markets and regions.

From the date of acquisition, NEXTSENSE has contributed 11.5 MEUR of net sales in 2018. If the acquisition had taken place at the beginning of the year, the contribution to net sales would have been 16.0 MEUR. The contribution to the earnings has been larger than the group operating margin.

Acquisition of AutonomouStuff

In September 2018, Hexagon completed the acquisition of US based AutonomouStuff, one of the world's leading suppliers of integrated autonomous vehicle solutions. In 2017 AutonomouStuff generated sales of 45 MUSD.

Background and reasons for the transaction

AutonomouStuff's turn-key platforms, which utilise a robust portfolio of technologies, are deployed in pilot programs worldwide - representing more than 2,500 customers in the automotive and technology sectors across Silicon Valley, rest of America, Europe and Asia. When combined with Hexagon's positioning intelligence, mapping, simulation and sensing technology leadership, this acquisition creates a nexus of domain expertise and accelerate Hexagon's ability to be a leader in autonomous connected ecosystems (ACE).

From the date of consolidation of the acquisition, AutonomouStuff has contributed 19.4 MEUR of net sales in 2018. If the acquisition had taken place at the beginning of the year, the contribution to net sales would have been 51.2 MEUR. The contribution to the earnings has been larger than the group operating margin.

The acquisition of AutonomouStuff was completed during 2019 and the adjustment of the preliminary PPA has impacted goodwill and contingent consideration.

Acquisition of Bricsys

In October 2018, Hexagon acquired Bricsys, a developer of CAD (computer-aided design) software providing open, collaborative construction technology solutions. In 2017 Bricsys generated sales of 13 MEUR.

Background and reasons for the transaction

Bricsys's CAD platform, BricsCAD, supports 2D/3D general, mechanical and sheet metal design and building information modelling (BIM) in one system. Hexagon has long been a leader in structural and process piping design and the acquisition extends Hexagon's domain expertise into building design. By combining the product portfolios, Hexagon can now provide the AEC market with an end-to-end platform - with conceptual design, CAD design, BIM software and collaboration tools, project and cost controls, in-field construction execution tools (work packages) and progress documentation (reality capture).

From the date of consolidation of the acquisition, Bricsys has contributed 3.9 MEUR of net sales in 2018. If the acquisition had taken place at the beginning of the year, the contribution to net sales would have been 16.1 MEUR. The contribution to the earnings has been larger than the group operating margin.

No subsidiary has been divested during the period.

NOTE 27 Average number of employees

	2019			2018		
	Men	Women	Total	Men	Women	Total
Parent company	5	10	15	5	10	15
Subsidiaries	15,622	4,613	20,235	14,861	4,373	19,234
Total, Group	15,627	4,623	20,250	14,866	4,383	19,249
Average number of employees by country						
Nordic region	532	156	688	526	155	681
Rest of Europe	5,938	1,537	7,475	5,662	1,441	7,103
Total, Europe	6,470	1,693	8,163	6,188	1,596	7,784
North America	3,685	1,261	4,946	3,537	1,202	4,739
South America	616	140	756	564	129	693
Africa	82	32	114	28	9	37
Australia and New Zealand	230	111	341	268	72	340
Asia	4,544	1,386	5,930	4,281	1,375	5,656
Total, Group	15,627	4,623	20,250	14,866	4,383	19,249

NOTE 28 Employee benefits

Salaries and remuneration	2019	2018
Parent company	9.9	9.5
(of which performance related pay and bonus)	(3.0)	(3.2)
Subsidiaries	1,256.7	1,185.7
(of which performance related pay and bonus)	(107.3)	(133.1)
Total, Group	1,266.6	1,195.2

Social security expenses	2019	2018
Parent company	2.8	2.6
(of which pension expenses)	(1.5)	(1.3)
Subsidiaries	215.1	204.6
(of which pension expenses)	(71.5)	(64.8)
Total, Group	217.9	207.2
(of which pension expenses)	(73.0)	(66.1)

At year-end, four Board members were women and three were men. The President and Chief Executive Officer and other senior executives consist of 12 men and one woman.

NOTE 29 Remuneration to senior executives

Pursuant to resolutions by the Annual General Meeting, the Chairman of the Board and Board members were paid remuneration of totaling 540.2 KEUR (516.0). The Chairman of the Board received 174.7 KEUR and other Board members 58.1 KEUR each. The President and Chief Executive Officer of Hexagon AB did not receive any director fees. In addition to ordinary director fees, remuneration is paid for work on committees. The Chairman of the Remuneration Committee received 8.0 KEUR and each member received 5.6 KEUR. The Chairman of the Audit Committee received 23.6 KEUR and each member received 18.9 KEUR. No Board member received any remuneration in addition to director fees or remuneration for committee work. Remuneration to the President and Chief Executive Officer, as well as other senior executives, comprises basic salary, variable remuneration, other benefits and pension. The President and Chief Executive Officer total remuneration is recognised in Note 28 in Parent company. Ola Rollén has received remuneration as President of the Parent Company and as Chief Executive Officer of the Group according to a separate employment contract with a group company.

Other senior executives are Robert Belkic, Chief Financial Officer and Executive Vice President Hexagon AB, Johnny Andersson, General Counsel (until 2019-08-01), Claudio Simão, Chief Technology Officer, Ben Maslen, Chief Strategy Officer, Kristin Christensen, Chief Marketing Officer, Edgar Porter, Chief Human Resources Officer, Li Hongquan, President Hexagon China, Jürgen Dold, President Geosystems, Norbert Hanke, President Manufacturing Intelligence, Steven Cost, President Safety & Infrastructure, Mattias Stenberg, President PPM, Michael Ritter, President Autonomy & Positioning and Mladen Stojic, President Geospatial.

Variable remuneration is based on operational performance. Pensions and other benefits received by the President and other senior executives are paid as part of their total remuneration.

Pension

Pension expense comprises defined-contribution pension schemes and is the expense affecting earnings for the year. The President's and CEO's pensionable age is 65. Pension premiums are payable at 20 per cent of pensionable salary. The pensionable age of other senior executives is 65, except for one person where the pensionable age is 60. Pension premiums for the senior executives are not higher than 25 per cent of pensionable salary. Pensionable salary means basic salary.

Severance pay

The notice period for the President and CEO is six months. Upon termination by the Company or in case of change of principal ownership the President and CEO is entitled to severance pay equal to 18 months of salary. The period of notice for senior executives is a maximum of 24 months. During the notice period, basic salary is the only severance pay.

Advisory and resolution model

Remuneration and other benefits to the Group's senior executives is regulated by the Remuneration Committee, which is appointed by the Board of Directors, comprising the Chairman of the Board and one additional board member.

Remuneration and other benefits

KEUR	Basic salary/ Director fees		Variable remuneration		Other benefits ¹		Pension expenses		Total	
	2019	2018	2019	2018	2019	2018	2019	2018	2019	2018
Gun Nilsson, Chairman of the Board	206.3	174.0	-	-	-	-	-	-	206.3	174.0
Hans Vestberg, Vice Chairman of the Board	-	21.7	-	-	-	-	-	-	-	21.7
John Brandon	58.1	56.1	-	-	-	-	-	-	58.1	56.1
Ulrika Francke	77.0	73.1	-	-	-	-	-	-	77.0	73.1
Henrik Henriksson	58.1	56.1	-	-	-	-	-	-	58.1	56.1
Märta Schörling Andreen	58.1	56.1	-	-	-	-	-	-	58.1	56.1
Sofia Schörling Högberg	82.6	78.9	-	-	-	-	-	-	82.6	78.9
Ola Rollén, President and Chief Executive Officer	3,089.4	2,978.3	1,544.7	1,489.2	-	-	617.9	595.7	5,252.0	5,063.2
Other senior executives (thirteen people) ²	9,623.9	6,784.5	4,178.5	5,364.8	165.5	143.9	930.4	1,320.7	14,898.3	13,613.9
Total	13,253.5	10,278.8	5,723.2	6,854.0	165.5	143.9	1,548.3	1,916.4	20,690.5	19,193.1

¹) Other benefits comprise company car, housing rent and insurance (excluding pension insurance).

²) One senior executive left his position 2019-08-01.

NOTE 29 Remuneration to senior executives, cont.

Warrants programme 2015/2019

The General Meeting on 6 May 2015 resolved to implement a warrants programme for the employees through a directed issue of a maximum of 10,000,000 subscription warrants. Each subscription warrant entitles the holder to subscribe for one share of series B in Hexagon AB during the period from 1 June 2018 up to and including 31 December 2019. The subscription warrants are sold at market price determined by using the Black-Scholes model. The subscription warrants programme is intended for allotment to senior executives and key employees within the Group, whereby

they will be offered the opportunity to take part in a value increase of the Company's share. This is expected to increase the interest in the Company's development - as well as in the Company's share price development - and to stimulate a continued loyalty over the forthcoming years.

In September 2015, 7,107,660 warrants were purchased by the employees at a price of SEK 25 each. The warrants entitle to subscription of one new B-share in Hexagon at a price of SEK 347.80. The price was calculated using the Black-Scholes model.

Warrants programme 2015/2019 Hexagon AB

	Exercise period, until	Number of warrants	Number of shares qualified for subscription	To be paid /paid in cash per subscribed Hexagon share, SEK
Closing balance 2018	2019-12-31	4,590,810	4,590,810	347.80
Exercise warrants for shares	2019-12-31	-4,590,810	-4,590,810	347.80
Closing balance 2019		-	-	

NOTE 30 Remuneration of the Group's auditors

	Group		Parent company	
	2019	2018	2019	2018
Audit, Ernst & Young AB	4.8	4.5	0.5	0.4
Audit, others	0.5	0.6	-	-
Audit related	0.4	0.4	-	-
Tax, Ernst & Young AB	0.3	0.4	-	-
Total	6.0	5.9	0.5	0.4

On February 28, Hexagon signed an agreement to acquire Romax Technology Limited, a leading provider of Computer Aided Engineering (CAE) software for electromechanical drivetrain design and simulation. Completion of the transaction (closing) is subject to standard regulatory approvals. 2019 sales amounted to 27 MEUR.

The outbreak of Covid-19 affects everyone on a global scale. We must all work together to limit the spread of the virus and protect the people at risk. Hexagon prioritises to keep its employees and customers safe, and the company follows all guidelines and recommendations set up at national, regional and local levels. Hexagon monitors the development of the situation closely but at the time the annual report was published it was too early to quantify the impact.

NOTE 31 Related-party disclosures

Remuneration of senior executives, meaning both the Board of Directors and management, is presented in Note 29. The Group's holdings in associated companies and receivables from and liabilities to associated companies are immaterial. There were no significant transactions between Hexagon and its associated companies. Similarly, there were no significant transactions between Hexagon Group and Schörling Group.

NOTE 32 Subsequent events after the financial year's end

On January 8, Hexagon announced the acquisition of Blast Movement Technology (BMT), a pioneer in blast movement monitoring and analysis for open pit mines. BMT's technologies complement Hexagon's drill and blast solutions with accurate ore location information, enabling customers to extract greater profit from every blast. 2019 sales amounted to 19 MEUR.

On January 29, Hexagon signed an agreement to acquire COWI's aerial mapping business. COWI is a leading international consulting group within engineering, economics and environmental sciences with a mapping business that serves as Europe's largest provider of airborne surveying and spatial data processing. The acquisition is expected to be completed during the second quarter 2020, subject to regulatory approvals. 2019 sales, less intra-group sales, amounted to 14 MEUR.

NOTE 33 Appropriation of earnings

The following earnings in the parent company are at the disposal of the annual general meeting (KEUR):

Premium reserve	1,155,799
Retained earnings	3,119,270
Net earnings	452,171
Total	4,727,240

The board of the directors proposes that these funds are allocated as follows:

Balance remaining in the premium reserve	1,155,799
Balance remaining in retained earnings	3,571,441
Total	4,727,240

Signing of the annual report

The undersigned certify that the consolidated accounts and the annual report have been prepared in accordance with International Financial Reporting Standards (IFRS), as adopted by the European Union and generally accepted accounting principles, respectively and give a true and fair view of the financial position

and earnings of the Group and the Company and that the Board of Directors' Report for the Group and the Company give a fair review of the development of the operations, financial position and earnings of the Group and the Company and describes substantial risks and uncertainties that the Group companies face.

Stockholm, Sweden 1 April 2020

Gun Nilsson
Chairman

John Brandon
Member of the Board

Ulrika Francke
Member of the Board

Henrik Henriksson
Member of the Board

Ola Rollén
Member of the Board
President and Chief Executive Officer

Märta Schörling Andreen
Member of the Board

Sofia Schörling Högberg
Member of the Board

Our Audit Report was submitted on 1 April 2020

Ernst & Young AB

Rickard Andersson
Authorised Public Accountant

Auditor's report

To the general meeting of the shareholders of Hexagon AB, corporate identity number 556190-4771

Report on the annual accounts and consolidated accounts Opinions

We have audited the annual accounts and consolidated accounts of Hexagon AB (publ) for the year 2019. The annual accounts and consolidated accounts of the Company are included on pages 14–20 and 32–72 in this document.

In our opinion, the annual accounts have been prepared in accordance with the Annual Accounts Act and present fairly, in all material respects, the financial position of the parent company as of 31 December 2019 and its financial performance and cash flow for the year then ended in accordance with the Annual Accounts Act. The consolidated accounts have been prepared in accordance with the Annual Accounts Act and present fairly, in all material respects, the financial position of the Group as of 31 December 2019 and their financial performance and cash flow for the year then ended in accordance with International Financial Reporting Standards (IFRS), as adopted by the EU, and the Annual Accounts Act.

A corporate governance statement has been prepared. The statutory administration report and the corporate governance statement are consistent with the other parts of the annual accounts and consolidated accounts, and the corporate governance statement is in accordance with the Annual Accounts Act.

We therefore recommend that the general meeting of shareholders adopts the income statement and balance sheet for the parent company and the Group.

Our opinions in this report on the annual accounts and consolidated accounts are consistent with the content of the additional report that has been submitted to the parent company's audit committee in accordance with the Audit Regulation (537/2014) Article 11.

Basis for opinions

We conducted our audit in accordance with International Standards on Auditing (ISA) and generally accepted auditing standards in Sweden. Our responsibilities under those standards are further described in the Auditor's Responsibilities section. We are independent of the parent company and the Group in accordance with professional ethics for accountants in Sweden and have otherwise fulfilled our ethical responsibilities in accordance with these requirements. This includes that, based on the best of our knowledge and belief, no prohibited services referred to in the Audit Regulation (537/2014) Article 5.1 have been provided to the audited company or, where applicable, its parent company or its controlled companies within the EU.

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

Key audit matters

Key audit matters of the audit are those matters that, in our professional judgment, were of most significance in our audit of the annual accounts and consolidated accounts of the current period.

These matters were addressed in the context of our audit of, and in forming our opinion thereon, the annual accounts and consolidated accounts as a whole, but we do not provide a separate opinion on these matters. For each matter below, our description of how our audit addressed the matter is provided in that context.

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.

Revenue recognition

Description

The Company enters into contract arrangements with customers that contain multiple performance obligations, such as transfer of hardware, software, and/or services. For these arrangements, management judgment is applied to allocate revenue to each performance obligation as these obligations are fulfilled at different points in time and/or over time. The Company also has fixed-price projects where performance obligations are fulfilled over time and the completion ratio is primarily determined comparing the incurred cost to estimated total cost. Management judgment is involved in estimating the cost to complete including the assessment of the remaining contingencies for projects until final delivery and acceptance.

Due to the degree of management judgment in arrangements containing multiple performance obligations and fixed-price projects, these types of arrangements have been a key audit matter in our audit.

Accounting principles for revenue recognition are included in Note 5 and key assumptions and judgments used for customer arrangements are included in Note 2.

How our audit addressed this key audit matter

Our audit procedures in order to address this area, included, amongst others;

- Evaluated the Company's accounting principles for IFRS 15 Revenue from Contracts with Customers.
- Audited the contract arrangements that contained multiple performance obligations, in order to test when the revenue was recognised for each performance obligation and if it was in accordance with IFRS 15.
- Examined revenue recognition timing for revenue recognised over time and tested that any deferred revenue was recognised as revenue in the correct period.
- Evaluated significant judgments made by management.
- We also assessed whether the information disclosed is appropriate.

Impairment test of goodwill and trademarks

Description

As per December 31, 2019 goodwill amounts to EUR 5 357.7 million and trademarks with indefinite life amounts to EUR 1 023,5 million in the consolidated balance sheet. Impairment tests are carried out annually or when there is an indication of impairment. As described in Note 8, Goodwill and trademarks acquired through business combinations are allocated to cash generating units (CGUs), and when the carrying value exceeds the estimated recoverable amount, the asset is written down to the recoverable amount. The recoverable amount is the higher of the CGUs net realisable value and the value in use, meaning the discounted value of future cash flows. The cash flow projections derives from next year's budget and forecasts for another 4 years approved by senior management. As stated in Note 2, these cash projections include making assumptions about sales trends, profit margins and discount rates.

Note 8 describes key assumptions used and management's sensitivity analysis for how changes in key assumptions would affect the value in use. Based on the nature of the asset, the high degree of management involved and the size of the account balance and the calculation of value in use we have assessed valuation of goodwill and trademarks as a key audit matter in the audit.

How our audit addressed this key audit matter

Our audit procedures in order to address this area, included, amongst others;

- We have evaluated the Company's process to establish and perform impairment tests.
- We have examined how cash generating units (CGUs), based on established criteria's, are identified and compared to how the Company internally monitors its business.
- We have involved valuation specialists to assist us in the evaluation of the Company's valuation and calculation methods, assessment of reasonableness in used assumptions, sensitivity analysis, comparisons with historical results and the accuracy in previous forecasts. Each CGUs' discount rate and long-term growth have been evaluated through comparisons with other companies within the same industry.
- We also assessed whether the information disclosed is appropriate.

Business combinations

Description

The Company acquires companies on a continuous basis. As stated in Note 1, the Company's acquisition cost is determined through a purchase price allocation in connection with the acquisition. Contingent considerations are included in the acquisition cost and carried at their fair value at the acquisition date and subsequently revaluations of contingent considerations are recorded in the income statement. Identifiable assets acquired and liabilities assumed are recognised initially at their fair values at the acquisition date.

As described in Note 2, the fair value determinations of assets acquired and liabilities assumed require management to make estimates and assumptions, especially with respect to identification and valuation of acquired intangible assets and accounting for contingent consideration. In some instances contingent purchase considerations are based on the acquiree's performance over a predetermined period of time. The fair value determina-

tions related to business combinations, including the valuation of contingent considerations, involves a high degree of management judgment as it is based on the Company's own assumptions and consequently a key audit matter in our audit.

The fair value determinations of the Company's acquisitions are disclosed in Note 26. The closing balance for contingent purchase consideration liability amounts to EUR 170.9 million as per December 31, 2019 and is disclosed in Note 24. Key assumptions used in fair value determinations are included in Note 2.

How our audit addressed this key audit matter

Our audit procedures in order to address this area, included, amongst others;

- Reviewed significant purchase agreements including contingent considerations.
- We have reviewed management's purchase price allocation process including calculation and accounting for contingent considerations.
- We have evaluated management's assessments and valuations of identifiable assets and assumed liabilities including contingent considerations.
- We have reconciled purchase price allocation documentation to the accounting records.
- We have involved valuation specialists to assist us in the evaluation of the Company's valuation and calculation methods, assessment and used assumptions.
- We also assessed whether the information disclosed is appropriate.

Other information than the annual accounts and consolidated accounts

This document also contains other information than the annual accounts and consolidated accounts and is found on pages 1–13, 21–31 and 77–84. The Board of Directors and the Managing Director are responsible for this other information.

Our opinion on the annual accounts and consolidated accounts does not cover this other information and we do not express any form of assurance conclusion regarding this other information.

In connection with our audit of the annual accounts and consolidated accounts, our responsibility is to read the information identified above and consider whether the information is materially inconsistent with the annual accounts and consolidated accounts. In this procedure we also take into account our knowledge otherwise obtained in the audit and assess whether the information otherwise appears to be materially misstated.

If we, based on the work performed concerning this information, 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.

Responsibilities of the Board of Directors and the Managing Director

The Board of Directors and the Managing Director are responsible for the preparation of the annual accounts and consolidated accounts and that they give a fair presentation in accordance with the Annual Accounts Act and, concerning the consolidated accounts, in accordance with IFRS as adopted by the EU. 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 annual accounts and consolidated accounts that are free from material misstatement, whether due to fraud or error.

In preparing the annual accounts and consolidated accounts, The Board of Directors and the Managing Director are responsible for the assessment of the company's and the Group's ability to continue as a going concern. They disclose, as applicable, matters related to going concern and using the going concern basis of accounting. The going concern basis of accounting is however not applied if the Board of Directors and the Managing Director intends to liquidate the company, to cease operations, or has no realistic alternative but to do so.

The Audit Committee shall, without prejudice to the Board of Director's responsibilities and tasks in general, among other things oversee the company's financial reporting process.

Auditor's responsibility

Our objectives are to obtain reasonable assurance about whether the annual accounts and consolidated accounts as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinions. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with ISAs and generally accepted auditing standards in Sweden will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these annual accounts and consolidated accounts.

As part of an audit in accordance with ISAs, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the annual accounts and consolidated accounts, 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 opinions. 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 the company's internal control relevant to our 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 company's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the Board of Directors and the Managing Director.
- Conclude on the appropriateness of the Board of Directors' and the Managing Director's use of the going concern basis of accounting in preparing the annual accounts and consolidated accounts. We also draw a conclusion, based on the audit evidence obtained, as to whether any material uncertainty exists related to events or conditions that may cast significant doubt on the company's and 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 annual accounts and consolidated accounts or, if such disclosures are inadequate, to modify our opinion about the annual accounts and consolidated accounts. 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 a company and a Group to cease to continue as a going concern.

- Evaluate the overall presentation, structure and content of the annual accounts and consolidated accounts, including the disclosures, and whether the annual accounts and consolidated accounts represent the underlying transactions and events in a manner that achieves fair presentation.
- Obtain sufficient and appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the consolidated accounts. We are responsible for the direction, supervision and performance of the Group audit. We remain solely responsible for our opinions.

We must inform the Board of Directors of, among other matters, the planned scope and timing of the audit. We must also inform of significant audit findings during our audit, including any significant deficiencies in internal control that we identified.

We must also provide the Board of Directors with a statement that we have complied with relevant ethical requirements regarding independence, and to 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 the Board of Directors, we determine those matters that were of most significance in the audit of the annual accounts and consolidated accounts, including the most important assessed risks for material misstatement, and are therefore the key audit matters. We describe these matters in the auditor's report unless law or regulation precludes disclosure about the matter.

Report on other legal and regulatory requirements Opinions

In addition to our audit of the annual accounts and consolidated accounts, we have also audited the administration of the Board of Directors and the Managing Director of Hexagon AB (publ) for the year 2019 and the proposed appropriations of the company's profit or loss.

We recommend to the general meeting of shareholders that the profit be appropriated (loss be dealt with) in accordance with the proposal in the statutory administration report and that the members of the Board of Directors and the Managing Director be discharged from liability for the financial year.

Basis for opinions

We conducted the audit in accordance with generally accepted auditing standards in Sweden. Our responsibilities under those standards are further described in the Auditor's Responsibilities section. We are independent of the parent company and the Group in accordance with professional ethics for accountants in Sweden and have otherwise fulfilled our ethical responsibilities in accordance with these requirements.

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

Responsibilities of the Board of Directors and the Managing Director

The Board of Directors is responsible for the proposal for appropriations of the company's profit or loss. At the proposal of a dividend, this includes an assessment of whether the dividend is justifiable considering the requirements which the company's and the Group's type of operations, size and risks place on the size of the parent company's and the Group's equity, consolidation requirements, liquidity and position in general.

The Board of Directors is responsible for the company's organisation and the administration of the company's affairs. This includes among other things continuous assessment of the company's and the Group's financial situation and ensuring that the company's organisation is designed so that the accounting, management of assets and the company's financial affairs otherwise are controlled in a reassuring manner. The Managing Director shall manage the ongoing administration according to the Board of Directors' guidelines and instructions and among other matters take measures that are necessary to fulfill the company's accounting in accordance with law and handle the management of assets in a reassuring manner.

Auditor's responsibility

Our objective concerning the audit of the administration, and thereby our opinion about discharge from liability, is to obtain audit evidence to assess with a reasonable degree of assurance whether any member of the Board of Directors or the Managing Director in any material respect:

- has undertaken any action or been guilty of any omission which can give rise to liability to the company, or
- in any other way has acted in contravention of the Companies Act, the Annual Accounts Act or the Articles of Association.

Our objective concerning the audit of the proposed appropriations of the company's profit or loss, and thereby our opinion about this, is to assess with reasonable degree of assurance whether the proposal is in accordance with the Companies Act.

Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with generally accepted auditing standards in Sweden will always detect actions or omissions that can give rise to liability to the company, or that the proposed appropriations of the company's profit or loss are not in accordance with the Companies Act.

As part of an audit in accordance with generally accepted auditing standards in Sweden, we exercise professional judgment and maintain professional skepticism throughout the audit. The examination of the administration and the proposed appropriations of the company's profit or loss is based primarily on the audit of the accounts. Additional audit procedures performed are based on our professional judgment with starting point in risk and materiality. This means that we focus the examination on such actions, areas and relationships that are material for the operations and where deviations and violations would have particular importance for the company's situation. We examine and test decisions undertaken, support for decisions, actions taken and other circumstances that are relevant to our opinion concerning discharge from liability. As a basis for our opinion on the Board of Directors' proposed appropriations of the company's profit or loss we examined the Board of Directors' reasoned statement and a selection of supporting evidence in order to be able to assess whether the proposal is in accordance with the Companies Act.

Ernst & Young AB, Box 7850, 103 99 Stockholm, was appointed auditor of Hexagon AB by the general meeting of the shareholders on the 8 April 2019 and has been the company's auditor since 1994.

Stockholm 1 April, 2020

Ernst & Young AB

Rickard Andersson
Authorised Public Accountant

The share

Share price development and trading

In 2019, the Hexagon share price increased by 28.7 per cent to 525.0 SEK as of 31 December. The share price reached the 52-week high of 575.0 SEK on 13 December and the 52-week low on 3 January at 392.8 SEK. Hexagon's total market capitalisation as of 31 December 2019 was 192,958.1 MSEK.

Ownership structure

At year-end 2019, Hexagon had 28,519 registered shareholders (29,306). Shareholders in the USA accounted for the largest foreign holding, representing 23 per cent (25) of total shares followed by the UK, representing 14 per cent (12). The ten largest owners held 55.9 per cent (50.5) of the share capital and 68.2 per cent (64.4) of the votes.

Share capital

At year-end 2019, Hexagon's share capital amounted to 81,554,881 EUR, represented by 367,539,302 shares, of which 15,750,000 are of Class A with ten votes each and 351,789,302 are of Class B with one vote each. Each share has a quota value of 0.22 EUR. Hexagon AB held no treasury shares as of 31 December 2019.

Incentive programmes

In 2015, a new warrants programme was implemented for group management, presidents for Hexagon's divisions, senior managers and other key employees through the issue of 10,000,000 subscription warrants that entitle the holder to the same number of new Class B shares in Hexagon AB. The subscription warrants were issued to Hexagon Förvaltning AB, a wholly owned subsidiary and offered for sale to participants of the programme.

163 group managers, presidents for Hexagon's divisions, senior managers and other key employees in the Group purchased 7,107,660 warrants at a price of 25 SEK per warrant in 2015. Remaining subscription warrants have been reserved for future senior managers and recruitments of persons within the above eligible categories in the Group. The programme is expected to lead to an increased interest in the company's development and a strengthening of the share price.

The strike price for subscription of shares upon exercise of the transferred warrants was set at 347.8 SEK. The warrants were valued by an independent institute in accordance with the Black-Scholes model and were acquired by the participants at market value. The warrants may be exercised during 1 June 2018 – 31 December 2019.

Dividend

The dividend policy of Hexagon provides that, over the long term, dividends should comprise between 25 and 35 per cent of earnings per share after tax, assuming that Hexagon satisfies its equity ratio objective. Dividends are resolved upon by the Annual General Meeting and payment is administered by Euroclear Sweden.

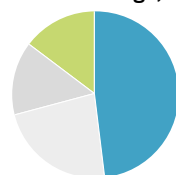
Due to the uncertainty in global demand caused by the Covid-19 pandemic, the Board of Directors of Hexagon AB has decided to propose a postponement of the decision on the dividend for fiscal year 2019. The Board's ambition is to fulfil its previously communicated dividend proposal of 0.62 EUR per share at an extraordinary general meeting during the autumn of 2020, which amounts to 32 per cent of the year's earnings per share after tax and is in line with the dividend policy.

29%

Share price in SEK, 2019

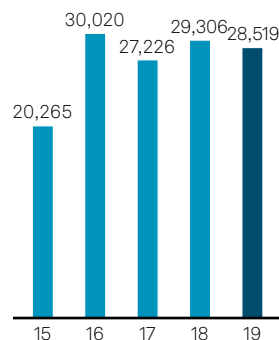
ISIN **SE0000103699**
 Nasdaq **OMX Stockholm**
HEXAB
 Reuters **HEXAb.ST**
 Bloomberg **HEXABSS**
 Sector **Technology**
 Segment **Large Cap**

Geographic distribution of shareholdings, %

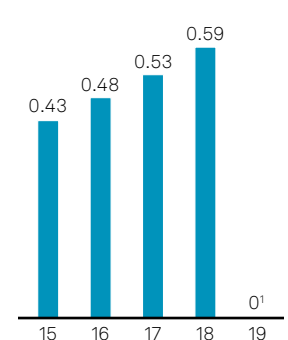


■ Sweden, 48.3
 ■ USA, 22.8
 ■ UK, 14.4
 ■ Other, 14.5

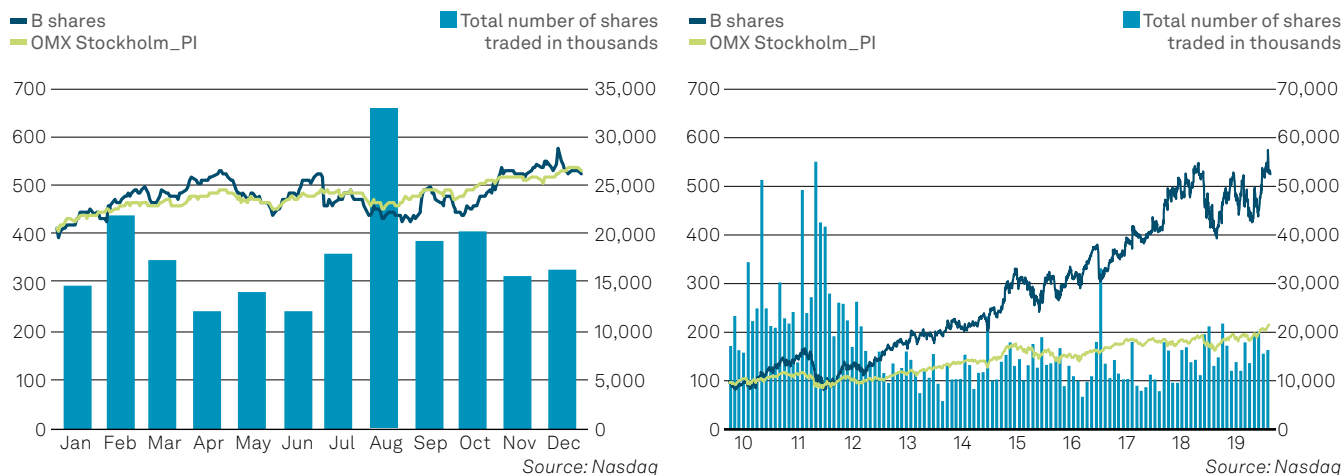
Number of shareholders



Cash dividend per share, EUR



¹⁾ According to the Board of Directors' proposal.



Class of shares	Number of shares	Number of votes	% of capital	% of votes
A shares	15,750,000	157,500,000	4.3	30.9
B shares	351,789,302	351,789,302	95.7	69.1
Total	367,539,302	509,289,302	100.0	100.0

Largest shareholders

Owner/manager/deposit bank	A shares	B shares	% of capital	% of votes
Melker Schörling AB	15,750,000	70,035,920	23.4	44.8
State Street Bank and Trust CO.	-	41,990,474	11.5	8.3
JPM Chase N.A.	-	20,557,912	5.6	4.0
Swedbank Robur Fonder	-	15,653,508	4.3	3.1
BNY Mellon SA/NV (Former BNY)	-	13,959,657	3.8	2.8
BNY Mellon NA (Former Mellon)	-	10,646,173	2.9	2.1
Ramsbury Invest AB	-	10,000,000	2.7	2.0
CBNY - Norges Bank	-	6,345,523	1.7	1.2
JP Morgan Chase Bank N.A.	-	6,010,940	1.6	1.2
Brown Brothers Harriman & CO.	-	5,112,320	1.4	1.0
SEB Investment Management	-	4,798,303	1.3	0.9
AMF Försäkring och Fonder	-	4,435,991	1.2	0.9
HSBC Fund	-	4,338,875	1.2	0.8
Sumitomo Mitsui Trust Bank	-	4,113,553	1.1	0.8
Folksam	-	3,742,200	1.0	0.7
CBHK-GIC Private Ltd-C(EQ)	-	3,600,478	1.0	0.7
Handelsbanken Fonder	-	3,517,268	1.0	0.7
Clearstream Banking S.A.	-	3,214,443	0.9	0.6
Första AP-Fonden	-	2,711,138	0.7	0.5
Didner & Gerge Fonder Aktiebolag	-	2,682,439	0.7	0.5
Subtotal, 20 largest shareholders¹	15,750,000	237,467,115	69.0	77.6
Summary, others	-	113,290,067	31.0	22.4
Total number of outstanding shares	15,750,000	350,757,182	100.0	100.0
Total issued number of shares	15,750,000	350,757,182	100.0	100.0

¹) The concentration corresponds to the 20 largest shareholders presented in the list.

Source: Euroclear Sweden AB as of 30 December 2019. Note that the issue of new shares at 27 December 2019 was not registered in Euroclear Sweden AB's system until 2 January 2020.

Key data per share

	2019	2018	2017	2016	2015
Shareholder's equity, EUR	16.53	14.62	12.74	12.70	11.36
Net earnings, EUR	1.92	2.02	1.84	1.59	1.39
Cash flow, EUR	3.02	2.62	2.52	2.17	2.01
Cash dividend, EUR	0 ¹	0.59	0.53	0.48	0.43
Pay-out ratio, %	0	29.2	28.6	30.2	31.0
Share price, EUR	50.25	39.79	41.74	34.07	34.26
P/E ratio ²	26	20	23	21	25

¹) According to the Board of Directors' proposal.

²) Based on the share price at 31 December and calendar year earnings.

The Hexagon share

Year	Transaction	Nominal value, SEK/EUR	A shares, change	B shares, change	A shares, total	B shares, total	Share capital, SEK/EUR
2000		10			840,000	13,953,182	147,931,820
2002	Rights issue	10	210,000	3,488,295	1,050,000	17,441,477	184,914,770
2004	New issue, warrants exercised	10		10,170	1,050,000	17,451,647	185,016,470
2005	New issue, warrants exercised	10		722,635	1,050,000	18,174,282	192,242,820
2005	Bonus issue	12			1,050,000	18,174,282	230,691,384
2005	Split 3:1	4	2,100,000	36,348,564	3,150,000	54,522,846	230,691,384
2005	New issue, warrants exercised	4		154,500	3,150,000	54,677,346	231,309,384
2005	Private Placement ¹	4		11,990,765	3,150,000	66,668,111	279,272,444
2005	Private Placement ¹	4		82,000	3,150,000	66,750,111	279,600,444
2006	Rights issue	4	787,500	16,687,527	3,937,500	83,437,638	349,500,552
2006	New issue, warrants exercised	4		508,933	3,937,500	83,946,571	351,536,284
2006	Compulsory redemption, Leica Geosystems	4		198,635	3,937,500	84,145,206	352,330,824
2006	New issue, warrants exercised	4		309,119	3,937,500	84,454,325	353,567,300
2007	New issue, warrants exercised ²	4		58,170	3,937,500	84,512,495	353,625,470
2007	Bonus issue	6			3,937,500	84,512,495	530,699,970
2007	Split 3:1	2	7,875,000	169,024,990	11,812,500	253,537,485	530,699,970
2008	New issue, warrants exercised ²	2		169,785	11,812,500	253,707,270	531,039,540
2008	Repurchase of shares	2		-1,311,442	11,812,500	252,395,828	531,039,540
2009	Sale of repurchased shares, warrants exercised	2		138,825	11,812,500	252,534,653	531,039,540
2010	Sale of repurchased shares, warrants exercised	2		20,070	11,812,500	252,554,723	531,039,540
2010	Rights issue	2	3,937,500	83,845,572	15,750,000	336,400,295	707,284,354
2011	Rights issue	2		339,335	15,750,000	336,739,630	707,284,354
2011	Change of functional currency to EUR	0.22			15,750,000	336,739,630	78,471,187
2012	Sale of repurchased shares, warrants exercised	0.22		185,207	15,750,000	336,924,837	78,471,187
2013	Sale of repurchased shares, warrants exercised	0.22		967,340	15,750,000	337,892,177	78,471,187
2013	New issue, warrants exercised	0.22		1,354,800	15,750,000	339,246,977	78,771,810
2014	New issue, warrants exercised	0.22		2,392,236	15,750,000	341,639,213	79,302,633
2015	New issue, warrants exercised	0.22		2,947,929	15,750,000	344,587,142	79,956,762
2016	New issue, warrants exercised	0.22		106,000	15,750,000	344,693,142	79,980,283
2018	New issue, warrants exercised	0.22		694,750	15,750,000	345,387,892	80,134,444
2018	New issue, warrants exercised	0.22		1,786,800	15,750,000	347,174,692	80,530,925
2019	New issue, warrants exercised	0.22		35,300	15,750,000	347,209,992	80,538,758
2019	New issue, warrants exercised	0.22		2,285,255	15,750,000	349,495,247	81,045,843
2019	New issue, warrants exercised	0.22		607,185	15,750,000	350,102,432	81,180,574
2019	New issue, warrants exercised	0.22		654,750	15,750,000	350,757,182	81,325,859
2019	New issue, warrants exercised	0.22		1,032,120	15,750,000	351,789,302	81,554,880
Total number of issued and outstanding shares					15,750,000	351,789,302	81,554,880

1) Issues in kind in connection with the acquisition of Leica Geosystems whereby shares in Leica Geosystems were contributed in exchange for B shares in Hexagon.

2) Issue in kind in connection with annual block exercise in Leica Geosystems' warrant programme whereby shares in Leica Geosystems received by the programme participants based on the exercise of warrants were contributed in exchange for B shares in Hexagon.

Ownership structure

Holding per shareholder	Number of shareholders	No. of A shares	No. of B shares
1-500	22,929	-	2,234,448
501-1,000	2,016	-	1,563,073
1,001-2,000	1,394	-	2,112,179
2,001-5,000	1,013	-	3,277,608
5,001-10,000	407	-	2,997,584
10,001-20,000	250	-	3,534,732
20,001-50,000	194	-	6,109,082
50,001-100,000	89	-	6,214,685
100,001-500,000	138	-	33,011,275
500,001-1,000,000	39	-	28,010,791
1,000,001-5,000,000	41	-	77,041,953
5,000,001-10,000,000	4	-	27,468,783
10,000,001-	5	15,750,000	157,190,136
Total	28,520	15,750,000	350,757,182

Source: Euroclear Sweden AB as of 30 December 2019. Note that the issue of new shares at 27 December 2019 was not registered in Euroclear Sweden AB's system until 2 January 2020.

Analysts following Hexagon AB

Organisation	Name
ABG Sundal Collier	Olof Cederholm
Bank of America	Alexander Virgo
Barclays	Sven Merkt
Berenberg	Andrew DeGasperi
Carnegie	Mikael Laséen
Danske Bank	Viktor Högberg
Deutsche Bank	Alex Tout
DNB	Mattias Holmberg
Exane BNP Paribas	Antoine Hucher
Goldman Sachs	Mohammed Moawalla
Handelsbanken	Daniel Djurberg
J.P. Morgan	Stacy Pollard
Kepler Cheuvreux	Markus Almerud
Morgan Stanley	Adam Wood
Nordea	Agnieszka Vilela
RBC	Wasi Rizvi
SEB Equities	Erik Golrang
UBS Investment Research	Guillermo Peigneux

Quarterly income statements

MEUR	2019					2018 ³				
	Q1	Q2	Q3	Q4	Year	Q1	Q2	Q3	Q4	Year
Net sales	916.5	976.0	956.3	1 058.9	3 907.7	834.7	936.9	946.1	1,043.0	3,760.7
Gross earnings	573.3	606.1	604.8	669.8	2 454.0	517.6	583.9	586.8	648.6	2,336.9
Sales expenses	-185.1	-201.0	-183.4	-194.6	-764.1	-159.5	-177.4	-177.8	-189.6	-704.3
Administration expenses	-72.4	-86.2	-78.2	-85.3	-322.1	-66.9	-77.2	-76.9	-88.3	-309.3
Research and development expenses	-107.2	-115.4	-111.8	-110.4	-444.8	-94.0	-104.6	-106.0	-101.9	-406.5
Earnings from shares in associated companies	-	-	-	-	-	0.0	-	-	-0.1	-0.1
Capital gain/loss from sale of shares in group companies	-	-	-	-	-	0.7	-	-	-	0.7
Other income and expenses, net	2.2	-8.7	4.4	-28.7	-30.8	0.4	3.5	1.8	2.0	7.7
Operating earnings¹	210.8	194.8	235.8	250.8	892.2	198.3	228.2	227.9	270.7	925.1
Financial income/expenses net	-7.6	-6.9	-6.5	-5.9	-26.9	-6.0	-5.4	-6.1	-5.3	-22.8
Earnings before tax	203.2	187.9	229.3	244.9	865.3	192.3	222.8	221.8	265.4	902.3
Tax	-36.7	-33.8	-41.3	-44.9	-156.7	-34.6	-40.1	-41.7	-47.8	-164.2
Net earnings²	166.5	154.1	188.0	200.0	708.6	157.7	182.7	180.1	217.6	738.1
¹ of which non-recurring items	-9.7	-44.4	-	-26.2	-80.3	-	-	-3.9	-	-3.9
² of which non-controlling interest	1.6	1.5	1.5	1.6	6.2	1.5	2.3	2.5	1.8	8.1
Earnings include depreciation/ amortisation and impairments of	-89.5	-91.6	-90.5	-116.1	-387.7	-61.2	-65.0	-79.8	-78.0	-284.0
Earnings per share, EUR	0.45	0.42	0.51	0.54	1.92	0.43	0.50	0.49	0.60	2.02
Earnings per share after dilution, EUR	0.45	0.42	0.51	0.54	1.92	0.43	0.50	0.49	0.60	2.01
Earnings per share excluding non-recurring items, EUR	0.48	0.52	0.51	0.60	2.11	0.43	0.50	0.51	0.60	2.04
Average number of shares (thousands)	362,947	364,605	365,852	366,189	364,898	360,443	360,443	360,851	362,031	360,942
Average number of shares after dilution (thousands)	363,662	365,048	366,069	366,189	365,242	362,624	361,697	362,333	362,551	362,301

3) The numbers for 2018 have not been restated with respect to IFRS 16.

10-year summary

MEUR	2010	2011	2012	2012 ¹	2013	2014	2015	2016	2017	2017 ²	2018	2019 ⁴
Income statement												
Net sales	1,481.3	2,169.1	2,380.0	2,380.0	2,622.4	3,043.8	3,149.2	3,448.4	3,448.1	3,760.7	3,760.7	3,907.7
Operating earnings (EBITDA)	362.4	542.4	610.3	605.7	743.5	912.3	970.0	1,109.5	1,107.0	1,197.7	1,197.7	1,339.1
Operating earnings (EBIT1)	272.9	439.8	489.5	484.9	578.1	692.7	736.1	835.3	832.8	929.0	929.0	972.5
Operating earnings	151.7	431.3	489.5	484.9	542.1	656.1	736.1	762.1	759.6	925.1	925.1	892.2
Earnings before tax	110.9	372.4	441.3	434.2	508.5	629.6	714.3	739.4	736.9	902.3	902.3	865.3
- of which non-recurring items	-136.6	-8.5	-	-	-36.0	-36.6	-	-73.2	-73.2	-3.9	-3.9	-80.3
Net earnings	91.7	297.4	357.4	351.1	406.2	505.1	578.6	673.8	671.2	738.1	738.1	708.6
- of which non-controlling interest	1.8	2.2	2.9	2.9	3.4	5.2	5.3	7.1	7.1	8.1	8.1	6.2
Balance sheet												
Current assets	1,052.4	1,125.0	1,135.9	1,135.9	1,410.7	1,492.7	1,672.4	1,815.4	1,799.8	2,061.6	2,061.6	2,118.4
Fixed assets	3,954.2	4,218.7	4,299.4	4,298.0	5,401.3	5,939.4	6,241.7	6,813.8	6,813.8	7,622.5	7,622.5	8,482.2
Non-interest bearing liabilities and provisions	797.8	914.7	920.1	915.3	1,216.5	1,360.7	1,474.5	1,666.8	1,664.7	1,901.0	1,901.0	1,939.7
Interest bearing liabilities and provisions	2,036.5	1,903.2	1,742.6	1,769.5	2,125.3	1,969.1	1,848.8	2,344.3	2,344.7	2,463.9	2,463.9	2,584.0
Shareholders' equity	2,172.3	2,525.8	2,772.6	2,749.1	3,470.2	4,102.3	4,590.8	4,618.1	4,604.4	5,319.2	5,319.2	6,076.9
Total assets	5,006.6	5,343.7	5,435.3	5,433.9	6,812.0	7,432.1	7,914.1	8,629.2	8,613.4	9,684.1	9,684.1	10,600.6
Key ratios												
Operating margin, %	18	20	21	20	22	23	23	24	24	25	25	25
Return on capital employed, %	10	11	11	11	12	12	12	13	13	13	13	12
Return on equity, %	6	13	13	13	13	13	14	15	15	15	15	12
Investments	87.2	135.9	171.8	171.8	232.5	230.3	257.6	275.6	275.6	389.1	389.1	399.1
Equity ratio, %	43	47	51	51	51	55	58	54	54	55	55	57
Share of risk-bearing capital, %	48	52	56	56	56	61	64	59	59	60	60	62
Interest coverage ratio (times)	3.6	7.0	9.3	8.8	14.3	20.3	27.9	27.1	27.0	31.9	31.9	26.8
Net debt/equity ratio (times)	0.82	0.66	0.54	0.56	0.50	0.38	0.30	0.40	0.40	0.35	0.35	0.31
Cash flow before changes in working capital and excluding non-recurring items, EUR	294.1	397.2	494.4	494.4	619.2	749.9	832.1	882.3	879.7	1,004.8	1,004.8	1,125.5
Cash flow after changes in working capital and excluding non-recurring items, EUR	260.4	369.0	497.3	497.3	563.4	722.6	782.1	907.2	907.2	944.1	944.1	1,103.6
Earnings per share, EUR	0.30	0.84	1.01	0.99	1.13	1.39	1.59	1.85	1.84	2.02	2.02	1.92
Earnings per share after dilution, EUR	0.30	0.84	1.00	0.99	1.13	1.39	1.59	1.84	1.84	2.01	2.01	1.92
Cash flow per share before changes in working capital and excluding non-recurring items, EUR	0.97	1.13	1.40	1.40	1.74	2.09	2.31	2.45	2.44	2.78	2.78	3.08
Cash flow per share after changes in working capital and excluding non-recurring items, EUR	0.86	1.05	1.41	1.41	1.58	2.01	2.17	2.52	2.52	2.62	2.62	3.02
Equity per share, EUR	6	7	7.84	7.77	9.68	11.36	12.70	12.78	12.74	14.62	14.62	16.53
Closing share price, SEK	144	103	163	163	242	315	326	411	411	408	408	525
Cash dividend per share, EUR	0.15	0.17	0.28	0.28	0.35	0.43	0.48	0.53	0.53	0.59	0.59	0 ²
Average number of shares (thousands)	303,655	352,484	352,499	352,499	355,764	359,387	360,433	360,443	360,443	360,942	360,942	364,898
Average number of shares after dilution (thousands)	303,677	352,546	353,494	353,494	357,225	359,817	360,879	361,589	361,589	362,301	362,301	365,242
Number of shares, closing balance (thousands)	352,150	352,490	352,675	352,675	357,389	360,337	360,443	360,443	360,443	362,925	362,925	367,539
Average number of employees	8,179	12,475	13,203	13,203	14,865	15,891	16,460	17,543	17,543	19,249	19,249	20,250

¹) Restated – IAS 19.

²) As proposed by the Board of Directors.

³) Restated - IFRS 15.

⁴) IFRS 16 is applied from 2019, comparison numbers have not been restated.

The share-related key financial ratios have been calculated considering all historical share issues and splits.

Financial definitions

In addition to the financial measures as required by the financial reporting framework based on IFRS, this report also includes other measures and indicators that are used to follow-up, analyse and manage the business. These measures also provide Hexagon stakeholders with useful financial information on the Group's position, performance and development in a consistent way. Below is a list of definitions of measures and indicators used in this report.

Amortisation of surplus values

When a company is acquired, the purchase consideration is allocated to the identified assets and liabilities of the company. Intangible assets are most often allocated the substantial part of the purchase consideration. The amortisation of surplus values is defined as the difference between the amortisation of such identified intangible assets and what the amortisation would have been in the acquired company had the acquisition not taken place at all.

Capital employed

Total assets less non-interest bearing liabilities.

Capital turnover rate

Net sales for the year divided by average capital employed for the year.

Cash conversion

Operating cash flow excluding interest, tax payments and non-recurring items divided by operating earnings (EBIT1).

Cash flow

Cash flow from operations before change in working capital and excluding non-recurring items.

Cash flow per share

Cash flow from operations, after change in working capital, excluding non-recurring items divided by average number of shares.

Commercial paper

An unsecured promissory note with a fixed maturity of 1 to 365 days.

Earnings per share

Net earnings excluding non-controlling interests divided by average number of shares.

Equity ratio

Shareholders' equity including non-controlling interests as a percentage of total assets.

Gross margin

Gross earnings divided by operating net sales.

Interest coverage ratio

Earnings after financial items plus financial expenses divided by financial expenses.

Investments

Purchases less sales of tangible and intangible fixed assets, excluding those included in acquisitions and divestitures of subsidiaries.

Net debt

Interest bearing liabilities including pension liabilities and interest bearing provisions less short-terms investments and also cash and bank.

Net indebtedness

Interest bearing liabilities less interest bearing current receivables and liquid assets divided by shareholders' equity excluding non-controlling interests.

Non-recurring items

Income and expenses that are not expected to appear on a regular basis.

Operating earnings (EBIT1)

Operating earnings excluding capital gains on shares in group companies and non-recurring items. Non-recurring items are excluded to facilitate the understanding of the Group's operational development and to give comparable numbers between periods.

Operating earnings (EBITDA)

Operating earnings (EBIT1) excluding amortisation, depreciation and impairment of fixed assets. The measure is presented to give depiction of the result generated by the operating activities.

Operating margin

Operating earnings (EBIT1) as a percentage of net sales for the year.

Operating net sales

Net sales adjusted by the difference between fair value and book-value of deferred revenue regarding acquired businesses.

Organic growth

Net sales compared to prior period excluding currency exchange movements, acquisitions and divestments.

Pay-out ratio

Dividend per share as a percentage of earnings per share.

P/E ratio

Share price divided by earnings per share.

Profit margin before tax

Earnings after financial items as a percentage of net sales.

Return on capital employed

Twelve months to end of period earnings after financial items, excluding non-recurring items, plus financial expenses as a percentage of twelve months to end of period average capital employed. The twelve months average capital employed is based on average quarterly capital employed.

Return on shareholder's equity

Twelve months to end of period net earnings excluding non-controlling interests as a percentage of twelve months to end of period average shareholders' equity excluding non-controlling interests last twelve months. The twelve months average equity is based on quarterly average equity.

Revolving credit facility

A loan facility where the borrower may increase and reduce the size of outstanding debt up to the available limit during the term of the loan.

Shareholders' equity per share

Shareholders' equity excluding non-controlling interests divided by the number of shares at year-end.

Share price

Last settled transaction on Nasdaq OMX Stockholm on the last business day for the year.

Term loan

A fixed amount loan with a maturity date of more than one year and with a specified repayment schedule where the borrower is not entitled to re-borrow any amount which it has repaid.

Business definitions

Americas

North America, South America and Central America

Asia

Asia (excluding Middle East), Australia and New Zealand

CAD

Computer Aided Design, software for creating technical drawings

CAE

Computer Aided Engineering, simulation software

CAM

Computer Aided Manufacturing, software for controlling machine tools

CMM

Coordinate Measuring Machine

EMEA

Europe, Middle East and Africa

Emerging markets

Eastern Europe, Middle East, South America, Africa and Asia excluding Australia, New Zealand, Japan and Korea

GDPR

General Data Protection Regulation

GES

Hexagon's operating segment Geospatial Enterprise Solutions

IES

Hexagon's operating segment Industrial Enterprise Solutions

ISDA

International Swaps and Derivatives Association

Laser tracker

A portable measurement system that uses a laser

NAFTA

North American Free Trade Agreement

OECD

Organisation of Economic Cooperation and Development

R&D

Research and development

UAV

Unmanned Aerial Vehicle

Currency codes

BRL Brazilian Real

CAD Canadian Dollar

CHF Swiss Franc

CNY Chinese Yuan

EUR Euro

GBP British Pound

INR Indian Rupee

JPY Japanese Yen

SEK Swedish Kronor

USD US Dollar

Information for shareholders

Annual General Meeting 2020

The Annual General Meeting will be held on Wednesday 29 April 2020 at 17:00 CET at City Conference Center, Drottninggatan 71 B in Stockholm, Sweden.

Shareholders who wish to attend the Annual General Meeting must:

- be recorded in the share register maintained by Euroclear Sweden AB on Thursday 23 April 2020. To be eligible to participate, shareholders with nominee-registered holdings should temporarily have their shares registered in their own names through the agency of their nominees so that they are recorded in the share register well before 23 April 2020.
- notify the Company of their intention to attend the Annual General Meeting by filling out a form on Hexagon's website, www.hexagon.com or by post to: Hexagon AB, "Annual General Meeting", c/o Euroclear Sweden AB, P.O. Box 191, SE-101 23 Stockholm, Sweden or by phone +46 8 402 92 21.

Notifications should state the shareholder's name, personal/corporate identity number, address, telephone number and number of shares.

Shareholders wishing to be represented by proxy should send a power-of-attorney to Euroclear Sweden AB before the Annual General Meeting.

Dividend

The Board proposes that no dividend is declared for the financial year 2019.

The Board's ambition is to fulfil its previously communicated dividend proposal of 0.62 EUR per share at an extraordinary general meeting during the autumn of 2020.

Payment is made in EUR, provided that EUR can be received on the shareholder's yield account; if not, payment will be distributed in SEK, whereby currency exchange is made in accordance with Euroclear Sweden AB's applicable procedures.

Financial information 2020

Hexagon will issue financial information concerning the business year 2020 on the following dates:

Q1 Interim Report	29 April 2020
Q2 Interim Report	24 July 2020
Q3 Interim Report	28 October 2020
Year-End Report	3 February 2021

Distribution policy

The Hexagon Annual Report is distributed digitally. The annual report can be downloaded at the website hexagon.com where Hexagon's Annual Reports from 1997 and onwards are available. For a printed copy please contact Hexagon AB.

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