



**HEXAGON**

shaping smart change

ANNUAL REPORT 2018



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## ABOUT THIS REPORT

The audited annual accounts and consolidated accounts can be found on pages 10–16 and 28–69. The corporate governance report examined by the auditors can be found on pages 17–21.

The sustainability report that has been reviewed by the auditors 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 2017 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.

# 2018 IN BRIEF

- Operating net sales increased by 8 per cent to 3,760.7 MEUR (3,470.5). Using fixed exchange rates and a comparable group structure (organic growth), net sales increased by 8 per cent
- Operating earnings (EBIT1) increased by 12 per cent to 929.0 MEUR (832.8)
- Earnings before tax, excluding non-recurring items, amounted to 906.2 MEUR (810.1)
- Net earnings, excluding non-recurring items, amounted to 743.1 MEUR (663.9)
- Earnings per share, excluding non-recurring items, increased by 12 per cent to 2.04 EUR (1.82)
- Operating cash flow decreased by -7 per cent to 562.8 MEUR (603.0)

READ ABOUT IMPORTANT EVENTS ON PAGE 11

## KEY FIGURES<sup>1</sup>

	2018	2017 <sup>2</sup>	△ %
Operating net sales	3,760.7	3,470.5	8 <sup>3</sup>
Revenue adjustment <sup>4</sup>	-	-22.4	n.a.
Net sales	3,760.7	3,448.1	8 <sup>3</sup>
Operating earnings (EBIT1)	929.0	832.8	12
Operating margin, %	24.7	24.0	0.7 <sup>5</sup>
Earnings before tax, excl. non-recurring items	906.2	810.1	12
Non-recurring items <sup>6</sup>	-3.9	-73.2	n.a.
Earnings before tax	902.3	736.9	22
Net earnings, excl. non-recurring items	743.1	663.9	12
Net earnings	738.1	671.2	10
Earnings per share, excl. non-recurring items	2.04	1.82	12
Earnings per share, EUR	2.02	1.84	10
Operating cash flow	562.8	603.0	-7
Return on equity, %	15.0	14.8	0.2 <sup>5</sup>
Return on capital employed, %	12.6	12.6	-
Share price, SEK	408.00	410.90	-1
Net debt	2,069.3	2,034.9	2
Average number of employees	19,249	17,543	10

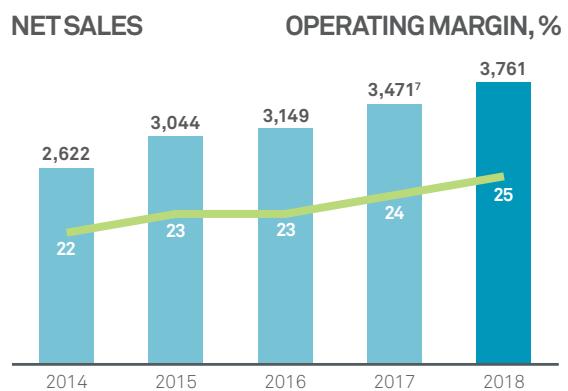
## OPERATING MARGIN

25%

## ORGANIC GROWTH

8%

## NET SALES



## OPERATING MARGIN, %

1) All figures are in MEUR unless otherwise stated

2) Adjusted according to IFRS 15

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

4) Reduction of acquired deferred revenue (haircut) related to the acquisition of MSC Software in 2017

5) The change is specified in percentage points

6) Non-recurring items in 2018 related to the acquisition of AutonomouStuff and divestment of

shares in BIMobject. Non-recurring items in 2017 related to the implementation of a cost savings programme and the acquisition of MSC Software

7) Operating net sales

READ ABOUT SEGMENTS FINANCIAL PERFORMANCE ON PAGE 12



# HEXAGON IN BRIEF

Hexagon is a digital solutions company leading the creation of autonomous connected ecosystems (ACE) in the markets it serves. Hexagon's Smart X solutions combine sensors and software to move customers beyond the data impasse of IoT, so that they are able to leverage the vast potential of data being generated by connected things.

Through embedded artificial intelligence (AI), edge-cloud orchestration, mobility, and advanced visualisation capabilities, customers are able to move well beyond automation and introduce autonomous processes and decision-making into their workflows to drive further improvements in quality and productivity.

## ECOSYSTEMS SERVED:

- Production – manufacturing, power & energy, mining and agriculture
- Autonomous – autonomous transport and unmanned aerial/ground/marine vehicles
- Urban – construction, infrastructure management and public safety



### OUR FOCUS IS DATA

- Leverage beyond data creation
- From automation to autonomy



### OUR STRENGTH IS PROVEN

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



### 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 VALUE IS VITAL

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

## MISSION

We deliver digital solutions that improve productivity and quality across manufacturing, infrastructure, safety and mobility applications.

## VISION

We aspire to be the leader in creating autonomous connected ecosystems for the industries we serve.

## 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.



## GEOSPATIAL ENTERPRISE SOLUTIONS

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

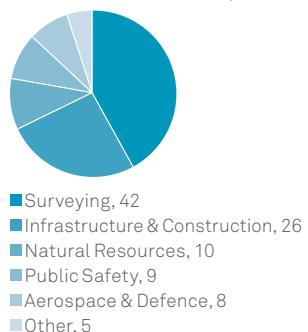
### THE BUSINESS AREA COMPRISSES THE FOLLOWING DIVISIONS:

- Geosystems
- Safety & Infrastructure
- Positioning Intelligence

### SOLUTION EXAMPLES:

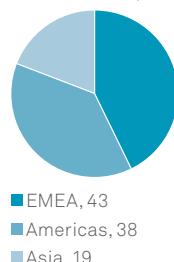
- Laser scanners
- Airborne cameras
- UAVs (unmanned aerial vehicles)
- Mobile mapping technologies
- Precise positioning

### CUSTOMER SEGMENT, %

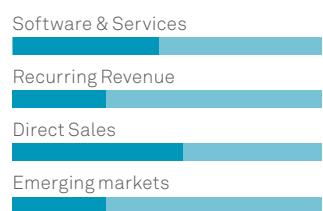


The sensors are complemented by software for the creation of 3D maps and models which are used for decision-making in a range of software applications, covering areas such as surveying, construction, public safety and agriculture.

### GEOGRAPHY, %



### SALES MIX



### AVERAGE NO. OF EMPLOYEES

**8,400**



## 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.

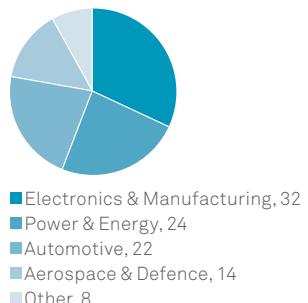
### THE BUSINESS AREA COMPRISSES THE FOLLOWING DIVISIONS:

- Manufacturing Intelligence
- PPM

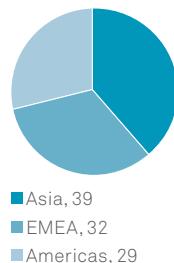
### SOLUTION EXAMPLES:

- CMMs (coordinate measuring machines)
- Optical and portable scanners
- Industrial metrology software
- CAD/CAM/CAE (computer-aided design/manufacturing/engineering) software
- Life cycle engineering software

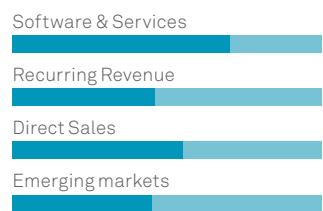
### CUSTOMER SEGMENT, %



### GEOGRAPHY, %



### SALES MIX



### AVERAGE NO. OF EMPLOYEES

**10,700**

# THE SHIFT FROM AUTOMATION TO AUTONOMY

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There's a big, undeniable change happening right under our noses, and most people I know aren't even talking about it. It's strange because there's nothing that gets our attention like a big change. Think about it – when the lights go dark, or the temperature plunges, or our peace is shattered by a loud noise – we take notice.

Recently we've witnessed some of the world's most consequential change of our lifetime. I'm not referring to the shift in global trade relations, the many shakeups in European politics, or even the alarming scientific reports on climate change. Without a doubt, all are notable and worthy of our attention – but there's something equally powerful that should be grabbing business and industry headlines.

## THE AGE OF CONNECTIVITY HAS TURNED OUT TO BE THE AGE OF COMPLEXITY

This change I'm talking about is a direct result of IoT, the so-called Internet of Things. While the promise of the IoT era is anchored in the vast amounts of useful data being generated, the challenge has always been our ability to actually put it to use.

Instead of the IoT generating trillions in value, business and industry have been confronted with a different reality – the sheer volume of data generated daily by connected things has defied our ability to capture, store, see, understand, and put it to work.

While the upside of the IoT remains as promising as ever – with connected “things” becoming smarter and more ubiquitous – if we are ever to realise this enormous potential, businesses must tame the complexity they are generating by their very own IoT strategies and the enormous amounts of data they create.

Hexagon is focused on the real IoT breakthrough, uncovering the world-changing solutions that hide in plain sight behind the mountains of data we create every day. To realise this promise, we can't rely on the technologies of the past.

## THE NEXT EVOLUTION WILL BE DRIVEN BY AUTONOMY

The single greatest need in business today isn't automation, it's autonomous insight. This means much more than operational line of sight – it means being able to leverage vast amounts of data behind the scenes, where connected devices and machines interpret what's happening and why, and then act accordingly, autonomously.

This shift from automation to autonomy is so monumental, so critical to our collective future that the simple notion of “putting data to work” is our singular focus at Hexagon. This is key as more and more of our customers are eager to move beyond automation and embrace autonomous technologies – a trend we are uniquely positioned to deliver on.

This is the future we are enabling. We call it the Autonomous Connected Ecosystem, or ACE for short.

This is the real value of IoT. To connect, automate, and ultimately ‘autonomise’ entire ecosystems that can self-optimize performance and self-adapt to – and learn from – new conditions in real time to autonomously run entire processes.

## THE FUTURE BELONGS TO ACE

The power of an ACE is its ability to evolve and grow along with the changing needs of each business ecosystem – whether an autonomous smart factory, city or fleet of vehicles. ACEs enable organisations to adapt to change in ways that would have been impossible before.

This is why, in 2018, we began rolling out a powerful new framework called Xalt. It represents our commitment to continuous innovation, it accelerates our ability to move our customers beyond the data impasse of IoT, and ultimately, it enables the creation of ACEs.

Our vision is to ultimately underpin all of Hexagon's solutions with Xalt. This will embed the power of disruptive technologies such as AI, Edge-Cloud Orchestration, Mobility, and Data Visualisation, to name a few, in the hands of every customer.

In addition to our own R&D, we continue to acquire companies that complement and accelerate our ACE strategy and help sustain our growth. In 2018, our M&A activities focused on three strategic ACE capabilities: autonomous production, autonomous mobility, and autonomous construction.

Highlights include NEXTSENSE and SPRING Technologies, both of which complement our autonomous smart factory approach; the acquisition of AutonomouStuff, which makes Hexagon one of the world's leading suppliers of integrated autonomous vehicle solutions; and, the acquisition of Bricsys, which means Hexagon can now provide the AEC market with an end-to-end platform to connect, automate, and ultimately ‘autonomise’ the entire building and construction ecosystem.



**“The single greatest need in business today isn’t automation, it’s autonomous insight.”**

#### **SHAPING SMART CHANGE HAS NEVER BEEN MORE IMPORTANT THAN IT IS TODAY**

For the first time in history it's possible for companies to unlock and harness the full potential of their data. This is the real promise of IoT, and this is where Hexagon is doing its greatest work – shaping smart change.

Looking ahead, we remain confident in our ability to deliver upon our strategy. Our key financial objectives include outperforming our industry peers and maximising shareholder value through revenue growth and improved profitability –

targeting 4.6-5.1 bn EUR in revenue and 27-28 per cent EBIT margin by 2021.

Whether a valued shareholder, customer or employee, thank you for your continued support for Hexagon.

Stockholm, Sweden, March 2019

**Ola Rollén**

*President and Chief Executive Officer  
@OlaRollen*

# VALUE-GENERATING CUSTOMER SOLUTIONS

Hexagon develops information technology solutions that drive productivity and quality in geospatial and industrial applications. Hexagon's strategy is based on the digital transformation of inefficient systems that in turn, deliver the actionable intelligence necessary for customers to reach their full potential.

In this age of rapid advances in technological innovation, a surprising outcome has occurred: technological capability has outpaced industry's ability to put data to work. For Hexagon, this is a strategic opportunity – to lead industry

beyond the hyper-connectivity benefits of IoT towards the true value creation of data usage – which comes when data is unlocked, leveraged and put to its greatest use.

## HEXAGON'S SMART X SOLUTION ARE BASED ON FOUR KEY AREAS:

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

## Smart X solutions

## HEXAGON'S TECHNOLOGY WORKS AS FOLLOWS:



### SENSORS AND SOFTWARE

The combination of sensors and software is fundamental to delivering productivity and quality improvements.

## 1. SOLUTION-CENTRIC

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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

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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 55+ per cent of Hexagon's revenue.

## 3. TECHNOLOGY LEADERSHIP

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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 2018 amounted to 449.1 MEUR (415.6), corresponding to 12 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

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Acquisitions play a vital role in Hexagon's portfolio and growth strategy. Over the past 20 years, Hexagon has completed more than 140 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 strat-

egy 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 64 

# 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.

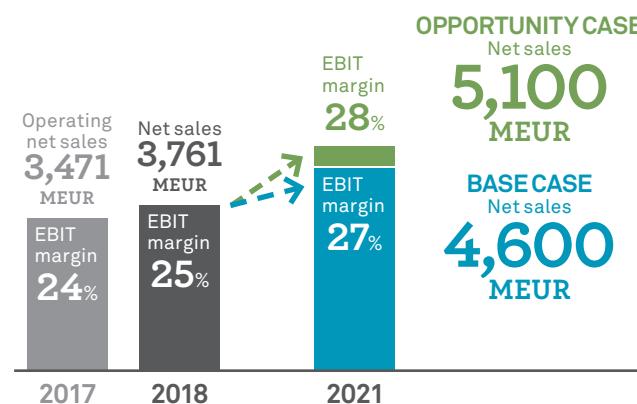
## CONTINUED GROWTH

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

## TARGET NET SALES AND OPERATING MARGIN (EBIT1)



business. This will trigger investments in sales resources while reducing administrative costs which are non-accretive to profitability.

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 2018

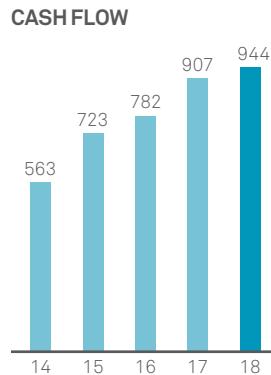
The result for the second year of the five-year financial plan proves that Hexagon is on track to reach the financial target for 2021. Net sales increased by 8 per cent to 3,761 MEUR, of which 8 per cent was organic growth, 4 per cent acquired growth and -3 per cent of currency. The operating result increased by 12 per cent to 929.0 MEUR, which generated an operating margin of 24.7 per cent (24.0). The result for 2018 is an outcome of Hexagon's successful strategy, based on 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 83 per cent since 2011 and was 79 per cent (91) for 2018. 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 944.1 MEUR (907.2).



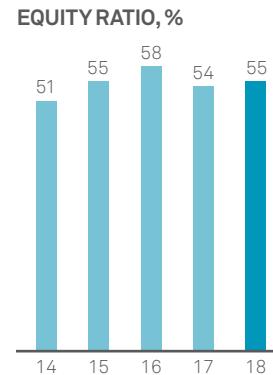
## EFFICIENT USE OF OPERATING CAPITAL

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 2018 amounted to 13 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 12.6 per cent (12.6) in 2018.



## SOUND EQUITY RATIO AND BALANCED DEBT STRUCTURE

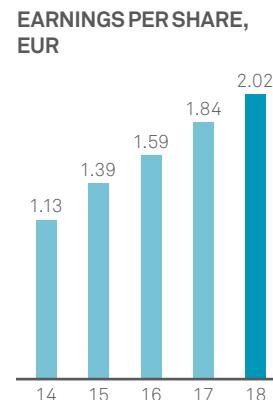
A sound equity ratio and balanced leverage are requirements for financing acquisitions by loans. Hexagon targets an equity ratio of at least 25 per cent and has the ambition to have a net debt to EBITDA ratio of 2.5x or below. The equity ratio amounted to 55 per cent (54) and the net debt to EBITDA ratio amounted to 1.7x (1.8) at year-end 2018.



Debt capital markets account for 93 per cent (94) of Hexagon's financing, while bank loans make up the remainder. Hexagon's net interest expense amounted to -22.8 MEUR (-22.7) in 2018. The average interest rate on the Group's short- and long-term loans was 1.0 per cent (1.0) at year-end 2018.

## DIVIDEND POLICY

Hexagon's dividend policy is to distribute between 25 and 35 per cent of net earnings after tax. The Board's proposed dividend for 2018 is 0.59 EUR (0.53) per share, which is equivalent to 29 per cent (29) of the year's earnings.



# 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 2018 to 31 December 2018. 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

### HEXAGON

Hexagon is a leading global provider of information technologies that drive productivity and quality across industrial and geospatial enterprise applications. Hexagon's solutions integrate sensors, software, domain knowledge and customer workflows into intelligent information ecosystems that deliver actionable information used in a broad range of vital industries.

### GEOSPATIAL ENTERPRISE SOLUTIONS

The business area comprises the following divisions:

- Geosystems
- Safety & Infrastructure
- Positioning Intelligence

### GROUP FUNCTIONS

- Finance
- HR
- Innovation Hub
- Legal
- Marketing
- Strategy

### INDUSTRIAL ENTERPRISE SOLUTIONS

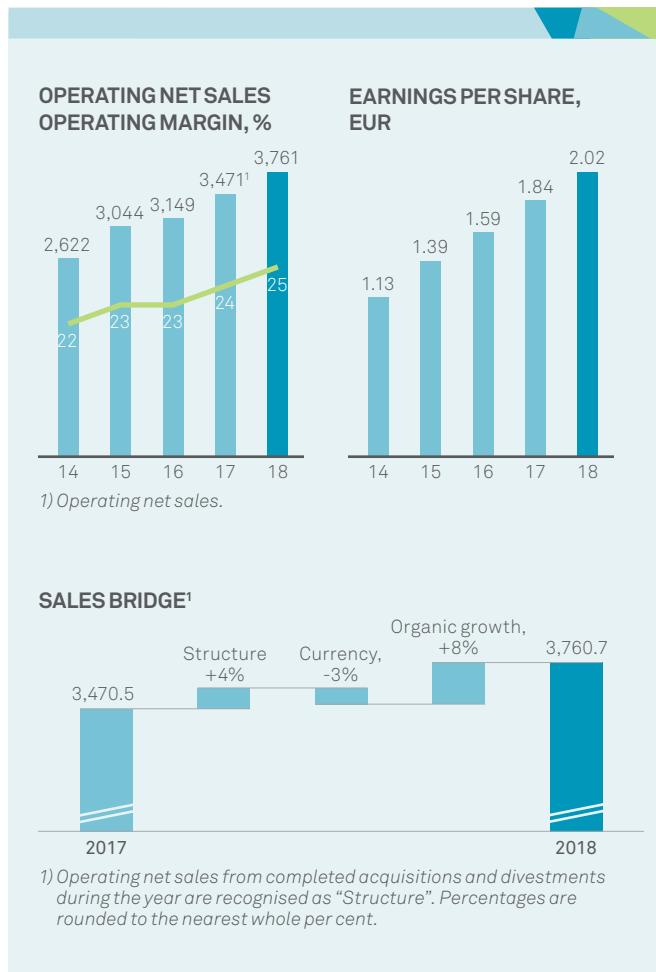
The business area comprises the following divisions:

- Manufacturing Intelligence
- PPM

## FIVE-YEAR OVERVIEW

MEUR	2018	2017 <sup>1</sup>	2016	2015	2014
Net sales	3,760.7	3,448.1	3,149.2	3,043.8	2,622.4
Operating earnings excl. non-recurring items (EBIT1)	929.0	832.8	736.1	692.7	578.1
Operating margin, %	24.7	24.0	23.4	22.8	22.0
Earnings before tax excl. non-recurring items	906.2	810.1	714.3	666.2	544.5
Non-recurring items	-3.9	-73.2	-	-36.6	-36.0
Earnings before tax	902.3	736.9	714.3	629.6	508.5
Net earnings	738.1	671.2	578.6	505.1	406.2
Earnings per share, EUR	2.02	1.84	1.59	1.39	1.13

<sup>1</sup>) Adjusted according to IFRS 15



## MARKET DEMAND

Operating net sales in EMEA grew by 7 per cent organically in 2018 and amounted to 1,415.0 MEUR (1,303.2), representing 38 per cent (37) of Group sales. In Western Europe, Hexagon noted good demand from the infrastructure and construction sector but growth was hampered by weaker demand within public safety. The Middle East recorded good growth partially driven by a recovery in the power and energy sector.

Operating net sales in Americas grew by 7 per cent organically in 2018 and amounted to 1,239.6 MEUR (1,163.4), representing 33 per cent (34) of Group sales. In North America, demand mainly increased in the infrastructure and construction sector hampered by a decline in the public safety business. South America recorded double-digit growth driven by strong growth in Brazil.

Operating net sales in Asia grew organically by 8 per cent in 2018 and amounted to 1,106.1 MEUR (1,004.0), representing 29 per cent (29) of Group sales. China reported strong growth, mainly driven by robust demand from the overall manufacturing industry and the power and energy sector, but hampered by a decline in the public safety business.

## IMPORTANT EVENTS 2018

### Q1

Hexagon acquired **AGTEK**, a leading software solutions provider to the civil construction industry

### Q2

Hexagon acquired **NEXTSENSE GmbH**, a leader in industrial measurement and inspection solutions

Hexagon signed an agreement to acquire **AutonomouStuff**, bolstered its leadership position in autonomous solutions

Hexagon held its **Capital Markets Day 2018** in Las Vegas, in conjunction with HxGN LIVE

Hexagon announced **Xalt**, a new approach for harnessing the untapped potential of IoT data

Hexagon acquired **SPRING Technologies**, makers of machine tool simulation and verification software

### Q3

Hexagon strengthened its safety-enhancing solution suite with the acquisition of **Guardvant**

Hexagon completed acquisition of **AutonomouStuff**

### Q4

Hexagon strengthened its construction solutions portfolio for AEC (Architecture, Engineering, Construction) market with **Bricsys** acquisition

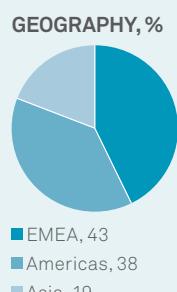
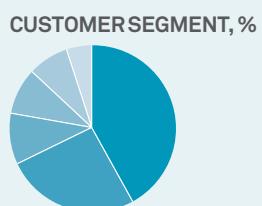
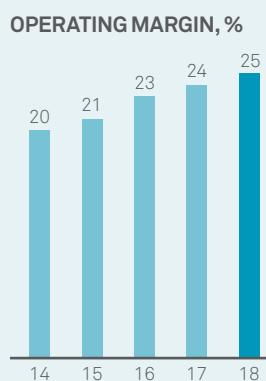
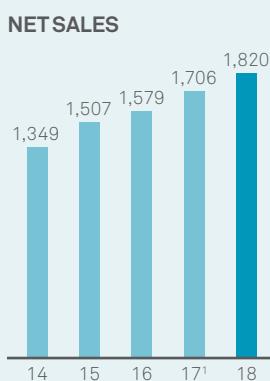
## GEOSPATIAL ENTERPRISE SOLUTIONS

Geospatial Enterprise Solutions (GES) operating net sales amounted to 1,820.2 MEUR (1,706.3). Using fixed exchange rates and a comparable group structure (organic growth), net sales increased by 7 per cent. Regionally, organic growth was 9 per cent in EMEA, 7 per cent in Americas and 3 per cent in Asia. Geosystems recorded 11 per cent organic growth, mainly driven by continued strong growth in infrastructure and construction, the content programme and a strong contribution from new products. Safety & Infrastructure declined, recording -5 per cent organic growth, hampered by weak demand, especially in the US. Actions have been taken to ensure improvements in 2019. Positioning Intelligence recorded 18 per cent organic growth, positively impacted by strong growth in defence, agriculture and automotive.

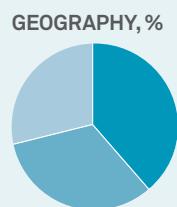
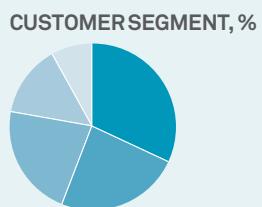
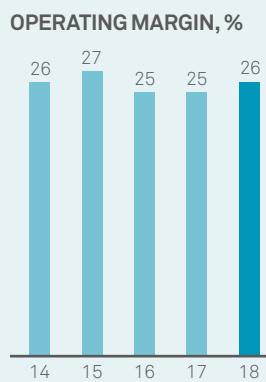
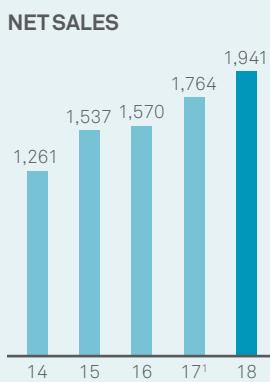
## INDUSTRIAL ENTERPRISE SOLUTIONS

Industrial Enterprise Solutions (IES) operating net sales amounted to 1,940.5 MEUR (1,764.2). Using fixed exchange rates and a comparable group structure (organic growth), net sales increased by 8 per cent. Regionally, organic growth was 11 per cent in Asia, 8 per cent in Americas and 5 per cent in EMEA. Manufacturing Intelligence recorded 9 per cent organic growth, supported by strong demand from most major end markets, such as aerospace, electronics and automotive. PPM recorded 7 per cent organic growth, where the construction and Information Life Cycle Management solutions contributed to the growth.

### GEOSPATIAL ENTERPRISE SOLUTIONS



### INDUSTRIAL ENTERPRISE SOLUTIONS



<sup>1)</sup> Adjusted according to IFRS 15 and refers to operating net sales.

## NET SALES

Operating net sales amounted to 3,760.7 MEUR (3,470.5). Net sales including revenue adjustments amounted to 3,760.7 MEUR (3,448.1). Using fixed exchange rates and a comparable group structure (organic growth), sales increased by 8 per cent.

## OPERATING EARNINGS

Operating earnings (EBITDA) increased by 8 per cent to 1,197.7 MEUR (1,107.0), corresponding to an operating margin (EBITDA margin) of 31.8 per cent (31.9). Operating earnings, excluding non-recurring items (EBIT1), increased by 12 per cent to 929.0 MEUR (832.8), corresponding to an operating margin (EBIT1 margin) of 24.7 per cent (24.0). Operating earnings (EBIT1) for Geospatial Enterprise Solutions increased to 459.2 MEUR (411.8), corresponding to an operating margin of 25.2 per cent (24.1). Operating earnings (EBIT1) for Industrial Enterprise Solutions increased to 495.2 MEUR (441.8), corresponding to an operating margin of 25.5 per cent (25.0).

## SEGMENTS

MEUR	Operating net sales		Operating earnings (EBIT1)	
	2018	2017	2018	2017
Geospatial Enterprise Solutions	1,820.2	1,706.3	459.2	411.8
Industrial Enterprise Solutions	1,940.5	1,764.2	495.2	441.8
Group cost	-	-	-25.4	-20.8
Total	3,760.7	3,470.5	929.0	832.8

Operation net sales in 2017 includes an adjustment for the acquired deferred revenue relating to MSC Software. Net sales including the acquired deferred revenue amounted to 3,448.1 MEUR.

## GROSS EARNINGS

Gross earnings amounted to 2,336.9 MEUR (2,119.1). The gross margin was 62.1 per cent (61.1).

## FINANCIAL INCOME AND EXPENSES

The financial net amounted to -22.8 MEUR (-22.7) in 2018.

## NON-RECURRING ITEMS

During 2018 non-recurring items amounted to -3.9 MEUR (-73.2), consisting of impairment of overlapping technologies, transaction costs and a reduction in work force related to the acquisition of AutonomouStuff, totaling -25.6 MEUR, and divestments of shares in BIMobject which resulted in a capital gain of 21.7 MEUR.

## EARNINGS BEFORE TAX

Earnings before tax, excluding non-recurring items, amounted to 906.2 MEUR (810.1). Including non-recurring items, earnings before tax were 902.3 MEUR (736.9).

## EFFECTIVE TAX RATE

Hexagon's tax expense for the year totaled -164.2 MEUR (-65.7), corresponding to an effective tax rate of 18.2 per cent (8.9). Hexagon had a one-off positive tax income of 72.4 MEUR in the fourth quarter of 2017, due to the changed US tax legislation (Tax Cuts & Jobs Act), resulting in a revaluation of deferred tax liabilities on the balance sheet. The tax rate, excluding non-recurring items, was 18.0 per cent (18.0) for 2018.

## NON-CONTROLLING INTEREST

The non-controlling interest's share of net earnings was 8.1 MEUR (7.1).

## NET EARNINGS

Net earnings, excluding non-recurring items, amounted to 743.1 MEUR (663.9) or 2.04 EUR per share (1.82). Net earnings, including non-recurring items, amounted to 738.1 MEUR (671.2) or 2.02 EUR per share (1.84).

## CASH FLOW

Cash flow from operations before changes in working capital and non-recurring items amounted to 1,004.8 MEUR (879.7), corresponding to 2.78 EUR per share (2.44). Including changes in working capital, but excluding non-recurring items, cash flow from operations was 944.1 MEUR (907.2), corresponding to 2.62 EUR per share (2.52). Cash flow from other investment activities was -438.2 MEUR (-928.9). Cash flow after other investments amounted to 124.6 MEUR (-325.9). The change in borrowings was 93.5 MEUR (549.9). Cash dividends to the Parent Company shareholders amounted to -191.0 MEUR (-173.0), corresponding to 0.53 EUR per share (0.48).

## PROFITABILITY

Capital employed, defined as total assets less non-interest bearing liabilities, increased to 7,783.2 MEUR (6,951.5). Return on average capital employed, excluding non-recurring items, for the last 12 months was 12.6 per cent (12.6). Return on average shareholders' equity for the last 12 months was 15.0 per cent (14.8). The capital turnover rate was 0.5 (0.5).

## FINANCING AND FINANCIAL POSITION

Shareholders' equity, including non-controlling interest, increased to 5,319.2 MEUR (4,604.4). The equity ratio increased to 54.9 per cent (53.5).

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 2018, Hexagon had issued bonds for a total amount of 10,600 MSEK (10,850).
- 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 2018, Hexagon had issued commercial paper for a total amount of 8,815 MSEK (7,590) and 72 MEUR (32).

On 31 December 2018, cash and unutilised credit limits totalled 1,684.2 MEUR (1,601.1). Hexagon's net debt was 2,069.3 MEUR (2,034.9). The net indebtedness was 0.35 times (0.40). Interest coverage ratio was 31.9 times (27.0).

## INVESTMENTS

Ordinary investments consist mainly of investments in production facilities, production equipment and intangible assets, primarily capitalised development expenses. Of the ordinary investments of 390.8 MEUR (281.5) during 2018, approximately 57 per cent (77) 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 43 per cent, comprised mostly of investments in new facilities in Calgary and Hongdao and in business equipment and machines. All current investments during the year have been financed by cash flow from operating activities. Investments corresponded to 10 per cent (8) 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 -284.0 MEUR (-284.7).

## ACQUISITIONS 2018

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 2018, Hexagon acquired the following companies:

### GEOSPATIAL ENTERPRISE SOLUTIONS

Company	Country	Division	Area
AGTEK	United States	Geosystems	Software company specialising in planning and productivity solutions for the heavy civil construction industry
Geosurf (acquired part of business)	Japan	Geosystems	Software developer of a local machine control construction solution
Guardvant	United States	Geosystems	Supplier of operator safety solutions for the mining industry
LSE	Italy	Geosystems	Provider of software solutions for the Geomatics market
AutonomouStuff	United States	Positioning Intelligence	Supplier of integrated autonomous vehicle solutions

### INDUSTRIAL ENTERPRISE SOLUTIONS

Company	Country	Division	Area
ProCAM	Italy	Manufacturing Intelligence	Distributor of CAD/CAM solutions and complementary software
NEXTSENSE GmbH	Austria	Manufacturing Intelligence	Company specialising in non-contact profile measurement and surface inspection solutions
External Array	China	Manufacturing Intelligence	Software company providing a local solution for CMM's in the Chinese market
SPRING Technologies	France	Manufacturing Intelligence	Software provider specialising in integrated solutions for optimising the machining workflow
Bricsys	Belgium	PPM	Developer of CAD software

READ ABOUT ACQUISITIONS ON PAGE 64

## INVESTMENTS

MEUR	2018	2017
Investments in intangible fixed assets	234.3	226.8
Investments in tangible fixed assets	156.5	54.7
Divestments of tangible fixed assets	-1.7	-5.9
<b>Total ordinary investments</b>	<b>389.1</b>	<b>275.6</b>
Investments in subsidiaries	426.6	915.3
Divestments of subsidiaries	-4.0	-
Investments in financial fixed assets	18.2	19.1
Divestments of financial fixed assets	-2.6	-5.5
<b>Total other investments</b>	<b>438.2</b>	<b>928.9</b>
<b>Total investments</b>	<b>827.3</b>	<b>1,204.5</b>

## INTANGIBLE FIXED ASSETS

As of 31 December 2018, Hexagon's carrying value of intangible fixed assets was 7,100.8 MEUR (6,408.3). Amortisation of intangible fixed assets was -203.7 MEUR (-193.4). 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 2018 and no impairment requirement arose. Goodwill at 31 December 2018 amounted to 4,977.1 MEUR (4,412.3), corresponding to 51 per cent (51) of total assets.

## GOODWILL

MEUR	2018	2017
Geospatial Enterprise Solutions	2,250.6	1,920.9
Industrial Enterprise Solutions	2,726.5	2,491.4
<b>Total</b>	<b>4,977.1</b>	<b>4,412.3</b>

## 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 2018 amounted to 449.1 MEUR (415.6), corresponding to 12 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 considerable earnings potential. The current level of R&D costs is in line with other leading suppliers in the industry.

## R&D COST

MEUR	2018	2017
Capitalised	224.2	216.1
Expensed (excluding amortisation)	224.9	199.5
<b>Total</b>	<b>449.1</b>	<b>415.6</b>
Amortisation	147.7	140.3

## 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, 2018, Hexagon's share capital was 80,530,925 EUR, represented by 362,924,692 shares. Total shares outstanding was 15,750,000 Class A shares, each carrying ten votes and 347,174,692 Class B shares, each carrying one vote. On December 31, 2018, Melker Schörling AB, the single largest shareholder in Hexagon, held a total of 15,750,000 Class A shares and 73,758,099 Class B shares, representing 45.8 per cent of the votes and 24.7 per cent of the capital.

## SHARE REPURCHASES

The Annual General Meeting on 10 May 2016 authorised Hexagon's Board of Directors to acquire or sell the company's own shares for the purpose of, among other things, providing the Board with the possibility to adapt the company's capital structure and to enable the financing of acquisitions and the exercise of warrants. The authorisation to repurchase totals a maximum of 10 per cent of all outstanding shares in the company. No (-) shares were repurchased in 2018. By year-end 2018 Hexagon held no treasury shares.

## 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 30 on page 67, 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 5,319.2 MEUR (4,604.4) 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 2018 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 17-21. 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.

The Board of Directors proposes a dividend of 0.59 EUR per share, corresponding to 29 per cent of earnings per share after tax and to 22 per cent of cash flow from operating activities per share. The dividend is expected to total approximately 214.1 MEUR. The proposed dividend is in line with the dividend policy. The proposed record date for dividend is 10 April 2019.

## REMUNERATION OF SENIOR EXECUTIVES

The following guidelines for remuneration to senior executives in Hexagon were adopted by the 2018 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.

It is proposed to the 2019 Annual General Meeting that corresponding guidelines apply as those adopted at the 2018 Annual General Meeting.

## INCENTIVE PROGRAMMES

See Note 30 on page 67.

## PARENT COMPANY

The Parent Company's earnings before tax were 307.8 MEUR (31.7). The equity was 4,735.6 MEUR (4,553.0). The equity ratio of the Parent Company was 54 per cent (55). Liquid funds including unutilised credit limits were 1,277.4 MEUR (1,272.8).

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 25 February, 2019, Hexagon signed an agreement to acquire the US-based company Thermopylae Sciences 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.

# CORPORATE GOVERNANCE REPORT

Hexagon AB is a public company listed on Nasdaq Stockholm. The corporate governance in 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 2018 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 2018, Hexagon's share capital was EUR 80,530,925, represented by 362,924,692 shares, of which 15,750,000 are of Class A with ten votes each and 347,174,692 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 73,758,099 Class B shares at year-end 2018, representing 45.8 per cent of the votes and 24.7 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. Neither is the Board aware of any agreements that could lead to a change of control in the company.

As far as the Board is aware, there is no shareholder agreement that could prevent the transfer of shares.

## ANNUAL GENERAL MEETING (AGM)

The General Meeting is Hexagon's supreme executive 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 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. The AGM is held in Stockholm, Sweden, usually at the end of April or in the beginning of May. The AGM resolves on a number of issues, such as the adoption of the income statement and balance sheet, the allocation of the company's profit and discharge from liability to the company for the Board members and the President and CEO, remuneration of the Board and auditors, the principles

for remuneration and employment terms for the President and CEO and other senior executives, election of members and Chairman of the Board of Directors, election of 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 and 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 of the Articles of Association. The 2018 AGM elected eight members, including the President and Chief Executive Officer. The Chief Financial Officer and Executive Vice President, Hexagon's 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 assessment of the board members' independence in relation to the company, its management and major shareholders is presented on page 24. According to the requirements set out in the Code, the majority of the Board members elected by the General Meeting 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 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 the internal control 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 contact between the Board and auditors, is appointed annually by the Board and continuously 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 General Meeting 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 and draw 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 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, in addition 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

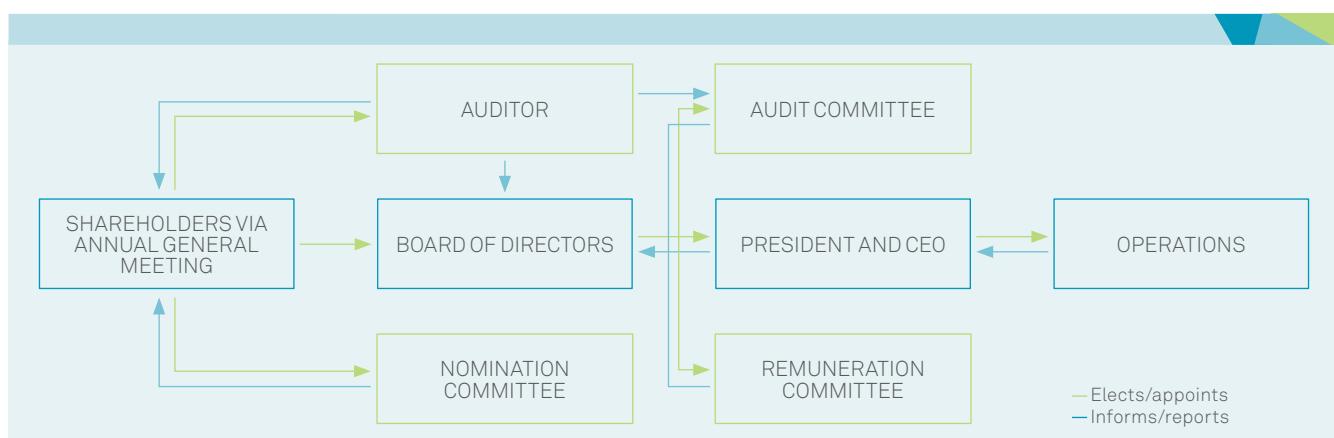
The AGM appoints the company's auditors. On behalf of the shareholders, the auditors' task is to examine the company's Annual Report and accounting records and the administration by the Board of Directors and the President and CEO. In addition to the audit, the auditors occasionally have other assignments, 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 of Directors for internal control is regulated in the Swedish Companies Act and in the Code. It is the duty of the Board of Directors 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 of Directors bears the overall responsibility for internal control of the financial reporting. The Board of Directors has established written formal rules of procedure that clarify the Board of Directors' responsibilities and regulate the Board of Directors' and its Committees' internal distribution of work.

## 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,



## KEY DATA FOR BOARD MEMBERS

Board Member <sup>1</sup>	Elected	Independent	Committee membership		Remuneration Committee	Board of Directors	Meeting attendance	
			Audit Committee	Remuneration Committee			Audit Committee	Remuneration Committee
Gun Nilsson	2008	No <sup>3</sup>		◎	◎	11/11	6/6	2/2
Hans Vestberg <sup>2</sup>	2017	Yes				7/11		
John Brandon	2017	Yes				11/11		
Ulrika Francke	2010	Yes	◎			11/11	6/6	
Henrik Henriksson	2017	Yes				11/11		
Ola Rollén	2000	No <sup>4</sup>				11/11		
Märta Schörling Andreen	2017	No <sup>3</sup>				11/11		
Sofia Schörling Högberg	2017	No <sup>3</sup>	◎		◎	10/11	5/6	2/2

1) A complete presentation of the Board Members is included on pages 24–25.

2) Hans Vestberg left his assignment as Board Member 1 August 2018.

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

5) 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 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.

The Group Management, comprising the President and CEO, presidents of application areas, heads of geographical regions and certain specific Group staff functions, totals 14 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 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

### ANNUAL GENERAL MEETING (AGM)

The AGM, held on 4 May 2018 in Stockholm, Sweden, was attended by shareholders representing 65 per cent of the total number of shares and 75 per cent of the total number of votes. Gun Nilsson was elected Chairman of the AGM.

### THE FOLLOWING MAIN RESOLUTIONS WERE PASSED:

- Re-election of Directors Gun Nilsson, Hans Vestberg, 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 and of Hans Vestberg as Vice 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 0.53 EUR per share for 2017 as per the Board's proposal
- Principles for remuneration to Hexagon's senior executives

## NOMINATION COMMITTEE

For the proposal for the AGM 2018, the Nomination Committee applied rule 4.1 of the Code as diversity policy in its nomination work. The Nomination Committee confirmed that the Board of Hexagon has an equal gender balance and an appropriate composition in general.

In respect of the 2019 AGM, the Nomination Committee comprises:

- Mikael Ekdahl, Melker Schörling AB (Chairman)
- Jan Andersson, Swedbank Robur fonder
- Anders Oscarsson, AMF and AMF Fonder
- Ossian Ekdahl, Första AP-fonden

During 2018, 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 2019 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 2018, the Board held 11 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 2018, the Board approved the operational strategy and the financial plan for 2019.

## 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 2018, the chairman conducted a written survey with all the board members. The result of the evaluation has been reported and discussed in the Board and the Nomination Committee. The Board is also evaluated within the framework of the Nomination Committee's activities.

## AUDIT COMMITTEE

During 2018 the Audit Committee comprised:

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

In 2018, 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 2018, the Remuneration Committee comprised:

- Gun Nilsson (Chairman)
- Sofia Schörling Högberg

In 2018, 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 2018 AGM re-elected 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, Nynas AB and Pricer 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 2018.

### FOR MORE DETAILS ABOUT PRINCIPLES PRACTISED:

- The Swedish Companies Act, [www.regeringen.se](http://www.regeringen.se)
- The Swedish Code of Corporate Governance, [www.corporategovernanceboard.se](http://www.corporategovernanceboard.se)

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 2018 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 to 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 Annual General Meeting. The notice period shall normally be six months on the part of the employee. 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. 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 individual, although not lower than 60 years.

It is proposed to the 2019 Annual General Meeting to resolve on substantially the same guidelines as above concerning the remuneration of senior executives.

## REMUNERATION OF GROUP MANAGEMENT

Remuneration of the President and CEO and other senior executives is presented in Note 30 on page 67.

There are no agreements between the company, directors or employees, other than as described in Note 30, which stipulate the right to compensation if such person voluntarily leaves the company, 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 73 (The Share section) and in Note 30 on page 67.

## REMUNERATION OF BOARD OF DIRECTORS

Remuneration of the Board of Directors is resolved by the AGM upon proposal from the Nomination Committee. During 2018, the Chairman of the Board and other Board Members received remuneration totaling 516.0 KEUR (593.8). Remuneration of the Board of Directors is presented in Note 30 on page 67.

## 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 31 on page 68.

### MORE INFORMATION IS AVAILABLE AT [HEXAGON.COM](http://HEXAGON.COM)

- Articles of Association
- Information from earlier Annual General Meetings
- Information about the Nomination Committee
- Information ahead of the Annual General Meeting 2019

# 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 report-

ing 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 follow-ups 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 followed up continuously. The follow-up pertains to both formal and informal procedures used by the officers responsible at each level. The procedures incorporate the follow-up 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.

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# AUDITOR'S REPORT ON THE CORPORATE GOVERNANCE STATEMENT

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To the annual 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 2018 on pages 17–21 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.

Stockholm, Sweden, 15 March 2019

Ernst & Young AB

Rickard Andersson  
*Authorized Public Accountant*

**“Our aim is to make sure we can continually build the company for a sustainable future and create shareholder value in the long run.”**



# DEAR SHAREHOLDERS,

It is once again with joy I look back on another record year for Hexagon. A year characterised by a continued transformative journey towards becoming a solution-centric company that facilitates solutions for many of the challenges of tomorrow.

In 2018, the world economy grew at its quickest pace in several years. Meanwhile, geopolitical tensions throughout the world added uncertainty to several markets. One of the Board's most important responsibilities is to ensure Hexagon has a solid financial position which can withstand periods of uncertainty, leverage opportunities and at the same time balance risks. Our aim is to make sure we can continually build the company for a sustainable future and create shareholder value in the long run, also by making important investments in both good and worse times. Hexagon's strong financial performance gives us the resources to continue to expand the businesses and deliver upon our strategy and long-term financial objectives.

During the year, the Board has taken many decisions fueling further instrumental investments in Hexagon's long-term strategy – to deliver Smart X solutions that drive quality and productivity improvements in the ecosystems we touch. We acquired AutonomouStuff, a world leader in integrated autonomous vehicle solutions which strengthens Hexagon's domain expertise in autonomy. We also acquired Agtek and Bricsys, which further enhance our capabilities within Smart Construction, and Nextsense and

Spring Technologies to strengthen our Smart Factory portfolio. During the year we invested in two brand new state of the art production and R&D centers, one in Calgary, Canada which opened in September and one in Hongdao, China which will be inaugurated in 2020. Along with our constant focus on R&D, these are important investments that will underpin Hexagon's leadership for many years to come.

It is also the Board's responsibility to ensure sound corporate governance, distinguished by clearly defined responsibilities for management and control bodies, and by the rigorous processes that exist in Hexagon's internal systems. The Board has for many years implemented processes to mitigate risks, whether they relate to the market, operations or finance, and to ensure Hexagon is conducting its business in a sustainable way.

On behalf of the entire Board of Directors, I would like to thank Hexagon's over 20,000 employees who everyday do their outmost to grow the businesses and the shareholders for your continued trust and support. Looking ahead, I have great confidence in the future of Hexagon and look forward to another year of great achievements.

Stockholm, Sweden, March 2019

**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 Gambo Holding AB, Deputy CEO and CFO of Duni AB.  
*Other assignments:* Board Member of Hexpol AB, AAK AB, Loomis AB and Bonnier Group AB. Member of The Swedish Corporate Governance Board.  
*Previous assignments in the past five years:* Board Member of Capio AB and Dometic Group.  
*Shareholding<sup>1)</sup>:* 10,666 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, Winsome Truth, Inc. and Pillar Vision Inc.  
*Previous assignments in the past five years:* –  
*Shareholding<sup>1)</sup>:* 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 SBCAB.

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

*Previous assignments in the past five years:* 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 Wåhlén Fastighets AB.

*Shareholding<sup>1)</sup>:* 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:* –  
*Shareholding<sup>1)</sup>:* 2,517 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:* –  
*Shareholding<sup>1)</sup>:* 586,900 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 Absolut Group.  
*Previous assignments in the past five years:* –  
*Shareholding<sup>1)</sup>:* 15,750,000 shares of series A and 70,035,920 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:* –  
*Shareholding<sup>1)</sup>:* 15,750,000 shares of series A and 70,035,920 shares of series B through Melker Schörling AB.  
Independent of the company and its management.

## HANS VESTBERG

Vice Chairman of the Board May 2017–July 2018.  
Hans Vestberg left Hexagon AB's Board of Directors as of 1 August 2018 due to his new position as CEO of Verizon Communications Inc.

<sup>1)</sup> Shareholdings and warrant holdings based on information per 14 March 2019 and also include related-party holdings.



GUN NILSSON



JOHN BRANDON



ULRIKA FRANCKE



HENRIK HENRIKSSON



OLA ROLLÉN



MÄRTA SCHÖRLING ANDREEN



SOFIA SCHÖRLING HÖGLBERG

# GROUP MANAGEMENT

## OLA ROLLÉN

Born in 1965. President and Chief Executive Officer since 2000. Employed 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:* –  
*Shareholding<sup>1</sup>:* 586,900 shares of series B

## JOHNNY ANDERSSON

Born in 1965. General Counsel. Retained since 2011, employed since 2017.

*Education:* M.Sc. (Law)

*Work experience:* Partner at Mannheimer Swartling Advokatbyrå and Corporate Counsel at IKEA International, Law clerk at District Court of Landskrona

*Other assignments:* –

*Previous assignments in the past five years:* –  
*Shareholding<sup>1</sup>:* –

## 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<sup>1</sup>:* 300,000 warrants for Class B shares in Hexagon AB

## 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<sup>1</sup>:* –

## STEVEN COST

Born in 1967. President of Security & Infrastructure. Employed since 2007.

*Education:* B.Sc., MBA (Accounting)

*Work experience:* Intergraph Chief Accountant Officer/Controller/Treasurer and Senior management positions with Adtran, AVEX Electronics and Benchmark Electronics

*Other assignments:* –

*Previous assignments in the past five years:* –  
*Shareholding<sup>1</sup>:* –

## JÜRGEN DOLD

Born in 1962. President of Geosystems. 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<sup>1</sup>:* 30,000 shares of series B

## NORBERT HANKE

Born in 1962. President of Manufacturing Intelligence. 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<sup>1</sup>:* 44,529 shares of series B and 15,000 warrants for Class B shares in Hexagon AB

## 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<sup>1</sup>:* 120,000 shares of series B and 200,000 warrants for Class B shares in Hexagon AB.

## 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<sup>1</sup>:* –

## 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<sup>1</sup>:* –

## MICHAEL RITTER

Born in 1963. President Positioning Intelligence. 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<sup>1</sup>:* 225,000 warrants for Class B shares in Hexagon AB

## CLAUDIO SIMÃO

Born in 1957. Chief Technology Officer. Employed since 2002.

*Education:* M.Sc. (Mechanical Engineering) and B.Sc. (Physics)

*Work experience:* President of Hexagon South America and President of Hexagon Metrology Asia-Pacific

*Other assignments:* –

*Previous assignments in the past five years:* –  
*Shareholding<sup>1</sup>:* 100,000 warrants for Class B shares in Hexagon AB

## MATTIAS STENBERG

Born in 1977. President of PPM. 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<sup>1</sup>:* 200,000 warrants for Class B shares in Hexagon AB

## MLADEN STOJIC

Born in 1970. Employed since 1996.

*Education:* B.Tech (Engineering), M.Sc. (Geography)

*Work experience:* Director of Product Management within Leica Geosystems GIS & Mapping, Vice President of Geospatial – Intergraph

*Other assignments:* –

*Previous assignments in the past five years:* –  
*Shareholding<sup>1</sup>:* –

<sup>1</sup>) Shareholdings and warrant holdings based on information per 14 March 2019 and also include related-party holdings.



OLA ROLLÉN



JOHNNY ANDERSSON



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
<b>ACQUISITIONS AND INTEGRATION</b> <p>An important part of Hexagon's strategy is to work actively with 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. This may lead to a decreasing growth rate for Hexagon.</p> <p>Acquisitions entail risk. The acquired entities' relations with customers, suppliers and key personnel may be negatively affected. 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 compliant with Hexagon's Code of Conduct may have a negative impact on Hexagon's reputation.</p>	<p>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 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>From 2000 to 2018, Hexagon made more than 140 acquisitions. Based on extensive experience of 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

## RISK MANAGEMENT

### IMPACT OF THE ECONOMY

Hexagon engages in worldwide operations that are dependent on general economic trends and conditions that are unique for certain countries or regions. As in virtually all businesses, general market conditions affect the inclination and the capabilities of Hexagon's existing and potential customers to invest in design, measurement and visualisation technologies. A weak economic trend in the whole or 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 are Great Britain's exit from the European Union ("Brexit") and the escalating tension between the US and China which could potentially lead to a trade war. Understanding how these geopolitical risks may affect Hexagon's organisation, operating results and strategies are of utmost importance. However, what impact Brexit and/or a trade war between the US and China will have on the global market 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 environment 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. R&D efforts are costly and new product development always entails a risk of unsuccessful product launches or commercialisation, which could have material consequences.

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 the continued development 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 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 analysis of customers and suppliers are conducted to assess business risks. Operational risks are primarily managed within each subsidiary of Hexagon.

RISK	RISK MANAGEMENT
<b>CUSTOMERS</b>  Hexagon's business activities are conducted in a large number of markets with multiple customer categories. In 2018, 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 17 per cent, Infrastructure and Construction with 13 per cent and Power and Energy with 12 per cent.  Hexagon may face risks if customers are misusing the company's products in ways that negatively impact human rights.	Hexagon has a favourable risk diversification in products and geographical areas and dependence of a single customer or customer category is not decisive for the Group's performance. The largest customer represents approximately 2 per cent of the Group's total net sales. Credit risk in customer receivables account for the majority of Hexagon's counterparty risk. Hexagon believes there is no significant concentration of counterparty risk.  Hexagon's compliance programme address all principles contained in the Code of Conduct including export controls. Hexagon is committed to complying with appropriate export control. Hexagon's Export Control compliance efforts aim to safeguard peace and security by preventing the unlawful trading of items (i.e. goods, software or technology) to destinations that may use them for illegal purposes.
<b>SUPPLIERS</b>  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.  If there were to be unmanaged negative impacts following a supplier's noncompliance of Hexagon's code of conduct it may entail reputational risks for Hexagon.	Hexagon has a favourable risk diversification and dependence of 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 2018. To minimise the risk of shortages in the supply 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.  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 code of conduct.

## 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.

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, etc.) that could lead to property damages 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 in line with a long term planning together with each subsidiary. 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. For Hexagon, anti-corruption compliance is of utmost importance, as it helps Hexagon advance its financial interests and brand value.

Hexagon has a solid Code of Conduct 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 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.

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 new GDPR 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 released 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 from a serious breach are high and can also be damaging to the reputation of the organisation.

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

Hexagon has mandated that all divisions must implement a recognised cybersecurity framework. Hexagon has set the minimum standard of implementing the NIST-800-171 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 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 its internal financing.

## RISK RISK MANAGEMENT

### CURRENCY

Hexagon's operations are mainly conducted internationally. During 2018, total operating earnings, excluding non-recurring items, from operations in currencies other than EUR amounted to an equivalent of 612.8 MEUR (601.3). 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 income statement, balance sheet or cash flow.

Sales and purchases of goods and services in currencies other than the subsidiary's functional currency, give rise to transaction exposure.

Translation exposure arises when the income statement and balance sheets 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 2018.

Movement <sup>1</sup>	Net of income and cost	Profit impact
CHF	Weakened -4%	Negative
USD	Weakened -4%	Positive
CNY	Weakened -2%	Positive
EBIT1, MEUR	-33.2	

1) Compared to EUR and 2017.

### 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 fixing period for borrowings.

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.

As far as possible, transaction exposure is concentrated to the countries where the manufacturing entities are located. This is achieved by invoicing the sales entities in their respective functional currency from the manufacturing entities. According to the Group's financial policy, transaction exposure should not be hedged. The rationale for this is that the vast majority of transactions concern a short period of time from order to payment. Moreover, a transaction hedge of a flow only postpones the effect of a change in currency rates.

The translation exposure can be hedged 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.

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 2018 interest rate derivatives were used to manage the interest rate risk.

## 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 2018, cash and unutilised credit limits totalled 1,684.2 MEUR (1,601.1).

## 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 extending 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 raise the necessary capital. In this regard, the general development on 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 in the Group, combined with active measures to ensure access to credit. There is no guarantee that Hexagon will be able to raise the sufficient funds in order to refinance maturing debt.

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 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 risk 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 own 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 Group level.

RISK	RISK MANAGEMENT
<b>LEGISLATION AND REGULATION</b> <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, 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 development 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.
<b>INTELLECTUAL PROPERTY RIGHTS</b> <p>Patent infringement and plagiarism 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.</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 through legal proceedings when warranted.
<b>ENVIRONMENT</b> <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 complies 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.
<b>TAX</b> <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 have their local transfer pricing rules to follow and authorities interpret transfer pricing guidelines differently. 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 effect on the Group's tax position. Furthermore, a change of 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.

# FINANCIAL REPORTS

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## CONSOLIDATED INCOME STATEMENT

MEUR	Note	2018	2017
Net sales	3, 5, 24	3,760.7	3,448.1
Cost of goods sold	6, 12	-1,423.8	-1,329.0
Gross earnings		2,336.9	2,119.1
Sales expenses	6, 12	-704.3	-656.3
Administration expenses	6, 12	-309.3	-303.5
Research and development expenses	6, 12	-406.5	-390.2
Other operating income	7, 12	96.0	98.1
Other operating expenses	7, 12	-88.3	-107.5
Share of income in associated companies	17	-0.1	-0.1
Capital gain/loss from sale of shares in group companies	9, 27	0.7	-
<b>Operating earnings<sup>1</sup></b>	3, 13, 22, 25, 29, 30, 31	<b>925.1</b>	<b>759.6</b>
<b>Financial income and expenses</b>			
Financial income	10, 24	6.4	5.6
Financial expenses	10, 24	-29.2	-28.3
<b>Earnings before tax</b>	3	<b>902.3</b>	<b>736.9</b>
Tax on earnings for the year	11	-164.2	-65.7
<b>Net earnings</b>		<b>738.1</b>	<b>671.2</b>
<b>Attributable to:</b>			
Parent company shareholders		730.0	664.1
Non-controlling interest		8.1	7.1
<sup>1</sup> Of which non-recurring items	12	-3.9	-73.2
Earnings include depreciation, amortisation and impairment of - of which amortisation of surplus values		-284.0 -49.0	-284.7 -44.9
Average number of shares, thousands	21	360,942	360,443
Average number of shares after dilution, thousands	21	362,301	361,589
Earnings per share, EUR		2.02	1.84
Earnings per share after dilution, EUR		2.01	1.84

## CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME

MEUR	Note	2018	2017
Net earnings		738.1	671.2
<b>Other comprehensive income:</b>			
<b>Items that will not be reclassified to income statement</b>			
Remeasurement of pensions	22	-25.3	47.4
<b>Tax attributable to items that will not be reclassified to income statement</b>	11	2.9	-6.6
<b>Total items that will not be reclassified to income statement, net of tax</b>		-22.4	40.8
<b>Items that may be reclassified subsequently to income statement</b>			
Exchange rate differences		117.5	-528.6
Tax attributable to items that may be reclassified subsequently to income statement:			
<b>Tax attributable to effect of translation differences</b>	11	-6.2	24.4
<b>Total items that may be reclassified subsequently to income statement, net of tax</b>		111.3	-504.2
<b>Other comprehensive income, net of tax</b>		88.9	-463.4
<b>Total comprehensive income</b>		<b>827.0</b>	<b>207.8</b>
<b>Attributable to:</b>			
Parent company shareholders		819.0	201.5
Non-controlling interest		8.0	6.3

# CONSOLIDATED BALANCE SHEET

MEUR	Note	2018-12-31	2017-12-31
<b>ASSETS</b>			
<b>Fixed assets</b>			
Intangible fixed assets	8, 14	7,100.8	6,408.3
Tangible fixed assets	15	384.2	281.2
Shares in associated companies	16, 17	0.0	0.1
Other long-term securities holdings	16, 24	1.0	4.2
Other long-term receivables	16, 18	52.9	36.1
Deferred tax assets	11	83.6	83.7
<b>Total fixed assets</b>		<b>7,622.5</b>	<b>6,813.6</b>
<b>Current assets</b>			
Inventories	19	463.0	431.8
Customer receivables	5, 18, 24	959.1	895.5
Current tax receivables	11	37.9	29.7
Other receivables – interest bearing	24	1.5	1.5
Other receivables – non-interest bearing	18, 24	72.4	62.7
Prepaid expenses and accrued income	20, 24	133.1	69.2
Short-term investments	24	111.8	90.3
Cash and bank balances	24	282.8	219.1
<b>Total current assets</b>		<b>2,061.6</b>	<b>1,799.8</b>
<b>TOTAL ASSETS</b>		<b>9,684.1</b>	<b>8,613.4</b>
<b>SHAREHOLDERS' EQUITY AND LIABILITIES</b>			
<b>Shareholders' equity</b>			
Share capital	21	80.5	80.0
Other capital contributions		1,481.3	1,397.8
Revaluation reserve		-4.8	-4.8
Translation reserve		180.5	69.2
Retained earnings		3,567.8	3,050.3
<b>Shareholders' equity attributable to Parent company shareholders</b>		<b>5,305.3</b>	<b>4,592.5</b>
Non-controlling interest		13.9	11.9
<b>Total shareholders' equity</b>		<b>5,319.2</b>	<b>4,604.4</b>
<b>Long-term liabilities</b>			
Provisions for pensions	22	108.2	82.3
Other provisions	23	8.6	8.5
Deferred tax liabilities	11	448.7	442.6
Long-term liabilities – interest bearing	24	1,813.9	1,960.2
Other long-term liabilities – non-interest bearing	24	154.3	48.6
<b>Total long-term liabilities</b>		<b>2,533.7</b>	<b>2,542.2</b>
<b>Current liabilities</b>			
Accounts payable	24	251.1	189.3
Advance payments from customers	24	45.9	51.6
Current tax liabilities	11	110.7	84.7
Current liabilities – interest bearing	24	541.8	301.8
Other liabilities – non-interest bearing	24	123.1	119.0
Other provisions	23	21.5	28.1
Deferred income	20, 24	405.0	369.6
Accrued expenses	20, 24	332.1	322.7
<b>Total current liabilities</b>		<b>1,831.2</b>	<b>1,466.8</b>
<b>TOTAL SHAREHOLDERS' EQUITY AND LIABILITIES</b>		<b>9,684.1</b>	<b>8,613.4</b>

# 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 share-holders' equity
Opening shareholders' equity, 2017-01-01	80.0	1,397.8	-4.8	573.4	2,530.4	4,576.8	14.0	4,590.8
Adjustment of opening shareholders' equity (IFRS 15)	-	-	-	-	-17.8	-17.8	-	-17.8
Adjusted opening shareholders' equity	80.0	1,397.8	-4.8	573.4	2,512.6	4,559.0	14.0	4,573.0
Total comprehensive income	-	-	-	-504.2	705.7	201.5	6.3	207.8
Dividend	-	-	-	-	-173.0	-173.0	-8.4	-181.4
Effect of acquisitions and divestments of subsidiaries	-	-	-	-	5.0	5.0	-	5.0
Closing shareholders' equity, 2017-12-31	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

*Share capital* is described in detail in Note 21.

*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	2018	2017
Cash flow from operating activities			
Operating earnings		925.1	759.6
Adjustments for items in operating earnings not affecting cash flow:			
Depreciation, amortisation and impairment		284.0	284.7
Change in provisions		-24.8	-60.7
Capital gain/loss on divestments of fixed assets		-20.5	-1.1
Capital gain from sale of shares in group companies		-0.7	-
Earnings from shares in associated companies		0.1	0.1
Other items not affecting cash flow		-	0.2
Proceeds from divestment of financial investments		24.8	-
Interest received		5.9	5.6
Interest paid		-28.0	-22.4
Tax paid		-153.3	-114.8
<b>Cash flow from operating activities before changes in working capital</b>		<b>1,012.6</b>	<b>851.2</b>
Cash flow from changes in working capital			
Change in inventories		-19.0	-8.3
Change in current receivables		-115.0	-96.2
Change in current liabilities		73.3	131.9
<b>Cash flow from changes in working capital</b>		<b>-60.7</b>	<b>27.4</b>
<b>Cash flow from operating activities<sup>1</sup></b>		<b>951.9</b>	<b>878.6</b>
Cash flow from ordinary investing activities			
Investments in intangible fixed assets	14	-234.3	-226.8
Investments in tangible fixed assets	15	-156.5	-54.7
Divestments of tangible fixed assets	15	1.7	5.9
<b>Cash flow from ordinary investing activities</b>		<b>-389.1</b>	<b>-275.6</b>
Operating cash flow		562.8	603.0
Cash flow from other investing activities			
Investments in subsidiaries	27	-426.6	-915.3
Divestments of subsidiaries	27	4.0	-
Investments in financial fixed assets	16	-18.2	-19.1
Divestments of financial fixed assets	16	2.6	5.5
<b>Cash flow from other investing activities</b>		<b>-438.2</b>	<b>-928.9</b>
Cash flow from financing activities			
Borrowings	24	277.8	764.9
Repayment of debt		-184.3	-215.0
New share issues, net of expenses		84.0	-
Dividend to Parent company shareholders		-191.0	-173.0
Dividend to non-controlling interests in subsidiaries		-5.5	-8.4
<b>Cash flow from financing activities</b>		<b>-19.0</b>	<b>368.5</b>
Cash flow for the year		105.6	42.6
Cash and cash equivalents, beginning of year <sup>2</sup>		309.4	284.0
Effect of translation differences on cash and cash equivalents		-20.4	-17.2
Cash flow for the year		105.6	42.6
<b>Cash and cash equivalents, end of year<sup>2</sup></b>		<b>394.6</b>	<b>309.4</b>

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	2018	2017
Net sales	4	17.9	18.5
Administration expenses	4, 6, 25, 29, 30, 31	-24.9	-28.1
Operating earnings		-7.0	-9.6
<b>Financial income and expense</b>			
Earnings from shares in group companies	9	227.0	59.0
Financial income	10	265.4	231.5
Financial expenses	10	-153.9	-271.9
Earnings before tax and appropriations		331.5	9.0
<b>Appropriations</b>			
Group contribution, net		-5.2	22.7
Change in profit equalization reserves		-18.5	-
Earnings before tax		307.8	31.7
Tax on earnings for the year	11	-18.2	5.6
<b>Net earnings</b>		289.6	37.3

## PARENT COMPANY STATEMENT OF COMPREHENSIVE INCOME

MEUR	2018	2017
Net earnings	289.6	37.3
Other comprehensive income	-	-
<b>Total comprehensive income</b>	289.6	37.3

# PARENT COMPANY BALANCE SHEET

MEUR	Note	2018-12-31	2017-12-31
<b>ASSETS</b>			
<b>Fixed assets</b>			
Intangible fixed assets	14	0.1	0.1
Tangible fixed assets	15	0.0	0.0
<b>Total intangible and tangible assets</b>		0.1	0.1
<b>Financial fixed assets</b>			
Shares in group companies	16	4,825.0	4,712.8
Receivables from group companies	16	2,761.4	2,656.3
Other financial fixed assets	16	0.6	0.4
Deferred tax assets	11	-	6.0
<b>Total financial fixed assets</b>		7,587.0	7,375.5
<b>Total fixed assets</b>		7,587.1	7,375.6
<b>Current assets</b>			
<b>Current receivables</b>			
Receivables from group companies		1,091.0	947.9
Other receivables		0.4	1.2
Prepaid expenses and accrued income	20	0.3	0.3
<b>Total current receivables</b>		1,091.7	949.4
Cash and bank balances		15.5	0.7
<b>Total current assets</b>		1,107.2	950.1
<b>TOTAL ASSETS</b>		8,694.3	8,325.7
<b>SHAREHOLDERS' EQUITY AND LIABILITIES</b>			
<b>Shareholders' equity</b>			
<b>Restricted equity</b>			
Share capital	21	80.5	80.0
Paid-in, non-registered share capital		0.0	-
Reserve for capitalised development expenses		0.1	-
Statutory reserve		314.3	314.3
<b>Total restricted equity</b>		394.9	394.3
<b>Non-restricted equity</b>			
Premium reserve		1,005.9	922.4
Retained earnings		3,334.8	3,236.3
<b>Total non-restricted equity</b>		4,340.7	4,158.7
<b>Total shareholders' equity</b>		4,735.6	4,553.0
Untaxed reserves		18.5	-
<b>Total untaxed reserves</b>		18.5	-
<b>Provisions</b>			
Other provisions		0.6	0.4
<b>Total provisions</b>		0.6	0.4
<b>Long-term liabilities</b>			
Liabilities to credit institutions	24	1,806.7	1,954.8
<b>Total long-term liabilities</b>		1,806.7	1,954.8
<b>Current liabilities</b>			
Liabilities to credit institutions	24	529.9	279.8
Accounts payable		0.6	0.4
Liabilities to group companies		1,583.0	1,529.8
Current tax liabilities	11	11.9	0.4
Other liabilities		0.2	0.4
Accrued expenses and deferred income	20	7.3	6.7
<b>Total current liabilities</b>		2,132.9	1,817.5
<b>TOTAL SHAREHOLDERS' EQUITY AND LIABILITIES</b>		8,694.3	8,325.7

## 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 share- holders' equity
Opening balance 2017-01-01	80.0	-	-	314.3	922.4	3,372.0	4,688.7
Total comprehensive income	-	-	-	-	-	37.3	37.3
Dividend	-	-	-	-	-	-173.0	-173.0
Closing balance 2017-12-31	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	0.0
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

## PARENT COMPANY STATEMENT OF CASH FLOWS

MEUR	Note	2018	2017
<b>Cash flow from operating activities</b>			
Operating earnings		-7.0	-9.6
Adjustment for operating earnings items not affecting cash flow:			
Depreciation, amortisation and impairment		0.1	0.0
Unrealised exchange rate gains and losses		-27.6	92.9
Dividends received		236.4	-
Interest received		263.8	230.9
Interest paid		-154.0	-269.8
Tax paid		-0.7	-0.2
<b>Cash flow from operating activities before changes in working capital</b>		311.0	44.2
<b>Cash flow from changes in working capital</b>			
Change in current receivables		-145.9	-122.7
Change in current liabilities		53.9	-114.2
<b>Cash flow from changes in working capital</b>		-92.0	-236.9
<b>Cash flow from operating activities</b>		219.0	-192.7
<b>Cash flow from investing activities</b>			
Investments in intangible fixed assets	14	-0.1	-
Investments in financial fixed assets	16	-121.8	-393.4
Change in long-term receivables, group companies		-51.6	106.2
<b>Cash flow from investing activities</b>		-173.5	-287.2
<b>Cash flow from financing activities</b>			
Borrowings		277.2	766.0
Repayment of debt		-175.8	-214.1
New share issues, net of expenses		84.0	-
Provisions		0.2	0.0
Dividend to shareholders		-191.0	-173.0
<b>Cash flow from financing activities</b>		-5.4	378.9
<b>Cash flow for the year</b>		40.1	-101.0
<b>Cash and bank balances, beginning of year<sup>1</sup></b>		0.7	15.5
Effect of translation differences on cash and bank		-25.3	86.2
<b>Cash flow for the year</b>		40.1	-101.0
<b>Cash and bank balances, end of year<sup>1</sup></b>		15.5	0.7

<sup>1) Cash and cash equivalents include cash and bank balances.</sup>

# NOTES

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## 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 14 March 2019, 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 8 April 2019 for adoption.

### APPLICATION OF NEW AND CHANGED STANDARDS FROM 2018

The following amendments in accounting rules are applied for the first time in reporting periods starting on the 1st of January 2018:

IFRS 15 Revenue from contracts with customers, see note 5.

IFRS 9 Financial instruments, see note 24.

### APPLICATION OF NEW STANDARDS FROM 2019

New standards, amended standards and interpretations that have not entered into force, have not been applied in advance in the financial reports of Hexagon. The following standards enter into force on 1 January 2019 or later.

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.

Hexagon has, during 2018, reviewed all lease contracts regarding the new requirements in IFRS 16. The total assets and total liabilities as of 1 of January 2019 have increased with approximately 240 MEUR because of the implementation of IFRS 16.

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 25 Leasing.

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

### LEASE ACCOUNTING PRINCIPLES FROM 2019

#### Hexagon as lessee

Hexagon has the role of lessee mainly in contracts regarding real estate, vehicles 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 payments and repayment of debt. 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 guarantees, 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 is used.

The right-of-use asset is measured and 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.

#### Hexagon as lessor

There are a few contracts in which Hexagon is the lessor. Those contracts are classified as finance lease contracts and the revenue

#### **NOTE 1 Accounting policies, cont.**

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.

#### **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.

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.

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 acquire 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.

*NOTE 1 Accounting policies, cont.*

#### **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 8 April 2019.

## **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 how 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. 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 4,977.1 MEUR (4,412.3). Other intangible assets not subject to amortisation amount to 998.2 (945.2) MEUR as of this date. Performed impairment tests demonstrate that reported values are defendable.

#### **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 365.1 MEUR (358.9), net, at the end of 2018. At the same date, the Group had tax-loss carry-forwards with a value of 43.5 MEUR (35.1) 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. 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.

	<b>IES</b>	<b>GES</b>	<b>Total segments</b>	<b>Group expenses and eliminations</b>	<b>Group</b>
<b>2018</b>					
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 (EBIT) <sup>1</sup>	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
<sup>1</sup> Of which share in associated companies earnings	0.0	-0.1	-0.1	-	-0.1
Shares in associated companies	0.0	0.0	0.0	-	0.0
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
<b>2017</b>	<b>IES</b>	<b>GES</b>	<b>Total segments</b>	<b>Group expenses and eliminations</b>	<b>Group</b>
Net sales	1,764.2	1,706.3	3,470.5	-22.4	3,448.1
Operating expenses	-1,322.4	-1,294.5	-2,616.9	1.6	-2,615.3
Operating earnings (EBIT) <sup>1</sup>	441.8	411.8	853.6	-20.8	832.8
Non-recurring items	-55.7	-16.7	-72.4	-0.8	-73.2
Operating earnings (EBIT)	386.1	395.1	781.2	-21.6	759.6
Net interest income/expenses				-22.7	-22.7
Earnings before tax				-44.3	736.9
Operating assets	5,213.3	3,734.7	8,948.0	-798.0	8,150.0
Operating liabilities	-701.0	-1,141.9	-1,842.9	805.5	-1,037.4
Net operating assets	4,512.3	2,592.8	7,105.1	7.5	7,112.6
<sup>1</sup> Of which share in associated companies earnings	0.0	-0.1	-0.1	-	-0.1
Shares in associated companies	0.0	0.1	0.1	-	0.1
Investments in fixed assets	107.6	173.3	280.9	0.6	281.5
Average number of employees	9,599	7,872	17,471	72	17,543
Number of employees at year-end	10,139	8,100	18,239	76	18,315
Depreciation, amortisation and impairment	-135.8	-148.0	-283.8	-0.9	-284.7

**Geographical markets**

	Operating Assets <sup>1</sup>						Tangible and intangible fixed assets			
	Net sales by country <sup>3</sup>		Assets		Liabilities		Net			
	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017
EMEA <sup>2</sup>	1,415.0	1,303.1	4,176.7	4,441.7	-573.6	-1,138.0	3,603.1	3,303.7	3,246.9	3,094.1
Americas	1,239.6	1,163.4	4,925.2	4,305.3	-571.8	-468.1	4,353.4	3,837.2	4,100.5	3,475.9
Asia	1,106.1	1,004.0	606.9	547.8	-591.7	-576.1	15.2	-28.3	137.6	119.5
Elimination of Intra-Group items / Adjustments	-	-22.4	-595.5	-1,144.8	595.5	1,144.8	-	-	-	-
<b>Group</b>	<b>3,760.7</b>	<b>3,448.1</b>	<b>9,113.3</b>	<b>8,150.0</b>	<b>-1,141.6</b>	<b>-1,037.4</b>	<b>7,971.7</b>	<b>7,112.6</b>	<b>7,485.0</b>	<b>6,689.5</b>

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 77.1 MEUR (78.1) and tangible and intangible fixed assets of 27.8 MEUR (29.5).

3) Relates to the country where the customer has its residence. No single customer represented more than 2.3 per cent (2.4) of net sales.

## NOTE 4 PARENT COMPANY INTRA-GROUP PURCHASES AND SALES

Other Group companies account for 100 per cent (100) of the Parent Company's sales and 80 per cent (83) of the Parent Company's purchases.

## NOTE 5 REVENUE FROM CONTRACTS WITH CUSTOMERS

### 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 credit do not exceed 30 days, which corresponds to practice. 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 23.

### 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 cannot 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.

#### DISAGREGGATION 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.

2018	Surveying	Power & Energy	Infrastructure & Construction	Automotive	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
<b>Total</b>	<b>767.8</b>	<b>457.9</b>	<b>485.5</b>	<b>455.1</b>	<b>149.8</b>	<b>625.2</b>	<b>390.5</b>	<b>184.1</b>	<b>244.8</b>	<b>3,760.7</b>

2017	Surveying	Power & Energy	Infrastructure & Construction	Automotive	Public Safety	Electronics & Manufacturing	Aerospace & Defence	Natural Resources	Other	Group
Industrial Enterprise Solutions (IES)	0.3	380.8	68.3	351.1	10.5	465.6	154.0	2.6	308.6	1,741.8
Geospatial Enterprise Solutions (GES)	724.9	-	359.3	5.8	257.5	7.9	134.0	154.9	62.0	1,706.3
<b>Total</b>	<b>725.2</b>	<b>380.8</b>	<b>427.6</b>	<b>356.9</b>	<b>268.0</b>	<b>473.5</b>	<b>288.0</b>	<b>157.5</b>	<b>370.6</b>	<b>3,448.1</b>

#### Contract balances

Group	2018-12-31	2017-12-31 <sup>1</sup>	2017-01-01 <sup>1</sup>
Customer receivables	959.1	895.5	787.4
Contract assets	52.9	29.0	25.1
Contract liabilities	450.9	422.9	305.5

1) Restated according to IFRS 15.

For impairment losses, see Note 18.

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 2018.

## NOTE 6 OPERATING EXPENSES

	Group		Parent Company	
	2018	2017	2018	2017
<b>Cost of goods sold</b>				
Cost of goods	705.5	697.1	-	-
Personnel cost	402.3	375.1	-	-
Depreciation and amortisation	27.1	25.4	-	-
Other	288.9	231.4	-	-
<b>Total</b>	<b>1,423.8</b>	<b>1,329.0</b>	<b>-</b>	<b>-</b>
<b>Sales expenses</b>				
Personnel cost	484.7	447.0	-	-
Depreciation and amortisation	16.9	13.6	-	-
Other	202.7	195.7	-	-
<b>Total</b>	<b>704.3</b>	<b>656.3</b>	<b>-</b>	<b>-</b>
<b>General and administrative cost</b>				
Personnel cost	208.1	181.9	7.3	7.0
Depreciation and amortisation	22.6	20.9	0.1	0.0
Other	78.6	100.7	17.5	21.1
<b>Total</b>	<b>309.3</b>	<b>303.5</b>	<b>24.9</b>	<b>28.1</b>
<b>Research and development cost</b>				
Personnel cost	204.5	162.9	-	-
Depreciation and amortisation	185.6	180.2	-	-
Other	16.4	47.1	-	-
<b>Total</b>	<b>406.5</b>	<b>390.2</b>	<b>-</b>	<b>-</b>

## 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.

Group	2018	2017
<b>Other operating income</b>		
Capital gain on divestment of fixed assets		
Gain on divestment of financial assets	0.5	1.7
Exchange rate gains	21.7	-
Government grants	49.2	36.4
Fair value adjustments	4.3	2.7
Rental income	16.7	53.7
Other	1.1	1.0
<b>Total</b>	<b>96.0</b>	<b>98.1</b>
<b>Other operating expenses</b>		
Capital loss on divestment of fixed assets		
Exchange rate losses	-0.5	-0.4
Rental related expenses	-48.8	-45.5
Impairment	-1.6	-1.5
Acquisition related expenses	-25.9	-47.5
Other	-4.7	-7.5
<b>Total</b>	<b>-88.3</b>	<b>-107.5</b>

## 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
- Positioning Intelligence
- Safety & Infrastructure
- PPM

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

	Geosystems		Manufacturing Intelligence		Positioning Intelligence		Safety & Infrastructure		PPM		Total	
	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017
Goodwill	1,196.3	1,106.2	1,176.5	1,118.2	593.2	333.1	461.1	481.6	1,550.0	1,373.2	4,977.1	4,412.3
Other intangible assets with indefinite useful lives <sup>1</sup>	432.2	427.2	154.7	145.0	28.6	14.1	79.2	76.3	303.5	282.6	998.2	945.2
Intangible assets subject to amortisation <sup>2</sup>	336.8	321.3	392.6	359.0	96.2	75.6	120.4	123.6	179.6	171.3	1,125.5	1,050.8
Total	1,965.3	1,854.7	1,723.8	1,622.2	718.0	422.8	660.7	681.5	2,033.1	1,827.1	7,100.8	6,408.3

1) Comprises the right to use the Leica name and other owned names and brands.

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

Hexagon performed its annual impairment test as per 31 December 2018. Hexagon tests if the carrying value of the CGU's exceed their recoverable value. The recoverable value is the higher of the CGUs net realisable value and the value in use, meaning the discounted value of future cash flows.

### GEOSYSTEMS

The recoverable amount of the Geosystems CGU is determined based on a value in use calculation using cash flow projections from financial budgets approved by senior management covering a five year period. The pre-tax discount rate applied to the cash flow projections 7.5 per cent (7.3). The growth rate used to extrapolate the cash flows beyond the five-year period was 2.0 per cent (2.0). This growth rate is assessed on a conservative basis and is set equal to the expected inflation. As a result of the impairment test performed, management did not identify an impairment for this CGU.

### MANUFACTURING INTELLIGENCE

The recoverable amount of the Manufacturing Intelligence CGU is also determined based on a value in use calculation using cash flow projections from financial budgets approved by senior management covering a five year period. The pre-tax discount rate applied to the cash flow projections 9.0 per cent (8.5). The growth rate used to extrapolate the cash flows beyond the five-year period was approximately 2.0 per cent (2.0). This growth rate is assessed on a conservative basis and is set equal to the expected inflation. As a result of the impairment test performed, management did not identify an impairment for this CGU.

### POSITIONING INTELLIGENCE

The recoverable amount of the Positioning Intelligence CGU is also determined based on a value in use calculation using cash flow projections from financial budgets approved by senior management covering a five year period. The pre-tax discount rate applied to the cash flow projections 9.5 per cent (9.1). The growth rate was used to extrapolate the cash flows beyond the five-year period was approximately 2.0 per cent (2.0). This growth rate is assessed on a conservative basis and is set equal to the expected inflation. As a result of the impairment test performed, management did not identify an impairment for this CGU.

### SAFETY & INFRASTRUCTURE

The recoverable amount of the Safety & Infrastructure CGU is also determined based on a value in use calculation using cash flow projections from financial budgets approved by senior management covering a five year period. The pre-tax discount rate applied to the cash flow projections 10.2 per cent (9.3). The growth rate used to extrapolate the cash flows beyond the five-year period was approximately 2.0 per cent (2.0). This growth rate is assessed on a conservative basis and is set equal to the expected inflation. As a result of the impairment test performed, management did not identify an impairment for this CGU.

### PPM

The recoverable amount of the PPM CGU is also determined based on a value in use calculation using cash flow projections from financial budgets approved by senior management covering a five year period. The pre-tax discount rate applied to the cash flow projections 10.2 per cent (9.3). The growth rate was used to extrapolate the cash flows beyond the five-year period was approximately 2.0 per cent (2.0). This growth rate is assessed on a conservative basis and is set equal to the expected inflation. As a result of the impairment test performed, management did not identify an impairment for this CGU.

### KEY ASSUMPTIONS USED IN VALUE IN USE CALCULATIONS

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

The forecasted cash flows, that is approved by senior management, are based on a analysis of historic performance as well as a best estimate 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 each 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 each 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 beyond the forecast period

Rates are based on published industry research. The long term rate used to extrapolate the budget is assessed as conservative as this is set equal to the expected long term inflation rate.

#### NOTE 8 Impairment, cont.

#### 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 defendable 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	
	2018	2017	2018	2017
Earnings from shares in group companies				
Dividend from subsidiaries	-	-	236.4	70.2
Impairment loss of shares in Group companies	-	-	-9.4	-11.2
Capital gain/loss from sale of shares in group companies	0.7	-	-	-
Total	0.7	-	227.0	59.0

#### NOTE 10 FINANCIAL INCOME AND EXPENSES

	Group		Parent Company	
	2018	2017	2018	2017
<b>Financial income</b>				
Interest income	5.8	5.2	0.3	0.2
Interest income, intercompany receivables	-	-	117.5	105.2
Other financial income	0.6	0.4	147.6	126.1
<b>Total</b>	<b>6.4</b>	<b>5.6</b>	<b>265.4</b>	<b>231.5</b>
<b>Financial expenses</b>				
Interest expenses	-17.2	-17.5	-14.6	-14.3
Interest expenses, intercompany liabilities	-	-	-14.4	-10.2
Net interest on pensions	-1.3	-1.6	-	-
Other financial expenses	-10.7 <sup>1)</sup>	-9.2 <sup>1)</sup>	-124.9	-247.4
<b>Total</b>	<b>-29.2</b>	<b>-28.3</b>	<b>-153.9</b>	<b>-271.9</b>

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;
- 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

	2018	2017
Current tax	-172.0	-145.4
Deferred tax	7.8	79.7
<b>Total tax on earnings for the year</b>	<b>-164.2</b>	<b>-65.7</b>

##### Specification of deferred tax

	2018-12-31	2017-12-31
<b>Deferred tax assets (liabilities) comprise:</b>		
Fixed assets	-462.1	-466.9
Inventories	14.4	10.1
Receivables	12.6	28.2
Provisions	9.6	7.5
Other	48.4	34.4
Unutilised loss carry-forwards and similar deductions	55.5	62.9
Less items not satisfying criteria for being recognised as assets	-43.5	-35.1
<b>Total</b>	<b>-365.1</b>	<b>-358.9</b>

##### According to the balance sheet:

Deferred tax assets	83.6	83.7
Deferred tax liabilities	-448.7	-442.6
<b>Total, net</b>	<b>-365.1</b>	<b>-358.9</b>

Unutilised loss carry-forwards and similar deductions not satisfying criteria for being recognised as assets have not been recognised. 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	2018	2017
Opening balance, net	-358.9	-417.7
Adjustment of opening deferred tax liabilities (IFRS 15)	-	6.1
Change via income statement	1.0	-20.4
Deferred tax on earnings	1.6	-0.5
Change in reserve for deductions not satisfying criteria for being recognised as assets	8.2	75.0
Change in tax rates	-3.0	25.6
Items pertaining to prior years	7.8	79.7
<b>Total</b>	<b>-365.1</b>	<b>-358.9</b>

**Change via other comprehensive income**

Deferred tax on other comprehensive income	-3.3	17.8
<b>Total</b>	<b>-3.3</b>	<b>17.8</b>
Change via acquisitions and divestments	-0.7	-75.4
Change via acquisitions (equity) IFRS 15	-	-2.3
Reclassification	-4.5	-
Translation difference	-5.5	32.9
<b>Closing balance, net</b>	<b>-365.1</b>	<b>-358.9</b>

**Current tax**

	2018	2017
Opening balance, net	-55.0	-11.4
Change via income statement		
Current tax on earnings	-161.3	-149.3
Items pertaining to prior years	-10.7	3.9
<b>Total</b>	<b>-172.0</b>	<b>-145.4</b>
Change via acquisitions and divestments	-2.1	-13.5
Payments, net	153.3	114.8
Reclassification	4.5	-
Translation difference	-1.5	0.5
<b>Closing balance, net</b>	<b>-72.8</b>	<b>-55.0</b>

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

	2018-12-31
2019	1.8
2020	1.9
2021	2.2
2022	34.7
2023 and later	38.0
Indefinitely	160.7
<b>Total</b>	<b>239.3</b>

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

	2018	2017
Earnings before tax	902.3	736.9
Tax pursuant to Swedish nominal tax rate 22%	-198.5	-162.1
Difference in tax rates between Swedish and foreign tax rate	24.7	14.2
Revaluation of loss carry-forwards, etc.	1.6	-0.6
Income not subject for tax	9.9	10.1
Expenses not tax deductible	-13.4	32.8
Change in tax rates <sup>1</sup>	8.2	75.0
Items not included in the booked result	17.0	-69.0
Items pertaining to prior years	-13.7	33.9
<b>Tax, income statement</b>	<b>-164.2</b>	<b>-65.7</b>

<sup>1)</sup> Mainly related to revaluation of deferred tax due to tax cut in USA in 2017.

**PARENT COMPANY**  
**Tax on earnings for the year**

	2018	2017
Current tax	-12.2	-0.4
Deferred tax	-6.0	6.0
<b>Total tax on earnings for the year</b>	<b>-18.2</b>	<b>5.6</b>

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

	2018	2017
Deferred tax		
Opening balance, net	6.0	0.0
Change via income statement		
Deferred tax on earnings	-6.0	6.0
<b>Total</b>	<b>-6.0</b>	<b>6.0</b>

	2018	2017
Closing balance, net	0.0	6.0
Current tax		
Opening balance, net	-0.4	-0.2
Change via income statement		
Current tax on earnings	-12.2	-0.4
<b>Total</b>	<b>-12.2</b>	<b>-0.4</b>

The Parent Company has no unutilised loss carry-forwards (27.1).

## NOTE 12 NON-RECURRING ITEMS

Group	2018	2017
Acquired deferred revenue	-	-22.4
<b>Cost nature</b>		
Personnel costs	-6.9	-36.2
Transaction costs	-0.5	-2.0
Impairments	-16.0	-10.5
Other expenses	-2.2	-2.1
Gain on divestment of financial assets	21.7	-
<b>Total cost nature</b>	<b>-3.9</b>	<b>-50.8</b>
<b>Total non-recurring items</b>	<b>-3.9</b>	<b>-73.2</b>
Net sales	-	-22.4
<b>Function</b>		
Cost of goods sold	-0.8	-3.0
Sales expenses	-2.4	-15.0
Administration expenses	-2.5	-13.7
Research and development expenses	-1.2	-17.1
Other operating income	21.7	-
Other operating expenses	-18.7	-2.0
<b>Total function</b>	<b>-3.9</b>	<b>-50.8</b>
<b>Total non-recurring items</b>	<b>-3.9</b>	<b>-73.2</b>

Non-recurring items relate to impairment of overlapping technologies, transaction costs and reduction in workforce. The investment in BIMobject was divested and resulted in a capital gain. In 2017, the non-recurring items consisted of a cost savings programme and also acquired deferred revenue relating to the acquisition of MSC.

During 2017, the new US tax legislation (Tax Cuts & Jobs Act) led to a revaluation of deferred tax liabilities, which had a positive impact on tax income of 72.4 MEUR.

## NOTE 13 GOVERNMENT GRANTS

During the year some of the subsidiaries within the Group have received government grants. The government grants relate primarily to education of employees and R&D funding. The table below shows how the grants are allocated to functions.

Group	2018	2017
Function		
Cost of goods sold	-	0.1
Research and development expenses	0.6	0.6
Other operating income	4.3	2.7
<b>Total</b>	<b>4.9</b>	<b>3.4</b>

## NOTE 14 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. Goodwill, brands, patents and customer relations are often acquired as part of a business combination, while capitalised development expenses are internally generated.

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.

### 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. The right to use the name Leica derives from a contractual useful life under an agreement that expires in 85 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 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 bases and technology identified upon acquisitions. Depreciation and amortisation are 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.

### Intangible fixed assets

Group 2018	Capitalised development expenses	Other intangible fixed assets				Total
		Patents	Trademarks	Goodwill		
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
<b>Acquisition value, closing balance</b>	<b>1,660.9</b>	<b>127.9</b>	<b>999.5</b>	<b>4,977.1</b>	<b>757.8</b>	<b>8,523.2</b>
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
<b>Amortisation, closing balance</b>	<b>-869.7</b>	<b>-92.1</b>	<b>-</b>	<b>-</b>	<b>-302.0</b>	<b>-1,263.8</b>
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
<b>Impairments, closing balance</b>	<b>-133.7</b>	<b>-</b>	<b>-1.3</b>	<b>-</b>	<b>-23.6</b>	<b>-158.6</b>
<b>Carrying value</b>	<b>657.5</b>	<b>35.8</b>	<b>998.2</b>	<b>4,977.1</b>	<b>432.2</b>	<b>7,100.8</b>

NOTE 14 Intangible fixed assets, cont.

Group 2017	Capitalised development expenses	Patents	Trademarks	Goodwill	Other intangible fixed assets	Total
Acquisition value, opening balance	1,278.4	125.5	918.3	4,027.1	550.7	6,900.0
Investments	216.1	1.0	-	-	9.7	226.8
Investments/divestments of business	-	6.2	85.2	791.9	170.2	1,053.5
Sales/disposals	-5.3	0.0	-	-	-3.1	-8.4
Reclassification	-13.9	0.9	-	-	4.2	-8.8
Translation differences	-43.1	-4.8	-58.3	-406.7	-37.6	-550.5
<b>Acquisition value, closing balance</b>	<b>1,432.2</b>	<b>128.8</b>	<b>945.2</b>	<b>4,412.3</b>	<b>694.1</b>	<b>7,612.6</b>
Amortisation, opening balance	-611.4	-75.0	-	-	-222.9	-909.3
Amortisation for the year	-140.3	-8.3	-	-	-44.8	-193.4
Investments/divestments of business	-	-	-	-	-6.7	-6.7
Sales/disposals	5.3	-	-	-	3.1	8.4
Reclassification	11.8	-0.7	-	-	-2.3	8.8
Translation differences	20.9	3.0	-	-	15.1	39.0
<b>Amortisation, closing balance</b>	<b>-713.7</b>	<b>-81.0</b>	<b>-</b>	<b>-</b>	<b>-258.5</b>	<b>-1,053.2</b>
Impairments, opening balance	-101.3	-	-	-	-18.6	-119.9
Impairment for the year	-22.9	-	-	-	-16.3	-39.2
Translation differences	6.0	-	-	-	2.0	8.0
<b>Impairments, closing balance</b>	<b>-118.2</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-32.9</b>	<b>-151.1</b>
<b>Carrying value</b>	<b>600.3</b>	<b>47.8</b>	<b>945.2</b>	<b>4,412.3</b>	<b>402.7</b>	<b>6,408.3</b>

**Amortisation of intangible fixed assets allocated by function:**

Group	2018	2017
Cost of goods sold	-4.0	-1.6
Sales expenses	-10.8	-9.7
Administration expenses	-6.0	-3.7
Research and development expenses	-180.1	-175.4
Other operating expenses	-2.8	-3.0
<b>Total</b>	<b>-203.7</b>	<b>-193.4</b>

**Other intangible fixed assets**

Parent Company	2018	2017
Acquisition value, opening balance	0.3	0.3
Investments	0.1	0.0
<b>Acquisition value, closing balance</b>	<b>0.4</b>	<b>0.3</b>
Amortisation, opening balance	-0.2	-0.2
Amortisation for the year	-0.1	0.0
<b>Amortisation, closing balance</b>	<b>-0.3</b>	<b>-0.2</b>
<b>Carrying value</b>	<b>0.1</b>	<b>0.1</b>

## NOTE 15 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

See Note 8 for disclosures about impairment.

**Tangible fixed assets**

<b>Group 2018</b>	<b>Buildings</b>	<b>Land and other real estate</b>	<b>Machinery and other technical plants</b>	<b>Equipment, tools and installation</b>	<b>Construction in progress and advances to suppliers</b>	<b>Total</b>
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
<b>Acquisition value, closing balance</b>	<b>288.6</b>	<b>35.9</b>	<b>324.7</b>	<b>230.0</b>	<b>14.4</b>	<b>893.6</b>
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
<b>Depreciation, closing balance</b>	<b>-102.6</b>	<b>-0.9</b>	<b>-233.4</b>	<b>-169.3</b>	<b>-3.2</b>	<b>-509.4</b>
<b>Carrying value</b>	<b>186.0</b>	<b>35.0</b>	<b>91.3</b>	<b>60.7</b>	<b>11.2</b>	<b>384.2</b>
<b>Group 2017</b>	<b>Buildings</b>	<b>Land and other real estate</b>	<b>Machinery and other technical plants</b>	<b>Equipment, tools and installation</b>	<b>Construction in progress and advances to suppliers</b>	<b>Total</b>
Acquisition value, opening balance	215.3	31.6	284.0	194.4	5.8	731.1
Investments	5.0	0.5	27.6	19.9	1.7	54.7
Investments/divestments of business	6.6	-	2.5	16.5	-	25.6
Sales/disposals	-3.2	-2.2	-8.4	-12.4	-0.2	-26.4
Reclassification	-0.4	0.0	1.8	4.5	-0.1	5.8
Translation differences	-10.1	-1.5	-10.6	-15.4	-0.2	-37.8
<b>Acquisition value, closing balance</b>	<b>213.2</b>	<b>28.4</b>	<b>296.9</b>	<b>207.5</b>	<b>7.0</b>	<b>753.0</b>
Depreciation, opening balance	-80.9	-4.7	-207.1	-139.8	-3.8	-436.3
Depreciation for the year	-10.5	-0.9	-18.6	-21.7	-0.4	-52.1
Investments/divestments of business	-4.1	-	-1.9	-12.1	-	-18.1
Sales/disposals	1.7	0.1	8.0	11.8	0.1	21.7
Reclassification	0.3	0.0	-2.7	-3.9	0.0	-6.3
Translation differences	1.0	0.3	7.0	11.0	0.0	19.3
<b>Depreciation, closing balance</b>	<b>-92.5</b>	<b>-5.2</b>	<b>-215.3</b>	<b>-154.7</b>	<b>-4.1</b>	<b>-471.8</b>
<b>Carrying value</b>	<b>120.7</b>	<b>23.2</b>	<b>81.6</b>	<b>52.8</b>	<b>2.9</b>	<b>281.2</b>
<b>Depreciation of tangible fixed assets allocated by function:</b>						
<b>Group</b>	<b>2018</b>	<b>2017</b>	<b>Equipment</b>		<b>2018</b>	<b>2017</b>
Cost of goods sold	-23.1	-23.8	Parent Company		0.0	0.0
Sales expenses	-6.1	-3.9	Acquisition value, opening balance		0.0	0.0
Administration expenses	-16.6	-17.2	Acquisition value, closing balance		0.0	0.0
Research and development expenses	-5.5	-4.8	Depreciation, opening balance		0.0	0.0
Other operating expenses	-3.9	-2.4	Depreciation for the year		0.0	0.0
<b>Total</b>	<b>-55.2</b>	<b>-52.1</b>	Depreciation, closing balance		0.0	0.0
			Carrying value		0.0	0.0

## NOTE 16 FINANCIAL FIXED ASSETS

Group	Shares in associated companies		Other long-term securities holdings		Other long-term receivables	
	2018	2017	2018	2017	2018	2017
Opening balance	0.1	1.4	4.2	4.3	36.1	15.4
Investments	-	-	-	-	18.4	19.1
Acquired as subsidiary	-	-	-	-	-	9.2
Earnings participations, etc.	-	-0.1	-	-	-	-
Capital gains/losses	-	-0.9	21.7	-	-	-
Sales	-0.1	-0.2	-24.8	-	-2.6	-4.6
Reclassification	-	-	-	-	-0.6	-1.6
Translation differences	-	-0.1	-0.1	-0.1	1.6	-1.4
Closing balance	0.0	0.1	1.0	4.2	52.9	36.1

Parent Company	Shares in Group Companies		Receivables from Group Companies		Other financial fixed assets	
	2018	2017	2018	2017	2018	2017
Opening balance	4,712.8	4,330.6	2,656.3	2,872.6	0.4	0.4
Shareholders contribution	121.6	393.4	-	-	-	-
Impairment	-9.4	-11.2	-	-	-	-
Increase/decrease in receivables	-	-	105.1	-216.3	0.2	0.0
Closing balance	4,825.0	4,712.8	2,761.4	2,656.3	0.6	0.4

### Other long-term securities holdings

Group	2018-12-31	2017-12-31
BIMobject AB	-	3.2
Euclidean PTY	1.0	1.0
Other	0.0	0.0
Total	1.0	4.2

### Subsidiaries of Hexagon AB

	Corp ID. No.	Reg. Office/Country	No. of shares	Portion of share capital and voting rights, %	Carrying amount	
					2018-12-31	2017-12-31
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	-	Great Britain	1	100	0.0	0.0
Hexagon Förvaltning AB	556016-3049	Stockholm, Sweden	200,000	100	21.0	23.1
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	1,129.1	1,129.1
Hexagon Positioning Intelligence Ltd	-	Great Britain	3	100	261.0	154.6
Hexagon Solutions AB	556083-1124	Stockholm, Sweden	100,000	100	1.6	1.6
Hexagon Technology Center GmbH <sup>1</sup>	-	Switzerland	583	80	2,388.0	2,388.0
Intergraph Holding Company	-	United States	1	100	1,022.7	1,007.5
Johnson Industries AB	556099-2967	Stockholm, Sweden	100,000	100	0.0	7.3
Röömned 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					4,825.0	4,712.8

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

## NOTE 17 SHARES IN ASSOCIATED COMPANIES

	Number of shares	Portion of, %			Carrying amount Group	Share of income in associated companies			
		Share capital	Voting rights	Portion of shareholders' equity		Before tax	Tax	Before tax	Tax
						2018-12-31	2017-12-31	2018	2017
Aircraft Concept GmbH	-	-	-	-	-	-	0.1	0.0	0.0
Alberta Ltd	-	-	-	-	-	-	-	-	0.0
Applied Thermal Fluid Analysis Center Ltd	252,000	45	45	0.0	0.0	0.0	0.0	0.0	0.0
Contravolts Infotech Pvt Ltd	392,000	49	49	0.0	0.0	0.0	0.0	0.0	0.0
Esteq Engineering Proprietary Ltd	20,000	20	20	0.0	0.0	0.0	0.0	0.0	- 0.0
H&S Server and Laser	-	-	-	-	-	-	-	-	0.0
Navgeocom Severo-Zapad	-	-	-	-	-	-	-	-	-0.1
Navgeocom Yug	-	-	-	-	-	0.0	0.0	0.0	0.0
Sistem Solutions	7,182	25	25	0.0	0.0	0.0	0.0	0.0	0.0
<b>Total</b>				<b>0.0</b>	<b>0.0</b>	<b>0.1</b>	<b>0.1</b>	<b>0.0</b>	<b>-0.1</b>

Aircraft Concept GmbH has its registered office in Germany. Was divested during 2018.

Alberta Ltd has its registered office in Canada. Was divested during 2017.

Applied Thermal Fluid Analysis Center Ltd has its registered office in Taiwan.

Contravolts Infotech Pvt Ltd has its registered office in India.

Esteq Engineering Proprietary Ltd has its registered office in South Africa.

H&S Server and Laser has its registered office in USA. Was divested during 2017.

Navgeocom Severo-Zapad has its registered office in Russia. Was divested during 2017.

Navgeocom Yug has its registered office in Russia. Was divested during 2018.

Sistem Solutions has its registered office in Ukraine.

Since these holdings are insignificant in relation to the Group as a whole, no further disclosures are provided.

## NOTE 18 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
							31 December 2018, net of impairment losses
Aging analysis of receivables, 31 December 2018, net of impairment losses							
Other long-term receivables	46.3	5.6	-	0.0	0.0	1.0	52.9
Customer receivables	711.3	96.7	41.5	25.0	15.7	68.9	959.1
Other receivables – non-interest bearing	66.7	1.1	0.1	0.5	0.0	4.0	72.4
<b>Total</b>	<b>824.3</b>	<b>103.4</b>	<b>41.6</b>	<b>25.5</b>	<b>15.7</b>	<b>73.9</b>	<b>1,084.4</b>
Aging analysis of receivables, 31 December 2017, net of impairment losses							
Other long-term receivables	34.8	0.5	-	0.0	0.0	0.8	36.1
Customer receivables	666.7	97.1	35.7	23.3	13.2	59.5	895.5
Other receivables – non-interest bearing	57.4	2.7	0.3	0.0	0.1	2.2	62.7
<b>Total</b>	<b>758.9</b>	<b>100.3</b>	<b>36.0</b>	<b>23.3</b>	<b>13.3</b>	<b>62.5</b>	<b>994.3</b>

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	2018-12-31	2017-12-31
Opening balance	28.8	25.0
Reserve for anticipated losses	10.1	13.5
Adjustment for actual losses	-2.8	-4.3
Reversal of unutilised amounts	-6.7	-4.7
Increase through acquisition	-	0.2
Translation differences	-1.0	-0.9
<b>Closing balance</b>	<b>28.4</b>	<b>28.8</b>

## NOTE 19 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	2018-12-31	2017-12-31
Raw materials and supplies	189.7	176.1
Work in progress	32.8	44.7
Finished goods and goods for sale	240.5	211.0
<b>Total</b>	<b>463.0</b>	<b>431.8</b>
Value adjustment reserve includes provisions for obsolescence etc of	-71.8	-62.1

## NOTE 20 PREPAID EXPENSES AND ACCRUED INCOME/ACCRUED EXPENSES AND DEFERRED INCOME

### PREPAID EXPENSES AND ACCRUED INCOME

	Group		Parent Company	
	2018-12-31	2017-12-31	2018-12-31	2017-12-31
Accrued invoicing	23.0	8.5	-	-
Accrued interest income	0.7	0.2	-	-
Work in progress	29.9	20.5	-	-
Prepaid maintenance costs	6.0	5.7	-	-
Prepaid license costs	12.9	5.2	-	-
Prepaid products and services	39.7	10.1	-	-
Prepaid rent	4.0	3.7	0.1	0.1
Prepaid insurance	2.5	4.0	0.1	0.1
Other items	14.4	11.3	0.1	0.1
<b>Total</b>	<b>133.1</b>	<b>69.2</b>	<b>0.3</b>	<b>0.3</b>

### ACCRUED EXPENSES AND DEFERRED INCOME

	Group		Parent Company	
	2018-12-31	2017-12-31	2018-12-31	2017-12-31
Accrued personnel-related expenses	209.7	186.2	2.0	1.4
Accrued sales commission	23.3	23.8	-	-
Accrued installation and training expenses	0.6	0.0	-	-
Accrued R&D expenses	2.7	2.0	-	-
Accrued fees	6.3	7.6	0.1	0.1
Accrued royalties	4.5	4.7	-	-
Accrued interest expenses	4.5	6.6	4.5	4.7
Work in progress	28.4	29.1	-	-
Prepaid revenue	405.0	369.6	-	-
Other items	52.1	62.7	0.7	0.5
<b>Total</b>	<b>737.1</b>	<b>692.3</b>	<b>7.3</b>	<b>6.7</b>

## NOTE 21 SHARE CAPITAL AND NUMBER OF SHARES

### PARENT COMPANY

Quota value per share, EUR	Number of shares							
	Outstanding			Total issued			Share capital, MEUR	
		Class A	Class B	Total	Class A	Class B	Total	
Opening balance 2017	0.22	15,750,000	344,693,142	360,443,142	15,750,000	344,693,142	360,443,142	80.0
Closing balance 2017	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

Warrants exercised until 2018-12-31 incurred a new share issue in progress as per 2018-12-31 of 30,300 new shares of series B. The new share issue will be finalised in the first quarter of 2019.

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 2018 regarding the financial year of 2017 amounted to EUR 0.53 (0.48).

### Average number of shares before and after dilution, thousands

	2018	2017
Average number of shares before dilution	360,942	360,443
Estimated average number of potential shares pertaining to warrants plans	1,359	1,146
<b>Average number of shares after dilution</b>	<b>362,301</b>	<b>361,589</b>

## NOTE 22 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

	2018-12-31	2017-12-31
Pension obligations	659.5	630.7
Fair value of plan assets	-556.1	-553.1
<b>Pension obligations less plan assets</b>	<b>103.4</b>	<b>77.6</b>
Unrecognised assets	-	-
Pension provision, net	103.4	77.6
<b>Pension expenses - Defined-benefit plans</b>		
	<b>2018</b>	<b>2017</b>
Current service cost	27.1	24.6
Interest expense	6.3	6.1
Calculated interest income	-5.0	-4.5
Change in terms and conditions	-0.8	-14.9
Employees' own contribution	-11.6	-10.7
<b>Total</b>	<b>16.0</b>	<b>0.6</b>

#### Total pension expenses impact on the income statement

	2018	2017
Operating expenses		
– defined-benefit plans	14.7	-1.0
Operating expenses		
– defined contribution plans	50.9	52.8
<b>Operating earnings impact</b>	<b>65.6</b>	<b>51.8</b>
Net interest expenses		
– defined-benefit plans	1.3	1.6
Earnings before tax impact	66.9	53.4

#### Defined-benefit obligations

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

Pensions provisions, net -103.4

#### Of which:

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

2017-12-31	Plan assets	Pension obligations	Net
Switzerland	496.8	-529.2	-32.4
Other countries	56.3	-101.5	-45.2
<b>Total (fair/present value)</b>	<b>553.1</b>	<b>-630.7</b>	<b>-77.6</b>

Pensions provisions, net -77.6

#### Of which:

Reported as asset (other non-current receivables)	4.7
Reported as liability	-82.3

#### Three year summary

	2018-12-31	2017-12-31	2016-12-31
Fair value of plan assets	556.1	553.1	548.5
Pension obligations	-659.5	-630.7	-679.8
<b>Net</b>	<b>-103.4</b>	<b>-77.6</b>	<b>-131.3</b>
Unrecognised assets	-	-	-0.1
<b>Book-value</b>	<b>-103.4</b>	<b>-77.6</b>	<b>-131.4</b>

#### Pension obligations

	2018	2017
Opening balance	630.7	679.8
Change in terms and conditions	-0.4	-13.6
Current service cost	27.1	24.6
Interest expense	6.3	6.1
Benefits paid	-21.3	-30.7
Acquired/divested subsidiaries	0.1	18.6
Settlement of pension obligations	-0.2	-1.3
Actuarial gains/losses		
– Financial assumptions	10.1	-40.3
Actuarial gains/losses		
– Demographic assumptions	-5.3	-1.5
Actuarial gains/losses		
– Experience adjustments	8.0	1.8
Currency translation differences	4.4	-12.8
<b>Closing balance</b>	<b>659.5</b>	<b>630.7</b>

#### Plan assets

	2018	2017
Opening balance	553.1	548.5
Calculated interest income	5.0	4.5
Contributions – employer	17.2	14.8
Contributions – employee	11.6	10.7
Benefits paid	-21.7	-26.6
Acquired/divested subsidiaries	-	3.6
Return on plan assets excluding calculated interest income as above	-12.5	7.4
Currency translation differences	3.4	-9.8
<b>Closing balance</b>	<b>556.1</b>	<b>553.1</b>

**Fair value of plan assets**

	2018-12-31	2017-12-31
Equities and similar financial instruments	209.1	205.8
Interest bearing securities, etc.	179.3	176.6
Real estate	167.7	170.7
<b>Total</b>	<b>556.1</b>	<b>553.1</b>

For 2019, the contributions to defined benefit plans are estimated at 31.4 MEUR, of which employer's contribution 12.9 MEUR.

**Characteristics of the pension obligations**

The following applies for the Swiss plans which represent 84 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.

**NOTE 23 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 2017-01-01	2.7	14.6	7.3	24.6
Provision for the year	41.1	13.0	0.4	54.5
Increase through acquisition of businesses	-	-	3.4	3.4
Utilisation	-28.1	-10.7	-1.6	-40.4
Reversal of unutilised amounts	-1.4	-1.3	-0.7	-3.4
Translation difference	-0.8	-0.5	-0.8	-2.1
<b>Closing balance 2017-12-31</b>	<b>13.5</b>	<b>15.1</b>	<b>8.0</b>	<b>36.6</b>
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
<b>Closing balance 2018-12-31</b>	<b>5.0</b>	<b>16.6</b>	<b>8.5</b>	<b>30.1</b>

**Restructuring provisions**

Restructuring provisions primarily relates to a cost savings programme that was introduced in the first quarter of 2017 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

**Actuarial assumptions for the defined-benefit pension schemes**

(weighted average, where applicable)	2018	2017
Discount interest rate, %	1.1	1.0
Inflation, %	0.7	0.7
Future salary increase, %	0.8	0.8

For 84 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	25.8	+0.3	-22.2
Salary increase	-0.5	-1.8	+0.5	2.6
Employee turnover	-1.0	3.9	+1.0	-3.5
	Change in assumption, no. of years	Effect, MEUR	Change in assumption, no. of years	Effect, MEUR
Life expectancy	-1.0	-22.7	+1.0	22.7

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 24 FINANCIAL INSTRUMENTS

From 1 January 2018, the Group is applying IFRS 9 Financial Instruments.

### 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.

### 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 2018 were 117.5 MEUR (-528.6).

#### Net exposure per currency

	2018-12-31	Hedging rate
USD	3,887.3	0%
CNY	379.2	-
GBP	354.2	1%
CAD	341.5	1%
BRL	127.3	0%
CHF	-107.7	-5%
INR	83.4	15%
Other	214.2	1%
Total	5,279.4	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**

	2018	2017
USD	1,395.4	1,296.1
EUR	884.0	786.8
CNY	471.7	419.1
GBP	157.0	144.3
JPY	146.1	111.1
CHF	88.5	106.6
Other	618.0	584.1
<b>Total</b>	<b>3,760.7</b>	<b>3,448.1</b>

**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 2018 interest rate derivatives were used in order to manage the interest rate risk.

**Financial income and expenses**

	2018	2017
Interest income	5.8	5.2
Interest expense	-18.5	-19.1
Other financial income and expense	-10.1	-8.8
<b>Net</b>	<b>-22.8</b>	<b>-22.7</b>

**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.

	2019		2020-2021		2022 and later		Total	
	Capital	Interest	Capital	Interest	Capital	Interest	Capital	Interest
<b>Liabilities to credit institutions</b>								
Revolving Credit	-	-	-	-	-	-	-	-
Term loan	-	0.1	50.0	0.2	-	-	50.0	0.3
Bond loans	425.8	11.0	445.2	11.0	391.7	2.1	1,262.7	24.1
Commercial paper <sup>1</sup>	-	2.1	919.8	3.9	-	-	919.8	6.0
Other lenders	114.9	1.3	1.7	0.0	0.2	0.0	116.8	1.3
<b>Total liabilities to credit institutions</b>	<b>540.7</b>	<b>14.5</b>	<b>1,416.7</b>	<b>15.1</b>	<b>391.9</b>	<b>2.1</b>	<b>2,349.3</b>	<b>31.7</b>
Other interest bearing liabilities	1.1	0.3	1.3	0.5	4.0	0.7	6.4	1.5
<b>Total interest bearing liabilities</b>	<b>541.8</b>	<b>14.8</b>	<b>1,418.0</b>	<b>15.6</b>	<b>395.9</b>	<b>2.8</b>	<b>2,355.7<sup>2</sup></b>	<b>33.2</b>

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, 2,336.6 MEUR.

There were interest rate derivatives pertaining to borrowing at 31 December 2018. 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**

	2018-12-31	2017-12-31
EUR	98%	98%
USD	1%	1%
SEK	0%	0%
INR	0%	0%
Other	1%	1%
<b>Total</b>	<b>100%</b>	<b>100%</b>

**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

**CREDIT RISK**

Credit risk is the risk that counterparties 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 counterparties 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 18.

**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 2018, cash and unutilised credit limits totalled 1,684.2 MEUR (1,601.1).

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 (10,850).
- 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 8,815 MSEK (7,590) and 72 MEUR (32). 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.

**NOTE 24 Financial instruments, cont.**

A two year term loan of 150 MEUR was established during Q4 2018, of which 50 MEUR was utilised as per 31 December, 2018.

**Group's capital structure**

	2018-12-31	2017-12-31
Interest bearing liabilities and provisions	2,463.9	2,344.3
Cash, bank and short-term investments	-394.6	-309.4
<b>Net Debt</b>	<b>2,069.3</b>	<b>2,034.9</b>
<b>Shareholders' equity</b>	<b>5,319.2</b>	<b>4,604.4</b>

**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 2018 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 strengthened against CHF, CNY and USD. Since Hexagon has a majority of the operating earnings denominated in CNY and USD, this had a negative impact on operating earnings. The weakening of the CHF had a positive 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 262.0 MEUR (231.9) net and vice versa, after the impact of hedging.

During 2018, total operating earnings, excluding non-recurring items, from operations in other currencies than EUR amounted to an equivalent of 612.8 MEUR (601.3). 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 30.6 MEUR (30.1).

The average interest fixing period in the Group's total loan portfolio as of year-end 2018 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 11.5 MEUR (10.3) in the coming 12 months earnings.

**FINANCIAL INSTRUMENTS – FAIR VALUE**

Assets	2018-12-31		2017-12-31	
	Carrying amount	Fair value	Carrying amount	Fair value
Available-for-sale financial assets				
Other long-term securities holdings	1.0	1.0	4.2	4.2
<b>Loan receivables and account receivables</b>				
Long-term receivables	52.9	52.9	36.1	36.1
Accounts receivable	959.1	959.1	895.5	895.5
Other current receivables	73.9	73.9	64.2	64.2
Accrued income	52.9	52.9	29.0	29.0
Accrued interest	0.7	0.7	0.2	0.2
Short-term investments	111.8	111.8	90.3	90.3
Cash and bank balances	282.8	282.8	219.1	219.1
<b>Total</b>	<b>1,535.1</b>	<b>1,535.1</b>	<b>1,338.6</b>	<b>1,338.6</b>

Liabilities	2018-12-31		2017-12-31	
	Carrying amount	Fair value	Carrying amount	Fair value
Financial liabilities valued at fair value through income statement				
Estimated supplementary payments for acquired companies	165.3	165.3	59.4	59.4
<b>Derivative instruments</b>				
Currency forward and swap contracts – short term	-34.9	-34.9	-8.9	-8.9
Currency forward and swap contracts – long term	-35.8	-35.8	-59.4	-59.4
<b>Financial liabilities valued at accrued acquisition value</b>				
Long-term liabilities – interest bearing <sup>1</sup>	1,849.7	1,854.0	2,019.6	2,029.8
Other long-term liabilities – non-interest bearing	11.8	11.8	16.5	16.5
Current liabilities – interest bearing <sup>1</sup>	576.6	576.6	307.9	308.4
Accounts payable	251.1	251.1	189.3	189.3
Other current non-interest bearing liabilities	146.3	146.3	146.1	146.1
Accrued expenses	327.6	327.6	318.0	318.0
Accrued interest	4.5	4.5	6.6	6.6
<b>Total</b>	<b>3,262.2</b>	<b>3,266.5</b>	<b>2,995.1</b>	<b>3,005.8</b>

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

**FINANCIAL INSTRUMENTS VALUED AT FAIR VALUE**

	2018-12-31			2017-12-31		
	Level 1	Level 2	Level 3	Level 1	Level 2	Level 3
– Currency forward and swap contracts	-	-70.7	-	-	-68.3	-
– Estimated supplementary payments for acquired companies	-	-	-165.3	-	-	-59.4
– Other long-term securities holdings	-	1.0	0.0	-	4.2	0.0
<b>Total</b>	<b>-</b>	<b>-69.7</b>	<b>-165.3</b>	<b>-</b>	<b>-64.1</b>	<b>-59.4</b>

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 2018, there were no transfers between levels.

**ESTIMATED SUPPLEMENTARY PAYMENTS  
FOR ACQUIRED COMPANIES**

	2018	2017
<b>Opening balance</b>	<b>59.4</b>	<b>118.4</b>
Present value adjustment	0.6	0.4
Increase through acquisition of businesses	128.1	17.1
Payment of supplementary acquisition considerations	-9.5	-13.8
Reversal of unutilised amounts	-16.7	-53.7
Reclassification	-0.2	-
Translation difference	3.6	-9.0
<b>Closing balance</b>	<b>165.3</b>	<b>59.4</b>

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
<b>Opening balance 2017-01-01</b>	<b>1,716.8</b>	<b>1,683.8</b>
Cash flow	549.9	551.9
Translations differences	-4.7	-1.1
<b>Closing balance 2017-12-31</b>	<b>2,262.0</b>	<b>2,234.6</b>
Cash flow	93.5	101.4
Translations differences	0.2	0.6
<b>Closing balance 2018-12-31</b>	<b>2,355.7</b>	<b>2,336.6</b>

## NOTE 25 LEASING

The Group has as a lessee entered into financial as well as operational leases. The agreements are classified in accordance with their financial implication when they were entered into. Financial leases are not material and primarily relate to vehicles. For operational leases, the lease payments are expensed straight-line over the shorter of the asset's useful life and the lease term. For financial leases the leased asset is carried on the balance sheet with a corresponding liability for future lease payments. The leased asset is depreciated over the same period as for assets of the same kind owned by the Group. The liability for future lease payments is interest bearing.

As manufacturer lessor, the Hexagon group has entered financial lease contracts. Recognition of those takes place at the inception of the contract. Assets included in the contract is derecognised from the balance sheet. Instead, a receivable is recognised. The economic substance of a financial lease is equal to selling, why income and cost of goods sold is recognised when the contract is entered.

From 2019 IFRS 16 Leases will be applied. See note 1 for further information.

**LEASING AGREEMENTS OF AN OPERATIONAL NATURE**

	Group		Parent Company	
	Machinery, equipment etc.	Premises	Machinery, equipment etc.	Premises
<b>2018-12-31</b>				
Expenses due for payment in				
2019	16.1	54.0	0.0	0.4
2020–2023	21.0	125.1	0.0	0.3
2024 or later	1.5	51.1	-	-
<b>Total</b>	<b>38.6</b>	<b>230.2</b>	<b>0.0</b>	<b>0.7</b>

	Group		Parent Company	
	Machinery, equipment etc.	Premises	Machinery, equipment etc.	Premises
<b>2017-12-31</b>				
Expenses due for payment in				
2018	16.0	43.2	0.1	0.3
2019–2022	23.4	99.8	0.0	0.6
2023 or later	1.2	77.5	-	-
<b>Total</b>	<b>40.6</b>	<b>220.5</b>	<b>0.1</b>	<b>0.9</b>

The amounts are non-discounted minimum undertakings pursuant to contract. Costs for leasing/rents for the financial year were 69.5 MEUR (59.6). There are no individual leasing agreements of material importance.

**LEASING AGREEMENTS OF A FINANCIAL NATURE**

	Group 2018-12-31		Machinery, equipment etc.
	Machinery, equipment etc.	Premises	Machinery, equipment etc.
<b>Expenses due for payment in</b>			
2019			0.1
2020–2023			0.2
2024 or later			0.0
<b>Total</b>			<b>0.3</b>

	Group 2017-12-31		Machinery, equipment etc.
	Machinery, equipment etc.	Premises	Machinery, equipment etc.
<b>Expenses due for payment in</b>			
2018			1.4
2019–2022			1.0
2023 or later			0.1
<b>Total</b>			<b>2.5</b>

The amounts are non-discounted minimum undertakings pursuant to contract. There are no individual leasing agreements of material importance. Nor are there any individual sale/leaseback agreements of material importance.

**AGREEMENTS WHERE A GROUP ENTITY IS LESSOR**

	Group 2018-12-31		Machinery, equipment etc.
	Machinery, equipment etc.	Premises	Machinery, equipment etc.
<b>Expenses due for payment in</b>			
2019			17.5
2020–2023			8.2
2024 or later			0.0
<b>Total</b>			<b>25.7</b>

	Group 2017-12-31		Machinery, equipment etc.
	Machinery, equipment etc.	Premises	Machinery, equipment etc.
<b>Expenses due for payment in</b>			
2018			16.0
2019–2022			9.2
2023 or later			0.0
<b>Total</b>			<b>25.2</b>

## NOTE 26 ASSETS PLEDGED AND CONTINGENT LIABILITIES

### PLEDGED ASSETS TO CREDIT INSTITUTIONS FOR LOANS, BANK OVERDRAFTS AND GUARANTEES

December 31	Group		Parent Company	
	2018	2017	2018	2017
Pledged assets	0.5	1.2	-	-
Total	0.5	1.2	-	-

### CONTINGENT LIABILITIES

December 31	Group		Parent Company	
	2018	2017	2018	2017
Guarantees in favour of Group companies	-	-	32.8	41.8
Other contingent liabilities	2.2	2.9	0.1	0.1
Total	2.2	2.9	32.9	41.9

## NOTE 27 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:

	AutonomouStuff	Other	2018	2017
Intangible fixed assets	32.2	67.8	100.0	268.3
Tangible fixed assets	0.3	1.7	2.0	7.6
Other fixed assets	-	1.6	1.6	25.2
<b>Total fixed assets</b>	<b>32.5</b>	<b>71.1</b>	<b>103.6</b>	<b>301.1</b>
Current receivables, inventories, etc.	8.0	19.6	27.6	82.3
Cash and cash equivalents	-1.6	11.5	9.9	37.9
<b>Total current assets</b>	<b>6.4</b>	<b>31.1</b>	<b>37.5</b>	<b>120.2</b>
<b>Total assets</b>	<b>38.9</b>	<b>102.2</b>	<b>141.1</b>	<b>421.3</b>
Provisions	-	2.3	2.3	110.2
Long-term liabilities	-	2.3	2.3	14.3
<b>Total long-term liabilities</b>	<b>-</b>	<b>4.6</b>	<b>4.6</b>	<b>124.5</b>
Current liabilities, etc.	6.3	15.7	22.0	134.7
<b>Total liabilities</b>	<b>6.3</b>	<b>20.3</b>	<b>26.6</b>	<b>259.2</b>
Identifiable net assets at fair value	32.6	81.9	114.5	162.1
Non-controlling interest in equity in acquired companies	-	-0.3	-0.3	-
Goodwill	256.3	184.2	440.5	791.9
<b>Total purchase consideration transferred</b>	<b>288.9</b>	<b>265.8</b>	<b>554.7</b>	<b>954.0</b>
Less cash and cash equivalents in acquired Group companies	1.6	-11.5	-9.9	-37.9
Less unpaid acquisition price	-83.5	-43.9	-127.4	-19.3
Plus payment of unpaid portion of acquisition price from prior years	-	9.2	9.2	18.5
<b>Cash flow from acquisitions of Group companies, net</b>	<b>207.0</b>	<b>219.6</b>	<b>426.6</b>	<b>915.3</b>

During 2018, Hexagon acquired the following companies:

- AGTEK, a US based software company specialising in planning and productivity solutions for the heavy civil construction industry
- Acquired business from Geosurf Corporation, a Japanese software developer of a local machine control construction solution
- ProCAM, an Italian distributor of CAD CAM solutions and complementary software
- NEXTSENSE GmbH, an Austrian based company specialising in non-contact profile measurement and surface inspection solutions
- External Array, a Chinese software company providing a local solution for CMM's in the Chinese market
- Guardvant, a US based supplier of operator safety solutions for the mining industry
- LSE, an Italian provider of software solutions for the Geomatics market
- SPRING Technologies, a French software provider specialising in integrated solutions for optimising the machining workflow
- AutonomouStuff, a US based supplier of integrated autonomous vehicle solutions
- Bricsys, a Belgian based developer of CAD (computer-aided design) software

Further information related to the acquisitions of NEXTSENSE GmbH, AutonomouStuff and Bricsys, 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 165.3 MEUR as of 31 December (59.4), whereof the fair value adjustment in 2018 amounted to 16.7 MEUR. 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 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.

**NOTE 27 Net assets in acquired and divested businesses, cont.**

**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.

**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**

Bricsy'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.

**ACQUISITIONS ANALYSIS 2017**

**Acquisition of MSC Software**

As of 26 April 2017, after customary regulatory approvals were received, Hexagon acquired MSC Software, a US-based leading provider of computer-aided engineering (CAE) solutions, including simulation software for virtual product and manufacturing process development. MSC has over 1,200 employees in 20 countries. Its strong brand and reputation in industries such as automotive, aerospace and electronics spans more than 50 years. In 2016 MSC generated proforma sales of 230 MUSD, with strong profitability and a high percentage of recurring revenue.

**Background and reasons for the transaction**

The acquisition strengthens Hexagon's ability to connect the traditionally separate stages of design and production – integrating real-world data generated on the production floor with simulation data to further improve a customer's ability to reveal and correct design limitations and production problems prior to manufacturing. MSC is a fully owned subsidiary of Hexagon and operate under the division Manufacturing Intelligence.

Purchase price of MSC amounted to 834 MUSD on a cash and debt-free basis (Enterprise Value). The goodwill comprises expected synergies arising from the acquisition and the assembled workforce, which is not separately recognised. Synergies have primarily been identified to arise by increasing Hexagon's total market in excess of MSC's own market and by combining Hexagon and MSC technologies to develop new customer solutions.

From the date of acquisition, MSC has contributed 148.0 MEUR of net sales in 2017. If the acquisition had taken place at the beginning of the year, the contribution to net sales would have been 208.5 MEUR. The contribution to the earnings has been larger than the Group operating margin.

**Acquisition of Luciad**

As of 4 October 2017, Hexagon acquired Luciad, a Belgian-based software company specialising in the visualisation and analysis of real-time geospatial information. In 2016 Luciad generated sales of 16.0 MEUR.

**Background and reasons for the transaction**

The acquisition strengthens Hexagon's ability to deliver smart digital realities, enhancing Hexagon's Smart M.App platform with 3D, 4D (real-time sensor feed integration) and 5D (dynamic analytics) capabilities. Luciad is a fully owned subsidiary of Hexagon and operates under the Geospatial business unit.

From the date of acquisition, Luciad has contributed 9.3 MEUR of net sales in 2017. If the acquisition had taken place at the beginning of the year, the contribution to net sales would have been 21.3 MEUR. The contribution to the earnings has been larger than the Group operating margin.

**BOOK-VALUE OF DIVESTED ASSETS AND LIABILITIES**

	2018	2017
Intangible fixed assets	3.4	-
<b>Total fixed assets</b>	<b>3.4</b>	-
Current assets	0.1	-
<b>Total assets</b>	<b>3.5</b>	-
Current liabilities	0.1	-
<b>Total liabilities</b>	<b>0.1</b>	-
<b>Book-value of divested assets, net</b>	<b>3.4</b>	-
Capital gain	0.7	
<b>Total purchase consideration transferred</b>	<b>4.1</b>	-
Less cash and cash equivalents in divested Group companies	-0.1	-
<b>Cash flow from divestments of companies/businesses</b>	<b>4.0</b>	-

## NOTE 28 AVERAGE NUMBER OF EMPLOYEES

	2018			2017		
	Men	Women	Total	Men	Women	Total
Parent Company	5	10	15	5	10	15
Subsidiaries	14,861	4,373	19,234	13,581	3,947	17,528
<b>Total, Group</b>	<b>14,866</b>	<b>4,383</b>	<b>19,249</b>	<b>13,586</b>	<b>3,957</b>	<b>17,543</b>
Average number of employees by country						
Nordic region	526	155	681	499	134	633
Rest of Europe	5,662	1,441	7,103	5,175	1,251	6,426
<b>Total, Europe</b>	<b>6,188</b>	<b>1,596</b>	<b>7,784</b>	<b>5,674</b>	<b>1,385</b>	<b>7,059</b>
North America	3,537	1,202	4,739	3,346	1,102	4,448
South America	564	129	693	531	118	649
Africa	28	9	37	14	5	19
Australia and New Zealand	268	72	340	229	93	322
Asia	4,281	1,375	5,656	3,792	1,254	5,046
<b>Total, Group</b>	<b>14,866</b>	<b>4,383</b>	<b>19,249</b>	<b>13,586</b>	<b>3,957</b>	<b>17,543</b>

## NOTE 29 EMPLOYEE BENEFITS

### SALARIES AND REMUNERATION

	Board, CEO and other Senior Executives		Other employees	
	2018	2017	2018	2017
Parent Company	7.9	6.2	1.6	1.4
(of which performance related pay and bonus)	(2.9)	(2.1)	(0.3)	(0.2)
Subsidiaries	23.5	23.8	1,162.2	1,066.0
(of which performance related pay and bonus)	(6.0)	(6.1)	(127.1)	(104.3)
<b>Total, Group</b>	<b>31.4</b>	<b>30.0</b>	<b>1,163.8</b>	<b>1,067.4</b>

### SOCIAL SECURITY EXPENSES

	All employees	
	2018	2017
Parent Company	2.6	2.7
(of which pension expenses)	(1.3)	(1.2)
Subsidiaries	204.6	185.2
(of which pension expenses)	(64.8)	(50.6)
<b>Total, Group</b>	<b>207.2</b>	<b>187.9</b>
(of which pension expenses)	(66.1)	(51.8)

Pension expenses for Boards of Directors and Chief Executive Officers in the Group amounted to 3.0 MEUR (3.1). Pension commitments to Boards of Directors and Chief Executive Officers in the Group were 6.0 MEUR (4.5).

At year-end, four Board members were women and three were men in Hexagon AB. The President and Chief Executive Officer and other senior executives consists of 13 men and one woman.

Of all the Group's Board members, Presidents and other senior executives, 13 were women and 65 were men.

## NOTE 30 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 516.0 KEUR (593.8). The Chairman of the Board received 143.8 KEUR, the Vice Chairman of the Board received 21.7 KEUR and other Board members 56.1 KEUR each. The President 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 8.3 KEUR and each member received 5.8 KEUR. The Chairman of the Audit Committee received 21.9 KEUR and each member received 17.0 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 29 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, Claudio Simão, Chief Technology Officer, Ben Maslen, Chief Strategy Officer, Kristin Christensen, Chief Marketing Officer, Edgar Porter, Chief Human Resources Officer, Li Hongquan, President China Region, Jürgen Dold, President Geosystems, Norbert Hanke, President Manufacturing Intelligence, Steven Cost, President Safety & Infrastructure, Mattias Stenberg, President PPM, Michael Ritter, President Positioning Intelligence 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 <sup>1</sup>		Pension expenses		Total	
	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017
Gun Nilsson, Chairman of the Board	174.0	177.5	-	-	-	-	-	-	174.0	177.5
Hans Vestberg, Vice Chairman of the Board <sup>2</sup>	21.7	88.2	-	-	-	-	-	-	21.7	88.2
John Brandon	56.1	57.1	-	-	-	-	-	-	56.1	57.1
Ulrika Francke	73.1	75.3	-	-	-	-	-	-	73.1	75.3
Henrik Henriksson	56.1	57.1	-	-	-	-	-	-	56.1	57.1
Märta Schörling Andreen	56.1	57.1	-	-	-	-	-	-	56.1	57.1
Sofia Schörling Högberg	78.9	81.5	-	-	-	-	-	-	78.9	81.5
Ola Rollén, President and Chief Executive Officer	2,978.3	2,418.3	1,489.2	1,209.2	-	-	595.7	483.7	5,063.2	4,111.2
Other senior executives (thirteen people) <sup>3</sup>	6,784.5	5,979.3	5,364.8	5,882.7	143.9	168.3	1,320.7	595.3	13,613.9	12,625.6
<b>Total</b>	<b>10,278.8</b>	<b>8,991.4</b>	<b>6,854.0</b>	<b>7,091.9</b>	<b>143.9</b>	<b>168.3</b>	<b>1,916.4</b>	<b>1,079.0</b>	<b>19,193.1</b>	<b>17,330.6</b>

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

2) Resigned 2018-08-01.

3) Including costs for part of the year for senior executives who acceded their positions 1 August 2018.

**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 2017	2019-12-31	7,107,660	7,107,660	347.80
Exercise warrants of shares	2019-12-31	-2,516,850	-2,516,850	347.80
Closing balance 2018	2019-12-31	4,590,810	4,590,810	347.80

**WARRANTS PROGRAMME 2015/2019, HEXAGON AB**

2018-12-31	Number	Acquisition price, SEK
President and Chief Executive Officer	-	-
Other senior executives (ten people)	1,535,000	38,375,000
Other employees	3,055,810	76,395,250
<b>Total</b>	<b>4,590,810</b>	<b>114,770,250</b>

## NOTE 31 REMUNERATION OF THE GROUP'S AUDITORS

	Group		Parent Company	
	2018	2017	2018	2017
Audit, Ernst & Young	4.5	4.4	0.4	0.4
Audit, Others	0.6	0.7	-	-
Audit related	0.4	0.6	-	-
Tax, Ernst & Young	0.4	0.6	-	-
Total	5.9	6.3	0.4	0.4

## NOTE 32 RELATED-PARTY DISCLOSURES

Remuneration of senior executives, meaning both the Board of Directors and management, is presented in Note 30. 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 and Melker Schörling AB.

## NOTE 33 SUBSEQUENT EVENTS AFTER THE FINANCIAL YEAR'S END

On 25 February, 2019, Hexagon signed an agreement to acquire the US-based company Thermopylae Sciences 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.

## NOTE 34 APPROPRIATION OF EARNINGS

### THE FOLLOWING EARNINGS IN THE PARENT COMPANY ARE AT THE DISPOSAL OF THE ANNUAL GENERAL MEETING (KEUR):

Premium reserve	1,005,877
Retained earnings	3,045,109
Net earnings	289,635
<b>Total</b>	<b>4,340,621</b>

### THE BOARD OF THE DIRECTORS PROPOSES THAT THESE FUNDS ARE ALLOCATED AS FOLLOWS:

Cash dividend to shareholders of 0.59 EUR per share	214,126 <sup>1</sup>
Balance remaining in the premium reserve	1,005,877
Balance remaining in retained earnings	3,120,618
<b>Total</b>	<b>4,340,621</b>

<sup>1</sup>) The amount is based on the number of shares issued and outstanding on 31 December 2018, namely 362,924,692.

## NOTE 35 TRANSITION TO IFRS 15 REVENUE FROM CONTRACTS WITH CUSTOMERS

From 1 January 2018, IFRS 15 Revenue from contracts with customers is applied. Hexagon applies the standard retrospectively. The following practical expedients have been applied at transition:  
 a) No restatement has been done of contracts that are completed contracts at 1 January 2017  
 b) For completed contracts with variable consideration, Hexagon has chosen to use the transaction price at completion of contract rather than estimating variable consideration  
 c) Contract modifications before 1 January 2018 have not been recalculated.  
 d) For reporting periods presented before the date of initial application, no disclosure will be presented about the amount of the transaction price allocated to remaining performance obligations.

In the financial reports for periods beginning after 1 January 2018, the comparative figures for 2017 have been restated. The transition to IFRS 15 implies that for certain contracts revenue cannot be recognised by applying the percentage of completion method and the revenue might be recognised at another point in time. The fact that the performance obligations of a contract must be identified and revenue for each performance obligation recognised when it is completed have affected the timing of the Group's revenue recognition. Capitalisation of sales commissions has also led to minor adjustments in the transition to IFRS 15. The impact on earnings for 2017 amounts to -2.6 MEUR. The total effect of the transition has been adjusted in opening equity for 2017 and amounts to -17.8 MEUR.

MEUR	Effect on opening balance 2017	2017			
		Q1	Q2	Q3	Q4
<b>Assets</b>					
Deferred tax assets	1.4	-0.6	-1.4	0.3	0.1
Current assets	-17.6	1.6	-1.7	0.0	2.1
<b>Total assets</b>	<b>-16.2</b>	<b>1.0</b>	<b>-3.1</b>	<b>0.3</b>	<b>2.2</b>
<b>Equity</b>					
Retained earnings	-17.8	1.3	5.0	0.2	0.2
<b>Income statement</b>					
Net sales		1.1	-1.7	-1.6	1.9
Cost of goods sold		0.9	-0.8	0.5	-2.4
Sales expenses		-0.1	0.0	0.0	-0.4
<b>Earnings before tax</b>	<b>1.9</b>	<b>-2.5</b>	<b>-1.1</b>	<b>-0.8</b>	<b>-2.5</b>
Tax		-0.3	0.6	0.4	-0.8
<b>Net earnings</b>	<b>1.6</b>	<b>-1.9</b>	<b>-0.7</b>	<b>-1.6</b>	<b>-2.6</b>
<b>Total equity</b>	<b>-17.8</b>	<b>2.9</b>	<b>3.1</b>	<b>-0.5</b>	<b>-1.4</b>
<b>Liabilities</b>					
Deferred tax liability	-4.7	0.1	0.1	-0.1	0.7
Current liabilities	6.3	-2.0	-6.3	0.9	2.9
<b>Total liabilities</b>	<b>1.6</b>	<b>-1.9</b>	<b>-6.2</b>	<b>0.8</b>	<b>3.6</b>
<b>Total equity and liabilities</b>	<b>-16.2</b>	<b>1.0</b>	<b>-3.1</b>	<b>0.3</b>	<b>2.2</b>
					<b>-15.8</b>

# SIGNING OF THE ANNUAL REPORT

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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 14 March 2019

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 15 March 2019

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 2018. The annual accounts and consolidated accounts of the Company are included on pages 10–16 and 28–69 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 2018 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 2018 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

As described in Note 1 the Company has as per January 1, 2018 adopted IFRS 15 Revenue from Contracts with Customers. IFRS 15 establishes a comprehensive framework for determining how much and when revenue should be recognised. The Company adopted IFRS 15 using the full retrospective method of adoption and the impact on earnings for 2017 amounted to -2.6 MEUR.

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 application of IFRS 15 overall and at the contract level by performing substantive analytical testing and test of details for significant contracts containing multiple performance obligations.
- Evaluated the Company's established 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, 2018 goodwill amounts to EUR 4 977.1 million and trademarks with indefinite life amounts to EUR 998.2 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 derive 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 determinations 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 27. The closing balance for contingent purchase consideration liability amounts to EUR 165.3 million as per December 31, 2018 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 1–9, 17–27 and 73–80. 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 2018 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 justifi-

able 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 fulfil 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 4 May 2018 and has been the Company's auditor since 1994.

Stockholm, Sweden 15 March 2019

Ernst & Young AB

Rickard Andersson  
Authorized Public Accountant

# THE SHARE

## SHARE PRICE DEVELOPMENT AND TRADING

In 2018, the Hexagon share price decreased by -0.7 per cent to 408.0 SEK as of 31 December. The share price reached the 52-week high of 548.6 SEK on 3 September and the 52-week low on 27 December at 399.3 SEK.

Hexagon's total market capitalisation as of 31 December 2018 was 141,647.3 MSEK. During the year, 229 million (219) Hexagon shares were traded on the Nasdaq OMX Stockholm, BATS, Burgundy, Chi-X and Turquoise. The turnover rate, i.e. the degree of liquidity, was 86 per cent (64).

## OWNERSHIP STRUCTURE

At year-end 2018, Hexagon had 29,306 registered shareholders (27,226). Shareholders in the USA accounted for the largest foreign holding, representing 25 per cent (19) of total shares followed by the UK, representing 12 per cent (12). The ten largest owners held 50.5 per cent (45.8) of the share capital and 64.4 per cent (61.1) of the votes.

## SHARE CAPITAL

At year-end 2018, Hexagon's share capital amounted to 80,530,925 EUR, represented by 362,924,692 shares, of which 15,750,000 are of Class A with ten votes each and 347,174,692 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 2018.

Hexagon's Annual General Meeting in 2018 authorised the Board of Directors to resolve on the acquisition and transfer of Class B shares for the purpose of giving the Board the opportunity to adjust the company's capital structure and to enable the financing of acquisitions and the exercise of warrants. The authorisation covers a maximum of 10 per cent of all Hexagon shares.

## 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.

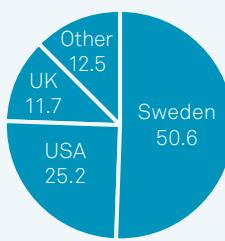
The Board of Directors proposes a dividend of 0.59 EUR (0.53) per share for 2018. The proposed dividend amounts to 29 per cent of the year's earnings per share after tax and is thus in line with the dividend policy.

-1 %

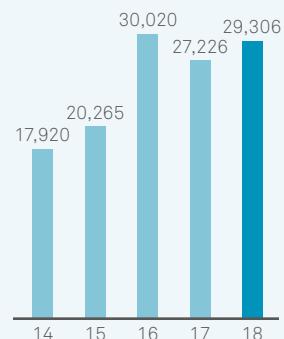
### SHARE PRICE IN SEK, 2018

ISIN SE0000103699  
NASDAQ OMX STOCKHOLM  
HEXAB  
REUTERS HEXAB.ST  
BLOOMBERG HEXAB SS  
SECTOR TECHNOLOGY  
SEGMENT LARGE CAP

### GEOGRAPHIC DISTRIBUTION OF SHAREHOLDINGS, %



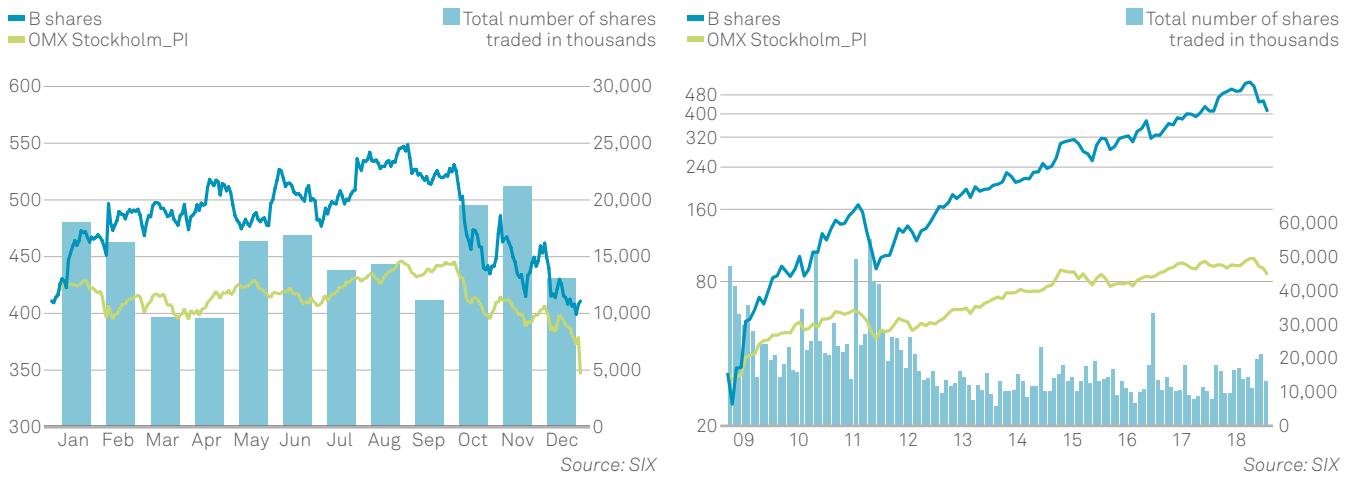
### NUMBER OF SHAREHOLDERS



### 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	31.2
B shares	347,174,692	347,174,692	95.7	68.8
Total	362,924,692	504,674,692	100.0	100.0

#### LARGEST SHAREHOLDERS

Owner/manager/deposit bank	A shares	B shares	% of capital	% of votes
Melker Schörling AB	15,750,000	73,758,099	24.7	45.8
State Street Bank & Trust COM., Boston	-	27,772,694	7.6	5.5
Swedbank Robur fonder	-	14,745,587	4.1	2.9
JPM Chase NA	-	13,307,526	3.7	2.6
Ramsbury Invest AB	-	13,000,000	3.6	2.6
BNY Mellon NA	-	9,810,720	2.7	1.9
CBNY-Norges Bank	-	7,791,522	2.2	1.5
BNY Mellon SA/NV	-	6,867,643	1.9	1.4
State Street Bank & Trust COM., Boston	-	5,691,199	1.6	1.1
State Street Bank & Trust COM., Boston	-	5,255,511	1.4	1.0
SEB Investment Management	-	4,695,698	1.3	0.9
JP Morgan Chase Bank N.A.	-	4,267,000	1.2	0.8
Handelsbanken fonder	-	4,229,652	1.2	0.8
Sumitomo Mitsui Trust Bank	-	4,207,998	1.2	0.8
Första AP-Fonden	-	3,760,274	1.0	0.8
Citibank ADR	-	3,608,424	1.0	0.7
CBNY-WCM Focused INTL GRTH FND	-	3,508,370	1.0	0.7
AMF – Försäkring och Fonder	-	3,422,318	0.9	0.7
Folksam	-	3,272,489	0.9	0.6
Brown Brothers Harriman & CO., W9	-	3,188,727	0.9	0.6
<b>Subtotal, 20 largest shareholders<sup>1</sup></b>	<b>15,750,000</b>	<b>216,161,451</b>	<b>64.1</b>	<b>74.0</b>
<b>Summary, others</b>	<b>-</b>	<b>131,013,241</b>	<b>35.9</b>	<b>26.0</b>
<b>Total number of outstanding shares</b>	<b>15,750,000</b>	<b>347,174,692</b>	<b>100.0</b>	<b>100.0</b>
<b>Total issued number of shares</b>	<b>15,750,000</b>	<b>347,174,692</b>	<b>100.0</b>	<b>100.0</b>

<sup>1)</sup> The concentration corresponds to the 20 largest shareholders presented in the list.  
Source: Euroclear Sweden AB as of 28 December 2018 (with some adjustments).

## 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 <sup>1</sup>		4		11,990,765	3,150,000	66,668,111	279,272,444
2005 Private Placement <sup>1</sup>		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 <sup>2</sup>		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 <sup>2</sup>		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
<b>Total number of issued and outstanding shares</b>					<b>15,750,000</b>	<b>347,174,692</b>	<b>80,530,925</b>

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	22,901	-	2,572,625
501–1,000	2,469	-	1,905,583
1,001–2,000	1,592	-	2,401,643
2,001–5,000	1,101	-	3,564,896
5,001–10,000	454	-	3,326,309
10,001–20,000	265	-	3,819,883
20,001–50,000	187	-	5,682,488
50,001–100,000	97	-	6,653,439
100,001–500,000	140	-	32,445,787
500,001–1,000,000	44	-	31,473,877
1,000,001–5,000,000	47	-	90,073,248
5,000,001–10,000,000	5	-	35,416,595
10,000,001–	4	15,750,000	127,838,319
<b>Total</b>	<b>29,306</b>	<b>15,750,000</b>	<b>347,174,692</b>

Source: Euroclear Sweden AB as of 28 December 2018.

## KEY DATA PER SHARE

	2018	2017	2016	2015	2014
Shareholder's equity, EUR	14.62	12.74	12.70	11.36	9.68
Net earnings, EUR	2.02	1.84	1.59	1.39	1.13
Cash flow, EUR	2.62	2.52	2.17	2.01	1.58
Cash dividend, EUR	0.59 <sup>1</sup>	0.53	0.48	0.43	0.35
Pay-out ratio, %	29.2	28.6	30.2	31.0	31.0
Share price, EUR	39.79	41.74	34.07	34.26	25.76
P/E ratio <sup>2</sup>	20	23	21	25	23

1) According to the Board of Directors' proposal.

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

## ANALYSTS FOLLOWING HEXAGON AB

Organisation	Name
ABG Sundal Collier	Olof Cederholm
Bank of America	Mark Troman
Barclays	Gerardus Vos
Berenberg	Gal Munda
Carnegie	Mikael Laséen
Danske Bank	Max Frydén
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	2018					2017 <sup>3</sup>				
	Q1	Q2	Q3	Q4	Year	Q1	Q2	Q3	Q4	Year
Net sales	834.7	936.9	946.1	1,043.0	3,760.7	779.2	863.2	850.8	954.9	3,448.1
Gross earnings	517.6	583.9	586.8	648.6	2,336.9	477.0	531.7	517.9	592.5	2,119.1
Sales expenses	-159.5	-177.4	-177.8	-189.6	-704.3	-156.9	-166.4	-161.9	-171.1	-656.3
Administration expenses	-66.9	-77.2	-76.9	-88.3	-309.3	-82.1	-70.3	-65.7	-85.4	-303.5
Research and development expenses	-94.0	-104.6	-106.0	-101.9	-406.5	-109.5	-93.9	-90.6	-96.2	-390.2
Earnings from shares in associated companies	0.0	-	-	-0.1	-0.1	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	0.4	3.5	1.8	2.0	7.7	-2.9	-4.6	-2.2	0.3	-9.4
<b>Operating earnings<sup>1</sup></b>	<b>198.3</b>	<b>228.2</b>	<b>227.9</b>	<b>270.7</b>	<b>925.1</b>	<b>125.6</b>	<b>196.5</b>	<b>197.5</b>	<b>240.0</b>	<b>759.6</b>
Financial income/expenses net	-6.0	-5.4	-6.1	-5.3	-22.8	-5.1	-5.3	-5.6	-6.7	-22.7
<b>Earnings before tax</b>	<b>192.3</b>	<b>222.8</b>	<b>221.8</b>	<b>265.4</b>	<b>902.3</b>	<b>120.5</b>	<b>191.2</b>	<b>191.9</b>	<b>233.3</b>	<b>736.9</b>
Tax	-34.6	-40.1	-41.7	-47.8	-164.2	-22.7	-35.7	-35.7	28.4	-65.7
<b>Net earnings<sup>2</sup></b>	<b>157.7</b>	<b>182.7</b>	<b>180.1</b>	<b>217.6</b>	<b>738.1</b>	<b>97.8</b>	<b>155.5</b>	<b>156.2</b>	<b>261.7</b>	<b>671.2</b>
<sup>1</sup> of which non-recurring items	-	-	-3.9	-	-3.9	-50.8	-8.8	-7.3	-6.3	-73.2
<sup>2</sup> of which non-controlling interest	1.5	2.3	2.5	1.8	8.1	1.4	1.9	2.0	1.8	7.1
Earnings include depreciation/amortisation and impairments of	-61.2	-65.0	-79.8	-78.0	-284.0	-87.1	-61.3	-72.7	-63.6	-284.7
Earnings per share, EUR	0.43	0.50	0.49	0.60	2.02	0.27	0.43	0.43	0.72	1.84
Earnings per share after dilution, EUR	0.43	0.50	0.49	0.60	2.01	0.27	0.42	0.43	0.72	1.84
Earnings per share excluding non-recurring items, EUR	0.43	0.50	0.51	0.60	2.04	0.39	0.45	0.45	0.54	1.82
Average number of shares (thousands)	360,443	360,443	360,851	362,031	360,942	360,443	360,443	360,443	360,443	360,443
Average number of shares after dilution (thousands)	362,624	361,697	362,333	362,551	362,301	361,206	361,752	361,697	361,702	361,589

<sup>3) Adjusted according to IFRS 15.</sup>

# 10-YEAR SUMMARY

MEUR	2009	2010	2011	2012	2012 <sup>1</sup>	2013	2014	2015	2016	2017	2017 <sup>3</sup>	2018
<b>Income statement</b>												
Net sales	1,112.0	1,481.3	2,169.1	2,380.0	2,380.0	2,429.7	2,622.4	3,043.8	3,149.2	3,448.4	3,448.1	3,760.7
Operating earnings (EBITDA)	238.9	362.4	542.4	610.3	605.7	642.2	743.5	912.3	970.0	1,109.5	1,107.0	1,197.7
Operating earnings (EBIT1)	168.0	272.9	439.8	489.5	484.9	507.7	578.1	692.7	736.1	835.3	832.8	929.0
Operating earnings	150.6	151.7	431.3	489.5	484.9	492.8	542.1	656.1	736.1	762.1	759.6	925.1
Earnings before tax	135.8	110.9	372.4	441.3	434.2	458.9	508.5	629.6	714.3	739.4	736.9	902.3
- of which non-recurring items	-17.4	-136.6	-8.5	-	-	-14.9	-36.0	-36.6	-	-73.2	-73.2	-3.9
Net earnings	118.1	91.7	297.4	357.4	351.1	371.2	406.2	505.1	578.6	673.8	671.2	738.1
- of which non-controlling interest	0.8	1.8	2.2	2.9	2.9	3.3	3.4	5.2	5.3	7.1	7.1	8.1
<b>Balance sheet</b>												
Current assets	645.4	1,052.4	1,125.0	1,135.9	1,135.9	1,193.3	1,410.7	1,492.7	1,672.4	1,815.4	1,799.8	2,061.6
Fixed assets	1,834.7	3,954.2	4,218.7	4,299.4	4,298.0	4,280.3	5,401.3	5,939.4	6,241.7	6,813.8	6,813.8	7,622.5
Non-interest bearing liabilities and provisions	305.0	797.8	914.7	920.1	915.3	962.6	1,216.5	1,360.7	1,474.5	1,666.8	1,664.7	1,901.0
Interest bearing liabilities and provisions	957.4	2,036.5	1,903.2	1,742.6	1,769.5	1,664.7	2,125.3	1,969.1	1,848.8	2,344.3	2,344.6	2,463.9
Shareholders' equity	1,217.7	2,172.3	2,525.8	2,772.6	2,749.1	2,846.3	3,470.2	4,102.3	4,590.8	4,618.1	4,604.4	5,319.2
Total assets	2,480.1	5,006.6	5,343.7	5,435.3	5,433.9	5,473.6	6,812.0	7,432.1	7,914.1	8,629.2	8,613.4	9,684.1
<b>Key ratios</b>												
Operating margin, %	15	18	20	21	20	21	22	23	23	24	24	25
Return on capital employed, %	8	10	11	11	11	11	12	12	12	13	13	13
Return on equity, %	10	6	13	13	13	13	13	13	14	15	15	15
Investments	77.3	87.2	135.9	171.8	171.8	216.3	232.5	230.3	257.6	275.6	275.6	389.1
Equity ratio, %	49	43	47	51	51	52	51	55	58	54	54	55
Share of risk-bearing capital, %	51	48	52	56	56	57	56	61	64	59	59	60
Interest coverage ratio (times)	9.5	3.6	7.0	9.3	8.8	12.7	14.3	20.3	27.9	27.1	27.0	31.9
Net indebtedness (times)	0.66	0.82	0.66	0.54	0.56	0.49	0.50	0.38	0.30	0.40	0.40	0.35
Cash flow before changes in working capital and excluding non-recurring items EUR	189.1	294.1	397.2	494.4	494.4	538.0	619.2	749.9	832.1	882.3	879.7	1,004.8
Cash flow after changes in working capital and excluding non-recurring items EUR	247.4	260.4	369.0	497.3	497.3	506.8	563.4	722.6	782.1	907.2	907.2	944.1
Earnings per share, EUR	0.39	0.30	0.84	1.01	0.99	1.04	1.13	1.39	1.59	1.85	1.84	2.02
Earnings per share after dilution, EUR	0.39	0.30	0.84	1.00	0.99	1.03	1.13	1.39	1.59	1.84	1.84	2.01
Cash flow per share before changes in working capital and excluding non-recurring items, EUR	0.63	0.97	1.13	1.40	1.40	1.52	1.74	2.09	2.31	2.45	2.44	2.78
Cash flow per share after changes in working capital and excluding non-recurring items, EUR	0.82	0.86	1.05	1.41	1.41	1.43	1.58	2.01	2.17	2.52	2.52	2.62
Equity per share, EUR	4.02	6.15	7.15	7.84	7.77	8.00	9.68	11.36	12.70	12.78	12.74	14.62
Closing share price, SEK	93	144	103	163	163	203	242	315	326	411	411	408
Cash dividend per share, EUR	0.10	0.15	0.17	0.28	0.28	0.31	0.35	0.43	0.48	0.53	0.53	0.59 <sup>2</sup>
Average number of shares (thousands)	301,509	303,655	352,484	352,499	352,499	353,226	355,764	359,387	360,433	360,443	360,443	360,942
Average number of shares after dilution (thousands)	301,768	303,677	352,546	353,494	353,494	355,482	357,225	359,817	360,879	361,589	361,589	362,301
Number of shares, closing balance (thousands)	301,580	352,150	352,490	352,675	352,675	354,997	357,389	360,337	360,443	360,443	360,443	362,925
Average number of employees	7,549	8,179	12,475	13,203	13,203	13,931	14,865	15,891	16,460	17,543	17,543	19,249

1) Restated – IAS 19.

2) As proposed by the Board of Directors.

3) Restated - IFRS 15.

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-term 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 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 OF RISK-BEARING CAPITAL**

The total of shareholders' equity including non-controlling interests and tax provisions as a percentage of total assets.

## **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

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**ACE**

Autonomous Connected Ecosystem

**AI**

Artificial Intelligence, simulation of human intelligence by machines

**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

**CSR**

Corporate Social Responsibility

**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

**IOT**

Internet of Things, objects connected to the Internet

**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

**PI**

Personal Information

**R&D**

Research and development

**UAV**

Unmanned Aerial Vehicle

# CURRENCY CODES

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AUD Australian Dollar

GBP British Pound

BRL Brazilian Real

INR Indian Rupee

CAD Canadian Dollar

JPY Japanese Yen

CHF Swiss Franc

SEK Swedish Kronor

CNY Chinese Yuan

USD US Dollar

EUR Euro

# INFORMATION FOR SHAREHOLDERS

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## ANNUAL GENERAL MEETING 2019

The Annual General Meeting will be held on Monday 8 April 2019 at 13:00 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 Tuesday 2 April 2019. 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 2 April 2019.
- notify the Company of their intention to attend the Annual General Meeting by filling out a form on Hexagon's website, [www.hexagon.com](http://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 of Directors proposes that a dividend of 0.59 EUR per share be declared for the financial year 2018.

As record day for right to receive dividend, the Board of Directors proposes Wednesday 10 April 2019. If the Annual General Meeting resolves in accordance with the proposal, the dividend is expected to be paid through Euroclear Sweden AB starting on Wednesday 17 April 2019.

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 2019

Hexagon will issue financial information concerning the business year 2019 on the following dates:

Q1 Interim Report	7 May 2019
Q2 Interim Report	26 July 2019
Q3 Interim Report	30 October 2019
Year-End Report	5 February 2020

## DISTRIBUTION POLICY

The Hexagon Annual Report is distributed digitally. The Annual Report can be downloaded at the website [hexagon.com](http://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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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.

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