



**HEXAGON**

shaping smart change

ANNUAL REPORT 2016

# HEXAGON IN BRIEF

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



### TECHNOLOGY SOLUTIONS PROVIDER

- Renowned information technologies leader focused on the customer's entire workflow
- Solutions that drive productivity and quality
- 55% of net sales from software and services



### R&D FOCUSED

- 10–12% of net sales invested in R&D
- 3,400+ employees in R&D
- 3,200+ active patents



### GLOBAL REACH

- Broad range of vital industries served
- Approximately 17,000 employees in 50 countries



### STRONG FINANCIALS

- 3.1 bn EUR in sales
- 23% operating margin

## GEOSPATIAL ENTERPRISE SOLUTIONS

Geosystems

Safety & Infrastructure

Positioning Intelligence

PERCENT OF NET SALES:

**50%**

AVERAGE NO. OF EMPLOYEES:

**7,900**

Hexagon's geospatial solutions are used for infrastructure planning, construction and maintenance and in the mining, agriculture and public safety industries. *Read about Geospatial Enterprise Solutions on pages 16–19.*

## INDUSTRIAL ENTERPRISE SOLUTIONS

Manufacturing Intelligence

PPM

PERCENT OF NET SALES:

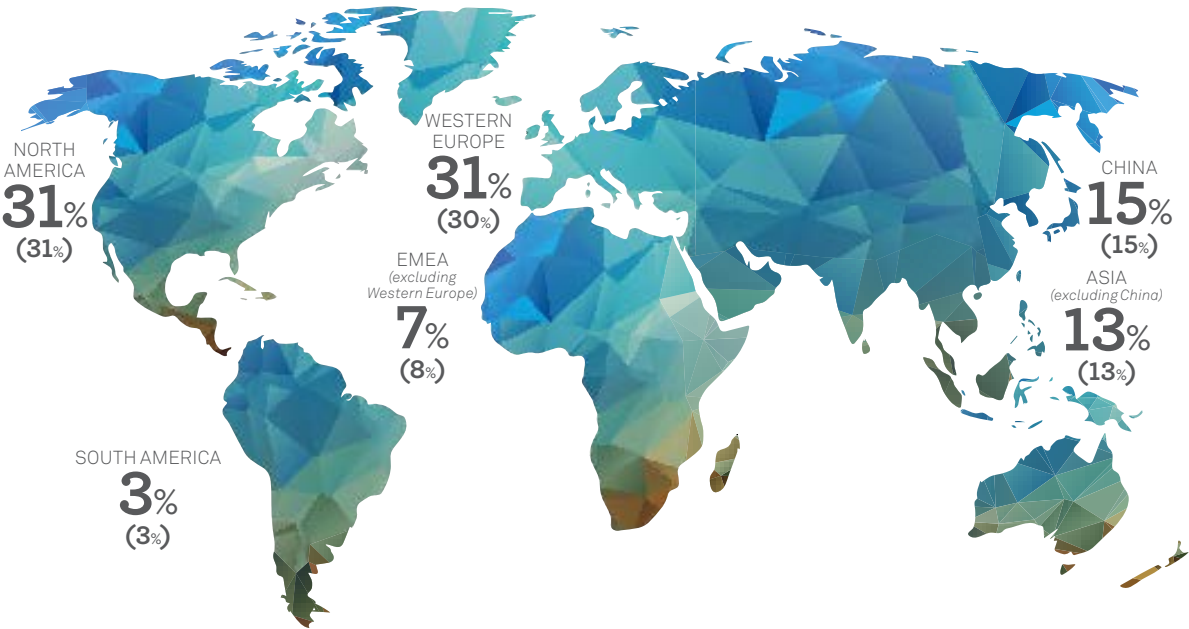
**50%**

AVERAGE NO. OF EMPLOYEES:

**8,500**

Hexagon's industrial solutions are used for measurement and quality inspection of complex components in manufacturing processes as well as in design and operation of engineering facilities. *Read about Industrial Enterprise Solutions on pages 20–23.*

## HEXAGON'S NET SALES PER GEOGRAPHY



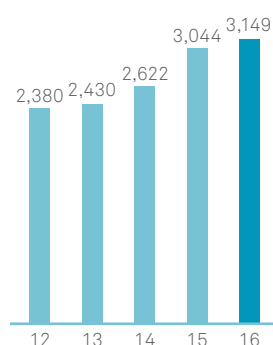
# FINANCIAL SUMMARY

Hexagon grew organically by 2 per cent in 2016 as customers continued to show a willingness to invest in solutions that make their systems and workflows more efficient. Hexagon's gross margin reached 60 per cent, the operating margin (EBIT1) 23 per cent.

## ORGANIC GROWTH

2%

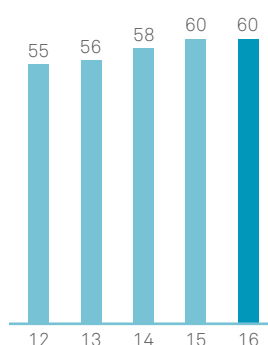
### NET SALES, MEUR



## GROSS MARGIN

60%

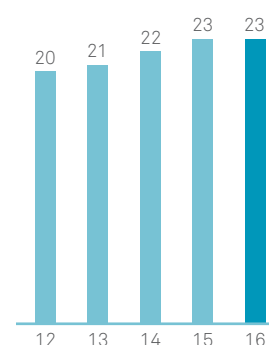
### GROSS MARGIN, %



## OPERATING MARGIN

23%

### OPERATING MARGIN, %



The year's financial performance by segments can be found on page 43 and under segment reporting on pages 16 and 20.

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

	2016	2015	Δ%
Net sales	3,149.2	3,043.8	2 <sup>2</sup>
Operating earnings excl. non-recurring items (EBIT1)	736.1	692.7	6
Operating margin, %	23.4	22.8	0.6 <sup>3</sup>
Earnings before taxes excl. non-recurring items	714.3	666.2	7
Non-recurring items <sup>4</sup>	-	-36.6	n.a.
Earnings before taxes	714.3	629.6	13
Net earnings	578.6	505.1	15
Earnings per share, EUR	1.59	1.39	14
Operating cash flow excl. non-recurring items	524.5	492.3	7
Return on equity, %	13.7	13.0	0.7 <sup>3</sup>
Return on capital employed, %	11.9	11.6	0.3 <sup>3</sup>
Share price, SEK	325.5	314.8	3
Net debt	1,564.8	1,743.6	-10
Average number of employees	16,460	15,891	4

<sup>1</sup> All figures are in MEUR unless otherwise stated

<sup>2</sup> Adjusted to fixed exchange rates and a comparable group structure, i.e. organic growth

<sup>3</sup> The change is specified in percentage points

<sup>4</sup> Non-recurring items relate to a cost savings programme during 2015

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wise 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.



# BUSINESS YEAR OF 2016



## IMPORTANT EVENTS

- Acquired SigmaSpace Corporation, a leading 3D mapping company, *read more on page 12*
- Strengthened the sensor portfolio with radar technology with the acquisition of GeoRadar
- Acquired Forming Technologies Inc., a leading provider of manufacturing software solutions, *read more on page 13*
- Acquired AICON 3D Systems, a leading provider of optical 3D metrology, *read more on page 21*
- Acquired NESTIX Oy, a leading provider of data-centric software solutions for managing and optimising steel fabrication
- Launched HxGN SMART Build, a pioneering enterprise construction management software solution, *read more on page 11*
- Acquired Multivista and further strengthened its suite of construction solutions
- Launched BLK360, a revolutionary 3D scanner, *read more on page 6*
- Launched a new financial plan stretching to 2021, *read more on page 9*

## MARKET DEMAND 2016

Net sales in EMEA grew by 3 per cent organically in 2016 and amounted to 1,193.7 MEUR (1,147.2), representing 38 per cent (38) of Group sales. In Western Europe, Hexagon noted good demand from the automotive and aerospace industries during the year as from the infrastructure and construction sector. In the Middle East, demand increased in public safety but growth was hampered in the region due to a decline in the infrastructure market, driven by a weak oil-related economy.

Net sales in Americas grew by 0 per cent organically in 2016 and amounted to 1,076.5 MEUR (1,049.2), representing 34

per cent (34) of Group sales. In North America, demand increased in the automotive and aerospace industries and in public safety, while the infrastructure market was weak. Operations related to the oil and gas sectors declined following the downturn in the oil price. South America posted negative growth, due to the economic slowdown in Brazil.

Net sales in Asia grew organically by 5 per cent in 2016, due to strong demand in China and Japan. Net sales amounted to 879.0 MEUR (847.4), representing 28 per cent (28) of Group sales. China reported very good growth, mainly driven by a recovery in infrastructure as well as new customers in the manufacturing industry.

# DEAR SHAREHOLDERS,

2016 reinforced the notion that anything's possible. We witnessed the UK's startling vote to leave the European Union, the surprising election of the 45<sup>th</sup> President of the United States, the warmest year on record and the launch of the first unmanned taxis.

The global economy reinforced the notion that "sluggish is the new normal". Despite the weak economy and political uncertainties, Hexagon grew by 2 per cent organically. Our gross margin reached 60 per cent and the operating margin 23 per cent.

The reality is we're living in a time when innovation and stagnation coexist – characterised by digitally enabled ecosystems increasing our dependency on data and filled with increasing possibility and risk. Where the risks associated with change are exponentially less than maintaining the status quo.

## THE LENS OF POTENTIAL

We help customers solve two distinct problems: (1) problems they're aware of and (2) problems they may not realise are on the horizon. The first involves our customers' ability to manage what's most important to them. The second starts with the art of what's possible.

Big productivity leaps in the way consumers access and utilise information are well documented in our digitally connected world. Look at how the smart phone has changed our everyday lives. By contrast, the business landscape has not kept pace and continues to endure all sorts of inefficiencies. We see this as an enormous opportunity. The digital disruptions shaping industry originate with companies like Hexagon that educate customers on how to view their future through the lens of potential.

This is the way we see the world – not by where industries are today, but where they can and should be. We take pride in seeing our customers empowered to fulfill unrealised potential through simplicity and relevance.

**Simplicity:** We are focused on a user experience that is intuitive, well designed and easy to implement. Anyone should be able to use our products.

**Relevance:** Workflow integration is our priority – we are here to build solutions that fit and improve the way our customers work, not force them to conform to new technologies.

## OUR COMMITMENT

We're committed to digitalising the industries we serve, enabling advancements in key areas like connectivity, intelligence and visualisation.

As the lines between the digital and real world continue to blur, our solutions strive to do the same. We're busy creating detailed replicas of the physical world and superimposing the digital world to augment the real world. The industry term is the digital transformation process, involving greater connectivity – of people, machines and processes – and an accelerated use of analytics and visualisation capabilities.

The Internet of Things (IoT) will continue to drive data capture to new dimensions. Over the next decade, more than a trillion sensors are expected to be connected to the IoT ecosystem – from flying and driving autonomous data sensors to the clothes on our backs. More and more of the data collected must be processed in real time so that insights can be extracted immediately, which is why we're focused on processing what occurs "on the edge", where data is being collected, instead of pushing it back to a central cloud.

Virtual reality (VR) and augmented reality (AR) will continue to make the way our customers interact with information more efficient. VR is great for training scenarios and remote experiences. AR enables a blending of both worlds, where graphics can be overlaid onto real-world objects, such as "hidden" wires behind a wall or pipes underneath city streets.

## THE SMART X

Smart plants, smart factories, smart cities, smart farms, smart industries – are all driven by the desire to make entire systems more efficient. Systems built around an information network with connectivity at the core.

The unique approach we're taking with our "Smart X" initiatives is intelligent connectivity built specifically around the user – a new paradigm that goes beyond all data being in one place and accessible by all. Smart X serves up data at exactly the right time in exactly the right format.

## MOVING THE NEEDLE

Cities are where all man-made systems come together – a small-scale version of the major challenges and opportunities facing our world. In 2016, our Smart City initiative gained momentum, delivering industry-specific solutions and applications targeted at managing a city's assets and delivering better quality of life to its citizens.

We were also busy digitalising a city's construction process, introducing HxGN SMART Build, which alleviates construction cost overruns and delays. This solution facilitates the convergence of planning and execution throughout the build process. Executives get top-down visibility of progress deviations and field crews benefit from automation and real-time access to the up-to-date information they need every day on the job site.





**“There’s big disruption on the horizon – our potential for shaping smart change is limitless”**

We strengthened our breadth of expertise in the construction landscape through the acquisition of Multivista. Multivista’s photography and video construction documentation capabilities provide progressive, digital records of ground-up development throughout the project life cycle.

We launched the first of many more sensors to come in the new BLK line from our Geosystems division – the BLK360. It’s a revolutionary addition to our reality capture sensor portfolio – it’s small, lightweight and most of all, user-friendly, with only one button. To date, it’s been integrated with Autodesk’s easy-to-use ReCap 360 software that registers the scans and photos to create a 3D model in just a few minutes. Moving forward, it will not only be embedded into AEC (Architect, Engineering, and Construction) workflows, but also many other industries.

Entering 2017 we took another step closer towards our smart connected factory vision, with the acquisition of computer-aided engineering (CAE) solutions provider MSC Software. The addition strengthens our ability to connect the traditionally separate stages of design and production. MSC’s simulation analysis capabilities optimise design for production, ensuring downstream productivity, product quality and durability. We can now integrate real-world data generated on the production floor with simulation data to improve design choices and processes upstream in the workflow.

## **OUR FUTURE**

2017 is year one of our new five-year financial plan (launched December 2016), which outlines reaching a sales target of

4.6-5.1 billion EUR and an EBIT margin of 27–28 per cent by 2021. We will continue to improve profitability through new applications, a richer mix and acquisitions. We will accelerate our solution-centric strategy through an increase of R&D spend and investments in sales resources, funded by a company-wide cost savings programme launched in Q1 2017 to reduce administration costs.

In sum, there is enormous potential on our horizon. Hexagon will be defined by its leadership in putting data to work through innovation and strong partnerships with our customers. Together, we are capable of shaping smart change in industries that can change the world. Our divisions and management are committed to accelerating our customers’ ability to outpace digital disruption rather than be vulnerable to it.

There’s big disruption on the horizon – our potential for shaping smart change is limitless.

Finally I would like to thank our shareholders, customers and employees for your continued support in Hexagon. 2016 was an exceptional year and I look forward to the bright future we have ahead.

Stockholm, Sweden, March 2017

**Ola Rollén**

*President and Chief Executive Officer*

# DIGITALISATION – THE POWER TO TRANSFORM THE WORLD

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The means to fully support the Earth's growing population are becoming more limited with each passing day, demanding better use of resources and more efficient processes in industries that are vital to our existence. In the face of these challenges, Hexagon is driving the process of smart change through digitalisation, moving customers closer to fully digital businesses.

Digitalisation is contributing to more far-reaching transformations than ever before, providing companies and organisations more efficiency in how they create, share and leverage digital information. Through game-changing information technologies, Hexagon is bridging the gap between *what is* and *what should be* – a distance bridged only by change. Smart change.

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## GLOBAL MEGATRENDS: **DEMOGRAPHIC**

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### **GROWING POPULATION AND LIMITED RESOURCES**

The world's population is growing larger by the minute. By 2025, the global population will reach 8 billion people and, according to the United Nations, is expected to eclipse 9.6 billion by 2050. Farms need to produce more food in the next 50 years than they did in the last 10,000 years, which intensifies the need for innovative agriculture solutions.

### **GROWING MIDDLE CLASS**

The middle class will grow as the number of industrialised countries increases. This means greater purchasing power in the world and a rising demand for capital goods such as cars, household appliances and consumer electronics. The growing middle class is the driving factor for consumption, therefore, manufacturing capacity must increase to keep up.



### **URBANISATION**

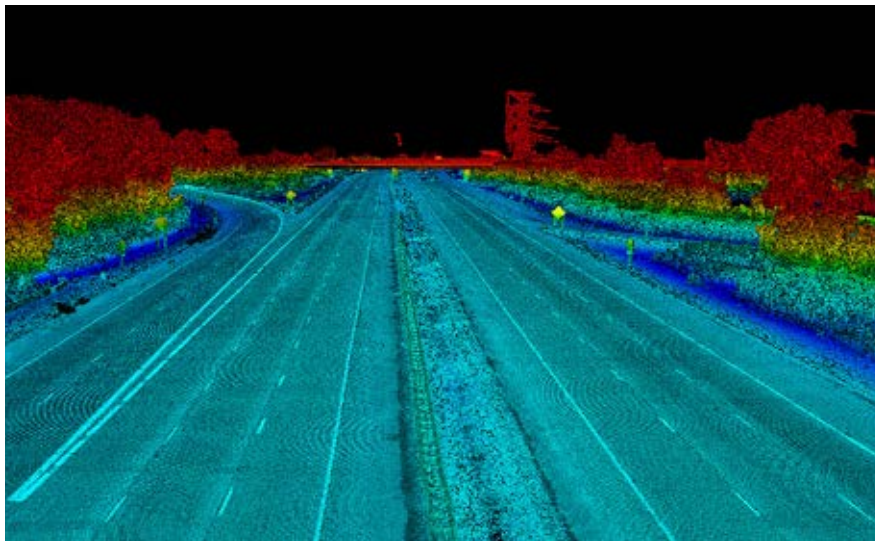
Today, the majority of the world's population lives in an urban area, with 180,000 people moving into cities every day. The shift from an agriculture-based economy to mass industry and technology has resulted in increased production, consumption and centralisation, putting pressure on local resources and the ability to manage change. Urbanisation means more centralised, socialised and efficient production and consumption, therefore, more resources and complex urban management solutions are needed.



# GLOBAL MEGATRENDS: TECHNOLOGY

## CONNECTIVITY

Connectivity is about access and system integration. By compiling actionable and relevant digital data into an easily accessible format adapted to processes and workflows, a complete picture can be presented of a project or activity. Having this comprehensive view is a major benefit, as it reduces complexity. For example, a cloud-based system can collect every detail about a construction project and deliver the information that is most important to each individual working on the project. This enables detailed monitoring of progress at a construction site and allows adjustments to be made quickly when tasks do not go as planned.



## VISUALISATION

Digitisation creates Big Data and provides opportunities to present data as meaningful and actionable information. Using laser scanners and programmable drones with specialised cameras, very precise 3D models can be created of infrastructure and surrounding geography. This makes it possible to visualise infrastructure, including electric cables, water pipelines and other hidden installations, from the office or a mobile device. Digitalisation has also opened the door for Augmented Reality (AR), a method of seeing real-life surroundings using computer-generated images and sounds. Combined with other technologies, AR can potentially be used to improve the efficiency of work in extremely cold environments, in deep mines or in space.



## INTELLIGENCE

One of the greatest opportunities with digitalisation is improved productivity in almost all industries through embedded intelligence that results in better decisions. By merging the real and the virtual worlds, deviations can be corrected in real time, reducing the risk of delays and cost overruns. With Artificial Intelligence (AI) a machine can perceive and analyse its environment and take actions autonomously. One example is the automotive industry, where AI has the potential to transform the driving experience with features such as autonomous driving and speech recognition.



## GLOBAL MEGATRENDS: **MARKET**



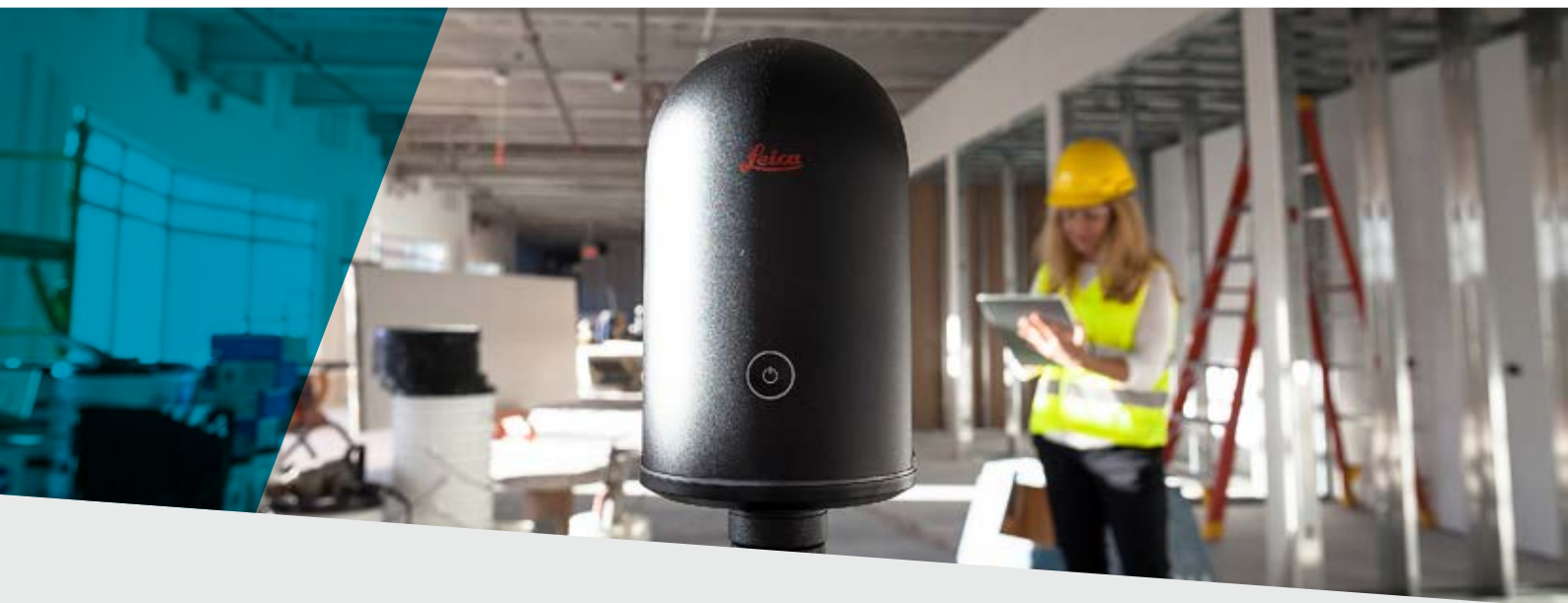
### **INCREASING COMPETITION AND PRICE PRESSURE**

Globalisation and the outsourcing of production to low-cost countries are some of the things exposing companies to competition and price pressure, creating higher demands for productivity improvements. As a result, companies are left with production processes that are more complex and geographically dispersed, increasing the need for greater efficiency and process quality.



### **INCREASED AUTOMATION AND AUTONOMY**

Demands for higher productivity have led to increased automation of time-consuming and labour-intensive tasks. The more digitalisation and automation, the more intelligent machines and systems that can be created that learn, adapt, make decisions and act without human control, such as autonomous vehicles.



### **BLK360**

## **THE REVOLUTIONARY SCANNER FOR EVERYONE**

Small, lightweight and user-friendly, the BLK360 is a revolutionary addition to Hexagon's reality capture sensor portfolio. The imaging scanner provides high-quality 3D renderings with just the push of a button, completing a full 360° scan, including imagery, in only a few minutes. The

BLK360 presents exciting potential for simplified scanning workflows for the AEC market (Architect, Engineering and Construction) and many other industries, enabling Hexagon to meet the 3D reality capture needs of markets in and out-side of surveying.

# SHAPING SMART CHANGE

Hexagon develops information technology solutions that drive productivity and quality across geospatial and industrial landscapes. Information technology is about extracting insight from data that enables automated processes and aids decision making.

Unlike most software companies, Hexagon has strong roots in reality capture sensors – sensors that capture geospatial data about a physical environment and quality data about manufactured products.

Hexagon's solutions deliver intelligent information ecosystems that integrate data feeds, create seamless workflows and make entire systems more efficient. Simply, they connect everything in the system – people, machines or processes – embed intelligence and enable visualisation for smarter interaction with information. Hexagon's solutions

are optimising the flow of information in some of the world's most vital industries – from agriculture, manufacturing, construction and energy to public safety, security and defence.

Hexagon's business is comprised of the following divisions – Geosystems, Manufacturing Intelligence, Positioning Intelligence, PPM and Safety & Infrastructure. Each is focused on developing technologies for specific applications, but the solutions leverage the power of Hexagon's entire portfolio.

## HEXAGON'S TECHNOLOGY WORKS AS FOLLOWS:



### SENSORS AND SOFTWARE

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

## MISSION

We are dedicated to delivering actionable information through information technologies that empower customers to reach their full potential and shape smart change cross diverse industry landscapes.

## VISION

We aspire to play a leading role in the effort to solve the challenges our world is facing by delivering information technologies that fuel possibility.



# HEXAGON'S PEERS

## PEERS

Hexagon's peers include global companies of varying sizes and expertise. While Hexagon offers geospatial and industrial enterprise-wide applications, most of these peers operate within only one phase of an industry workflow or are limited to only sensors or software. Hexagon invests approximately 10-12 per cent of net sales in research and development (R&D) to maintain its competitive advantage and meet increasing demand for enterprise-wide applications.

Company	Domiciled	Listed	Geospatial	Industrial
Autodesk	USA	✓	✓	✓
AVEVA	UK	✓		✓
Bentley Systems	USA		✓	✓
Carl Zeiss	Germany			✓
Dassault Systèmes	France	✓		✓
ESRI	USA		✓	
Faro Technologies	USA	✓	✓	✓
Mitutoyo	Japan			✓
Nikon	Japan	✓		✓
Renishaw	UK	✓		✓
South Survey	China		✓	
Topcon	Japan	✓	✓	
Trimble	USA	✓	✓	

## 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.



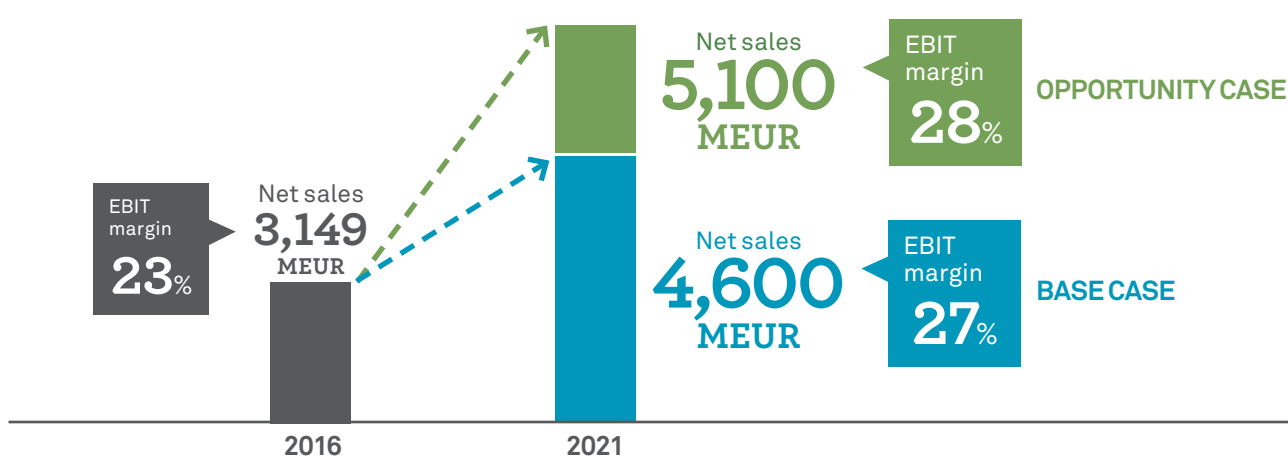
### ENTREPRENEURIAL

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

# NEW FINANCIAL PLAN FOR FUTURE GROWTH

Hexagon presented the financial plan for 2017-2021 during its Capital Markets Day in December 2016. The plan features two scenarios for continued growth and improved profitability.

## TARGET NET SALES AND OPERATING MARGIN (EBIT1)



• **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. 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. Acquisitions are assumed to be the swing factor compared to the base case. The operating margin is estimated in this scenario at 28 per cent in 2021.

### CONTINUED GROWTH

Hexagon's growth strategy platform 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 revenues from new applications and initiatives. Recurring revenue is expected to increase as the per-

centage 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, operating margin (EBIT1) has increased by 3 percentage points. The target in the financial plan through 2021 is for further margin improvements and to reach an operating margin (EBIT1) of 27 per cent, or 28 per cent depending on the scenario. Improvements in margin will continue to be achieved through changes to the sales mix, where the software portfolio and new generations of products will account for a greater share of sales. The target is that organic growth will contribute with an incremental margin of 35–40 per cent. At the same time, the cost structure will continue to change. Investments in R&D will continue in order to meet the demand of more solution-centric business. This will trigger investments in sales resources while reducing administrative costs which are non-accretive to the profitability.

# TECHNOLOGY LEADERSHIP

In recent years, Hexagon has focused more on R&D by annual investments of approximately 10–12 per cent of net sales. The Group has more than 3,200 active patents and more than 3,400 employees in R&D.

# 12%

OF NET SALES INVESTED IN R&D

Through close cooperation with customers, Hexagon is working to develop innovative solutions that not only address their needs and challenges, but also solve issues affecting vital resources and industries that are essential to the future of the planet. Every development project is based on an identified business case with

clearly defined technical, commercial and cost targets. Hexagon's costs for R&D during 2016 amounted to 366.2 MEUR (359.7), 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.

## Value / Synergies

- Centralised R&D, in addition to divisions
- Incubation
- Cross-business solutions
- Cross-business go-to-market



## Proven Track Record

- 100+ resources, 90+% Ph.D.
- Collaboration with more than 3,400 R&D resources across Hexagon

## Skills include

- Artificial intelligence (AI)
- Data science
- Reality computing, mathematical modeling, multi-physics
- Laser
- Optics
- Imaging
- Video analytics

## INNOVATION HUB

Hexagon's Innovation Hub serves as a central unit for innovations and R&D to make better use of cross-business synergies and raise the innovation bar across all lines of business. A primary task in this initiative is enabling Hexagon's software and sensors to communicate with each other in new ways regardless of application or platform. The aim is that the solutions should offer business advantages to Hexagon's various operations and provide more cross-selling opportunities. Cutting-edge expertise is available in a range of fields including AI, computer sciences, mathematical modeling, lasers, optics and video analysis.

## TECHNOLOGY CENTRE

- Purpose – Systems integration and innovative R&D of information technologies (hardware and related software)
- Goal – Technology prep for 'the connectivity of everything' era (the 'smarter' the device, the stronger the connectivity)
- Focus – R&D of 'smart-ready' technologies (embedded, operating system-agnostic software application tools, communication ports, protocols, user interfaces, etc.)

## APPLICATIONS CENTRE

- Purpose – Holistic view of technology synergies and integration opportunities across Hexagon, supporting the interoperability of both Hexagon and third-party products
- Goal – Connectivity and business process optimisation (the more integrated and

intelligent the workflow, the greater the value to the business)

- Focus – Development of connectivity technologies and platforms (think IoT) that support both Hexagon and third-party products and provide advanced data analytics algorithms to sophisticate connectivity

## VENTURES

- Purpose – Business incubator acumen for exploiting strategic and opportunistic innovation pipeline opportunities
- Goal – Bringing next-generation of information technologies to market
- Focus – Holistic view of how technologies might transfer to other business areas and markets, creating new business models, value and revenue streams





## INNOVATION

# PRODUCTIVITY GAINS FOR THE CONSTRUCTION SECTOR WITH HxGN SMART BUILD

Construction and infrastructure projects require years of planning and execution. Each project demands a high level of orchestration – design and modelling, construction planning, budgeting, communications, tracking variances and changes and ultimately handing over an as-built digital asset. There is a pressing need for a construction enterprise solution that provides top-down visibility while seamlessly connecting management and field professionals. HxGN SMART Build leverages decades of Hexagon project planning and control leadership used with some of the world's largest and most challenging industrial projects. Combine this expertise with innovative, leading-edge

information technologies and you have a construction enterprise management system built from the ground up. SMART Build enables up-to-the-minute tracking, managing and reporting of time, materials and other expenditures, including variances between budgeted and actual costs. It provides visibility into project execution and performance through dashboards, model visualisation and interactive spreadsheets, better control of costs and resources and improves all facets of project performance to the benefit of construction executives and stakeholders. *For more information: [hxgnsmartbuild.com](http://hxgnsmartbuild.com)*

# MORE VALUE-GENERATING ACQUISITIONS

Acquisitions play a vital role in Hexagon's growth strategy. Since 2000, Hexagon has completed more than 120 corporate acquisitions. The aim of the acquisitions should always be to strengthen the product portfolio by adding technology or know-how that is not already part of the portfolio. Acquisitions not only aim to create growth, but the synergy potential should always be greater than each individual unit.

Acquisition candidates should have a strong market position and a good reputation among customers. The incremental margin from the acquired growth has been estimated at 30–35 per cent. The priority among software companies is for businesses with stable recurring revenue and clear synergies in high-growth markets. Hexagon continuously monitors several acquisition candidates and expects acquisitions to add 3–5 per cent of total average annual growth. In addition, possible transformational deals are regularly evaluated.

## SELECTION OF ACQUISITIONS IN THE PAST TWO YEARS

Month	Company	Country	Field	Segment
<b>2015</b>				
February	OhmTech	Norway	Software	Industrial
April	Q-DAS	Germany	Software	Industrial
October	EcoSys	USA	Software	Industrial
<b>2016</b>				
January	Paul MacArthur (SCCS)	UK	Measurement equipment	Geospatial
February	SigmaSpace	USA	3D maps	Geospatial
March	Forming Technologies	Canada	Software	Industrial
March	AICON 3D Systems	Germany	Measurement instruments	Industrial
June	NESTIX	Finland	Software	Industrial
July	GeoRadar	Italy	Radar solutions	Geospatial
August	Multivista	Canada & USA	Cloud services	Geospatial

## SIGMASPACE

## THE PERFECT COMPLEMENT TO HEXAGON'S IMAGERY PROGRAMME

Today, precise and geo-referenced 3D visualisations of real situations have become an important tool regardless of whether they involve urban development, emergency services, aviation safety or disaster response. The need for photorealistic 3D visualisation is here to stay, particularly as extensive 3D mapping of countries is on the increase and we move toward a future with autonomous vehicles. The acquisition of SigmaSpace has complemented Hexagon's product portfolio with the next generation of technology for the rapid collection of 3D geo-data and the delivery of high-quality 3D maps.

SigmaSpace's unique technology, Single Photon LiDAR (SPL), enables much faster data capture in 3D with a higher resolution than conventional

systems. The system works during the day, as well as at night and has no problem penetrating vegetation, tree crowns, ground fog and clouds. SigmaSpace technology has made it possible for private and public customers, such as NASA and the U.S. Department of Defense, to access and act on perfectly visualised data.

The technology is also a perfect complement to Hexagon's Imagery Programme, which makes geospatial information available in the cloud through airborne sensors. Single Photon LiDAR, made possible with Sigma Space technology, is ideal for nationwide programs such as the U.S. Geological Survey's 3DEP, which aims to satisfy the growing need for more detailed accurate elevation data across the USA.







## FORMING TECHNOLOGIES INC.

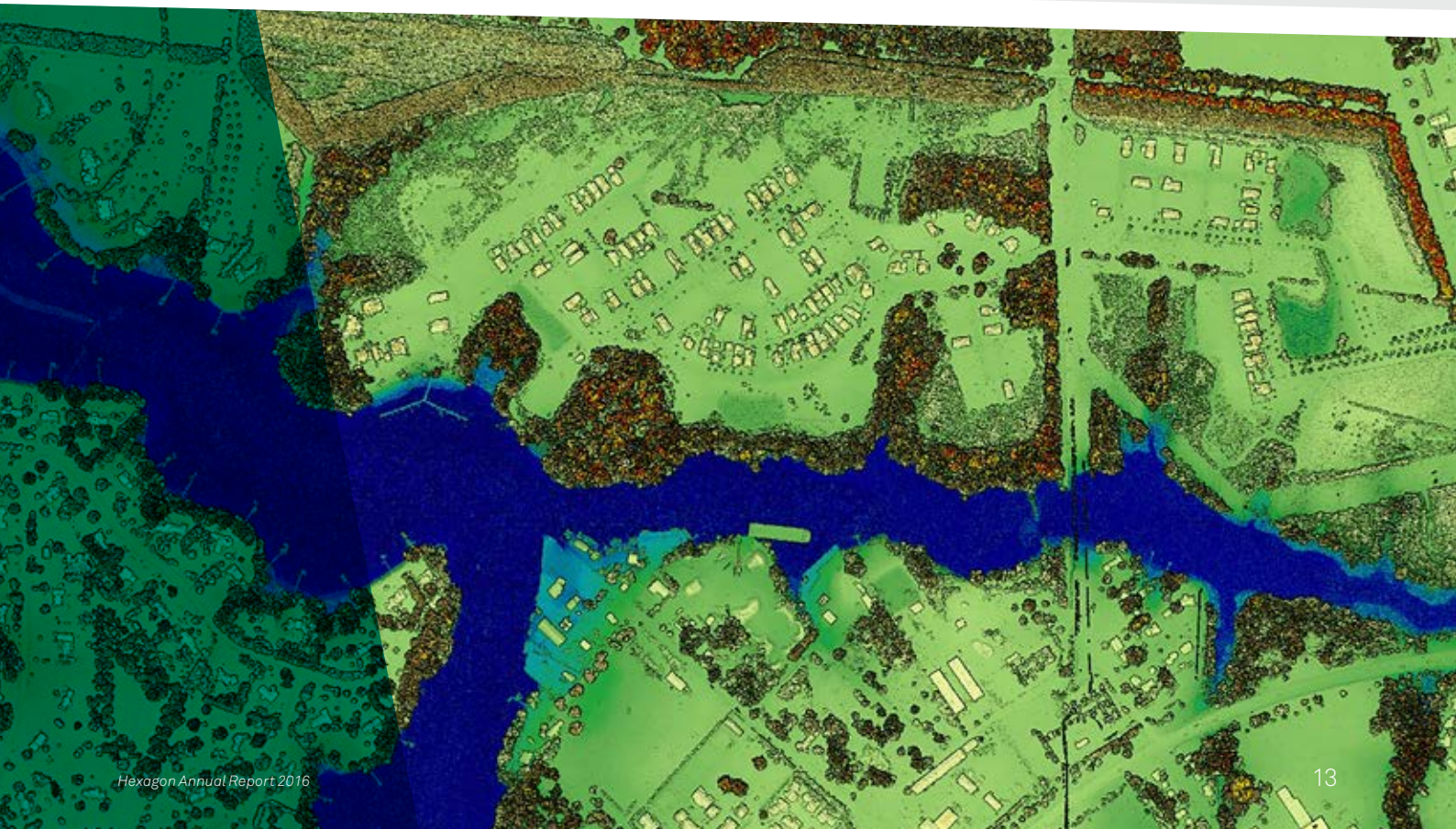
# SUBSTANTIAL EFFICIENCY GAINS IN MANUFACTURING SHEET METAL COMPONENTS THROUGH SIMULATION

Forming Technologies Inc. (FTI), a manufacturing software supplier acquired for its technology and know-how in applications for the sheet metal sector, has added significant value to Hexagon's industrial solutions.

Sheet metal is used in a wide variety of different product areas including car bodies, aircraft and electronics. The fast and cost-efficient manufacturing of sheet metal components is important to meet the constant demand in industry for greater productivity. FTI's leading technology portfolio, engineering services and long expertise in the sheet metal industry help customers validate constructions before they enter production, thereby significantly

reducing labour and material costs. FTI's software is used to streamline the manufacturing process for sheet metal components by reducing production time and material costs. The automotive industry can substantially improve its productivity by linking simulation software (CAE) with computer-aided manufacturing (CAM), which control production and improve quality control.

The ability to immediately apply feedback directly to the production process to improve quality and productivity is a key part of Hexagon's solution-centric strategy. FTI's technology makes it possible to integrate quality control from the beginning of the product's life cycle.



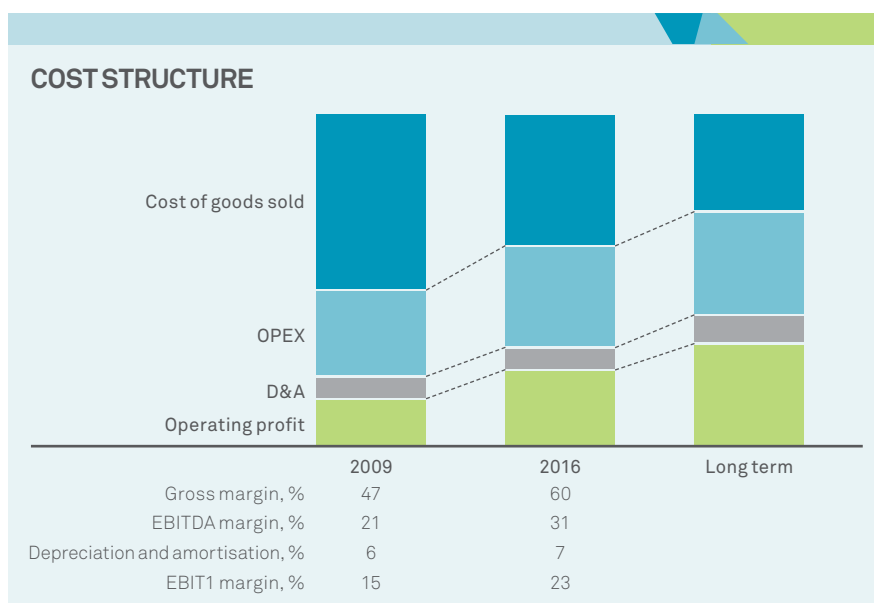


# CHANGED COST STRUCTURE

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 also is a strong focus on 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. As a result, the gross margin has risen faster than the operating margin. Going forward, Hexagon will continue its solution-centric strategy that will result in increased investments in R&D and sales while reducing administrative costs which are non-accretive to the profitability.

A competitive cost structure is vital to defend and strengthen a leading market position while enhancing opportunities to challenge new players. To achieve operating leverage and long-term cost advantages, Hexagon is always looking for ways to create and utilise economies of scale. One exam-



ple is through sharing sales channels in order to reach out to all geographic markets.

## UTTAR PRADESH POLICE HEXAGON'S SOLUTION HELPS INCREASE SAFETY FOR 220 MILLION PEOPLE IN INDIA

Uttar Pradesh Police, the largest police force in India, opened its state-wide, centralised "Dial 100" emergency operation centre in 2016. It houses India's largest police emergency response system, which is equipped with Hexagon's industry-leading Intergraph Computer-Aided Dispatch software. Hexagon's integrated suite of public safety solutions enhances incident management and agency-wide reporting in India's most populous state, serving 220 million people across 75 districts.

Relying on Hexagon's advanced call-handling and dispatching capabilities, the new 24/7 operation centre has up to 250 call takers and 150 dispatchers to manage 200,000 estimated calls per day via its emergency helpline services – land-line, VoIP (Voice over Internet Protocol), SMS, email, social media and mobile application. Citizens can upload pictures, texts and videos, which can be tagged to record calls. Information is shared with frontline police via mobile applications.



# OTHER FINANCIAL TARGETS

## EQUITY RATIO

58%

## CASH CONVERSION

86%

## WORKING CAPITAL TO SALES

17%

### SOUND EQUITY RATIO

A sound equity ratio is a requirement for financing acquisitions by borrowings. Hexagon targets an equity ratio of at least 25 per cent. The equity ratio amounted to 58 per cent (55) at year-end 2016.

### BALANCED DEBT STRUCTURE

Debt capital markets account for 99 per cent (82) of Hexagon's financing, while bank loans make up the remainder. Hexagon's net interest expense amounted to -21.8 MEUR (-26.5) in 2016. The average interest rate on the Group's short- and long-term loans was 1.3 per cent (1.2) at year-end 2016.

### 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 86 per cent (91) for 2016. Cash flow from operating activities, excluding non-recurring items, amounted to 782.1 MEUR (722.6).

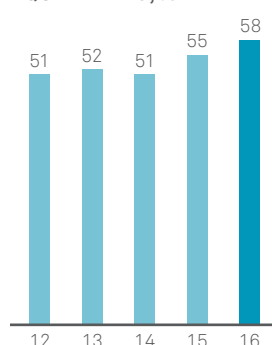
### EFFICIENT USE OF OPERATING CAPITAL

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 2016 amounted to 17 per cent. As the business model shifts towards more software-centric solutions, Hexagon expects the working capital as a percentage of sales to trend downwards. Hexagon's target is that return on capital employed, including goodwill from acquisitions, should exceed 15 per cent over a business cycle. Return on average capital employed, excluding non-recurring items, was 11.9 per cent (11.6) in 2016.

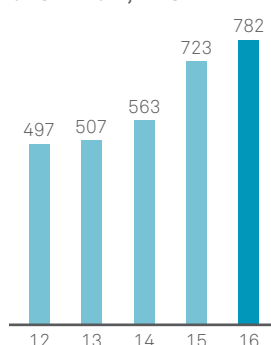
### DIVIDENDS TO SHAREHOLDERS ACCORDING TO POLICY

Hexagon's dividend policy is to distribute between 25 and 35 per cent of net earnings after tax. The Board's proposed dividend for 2016 is 0.48 EUR (0.43) per share, which is equivalent to 30 per cent (31) of the year's earnings.

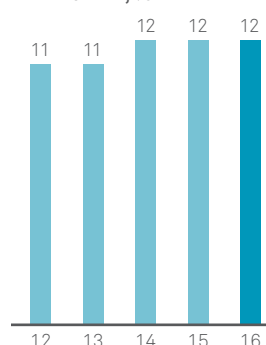
EQUITY RATIO, %



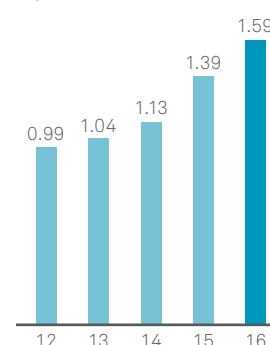
CASH FLOW, MEUR



RETURN ON CAPITAL EMPLOYED, %



EARNINGS PER SHARE, EUR



# GEOSPATIAL ENTERPRISE SOLUTIONS

Geospatial Enterprise Solutions holds a world-leading portfolio of sensors for capturing data from land and air as well as sensors for positioning via satellites. The sensors are complemented by software (GIS) 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. The segment consists of the divisions Geosystems, Safety & Infrastructure and Positioning Intelligence.

## GEOSYSTEMS

Many industries need to shed time-consuming and labour-intensive tasks to remain competitive. Hexagon's solutions often require fewer people in the field and capture data faster, leading to greater productivity and lower costs for customers. The sensors capture large quantities of data through the use of total stations, 3D scanners and airborne cameras. The software then processes, stores and analyses the data with high precision and accuracy, which results in high-quality 3D models and maps of the real world.

## DECISION SUPPORT FOR INFRASTRUCTURE AND CONSTRUCTION

Airports, ports, oil rigs and railways are just a few examples of facilities and structures whose construction processes must constantly be improved to ensure the finished asset is delivered on time and on budget. Perfect precision is needed in complex construction projects such as bridges, dams and tunnels, where the structures must be fully functional and safe. Hexagon's technologies are used to provide actionable information in a range of different industries. In surveying, land areas are mapped to define borders for landowners and create or update public land registers. The construction sector uses Hexagon's solutions to plan, build and maintain infrastructure and complex building structures in a more productive and cost-efficient way.

## MACHINE CONTROL FOR GREATER EFFICIENCY

Hexagon's solutions for operating heavy machinery are used in industries such as construction and agriculture. Sensors send precise information in real time to the in-cab control panel, which reduces the risk of error, allowing the operator to work efficiently guided by data that shows the exact position. With solutions that use 3D models and precise positioning services Hexagon helps increase productivity and efficiency while reducing environmental impact. Mining is another industry in which precision and safety are key factors, with an added focus on cost-effectiveness. Hexagon's measurement solutions are used to integrate, automate and optimise planning, operations and safety in mining by integrating technologies for inspection, design, fleet management systems, production optimisation and collision avoidance.

## SAFETY & INFRASTRUCTURE

Efficiency in public services such as public safety, transports, electricity, water and sanitation is essential to meet the challenges of lower budgets, higher demands and technology advances. Disruption of service in key areas such as the electrical grid or transportation networks not only impacts budgets, but impacts the stability and quality of life of affected communities.

With alarming frequency, cities and regions around the world are experiencing loss and destruction from challenges both →

## ACQUISITIONS 2016

Company	Country	Area
GPS Solutions Inc.	USA	High-precision positioning software company
Paul MacArthur Limited (SCCS)	UK	Supplier of Leica Geosystems measuring equipment for the infrastructure market
SigmaSpace Corporation	USA	Supplier of LiDAR solutions for 3D maps
M&P Survey Equipment Ltd	UK	Supplier of Leica Geosystems measuring equipment for the infrastructure market
GeoRadar	Italy	Supplier of radar solutions for monitoring structures
Multivista	Canada & USA	Supplier of visual and cloud-based documentation solutions for the construction sector
GISquadrat GmbH	Austria	Supplier of data and applications for infrastructure and public services



#### OPERATING MARGIN

**22%**

#### PERCENT OF NET SALES

**50%**

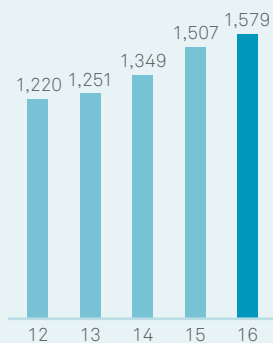
#### AVERAGE NO. OF EMPLOYEES

**7,900**

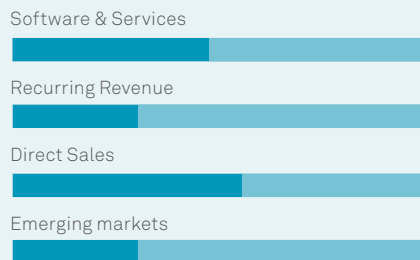
#### SOLUTION EXAMPLES

- Total & multistations
- Airborne sensors
- UAVs (unmanned aerial vehicles)
- GNSS receivers
- Public safety software
- Mine planning software

#### NET SALES, MEUR



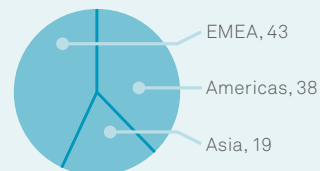
#### SALES MIX



#### CUSTOMER SEGMENT, %



#### GEOGRAPHY, %



## IGNITE

# A COMPETITIVE ARENA TO CREATE INNOVATIVE APPS TO SOLVE REAL-WORLD PROBLEMS

In January 2016, Hexagon launched IGNITE, a unique challenge and opportunity for developers worldwide to create apps of the future and win part of a prize package totalling \$260,000 USD. The competition invited innovators to build upon Hexagon's Smart M.App platform, which helps create intelligent maps to solve real problems and challenges in an innovative, smart and visual way. The participants were tasked with developing apps that focused on areas with long-term significance such as sustainability, finance markets,

food supply, safety, infrastructure and health. The winners were announced in December, with first-place honours going to Tomasz Berezowski of Poland's Wroclaw Institute of Spatial Information and Artificial Intelligence. Berezowski and his team created Mind M.App, the first application combining a graph data model with location information to visualise connections and patterns to ultimately predict outcomes and answers. Visit [blog.hexagongeospatial.com/tomasz-berezowski](http://blog.hexagongeospatial.com/tomasz-berezowski) to learn more about this winning solution.



## NOVA MS60

# SAFER GOLD MINING IN GHANA

In early 2016, one of the world's largest gold producers, Newmont Mining, decided to invest in the Leica GeoMoS monitoring solution for the Ahafo South mine. The mine is located in Sefwi, one of Ghana's largest volcanic belts. The area is rich in minerals, but given the location, it is critical for safety that the geotechnical conditions of the sub-surface are continually examined and analysed to avoid accidents caused by falling rocks or collapsing walls.

Newmont's solution comprises the Nova MS60 MultiStation (a digital terrain model Meteo sensor that measures atmospheric variations such as temperature and air pressure). The connected MultiStation transfers the collected data to the software which is used to monitor the mines.

The choice of solution means the Ahafo mine is equipped with the leading software for real-time monitoring. By providing relevant information adapted to the customer that facilitates an immediate response, the software helps make mine operations as safe as possible. The solution processes and manages enormous volumes of data that is collected from the mine around the clock. The risk for mistakes linked to human error is minimised, as the entire process is automated. Data access is possible in real time through the use of wireless communication between the mine and the office.

Newmont now has a safer environment for its valuable mining equipment. But above all, the work environment has become much safer for employees.

natural and man-made – flooding, earthquakes, terrorism and more. Hexagon's geospatial solutions are used to monitor areas impacted by climate change or subject to the risk of natural disasters. In the field of public safety, rapid urbanisation is making tough demands on more complex control, planning and operation of cities worldwide, as a threat in a densely populated area can quickly have a significant impact.

As one of the largest providers of Geospatial Information Systems (GIS) in the world, Hexagon helps customers transform large amounts of data into relevant and actionable information. The solutions are used in building intelligent transportation systems, improving productivity in water management and protecting critical infrastructure and sensitive ecosystems, as well as developing more intelligent power grids and solutions in public safety. In the area of incident response, for example, Hexagon's computer-aided dispatch (CAD) solutions automatically and efficiently handle information about various events and link operational and coordination centres with local police stations or other rescue functions. Response agencies receive accurate, real-time information that is locally adapted, contributing to efficient planning and coordination of efforts and resource optimisation.

Reliable, scalable and interoperable safety and infrastructure solutions increase capacity and flexibility and reduce risks and the total cost for processes and facilities. Hexagon's

solutions increase situational awareness and produce better results – whether in an operating centre or in the field, locally or in the cloud, at a workstation or via a smartphone app.

## POSITIONING INTELLIGENCE

Through the use of GNSS receivers, Hexagon's positioning solutions help customers pinpoint their position to a level measured in centimetres.

Real-time awareness of position has become a critical requirement for growth areas such as autonomous vehicles, vehicle navigation and precision farming. Hexagon's integrated positioning solutions can be used on land, sea and in the air in demanding work environments such as dense forest areas or in deep open-cast mines. Hexagon's GNSS receivers and antennas can be found in the surveying, oil, construction, agriculture, defence and mining industries, delivering superior position accuracy and increased signal availability.

The use of UAVs for capturing data is an exciting area with far-reaching impact, allowing inspections to be made quicker, easier and more cost efficiently than before. They can be used for inspecting particularly hard-to-reach infrastructure such as underground canals or under bridges, where GPS does not reach. UAVs equipped with Hexagon technology to capture 3D data will make surveys faster, easier, safer and more cost-efficient.





## HEXAGON

# HEXAGON TECHNOLOGY SUPPORTS SMART CITY SOLUTIONS IN RIO DE JANEIRO

To support the Olympic Games in Brazil, Hexagon delivered Smart City solutions and created a digital model of Rio's Olympic city. This project showcased Hexagon's ability to provide end-to-end solutions, from data capture to information sharing and analysis, and fuse the constant flow of information between the real and digital worlds to enable faster and better decisions.

Technologies included synchronized 2D/3D map views and incident analyzer to enable dynamic Business Information (BI) reporting capabilities, among other things.

Hexagon collected 3D digital reality capture data from selected Olympic Games venues which helped improve situational awareness when planning, including providing insight into where vehicles should be located and patrol route should be planned.

Not only was this implementation beneficial during the Olympic Games, but also supports Smart City initiatives in Rio de Janeiro for years to come, improving efficiency in their emergency planning and response.

## SECURITY AND RELIABILITY IN POSITIONING

Security and reliability in positioning and tracking technology is, and will remain, essential for effective navigation operations. The need and demand is especially pressing in the security and defence industry. Today, Hexagon's GPS Anti-Jam Technology (GAJT) is used by the U.S. Navy to ensure the concealment of a vessel's real-time location

by actively identifying and counteracting external jamming attempts. In addition, Hexagon's solutions help ensure that the vessel's position is communicated to the right receiver in a closed communications system. Hexagon also offers anti-spoof solutions, providing special receivers that analyse and block attempts to manipulate a vessel's GPS and radar system.

# INDUSTRIAL ENTERPRISE SOLUTIONS

Industrial Enterprise Solutions includes metrology systems that incorporate the latest in laser and sensor technology for fast and accurate measurements, as well as computer-aided design (CAD) and computer-aided manufacturing (CAM) software. Solutions in this segment optimise design and processes, improve productivity in manufacturing facilities, and create and leverage engineering information critical to the planning, construction and operation of plants and process facilities. The segment consists of the divisions Manufacturing Intelligence and PPM.

## MANUFACTURING INTELLIGENCE

Hexagon's solutions are used to optimise and control manufacturing processes that require a high degree of dimensional accuracy down to millionths. Manufacturing Intelligence offers solutions for all industrial metrology applications in the automotive, aerospace, electronics, energy and pharmaceutical industries.

## MANUFACTURING PROCESSES OF THE HIGHEST QUALITY

All industries have their own unique challenges. Manufacturing companies share a focus on productivity. Manufacturing companies must find the right balance between speed, efficiency, cost and product quality. By linking data and software, data is transformed into relevant analysis and decision support that optimise manufacturing processes, enabling productivity and quality improvements.

Manufacturing Intelligence's core expertise is in dimensional metrology, which uses sensors to gather data from a variety of sources to guarantee effective quality controls. As software solutions have become increasingly important in optimising manufacturing processes, Hexagon has in recent years strengthened its software portfolio, enhancing capabilities in areas such as in statistical process control, design software (CAD) and solutions for production control (CAM). This strategy has positioned Hexagon as a leading specialist in solutions for capturing, interpreting and analysing measurement data to raise production speed and productivity and improve product quality. The acquisition of

FTI added further value to Hexagon's solutions. FTI's software solutions for design, simulation and project control complement Hexagon's portfolio and enable integrated quality control throughout the product's life cycle. Customers can substantially improve their productivity by linking simulation with CAM solutions that control production and metrology solutions for quality control.

## EFFECTIVE QUALITY CONTROL THROUGH THE ENTIRE WORKFLOW

Measurement data is used throughout the product life cycle – from development and design to production, assembly and final inspection. Stationary sensors such as coordinate measuring machines and portable sensors such as articulated arms and laser tracker systems measure with extreme precision. Improvements in sensor functions combined with more advanced software have enabled data capture at the speed of the manufacturing line, enabling effective control of every part of manufacturing.

The automotive industry is highly competitive, with the demand for electric cars contributing to faster development of new models. Hexagon's solutions provide the industry effective control of body, powertrain and various components so automakers can build faster with higher quality and less waste.

The aerospace industry is another highly competitive industry, where players strive for lightweight materials, freeform manufacturing and automation. In this industry, Hexagon's solutions are similarly used to analyse and inspect every →

## ACQUISITIONS 2016

Company	Country	Area
Forming Technologies Inc. (FTI)	Canada	Software supplier for the manufacturing industry
AICON 3D Systems GmbH	Germany	Supplier of measurement equipment used in manufacturing
HostSure Limited	Ireland	Supplier of cloud technology and services for the power and energy market
NESTIX Oy	Finland	Supplier of software solutions for managing and optimising steel production
Apodius GmbH	Germany	Start-up specialising in measurement technology solutions for use with fibre parts



#### OPERATING MARGIN

25%

#### PERCENT OF NET SALES

50%

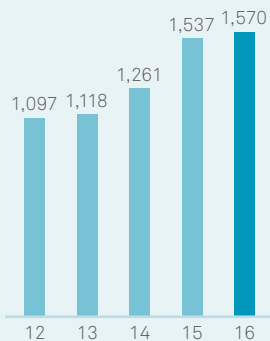
#### AVERAGE NO. OF EMPLOYEES

8,500

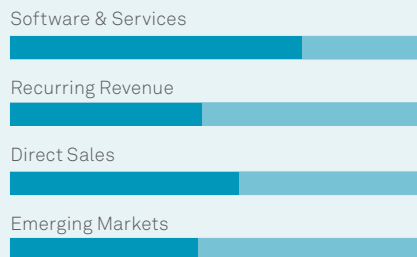
#### SOLUTION EXAMPLES

- In-line metrology
- Coordinated measuring machines
- Articulated arms engineering software
- Metrology software
- Software for enterprise-wide solutions

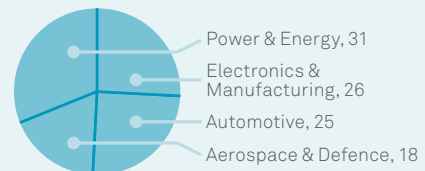
#### NET SALES, MEUR



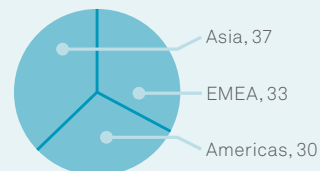
#### SALES MIX



#### CUSTOMER SEGMENT, %



#### GEOGRAPHY, %



## AICON

## FILLING A GAP IN HEXAGON'S PORTFOLIO

During 2016, Hexagon acquired AICON 3D Systems, a leading supplier of portable optical 3D-measurement instruments used in the manufacturing industry. AICON has a reputable brand, fulfilling customer needs in measurement instruments for more than 25 years.

AICON customers operate in the automotive, aerospace and shipbuilding industries and in renewable energy and mechanical engineering. The company's engineering portfolio includes portable coordinate measuring machines for

universal applications and specialised optical 3D-measurement instruments such as scanner systems that use white light and enable effective quality control with superior precision in the manufacturing process.

AICON's development team has a recognised strong core competence in engineering. With a product portfolio that complements Hexagon's offerings, the acquisition fits perfectly into Hexagon's strategy.



## FACTORY AUTOMATION DIMENSIONAL PROCESS AND IN-LINE QUALITY CONTROL

Challenging shapes and automated assembly features require robust measurement capabilities. Manufacturing Intelligence provides a broad solution for fully automated dimensional process and in-line quality control. Manufacturing Intelligence's

capabilities are based on a long track record in developing and implementing worldwide measurement systems for measuring a variety of components in diverse industries.

part including complex, large-scale components such as the wings of the aircraft. In addition to effective quality control, this process mitigates the need for costly rework. Manufacturing onshore and offshore wind farms is another area where thousands of components need quality control, and precision manufacturing of components for medical devices requires the full inspection of products.

Hexagon's software solutions for quality inspection was strengthened in 2015 through the acquisition of Q-DAS, a software company offering solutions for statistical process control. Q-DAS solutions enables easy management of all measurement data from every possible source and supplier, as well as greater precision and reliability in measurements with the application of statistical procedures. Plus, it is possible to automate the analysis of measurement results, making quality data fully actionable throughout the production process.

### PPM

Engineering construction projects for infrastructure tend to be complex in nature. The construction of nuclear power stations, ships and offshore production facilities is a major investment that requires years of planning and implemen-

tation. It involves thousands of people with different tasks and responsibilities. The design team is often geographically dispersed. Sub-projects that impact each other are run simultaneously, with key variables that are difficult to predict and precisely schedule. There is a high risk of delays and cost overruns in these projects, and once the project is completed, another challenge is to quickly access relevant information for evaluation and learning.

PPM is the leading global provider of enterprise-wide engineering software for designing, constructing and driving large-scale facilities such as process and power plants, ships and offshore facilities. PPM's software enables 3D modelling and visualisation, stress analysis, procurement, fabrication, construction and information management and leads to smarter designs in construction and operations. When designing nuclear power stations, engineers can easily create 3D models of the facility, assisted by tools to visually present the models with integrated interactivity, as well as ensure that safety requirements are met.

PPM's customers are geographically dispersed, and almost 70 per cent of revenues are recurring revenue such as subscriptions and software and services upgrades.





## ECOSYS EPC

# SHARPER ANALYSIS AND PROJECT CONTROL

Ball Aerospace, based in Broomfield, Colorado, USA, is a leading manufacturer of innovative aerospace solutions for the aeronautics, defence and space industries.

The company used a number of different solutions based on Excel and Visual Basic that were developed internally in different areas of the company. As a result, it was often necessary to manually update information such as list prices in order to fulfil audit requirements.

When Ball Aerospace replaced these internal solutions with EcoSys EPC™ (Enterprise Planning & Controls) software, there was an improvement in reporting efficiency and a better understanding of business performance. The risk for manual mistakes was minimised by centralising calculations to a single source, enabling the company's focus to shift to evaluating parameters that create value in the business.



# INNOVATIVE SOLUTIONS FOR A BETTER WORLD

Hexagon's groundbreaking technologies and solutions help customers work smarter to increase their efficiency and productivity, which is one of Hexagon's greatest contributions to reducing resource waste and promoting a more sustainable society, now and in the future.

Global megatrends drive Hexagon's customers to continuously improve so they can meet market expectations for sustainable growth. A majority of vital industries can benefit from Hexagon technologies, which are used worldwide to create more sustainable communities.

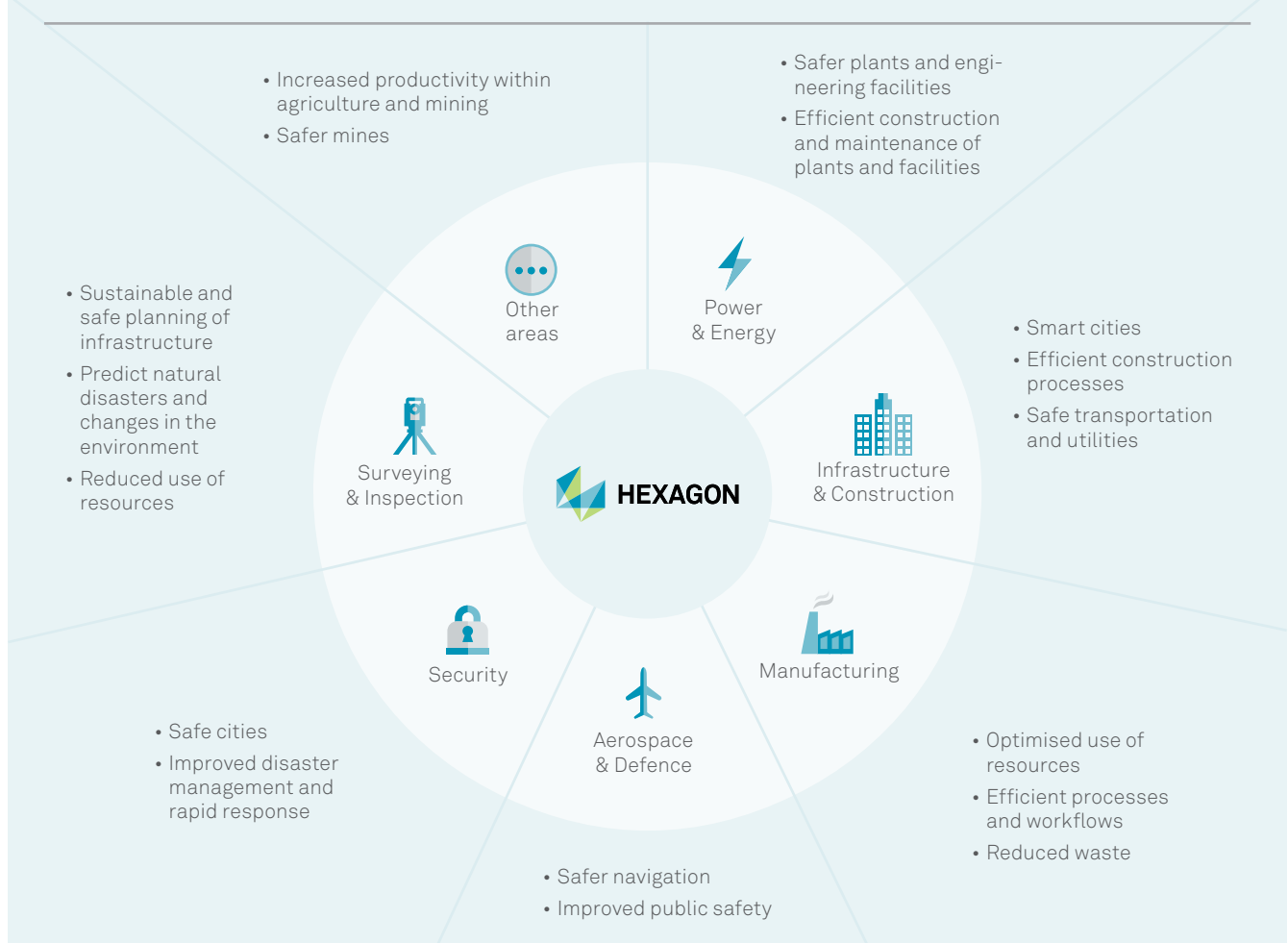
## AN IMPORTANT ROLE IN SOCIETY

Hexagon has a leading role in addressing the challenges facing the world, from providing food and water and improving public safety for a growing population to reducing environmental and climate impact. Regardless the challenge,

innovative, simple and effective solutions are needed to resolve these complex issues.

With a strong focus on technology leadership, Hexagon focuses on developing solutions with the potential to change the future. Hexagon's customers share the need to do more with less, and the company's solutions offer them access to relevant information and analysis tools that provide greater understanding and the opportunity to make informed decisions that lead to less waste, improved productivity and efficiency and achieved sustainability targets.

## SMART CHANGE IN IMPORTANT INDUSTRIES





## HEXAGON'S IMAGERY PROGRAMME

# IMPROVED FOREST AND VEGETATION ANALYSIS

Since 2016, Hexagon has provided documentation to the Joint Research Centre (JRC) in Italy to enable the compilation of vegetation indices and measurement of vegetation status. The JRC serves as the European Commission's science and knowledge service, and carries out research to provide independent scientific advice to the EU. Hexagon partner COWI of Denmark serves as the distributor for this EU-funded project.

Data produced by Hexagon's Imagery Programme has been perfect for vegetation analysis. The combination of high-quality radiometric and geometric data, a deep

understanding of the JRC's scientific requirements and a competitive offering helped COWI secure the contract in an EU public procurement process. The project covers an area of 22,800 km<sup>2</sup> and will contribute to the development of large-scale methods designed to provide better scientific understanding of the environment.

Hexagon sees opportunities for working with partners to further develop new business models and standardised methods for forest and vegetation analysis for use across the EU.

Hexagon's product range includes measurement systems with features that help customers reduce consumption of components and raw materials, improve energy efficiency, extend the product life cycle, improve work environments through ergonomic features and reduce the use of hazardous materials in product design. A future challenge is to further optimise the agriculture industry regarding the effects of natural disasters such as drought and flooding on access to arable land. Hexagon has solutions that increase agricultural efficiency and increase yields from existing agricultural area.

### Protecting the environment and preventing natural disasters

To monitor areas impacted by climate change or subject to the risk of natural disasters, Hexagon's geospatial solutions are used to protect the environment and increase safety. Hexagon's solutions make it possible to monitor movement in infrastructure and in the landscape to predict areas where natural disasters may have a serious impact on people and property. Proactive planning for earthquakes and the placement of dikes for flood prevention are examples of preventive measures. Real-time monitoring increases



the ability to minimise human and material damage resulting from natural disasters. In the event of an incident, the system sends a warning signal and provides information that can be used for possible rescue operations. In areas exposed to climate change, such as Greenland, Hexagon's solutions can calculate the length and speed of glacier movements. The reliability of this type of data is vital for the future.

## **A SAFER WORLD**

Internationalisation, urbanisation and growing world trade are global trends that increase demand for infrastructure. In the fields of infrastructure and public safety, Hexagon's solutions are used in defence and public security, transports, water and energy supply, infrastructure maintenance and urban development. Continuous remote monitoring of buildings, dams and bridges is another application where monitoring in real time helps ensure public safety.

Hexagon's safety solutions also help agencies improve disaster management and rapid response, reconstruct crime scenes and monitor important locations or major events.

## **INNOVATION THAT MAKES A DIFFERENCE**

Hexagon continues to invest in groundbreaking technologies and solutions that contribute to long-term sustainable development. Through the use of information technologies to make data actionable, Hexagon is helping develop solutions that are globally applicable and make a difference. Innovation in cooperation with customers and partners strongly contributes to Hexagon's profitable growth, as well as helps our customers achieve their sustainability targets.

## **COOPERATION FOR DEVELOPMENT**

Hexagon invests more in R&D than most of its competitors to maintain and strengthen its market-leading position. Product development and innovation are essential to continuously improve our offerings and remain at the forefront of the market. More than 3,400 employees work in the field, and in 2016, 366.2 MEUR (359.7) was invested in R&D, to develop solutions that contribute to a positive and sustainable development. Close collaboration with customers and partners is a critical factor for success in solution development.

## **RESPONSIBLE BUSINESS FOR LONG-TERM VALUE GENERATION**

Hexagon feels that long-term value can only be achieved by conducting business in a responsible manner throughout the value chain. Hexagon's Code of Business Conduct and Ethics reflects the company's responsibility as a market-leading company to maintain the highest standards in ethics and integrity. Although the Board of Directors bears the overall responsibility for sustainability, practical sustainability efforts are primarily managed within each subsidiary. All employees are encouraged and expected to report any incidents of non-compliance with the Code of Business Conduct and Ethics (the whistleblower function).

There will be no retaliation or other negative consequences for people who act in good faith when reporting incidents.

## **Responsible procurement**

Hexagon has an extensive network of global suppliers, where the company deems the risk greater in certain developing countries where regulations and supervisory methods are not forceful enough. Hexagon works closely with its suppliers to ensure they adhere to the principles set forth in the Code of Business Conduct and Ethics to the greatest extent possible. In addition to assessing the overall competitiveness of their offerings, we strive to select suppliers that are at the forefront in the area of sustainability. The Group's procurement managers are responsible for assessing new suppliers and supervising existing ones. Audits are performed on a regular basis and, in cases of non-compliance, Hexagon contacts the supplier and takes suitable measures to ensure that the issue will not be repeated.

## **Certified production facilities**

Hexagon has research laboratories and manufacturing and assembly plants around the world. Production at the main facilities is certified according to ISO 1400. The most significant environmental impact of Hexagon's products in its own activities is through their application in production processes. Hexagon strives to limit the use of natural resources by minimising consumption of materials and through recycling. In manufacturing, safe and environmentally friendly equipment and energy efficiency are prioritised in production facilities and buildings. 'Lean manufacturing' principles are used to optimise processes, with Hexagon employees and suppliers playing an important role in the ongoing improvement of processes and workflows.

## **Counteracting corruption**

Hexagon's Compliance Programme covers all operations and provides tools and guidelines for counteracting bribery and corruption. Approximately 200 of Hexagon's senior executives have an assigned responsibility to make sure that employees are aware of company routines. Annual courses are one way for Hexagon to keep employees informed and updated on current rules and consequences in the event of an infringement.

## **Social responsibility**

As a responsible employer, Hexagon focuses on a safe workplace and strives to minimise the risk of accidents or illness among employees and other staff. Employees should be treated with equal respect and have the same opportunities to fully contribute to the company's success based on their individual skills and interests. There is zero-tolerance towards harassment and discrimination.

Hexagon engages, through subsidiaries, regularly in various social projects to help vulnerable people or to contribute to social objectives. These projects are decided and run locally within the Group's subsidiaries.



# EMPLOYEES IMPLEMENT THE STRATEGY

It is Hexagon's approximately 17,000 employees in 50 countries who implement the company's strategy. Hexagon is strengthening its position by maximising the potential of its international workforce and through its ability to recruit and retain cutting-edge expertise.

## AN ATTRACTIVE EMPLOYER

To strengthen its employer brand, Hexagon has mutual knowledge sharing with universities and colleges worldwide. As part of this exchange, Hexagon offers its expertise as lecturers at these academic institutions. The company also offers opportunities for research and internships, as well as participates in career and education fairs and industry conferences to promote new ideas and increase awareness of Hexagon.

## DEVELOPMENT OPPORTUNITIES

Hexagon's flat hierarchy and opportunities for development create the motivation and dedication needed to continuously strengthen the company's competitiveness. Hexagon's employees are characterised by an intrinsic drive, creativity and advanced technological know-how. The Group's leadership development programme and the implementation in recent years of extensive skills evaluation among employees have strengthened the organisation ahead of future challenges.

## PERFORMANCE-DRIVEN COMPANY CULTURE

Hexagon's success is built on constantly offering the most advanced high-technology solutions that strengthen customer competitiveness. This also permeates the company culture, which is driven by results orientation ahead of strict process control. To maximise employee potential and ensure that everyone works in accordance with the company's core values to achieve the strategic targets, Hexagon focuses on Performance Management activities.

A global employee survey takes place every two to three years throughout the Group to gain better insight into employee engagement, satisfaction and business efficiency. The next employee survey will take place in 2017.

## GLOBAL COMPANY WITH LOCAL ROOTS

Hexagon is a company that is both global and local. Hexagon strives to be a diverse workplace and seeks to actively recruit, continually develop and retain talented people from diverse backgrounds and origins. Local knowledge is the key to succeeding in a business with wide-ranging markets, so recruitment is conducted primarily at the local level.

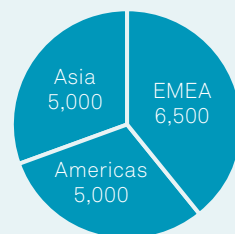
## SUCCESSFUL INTEGRATION OF ACQUISITIONS

Hexagon has grown into a global leader through a successful acquisition strategy. Since 2000, Hexagon has completed more than 120 acquisitions. As acquired companies have been integrated through a close, respectful dialogue with their management, Hexagon has been successful in reaping the benefits of complementary skills while retaining key employees. The transition to a more software-centric company has demanded a modified work process with a greater focus on consultation in functions such as future sales and marketing.

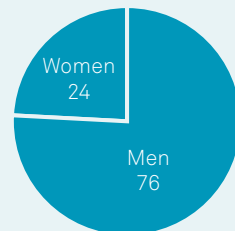
EMPLOYEES PER SEGMENT, AVERAGE NUMBER



EMPLOYEES PER REGION, AVERAGE NUMBER



GENDER DISTRIBUTION, %



# THE SHARE

## SHARE PRICE DEVELOPMENT AND TRADING

In 2016, the Hexagon share price increased by 3.4 per cent to 325.5 SEK as of 31 December. The share price reached the 52-week high of 380.2 SEK on 20 October and the 52-week low on 2 February at 265.5 SEK. Hexagon's total market capitalisation as of 31 December 2016 was 112,197.6 MSEK. During the year, 318 million (286) 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 92 per cent (83).

## OWNERSHIP STRUCTURE

At year-end 2016, Hexagon had 30,020 registered shareholders (20,265). Shareholders in the USA accounted for the largest foreign holding, representing 18 per cent (17) of total shares followed by the UK, representing 11 per cent (14). The ten largest owners held 47.0 per cent (48.0) of the share capital and 61.9 per cent (62.7) of the votes.

## SHARE CAPITAL

At year-end 2016, Hexagon's share capital amounted to 79,980,283 EUR, represented by 360,443,142 shares, of which 15,750,000 are of Class A with ten votes each and 344,693,142 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 2016.

Hexagon's Annual General Meeting in 2016 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 Hexago'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 Hexagons'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.

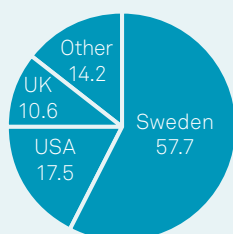
The strike price for subscription of shares upon exercise of the transferred warrants was set at 347.8 SEK. The warrants were valued by an independent institute in accordance with the Black-Scholes model and were acquired by the participants at market value. The warrants may be exercised during 1 June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

+3%

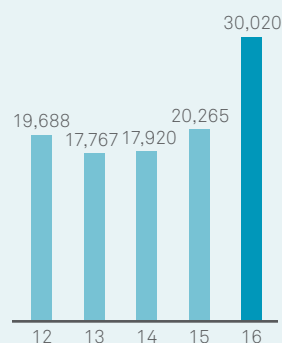
### SHARE PRICE IN SEK, 2016

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

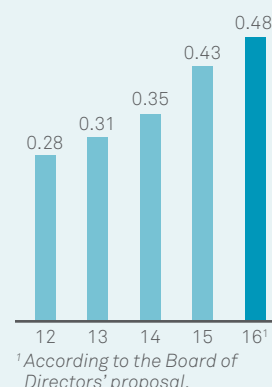
### GEOGRAPHIC DISTRIBUTION OF SHAREHOLDINGS, %

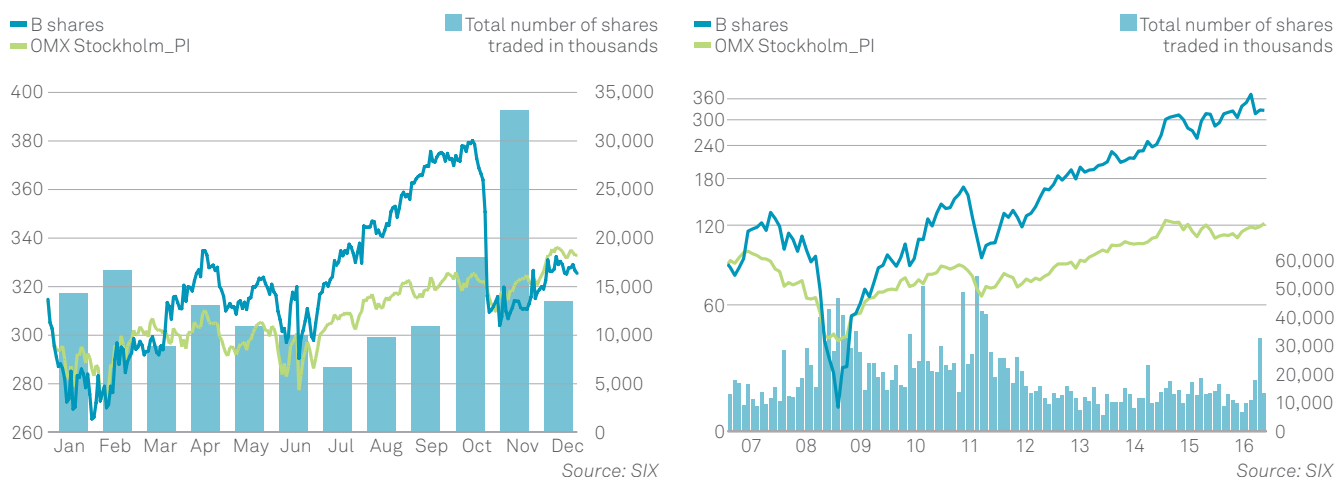


### NUMBER OF SHAREHOLDERS



### CASH DIVIDEND PER SHARE, EUR





Class of shares	Number of shares	Number of votes	% of capital	% of votes
A shares	15,750,000	157,500,000	4.4	31.4
B shares	344,693,142	344,693,142	95.6	68.6
<b>Total</b>	<b>360,443,142</b>	<b>502,193,142</b>	<b>100.0</b>	<b>100.0</b>

## LARGEST SHAREHOLDERS

Owner/manager/deposit bank	A shares	B shares	% of capital	% of votes
Melker Schörling AB	15,750,000	77,929,899	26.0	46.9
Ramsbury Invest AB	-	17,196,387	4.8	3.4
Swedbank Robur fonder	-	16,313,720	4.5	3.2
SSB CL Omnibus	-	15,930,027	4.4	3.2
JPM Chase NA	-	14,879,910	4.1	3.0
Första AP-Fonden	-	6,854,257	1.9	1.4
Blackrock Global Funds	-	6,614,607	1.8	1.3
State Street Bank & Trust COM., Boston	-	5,804,404	1.6	1.2
AMF - Försäkring och Fonder	-	4,940,532	1.4	1.0
SEB Investment Management	-	4,614,177	1.3	0.9
Handelsbanken fonder	-	4,583,564	1.3	0.9
JP Morgan Chase Bank N.A.	-	4,132,949	1.2	0.8
CBNY-Norges Bank	-	3,359,437	0.9	0.7
Andra AP-Fonden	-	3,299,042	0.9	0.7
Livförsäkringsbolaget Skandia ÖMS	-	2,919,519	0.8	0.6
CBHK-GIC Private LTD-C(EQ)	-	2,884,144	0.8	0.6
INV Bank & Trust	-	2,882,704	0.8	0.6
Folksam	-	2,658,336	0.7	0.5
State Street BK-West Client/Treaty	-	2,386,160	0.7	0.5
CBLDN	-	2,378,509	0.6	0.5
<b>Subtotal, 20 largest shareholders<sup>1</sup></b>	<b>15,750,000</b>	<b>202,562,284</b>	<b>60.5</b>	<b>71.9</b>
Summary, others	-	142,130,858	39.5	28.1
<b>Total number of outstanding shares</b>	<b>15,750,000</b>	<b>344,693,142</b>	<b>100.0</b>	<b>100.0</b>
<b>Total issued number of shares</b>	<b>15,750,000</b>	<b>344,693,142</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 30 December 2016 (with some adjustments).

## 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 0.48 EUR (0.43) per share for 2016. The proposed dividend amounts to 30 per cent of the year's earnings per share after tax and is thus in line with the dividend policy.



## 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
<b>Total number of issued and outstanding shares</b>					<b>15,750,000</b>	<b>344,693,142</b>	<b>79,980,283</b>

<sup>1</sup> 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.

<sup>2</sup> 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	22,428	-	2,853,792
501–1,000	2,842	-	2,262,432
1,001–2,000	1,826	-	2,786,861
2,001–5,000	1,357	-	4,419,764
5,001–10,000	578	-	4,243,098
10,001–20,000	320	-	4,705,590
20,001–50,000	262	-	8,187,617
50,001–100,000	124	-	8,695,920
100,001–500,000	182	-	41,850,077
500,001–1,000,000	43	-	31,250,120
1,000,001–5,000,000	51	-	91,005,677
5,000,001–10,000,000	3	-	19,273,268
10,000,001–	4	15,750,000	123,158,926
<b>Total</b>	<b>30,020</b>	<b>15,750,000</b>	<b>344,693,142</b>

Source: Euroclear Sweden AB as of 30 December 2016.

## ANALYSTS FOLLOWING HEXAGON AB

Organisation	Name
Bank of America	Mark Troman
Barclays	Gerardus Vos
Carnegie	Mikael Laséen
Danske Bank	Max Frydén
Deutsche Bank	Alex Tout
DNB	Johan Sjöberg
Goldman Sachs	Mohammed Moawalla
Handelsbanken	Daniel Djurberg
J.P. Morgan	Stacy Pollard
Kepler Cheuvreux	Markus Almerud
Morgan Stanley	Adam Wood
Nordea	Erik Golrang
Pareto Securities	Erik Paulsson
RBC	Wasi Rizvi
SEB Equities	Daniel Schmidt
Swedbank	Mathias Lundberg
UBS Investment Research	Guillermo Peigneux

## KEY DATA PER SHARE

	2016	2015	2014	2013	2012 <sup>1</sup>
Shareholder's equity, EUR	12.70	11.36	9.68	8.00	7.77
Net earnings, EUR	1.59	1.39	1.13	1.04	0.99
Cash flow, EUR	2.17	2.01	1.58	1.43	1.41
Cash dividend, EUR	0.48 <sup>2</sup>	0.43	0.35	0.31	0.28
Pay-out ratio, %	30.2	31.0	31.0	29.8	28.3
Share price, EUR	34.07	34.26	25.76	22.95	19.00
P/E ratio <sup>3</sup>	21	25	23	22	19

<sup>1</sup> Restated – IAS 19

<sup>2</sup> According to the Board of Directors' proposal

<sup>3</sup> Based on the share price at 31 December and calendar year earnings

# CORPORATE GOVERNANCE REPORT

Hexagon AB is a public company listed on Nasdaq OMX 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 OMX 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 2016 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 2016, Hexagon's share capital was EUR 79,980,283, represented by 360,443,142 shares, of which 15,750,000 are of Class A with ten votes each and 344,693,142 are of Class B with one vote each. Hexagon AB held no treasury shares at year-end. The 2016 Annual General Meeting authorised the Board of Directors ("the Board") to resolve on purchases and transfers of own shares equal to no more than 10 per cent of the total number of issued shares in the company.

Melker Schörling AB, the single largest shareholder in Hexagon, held a total of 15,750,000 Class A shares and 77,929,899 Class B shares at year-end 2016, representing 46.9 per cent of the votes and 26.0 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 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 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 in the month 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, etc.

## 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 Meeting 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.

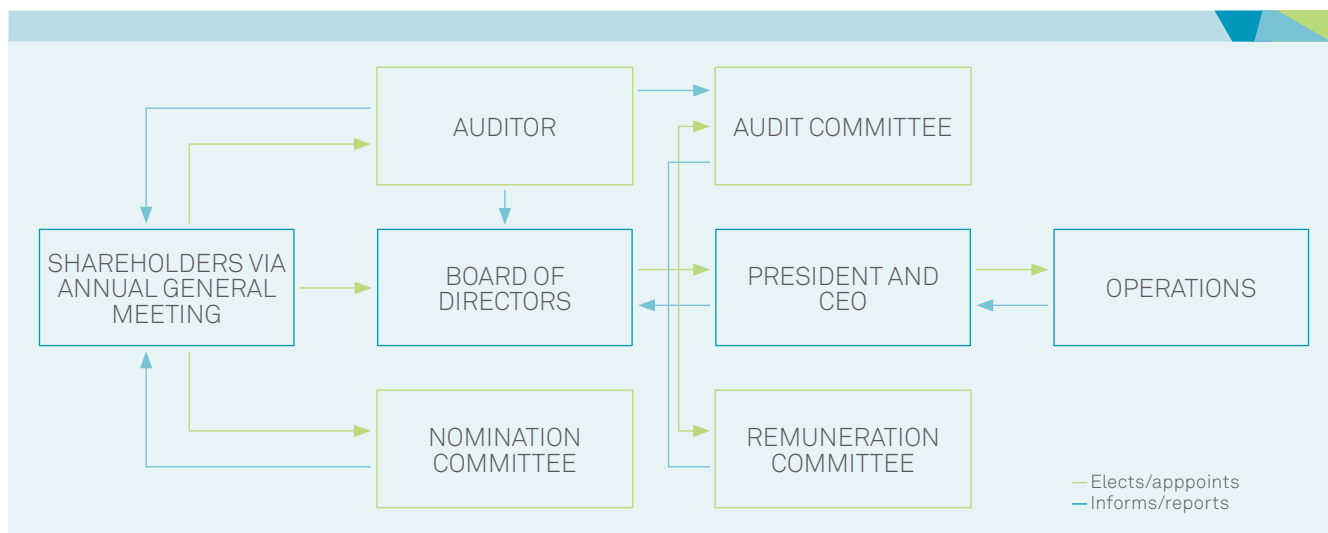
The Nomination Committee shall consist of representatives for major shareholders of the company elected by the AGM. In case a shareholder, who a member of the Nomination Committee represents, is no longer one of the major shareholders of Hexagon, or if a member of the Nomination Committee is no longer 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 AGM 2016 elected six 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 to 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 38. 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 deliberating 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 cur-

rent 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, 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 12 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 10 May 2016 in Stockholm, Sweden, was attended by shareholders representing 62 per cent of the total number of shares and 73 per cent of the total number of votes. Melker Schöring was elected Chairman of the AGM.

## THE FOLLOWING MAIN RESOLUTIONS WERE PASSED:

- Re-election of Directors Melker Schöring, Ola Rollén, Ulrika Francke, Gun Nilsson, Jill Smith and Ulrik Svensson
- Re-election of Melker Schöring as Chairman of the Board
- Re-election of the accounting firm Ernst & Young AB for a one-year period of mandate. Ernst & Young AB has appointed the authorised public accountant Rickard Andersson as auditor in charge
- Dividend of 0.43 EUR per share for 2015 as per the Board's proposal
- Principles for remuneration to Hexagon's senior executives
- Authorisation of the Board to resolve on acquisition and transfer of the company's shares

## NOMINATION COMMITTEE

In respect of the 2017 AGM, the Nomination Committee comprises:

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

During 2016, the Nomination Committee held four 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 2017 AGM concerning the election of Chairman of the AGM, the election of Chairman and other Board Members, 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 2016, the Board held 12 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

## KEY DATA FOR BOARD MEMBERS<sup>1</sup>

Board Member	Committee membership				Meeting attendance		
	Elected	Independent	Audit Committee	Remuneration Committee	Board of Directors	Audit Committee	Remuneration Committee
Melker Schöring	1999	No <sup>2</sup>		⊙	12/12		1/1
Ulrika Francke	2010	Yes			11/12		
Gun Nilsson	2008	Yes	⊙	⊙	11/12	6/6	1/1
Ola Rollén	2000	No <sup>3</sup>			10/12		
Jill Smith	2013	Yes	⊙		11/12	6/6	
Ulrik Svensson	2010	No <sup>2</sup>	⊙		12/12	6/6	

<sup>1</sup> A complete presentation of the Board Members is included on pages 38-39.

<sup>2</sup> Melker Schöring and Ulrik Svensson are not deemed to be independent of the company's major shareholders.

<sup>3</sup> 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	June	July	Aug	Sep	Oct	Nov	Dec
Board of Directors		⊙ ⊙	⊙		⊙			⊙		⊙ ⊙	⊙ ⊙	⊙ ⊙ ⊙
Audit Committee		⊙			⊙			⊙ ⊙		⊙		⊙
Remuneration Committee												⊙

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 2016, the Board approved the operational strategy, the financial plan for 2017 and the financial targets for 2017-2021.

## 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. The Board is also evaluated within the framework of the Nomination Committee's activities.

## AUDIT COMMITTEE

During 2016 the Audit Committee comprised:

- Ulrik Svensson (Chairman)
- Gun Nilsson
- Jill Smith

In 2016, 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 2016, the Remuneration Committee comprised:

- Melker Schörling (Chairman)
- Gun Nilsson

In 2016, the Committee held one minuted meeting 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 2016 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, Autoliv AB, Nynas AB, Proact IT Group 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 six occasions during 2016.

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 2016 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 maximized 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 2017 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 85.

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 28 (The Share section) and in Note 30 on page 86.

## REMUNERATION OF BOARD OF DIRECTORS

Remuneration of the Board of Directors is resolved by the AGM upon proposal from the Nomination Committee. During 2016, the Chairman of the Board and other Board Members received remuneration totalling 427.1 KEUR (400.3). Remuneration of the Board of Directors is presented in Note 30 on page 85.

## 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 86.

### For more details about principles practised:

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

### 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 2017

# 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.



## AUDITOR'S REPORT ON THE CORPORATE GOVERNANCE REPORT

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To the annual meeting of the shareholders of Hexagon AB, 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 2016 on pages 31-35 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.

### OPINION

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, 28 March 2017

Ernst & Young AB

**Rickard Andersson**

*Authorised Public Accountant*

**“We adopted a series of strategic acquisitions that we believe will substantially contribute to our future success”**



## CHAIRMAN OF THE BOARD MELKER SCHÖRLING

As I reflect on my time as Hexagon’s Chairman of the Board, I’m forever grateful for the opportunity to have been part of such an exciting transformation.

When I became Chairman in 1999, Hexagon was something completely different than what it is today. It was a conglomerate of various different companies with not much in common and the strategy was unclear. We manufactured hydraulics and mobile phone antennas, we imported tuna fish, we had day-care centers among many other things.

Throughout the last 17 years, Hexagon’s management with Ola in the lead, have worked hard to transform this conglomerate into a successful information technology leader with solid growth and strong profitability. The accumulation of every challenge and opportunity we have faced and overcome has led to the great company we are today.

Several milestones along our journey have well positioned Hexagon to take advantage of these opportunities. They include key acquisitions like Brown & Sharpe, Leica Geosystems and Intergraph and our long-term commitment to R&D and increased investments in software-centric solutions. Together they have laid a strong foundation for the opportunities ahead of us.

The world we live in is constantly changing, which means we must be agile and adapt our business operations according to new challenges and opportunities – the latest of which we call digital transformation. It entails leveraging the information asset in ways like never before, to fully automate factories, create autonomous vehicles and build smart cities.

The Board’s work is also about ensuring that we have stable finances, which is a prerequisite for being able to invest in growth, both organically and through acquisitions, and deliver good returns to shareholders. In 2016, the Board focused on a new five-year plan with goals for continued growth and increased profitability. During the year, Hexagon’s balance sheet and cash flow generation continued to be strong, which has enabled further investments for the future. We adopted a series of strategic acquisitions that we believe will substantially contribute to our future success, from strengthening our position in 3D maps to moving another step closer toward fully digitalizing and streamlining every industry we serve.

On behalf of the Board I want to thank our shareholders for their continued confidence and our 17,000 talented and dedicated employees. They are the backbone of Hexagon’s accomplishments, doing their utmost every day to lead their divisions forward and contribute to the whole.

Without a doubt, I have thoroughly enjoyed my time at Hexagon which is why I will hand over my responsibilities to the next Chairman at Hexagon’s Annual General Meeting in May with both pride and sadness. I will of course continue to act as an advisor to both the President and the Board of Directors and look very forward to following Hexagon’s continued success.

Stockholm, Sweden, March 2017

**Melker Schörling**  
*Chairman of the Board*

# BOARD OF DIRECTORS



## MELKERSCHÖRLING

Born in 1947

Chairman of the Board since 1999

Chairman of Remuneration Committee

*Education:* B.Sc. (Econ.)

*Work experience:* President and CEO Securitas AB, President and CEO Skanska AB.

*Other assignments:* Chairman of Melker Schörling AB, AAK AB and Hexpol AB. Board Member of Hennes & Mauritz AB.

*Previous assignments in the past five years:* Chairman of Securitas AB.

*Shareholding<sup>1</sup>:* 15,750,000 shares of series A and 77,929,899 shares of series B through Melker Schörling AB

Independent of the company and its management.



## ULRIKA FRANCKE

Born in 1956

Member of the Board since 2010

*Education:* University studies

*Work experience:* President and CEO Tyréns AB, City Planning Director and Street and Property Director City of Stockholm and CEO SBC.

*Other assignments:* Chairman of BIM Alliance Sweden and IVA dept. III (the Construction Department at the Royal Engineering Science Academy). Board Member of Swedbank AB and Almega - the Employer's Organisation for the Swedish Service Sector.

*Previous assignments in the past five years:* Chairman of Stockholm Stadsteater AB. Board Member of IQ Samhällsbyggnad, Wåhlin Fastighets AB, Tyréns, Johanneberg Science Park.

*Shareholding<sup>1</sup>:* 6,000 shares of series B

Independent of the company, its management and major shareholders.



## GUN NILSSON

Born in 1955

Member of the Board since 2008

Member of Audit Committee and Remuneration Committee

*Education:* B.Sc. (Econ.)

*Work experience:* CFO IP-Only Group, CFO Sanitec Group, CFO Nobia Group, CEO Gambro Holding AB, Deputy CEO and Executive Vice President and CFO Duni AB.

*Other assignments:* Board member of Capio AB, Dometic Group AB and Bonnier Holding AB.

*Previous assignments in the past five years:* –

*Shareholding<sup>1</sup>:* 10,666 shares of series B

Independent of the company, its management and major shareholders.

<sup>1</sup> Shareholdings and warrant holdings are based on information per 21 March 2017 and also include related-party holdings.





#### **OLAROLLÉN**

Born in 1965  
 President and Chief Executive Officer since 2000  
 Member of the Board since 2000  
*Education:* B.Sc. (Econ.)  
*Work experience:* President Sandvik Materials Technology, Executive Vice President Avesta-Sheffield AB and President of Kanthal AB.  
*Other assignments:* Board Member of Greenbridge Investment Partners Ltd.  
*Previous assignments in the past five years:* –  
*Shareholding<sup>1</sup>:* 1,173,400 shares of series B  
 Independent of major shareholders.



#### **JILL SMITH**

Born in 1958  
 Member of the Board since 2013  
 Member of Audit Committee  
*Education:* M.Sc. (Business Administration), B.A. (Business Studies)  
*Work experience:* CEO DigitalGlobe Inc., CEO eDial Inc., COO Micron Technology, Inc., Managing Director Treacy & Company LLC and CEO SRDS Inc.  
*Other assignments:* Board Member of Endo International plc. and Allied Minds plc.  
*Previous assignments in the past five years:* Board Member of Elster GmbH and Sound-Bite Inc.  
*Shareholding<sup>1</sup>:* 3,500 shares of series B  
 Independent of the company, its management and major shareholders.



#### **ULRIK SVENSSON**

Född 1961  
 Member of the Board since 2010  
 Chairman of Audit Committee  
*Education:* B.Sc. (Econ.)  
*Work experience:* CEO of Melker Schörfling AB, CFO Esselte AB and CFO Swiss International Air Lines.  
*Other assignments:* Board Member of Assa Abloy AB, AAK AB, Loomis AB, Hexpol AB, Flughafen Zürich AG and Absolent Group AB.  
*Previous assignments in the past five years:* –  
*Shareholding<sup>1</sup>:* 6,000 shares of series B  
 Independent of the company and its management.  
 Ends his assignment in the Board January 1, 2017.

<sup>1</sup> Shareholdings and warrant holdings are based on information per 21 March 2017 and also include related-party holdings.

# GROUP MANAGEMENT



## OLAROLLÉN

Born in 1965. President and Chief Executive Officer since 2000. Employed since 2000.

*Education:* B.Sc. (Econ.)

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

*Other assignments:* Board Member of Greenbridge Investment Partners Ltd.

*Previous assignments in the past five years:* Board Member of Vestas Wind Systems A/S.  
*Shareholding<sup>1</sup>:* 1,173,400 shares of series B.



## JOHNNY ANDERSSON

Born in 1965. General Counsel. Retained since 2011.

*Education:* M.Sc. (Law)

*Work experience:* Partner Mannheimer Swartling Advokatbyrå.

*Other assignments:* Member of the Swedish Bar Association and the International Bar Association.

*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. (Marketing), MBA

*Work experience:* Vice President, Corporate Communications Hexagon AB and marketing management positions at Intergraph, Solution 6 North America and various other software companies.

*Other assignments:* –

*Previous assignments in the past five years:* –

*Shareholding<sup>1</sup>:* 100,000 warrants for Class B shares in Hexagon AB.



## STEVEN COST

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

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

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

*Other assignments:* –

*Previous assignments in the past five years:* –

*Shareholding<sup>1</sup>:* 100,000 warrants for Class B shares in Hexagon AB.



## JÜRGEN DOLD

Born in 1962. President of Hexagon Geosystems. Employed since 1995.

*Education:* M.Sc., PhD (Engineering)

*Work experience:* Academic counsel at the Technical University of Braunschweig, Germany and various management positions within Leica Geosystems AG.

*Other assignments:* –

*Previous assignments in the past five years:* –

*Shareholding<sup>1</sup>:* 30,000 shares of series B and 200,000 warrants for Class B shares in Hexagon AB.

<sup>1</sup> Shareholdings and warrant holdings based on information per 21 March 2017.



#### **NORBERT HANKE**

Born in 1962. President of Hexagon Manufacturing Intelligence. Employed since 2001.

*Education:* B.Sc. (Econ.)

*Work experience:* Various positions within Kloeckner Group, Chief Financial Officer Brown & Sharpe.

*Other assignments:* –

*Previous assignments in the past five years:* –

*Shareholding<sup>1</sup>:* 44,529 shares of series B and 100,000 warrants for Class B shares in Hexagon AB.



#### **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, Intergraph. Vice President of Human Resources, Solution 6 North America.

*Other assignments:* –

*Previous assignments in the past five years:* –

*Shareholding<sup>1</sup>:* 100,000 warrants for Class B shares in Hexagon AB.



#### **LI HONGQUAN**

Born in 1966. Vice President and President of Hexagon China. Employed since 2001.

*Education:* M.Sc. (Engineering)

*Work experience:* President Qingdao Brown & Sharpe Qianshao Technology Co. Ltd. and 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 300,000 warrants for Class B shares in Hexagon AB.



#### **GERHARD SALLINGER**

Born in 1952. President of Intergraph PPM. Employed since 1985.

*Education:* B.Sc. (Chemical engineering)

*Work experience:* Various positions in the process industry and owner of an engineering firm.

*Other assignments:* –

*Previous assignments in the past five years:* –

*Shareholding<sup>1</sup>:* 20,000 shares of series B and 50,000 warrants for Class B shares in Hexagon AB.



#### **MATTIAS STENBERG**

Born in 1977. Chief Strategy Officer. Employed since 2009.

*Education:* B.Sc. (Econ.)

*Work experience:* Vice President Strategy and Communications Hexagon AB and Investor Relations positions at Teleca AB and 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.



#### **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, 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.

<sup>1</sup> Shareholdings and warrant holdings based on information per 21 March 2017.



# BOARD OF DIRECTORS' REPORT

The Board of Directors and the President and Chief Executive Officer of Hexagon AB hereby submit their annual report for the year of operation 1 January 2016 to 31 December 2016. 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 Gen-

eral Counsel, the Chief Marketing Officer, the Chief Human Resources Officer, the Chief Technology Officer and application area and division directors.

Hexagon's Group functions consist of Finance (group accounting, treasury, taxes 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

*Collects, processes, presents and stores geospatial information*

Geosystems  
Safety & Infrastructure  
Positioning Intelligence

### GROUP FUNCTIONS

Finance  
HR  
Innovation Hub  
Legal  
Marketing  
Strategy

### INDUSTRIAL ENTERPRISE SOLUTIONS

*Supply industries with solutions for measurement, quality control, design and operations*

Manufacturing intelligence  
PPM

## FIVE-YEAR OVERVIEW

MEUR	2016	2015	2014	2013	2012 <sup>1</sup>
Net sales	3,149.2	3,043.8	2,622.4	2,429.7	2,380.0
Operating earnings excl. non-recurring items (EBIT1)	736.1	692.7	578.1	507.7	484.9
Operating margin, %	23.4	22.8	22.0	20.9	20.4
Earnings before taxes excl. non-recurring items	714.3	666.2	544.5	473.8	434.2
Non-recurring items	-	-36.6	-36.0	-14.9	-
Earnings before taxes	714.3	629.6	508.5	458.9	434.2
Net earnings	578.6	505.1	406.2	371.2	351.1
Earnings per share, EUR	1.59	1.39	1.13	1.04	0.99

<sup>1</sup> Restated – IAS 19.

## SALES AND EARNINGS 2016

Net sales grew by 3 per cent during the year to 3,149.2 MEUR (3,043.8). Hexagon's net sales, adjusted to fixed exchange rates and a comparable group structure (organic growth), increased by 2 per cent during the year. Growth was primarily driven by new initiatives and products.

Operating earnings (EBIT1) increased by 6 per cent to 736.1 MEUR (692.7) and were favorably impacted by organic growth, good cost control and new high-margin products.

## MARKET DEMAND 2016

Net sales in EMEA grew by 3 per cent organically in 2016 and amounted to 1,193.7 MEUR (1,147.2), representing 38 per cent (38) of Group sales. In Western Europe, Hexagon noted good demand from the automotive and aerospace industries during the year as from the infrastructure and construction sector. In the Middle East, demand increased in public safety but growth was hampered in the region due to a decline in the infrastructure market, driven by a weak oil-related economy.

Net sales in Americas grew by 0 per cent organically in 2016 and amounted to 1,076.5 MEUR (1,049.2), representing 34 per cent (34) of Group sales. In North America, demand increased in the automotive and aerospace industries and in public safety, while the infrastructure market was weak. Operations related to the oil and gas sectors declined following the downturn in the oil price. South America posted negative growth, due to the economic slowdown in Brazil.

Net sales in Asia grew organically by 5 per cent in 2016, due to strong demand in China and Japan. Net sales amounted to 879.0 MEUR (847.4), representing 28 per cent (28) of Group sales. China reported very good growth, mainly driven by a recovery in infrastructure as well as new customers in the manufacturing industry.

## NET SALES

Net sales amounted to 3,149.2 MEUR (3,043.8). Using fixed exchange rates and a comparable Group structure, sales increased by 2 per cent.

Net sales for Geospatial Enterprise Solutions amounted to 1,579.3 MEUR (1,506.7). Using fixed exchange rates and a comparable structure, net sales increased by 3 per cent.

Net sales for Industrial Enterprise Solutions amounted to 1,569.9 MEUR (1,537.1). Using fixed exchange rates and a comparable structure, net sales increased by 1 per cent.

## OPERATING EARNINGS

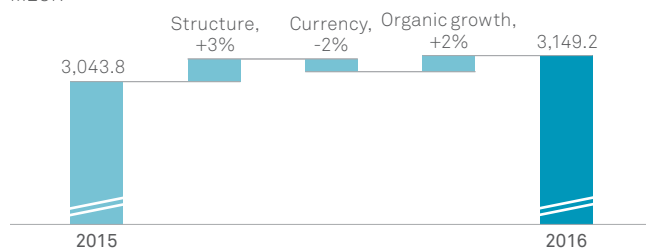
Operating earnings (EBITDA) increased by 6 per cent to 970.0 MEUR (912.3), corresponding to an operating margin (EBITDA margin) of 30.8 per cent (30.0).

Operating earnings, excluding non-recurring items (EBIT1), increased by 6 per cent to 736.1 MEUR (692.7), corresponding to an operating margin (EBIT1 margin) of 23.4 per cent (22.8).

Operating earnings (EBIT1) for Geospatial Enterprise Solutions increased to 354.8 MEUR (308.3), corresponding to an operating margin of 22.5 per cent (20.5).

## SALES BRIDGE<sup>1</sup>, 2016

MEUR



<sup>1</sup> Net sales from completed acquisitions and divestments during the year are recognised as "Structure". Percentages are rounded to the nearest whole per cent.

Operating earnings (EBIT1) for Industrial Enterprise Solutions declined to 399.1 MEUR (409.6), corresponding to an operating margin of 25.4 per cent (26.6).

## BUSINESS AREAS

MEUR	Net sales		Operating earnings (EBIT1)	
	2016	2015	2016	2015
Geospatial Enterprise Solutions	1,579.3	1,506.7	354.8	308.3
Industrial Enterprise Solutions	1,569.9	1,537.1	399.1	409.6
Other	-	-	-17.8	-25.2
<b>Total</b>	<b>3,149.2</b>	<b>3,043.8</b>	<b>736.1</b>	<b>692.7</b>

## GROSS EARNINGS

Gross earnings amounted to 1,902.0 MEUR (1,821.9).

The gross margin was 60.4 per cent (59.9).

## FINANCIAL INCOME AND EXPENSES

The financial net amounted to -21.8 MEUR (-26.5) in 2016. The decrease is mainly explained by lower borrowings.

## NON-RECURRING ITEMS

No non-recurring items were reported in 2016. In 2015, non-recurring items amounted to -36.6 MEUR and related to the implementation of a cost-saving programme introduced during the first quarter 2015.

## EARNINGS BEFORE TAX

Earnings before tax, excluding non-recurring items, amounted to 714.3 MEUR (666.2). Including non-recurring items, earnings before tax were 714.3 MEUR (629.6).

## EFFECTIVE TAX RATE

Hexagon's tax expense for the year totalled -135.7 MEUR (-124.5), corresponding to an effective tax rate of 19.0 per cent (19.8).

## NON-CONTROLLING INTEREST

The non-controlling interest's share of net earnings was 5.3 MEUR (5.2).

## NET EARNINGS

Net earnings, excluding non-recurring items, amounted to 578.6 MEUR (534.9), or 1.59 EUR per share (1.47). Net earnings, including non-recurring items, amounted to 578.6 MEUR (505.1) or 1.59 EUR per share (1.39).

## CASH FLOW

Cash flow from operations before changes in working capital and non-recurring items amounted to 832.1 MEUR (749.9), corresponding to 2.31 EUR per share (2.09). Including changes in working capital, but excluding non-recurring items, cash flow from operations was 782.1 MEUR (722.6), corresponding to 2.17 EUR per share (2.01). Cash flow from other investment activities was -172.0 MEUR (-193.9). Cash flow after other investments amounted to 344.6 MEUR (279.8). The change in borrowings was -130.5 MEUR (-205.9). Cash dividends to the Parent company shareholders amounted to -155.0 MEUR (-125.8), corresponding to 0.43 EUR per share (0.35).

## PROFITABILITY

Capital employed, defined as total assets less non-interest bearing liabilities, increased to 6,489.1 MEUR (6,158.6). Return on average capital employed, excluding non-recurring items, for the last 12 months was 11.9 per cent (11.6). Return on average shareholders' equity for the last 12 months was 13.7 per cent (13.0). The capital turnover rate was 0.5 (0.5).

## FINANCING AND FINANCIAL POSITION

Shareholders' equity, including non-controlling interest, increased to 4,590.8 MEUR (4,102.3). The equity ratio increased to 58.0 per cent (55.2).

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 a tenor of 5+1+1 years.
- 2) A Swedish Medium Term Note Programme (MTN) established during Q3 2014. The programme amounts to 10,000 MSEK and gives Hexagon the option to issue bonds with tenors of up to five years. On 31 December 2016, Hexagon had issued bonds for a total amount of 6,750 MSEK (6,750).
- 3) A Swedish commercial paper programme (CP) was established during Q1 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 2016, Hexagon had issued commercial paper for a total amount of 7,565 MSEK (7,351) and 11 MEUR (-).

On 31 December 2016, cash and unutilised credit limits totalled 1,595.3 MEUR (1,242.5). Hexagon's net debt was 1,564.8 MEUR (1,743.6). The net indebtedness was 0.30 times (0.38). Interest coverage ratio was 27.9 times (20.3).

## INVESTMENTS

Ordinary investments consist mainly of investments in production facilities, production equipment and intangible assets, primarily capitalised development expenses. Of the ordinary investments of 261.0 MEUR (242.5) during 2016, approximately 76 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 the USA, and results in products and services that are sold worldwide. The remaining part of the current investments, approximately 24 per cent, comprised mostly investments in business equip-

ment and machines. All current investments during the year have been financed by cash flow from operating activities. Investments corresponded to 8 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 -233.9 MEUR (-219.6).

## INVESTMENTS

MEUR	2016	2015
Investments in intangible fixed assets	206.7	194.6
Investments in tangible fixed assets	54.3	47.9
Divestments of tangible fixed assets	-3.4	-12.2
<b>Total ordinary investments</b>	<b>257.6</b>	<b>230.3</b>
Investments in subsidiaries	183.5	194.3
Divestments of subsidiaries	-12.9	-
Investments in financial fixed assets	5.5	4.8
Divestments of financial fixed assets	-4.1	-5.2
<b>Total other investments</b>	<b>172.0</b>	<b>193.9</b>
<b>Total investments</b>	<b>429.6</b>	<b>424.2</b>

## INTANGIBLE FIXED ASSETS

As of 31 December 2016, Hexagon's carrying value of intangible fixed assets was 5,870.8 MEUR (5,567.1). Amortisation of intangible fixed assets was -174.9 MEUR (-152.6). 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 2016 and no impairment requirement arose. Goodwill at 31 December 2016 amounted to 4,027.1 MEUR (3,812.6), corresponding to 51 per cent (51) of total assets.

## GOODWILL

MEUR	2016	2015
Geospatial Enterprise Solutions	1,940.5	1,752.1
Industrial Enterprise Solutions	2,086.6	2,060.5
<b>Total</b>	<b>4,027.1</b>	<b>3,812.6</b>

## ACQUISITIONS

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 2016, Hexagon acquired the following companies:

- GPS Solutions Inc., January
- Paul MacArthur Limited (SCCS), January
- SigmaSpace Corporation, February
- M&P Survey Equipment Ltd., March
- Forming Technologies Inc. (FTI), March
- AICON 3D Systems GmbH, March
- HostSure Limited, April
- NESTIX Oy, June
- GeoRadar, July
- Multivista, August
- Apodius GmbH, September
- GISquadrat GmbH, September
- Micro-Top, October



## OTHER GROUP INFORMATION

### Research and development

Hexagon places a high priority on investment 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 2016 amounted to 366.2 MEUR (359.7), 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	2016	2015
Capitalised	197.1	186.0
Expensed (excluding amortisation)	169.1	173.7
<b>Total</b>	<b>366.2</b>	<b>359.7</b>
Amortisation	130.6	109.7

## ENVIRONMENTAL IMPACT

Hexagon's R&D team develops products and systems that comply with customer requirements for being able to measure with considerable precision in one, two or three dimensions. High-quality measurement systems contribute to increased quality, productivity, efficiency and 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. Our efforts in R&D create solutions that contribute to solving the great challenges of our time: the need for food, cleaner solutions and a more resource-efficient society. Hexagon develops and assembles high-technology products under laboratory-like conditions. Major plants have been ISO 14001 certified 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.

## SHARE CAPITAL AND OWNERSHIP

Hexagon's share capital was 79,980,283 EUR, represented by 360,443,142 shares. On December 31, 2016, total shares outstanding was 15,750,000 Class A shares, each carrying 10 votes, and 344,693,142 Class B shares, each carrying one vote. On December 31, 2016, Melker Schörling AB, the single largest shareholder in Hexagon, held a total of 15,750,000 Class A shares and 77,929,899 Class B shares, representing 46.9 per cent of the votes and 26.0 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 2016. By year-end 2016 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 85, 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 4,590.8 MEUR (4,102.3) 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 not breached any covenants in 2016 or 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 31-35. 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 earn-

ings per share after tax, assuming that Hexagon satisfies its equity ratio objective.

The Board of Directors proposes a dividend of 0.48 EUR per share, corresponding to 30 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 173.0 MEUR. The proposed dividend is in line with the dividend policy. The proposed record date for dividend is 4 May 2017.

## REMUNERATION OF SENIOR EXECUTIVES

The following guidelines for remuneration to senior executives in Hexagon were adopted by the 2016 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 maximized 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 com-

pany, 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 2017 Annual General Meeting that corresponding guidelines apply as those adopted at the 2016 Annual General Meeting.

## INCENTIVE PROGRAMMES

See Note 30 on page 86.

## PARENT COMPANY

The Parent company's earnings before tax were 38.4 MEUR (2,955.0). The equity was 4,688.7 MEUR (4,805.5). The equity ratio of the Parent company was 58 per cent (61). Liquid funds including unutilised credit limits were 1,307.2 MEUR (1,023.3).

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

### ACQUISITION OF MSC SOFTWARE

On 2 February 2017, Hexagon announced that an agreement had been signed to acquire MSC Software (MSC). MSC is a leading supplier of CAE software (simulation). MSC, based in Newport Beach, California, USA, has more than 1,200 employees in 20 countries. Preliminary purchase price allocation analysis will be provided in the interim report after the authority approvals have been obtained and the transaction is closed, which is expected during the second quarter. See Note 33 on page 86 for further information.

### COST-SAVINGS PROGRAMME

Hexagon has launched a company-wide cost-savings programme in Q1 2017 with a focus on reducing administration costs. See Note 33 on page 86 for further information.

# 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.</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 2016, Hexagon made more than 120 acquisitions, including the key strategic acquisitions of Brown &amp; Sharpe (2001), Leica Geosystems (2005), NovAtel (2007) and Intergraph (2010). 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.</p>
<b>IMPACT OF THE ECONOMY</b>	
<p>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.</p>	<p>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.</p>
<b>COMPETITION AND PRICE PRESSURE</b>	
<p>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&amp;D efforts are costly and new product development always entails a risk of unsuccessful product launches or commercialisation, which could have material consequences.</p>	<p>Hexagon invests annually approximately 10-12 per cent of net sales in R&amp;D. A total of about 3,400 employees are engaged in R&amp;D at Hexagon. The objective for Hexagon's R&amp;D division is to transform customer needs into products and services and to detect market and technology opportunities early on.</p>



# 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> <p>Hexagon's business activities are conducted in a large number of markets with multiple customer categories. In 2016, Surveying was the single largest customer category and accounted for 22 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 Power and Energy with 18 per cent, Electronics and Manufacturing with 12 per cent and Infrastructure and Construction with 12 per cent.</p>	<p>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.</p>
<b>SUPPLIERS</b> <p>Hexagon's products consist of components from several different suppliers. To be in a position to sell and deliver solutions to customers, Hexagon is dependent upon deliveries from third parties in accordance with agreed requirements relating to, for example, quantity, quality and delivery times. Erroneous or default deliveries by suppliers can cause delay or default in Hexagon's deliveries, which can result in reduced sales.</p>	<p>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 2016. 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.</p>
<b>HUMAN CAPITAL</b> <p>The resignation of key employees or Hexagon's failure to attract skilled personnel may have an adverse impact on the Group's operations.</p>	<p>Since future success is largely dependent on the capacity to retain, recruit and develop skilled staff, being an attractive employer is an important success factor for Hexagon. Group and business area management jointly handle risks associated with human capital.</p>
<b>PRODUCTION AND DISTRIBUTION UNITS</b> <p>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.</p>	<p>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.</p>
<b>CYBER RISKS</b> <p>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.</p>	<p>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.</p>

# 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
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## CURRENCY

Hexagon's operations are mainly conducted internationally. During 2016, total operating earnings, excluding non-recurring items, from operations in currencies other than EUR amounted to an equivalent of 465.9 MEUR (570.5). Of these currencies, USD, CHF and CNY 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 2016.

	Movement <sup>1</sup>	Net of income and cost	Profit impact
CHF	Weakened -2%	Negative	Positive
USD	Strengthened 0%	Positive	Positive
CNY	Weakened -5%	Positive	Negative
<b>EBIT1, MEUR</b>			<b>-17.0</b>

<sup>1</sup> Compared to EUR and 2015

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.

## 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.

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 2016 interest rate derivatives were used to manage the interest rate risk.

RISK	RISK MANAGEMENT
<b>CREDIT</b>	
<p>Credit risk, i.e., the risk that customers may be unable to fulfill their payment obligations, account for the majority of Hexagon's counterparty risk.</p> <p>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.</p>	<p>Through a combination of geographical and industry diversification of customers the risk for significant credit losses is reduced.</p> <p>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.</p>
<b>LIQUIDITY</b>	
<p>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.</p>	<p>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 2016, cash and unutilised credit limits totalled 1,595.3 MEUR (1,242.5).</p>
<b>REFINANCING</b>	
<p>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.</p>	<p>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.</p> <p>Hexagon's main sources of financing consist of:</p> <ul style="list-style-type: none"> <li>• A multicurrency revolving credit facility (RCF) established during 2014. The RCF amounts to 2,000 MEUR with a tenor of 5+1+1 years</li> <li>• A Swedish Medium Term Note Programme (MTN) established during 2014. The MTN programme amounts to 10,000 MSEK and gives Hexagon the option to issue bonds with tenors of up to 5 years</li> <li>• 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</li> </ul> <p>During Q2 2016 Hexagon issued a private placement bond to SEK (Swedish Export Agency) of 1.500 MSEK with a tenor of 6 years.</p>
<b>INSURABLE RISK</b>	
<p>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.</p>	<p>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.</p>



# 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>	
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.	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>	
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.	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>	
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.	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.
<b>TAX</b>	
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.  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.	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 and are normally at arm's length.

# FINANCIAL REPORTS AND NOTES

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## CONSOLIDATED INCOME STATEMENT

MEUR	Note	2016	2015
Net sales	3, 5, 24	3,149.2	3,043.8
Cost of goods sold	6, 12	-1,247.2	-1,221.9
<b>Gross earnings</b>		<b>1,902.0</b>	<b>1,821.9</b>
Sales expenses	6, 12	-573.3	-561.7
Administration expenses	6, 12	-269.1	-292.8
Research and development expenses	6, 12	-333.1	-313.1
Other operating income	7	81.1	96.8
Other operating expenses	7, 12	-72.6	-95.1
Share of income in associated companies	9, 17	0.4	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, 25, 29, 30, 31	<b>736.1</b>	<b>656.1</b>
<b>Financial income and expenses</b>			
Financial income	10, 24	4.8	6.1
Financial expense	10, 24	-26.6	-32.6
<b>Earnings before tax</b>	3	<b>714.3</b>	<b>629.6</b>
Tax on earnings for the year	11	-135.7	-124.5
<b>Net earnings</b>		<b>578.6</b>	<b>505.1</b>
<b>Attributable to:</b>			
Parent company shareholders		573.3	499.9
Non-controlling interest		5.3	5.2
<sup>1</sup> Of which non-recurring items	12	-	-36.6
Average number of shares, thousands	21	360,433	359,387
Average number of shares after dilution, thousands	21	360,879	359,817
Earnings per share, EUR		1.59	1.39
Earnings per share after dilution, EUR		1.59	1.39
Earnings include depreciation, amortisation and impairments of		-233.9	-219.6

## CONSOLIDATED COMPREHENSIVE INCOME STATEMENT

MEUR	Note	2016	2015
<b>Net earnings</b>		<b>578.6</b>	<b>505.1</b>
<b>Other comprehensive income:</b>			
<b>Items that will not be reclassified to income statement</b>			
Remeasurement of pensions	22	-9.4	-36.8
Tax attributable to items that will not be reclassified to income statement	11	1.8	5.1
<b>Total items that will not be reclassified to income statement, net of taxes</b>		<b>-7.6</b>	<b>-31.7</b>
<b>Items that may be reclassified subsequently to income statement</b>			
Exchange rate differences		69.8	256.2
Effect of hedging of net investments in foreign operations		-0.1	-12.7
Tax attributable to items that may be reclassified subsequently to income statement:			
Tax attributable to effect of translation differences	11	3.9	-12.3
Tax attributable to effect of hedging of net investments in foreign operations		0.0	2.8
<b>Total items that may be reclassified subsequently to income statement, net of taxes</b>		<b>73.6</b>	<b>234.0</b>
<b>Other comprehensive income, net of taxes</b>		<b>66.0</b>	<b>202.3</b>
<b>Total comprehensive income</b>		<b>644.6</b>	<b>707.4</b>
<b>Attributable to:</b>			
Parent company shareholders		639.5	701.5
Non-controlling interest		5.1	5.9



# CONSOLIDATED BALANCE SHEET

MEUR	Note	2016-12-31	2015-12-31
<b>ASSETS</b>			
<b>Fixed assets</b>			
Intangible fixed assets	8, 14	5,870.8	5,567.1
Tangible fixed assets	15	294.8	287.9
Shares in associated companies	16, 17	1.4	3.5
Other long-term securities holdings	16, 24	4.3	4.9
Other long-term receivables	16, 18	15.4	16.6
Deferred tax assets	11	55.0	59.4
<b>Total fixed assets</b>		<b>6,241.7</b>	<b>5,939.4</b>
<b>Current assets</b>			
Inventories	19	426.7	414.9
Customer receivables	18, 24	788.0	688.3
Current tax receivables	11	13.5	10.7
Other receivables – interest bearing	24	0.6	1.0
Other receivables – non-interest bearing	18, 24	56.9	51.1
Prepaid expenses and accrued income	20, 24	102.7	101.2
Short-term investments	24	60.1	59.8
Cash and bank balances	24	223.9	165.7
<b>Total current assets</b>		<b>1,672.4</b>	<b>1,492.7</b>
<b>TOTAL ASSETS</b>		<b>7,914.1</b>	<b>7,432.1</b>
<b>SHAREHOLDERS' EQUITY AND LIABILITIES</b>			
<b>Shareholders' equity</b>			
Share capital	21	80.0	80.0
Other capital contributions		1,397.8	1,397.8
Revaluation reserve		-4.8	-4.8
Translation reserve		573.4	499.6
Retained earnings		2,530.4	2,119.7
<b>Shareholders' equity attributable to Parent company shareholders</b>		<b>4,576.8</b>	<b>4,092.3</b>
Non-controlling interest		14.0	10.0
<b>Total shareholders' equity</b>		<b>4,590.8</b>	<b>4,102.3</b>
<b>Long-term liabilities</b>			
Provisions for pensions	22	132.0	124.0
Other provisions	23	3.8	3.5
Deferred tax liabilities	11	472.7	416.8
Long-term liabilities – interest bearing	24	1,476.2	1,782.8
Other long-term liabilities – non-interest bearing	24	77.9	58.2
<b>Total long-term liabilities</b>		<b>2,162.6</b>	<b>2,385.3</b>
<b>Current liabilities</b>			
Current liabilities – interest bearing	24	240.6	60.9
Advance payments from customers	24	30.8	29.3
Accounts payable	24	175.7	162.7
Current tax liabilities	11	24.9	23.2
Other liabilities – non-interest bearing	24	128.6	129.1
Other provisions	23	20.8	31.2
Deferred income	20, 24	254.3	235.7
Accrued expenses	20, 24	285.0	272.4
<b>Total current liabilities</b>		<b>1,160.7</b>	<b>944.5</b>
<b>TOTAL SHAREHOLDERS' EQUITY AND LIABILITIES</b>		<b>7,914.1</b>	<b>7,432.1</b>

## CHANGES IN CONSOLIDATED SHAREHOLDERS' EQUITY

MEUR	Share capital	Other capital contributions	Revaluation reserve	Translation reserve	Retained earnings	Shareholders equity attributable to Parent company shareholders	Non-controlling interest	Total shareholders' equity
Opening shareholders' equity, 2015-01-01	79.3	1,340.7	-4.8	265.6	1,778.0	3,458.8	11.4	3,470.2
Total comprehensive income	-	-	-	234.0	467.5	701.5	5.9	707.4
New share issues	0.7	37.7	-	-	-	38.4	-	38.4
New share issues in progress	-	0.5	-	-	-	0.5	-	0.5
Warrants issued	-	18.9	-	-	-	18.9	-	18.9
Dividend	-	-	-	-	-125.8	-125.8	-7.3	-133.1
Closing shareholders' equity, 2015-12-31	80.0	1,397.8	-4.8	499.6	2,119.7	4,092.3	10.0	4,102.3
Total comprehensive income	-	-	-	73.8	565.7	639.5	5.1	644.6
New share issues	0.0	1.4	-	-	-	1.4	-	1.4
New share issues in progress	0.0	-1.4	-	-	-	-1.4	-	-1.4
Dividend	-	-	-	-	-155.0	-155.0	-1.1	-156.1
Closing shareholders' equity, 2016-12-31	80.0	1,397.8	-4.8	573.4	2,530.4	4,576.8	14.0	4,590.8

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 available for sale.

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 in certain subsidiaries.

# CONSOLIDATED CASH FLOW STATEMENT

MEUR	Note	2016	2015
<b>Cash flow from operating activities</b>			
<b>Operating earnings</b>		<b>736.1</b>	<b>656.1</b>
Adjustments for items in operating earnings not affecting cash flow:			
Depreciation, amortisation and impairment		233.9	219.6
Change in provisions		-33.1	-3.7
Capital gains on divestments of fixed assets		0.4	-0.1
Capital loss from sale of shares in group companies		-0.7	-
Earnings from shares in associated companies		-0.4	-0.1
Other items not affecting cash flow		-2.2	0.0
Interest received		4.6	6.1
Interest paid		-22.3	-26.6
Tax paid		-92.1	-120.0
<b>Cash flow from operating activities before changes in working capital</b>		<b>824.2</b>	<b>731.3</b>
<b>Cash flow from changes in working capital</b>			
Change in inventories		-6.8	-8.8
Change in current receivables		-84.6	-45.3
Change in current liabilities		41.4	26.8
<b>Cash flow from changes in working capital</b>		<b>-50.0</b>	<b>-27.3</b>
<b>Cash flow from operating activities<sup>1</sup></b>		<b>774.2</b>	<b>704.0</b>
<b>Cash flow from ordinary investing activities</b>			
Investments in intangible fixed assets	14	-206.7	-194.6
Investments in tangible fixed assets	15	-54.3	-47.9
Divestments of tangible fixed assets	15	3.4	12.2
<b>Cash flow from ordinary investing activities</b>		<b>-257.6</b>	<b>-230.3</b>
<b>Operating cash flow</b>		<b>516.6</b>	<b>473.7</b>
<b>Cash flow from other investing activities</b>			
Investments in subsidiaries	27	-183.5	-194.3
Divestments of subsidiaries	27	12.9	-
Investments in financial fixed assets	16	-5.5	-4.8
Divestments of financial fixed assets	16	4.1	5.2
<b>Cash flow from other investing activities</b>		<b>-172.0</b>	<b>-193.9</b>
<b>Cash flow from financing activities</b>			
Borrowings		182.8	830.5
Repayment of debt		-313.3	-1,036.4
Warrants issued		-	18.9
New share issues related to warrants programme, net of expenses		-	38.9
Dividend to Parent company shareholders		-155.0	-125.8
Dividend to non-controlling interests in subsidiaries		-1.1	-7.3
<b>Cash flow from financing activities</b>		<b>-286.6</b>	<b>-281.2</b>
<b>Cash flow for the year</b>		<b>58.0</b>	<b>-1.4</b>
<b>Cash and cash equivalents, beginning of year<sup>2</sup></b>		<b>225.5</b>	<b>228.6</b>
Effect of translation differences on cash and cash equivalents		0.5	-1.7
<b>Cash flow for the year</b>		<b>58.0</b>	<b>-1.4</b>
<b>Cash and cash equivalents, end of year<sup>2</sup></b>		<b>284.0</b>	<b>225.5</b>
<sup>1</sup> Of which non-recurring cash flow		-7.9	-18.6

<sup>2</sup> Cash and cash equivalents include short-term investments and cash and bank balances



## PARENT COMPANY INCOME STATEMENT

MEUR	Note	2016	2015
Net sales	4, 5	20.2	12.5
Administration expenses	6, 25, 29, 30, 31	-26.9	-32.0
<b>Operating earnings</b>		<b>-6.7</b>	<b>-19.5</b>
<b>Financial income and expense</b>			
Earnings from shares in group companies	9	-	2,849.1
Interest income	10	259.0	273.1
Interest expenses	10	-215.7	-147.7
<b>Earnings before tax and appropriations</b>		<b>36.6</b>	<b>2,955.0</b>
<b>Appropriations</b>			
Group contribution, net		1.8	-
<b>Earnings before tax</b>		<b>38.4</b>	<b>2,955.0</b>
Tax on earnings for the year	11	-0.2	0.0
<b>Net earnings</b>		<b>38.2</b>	<b>2,955.0</b>

## PARENT COMPANY COMPREHENSIVE INCOME STATEMENT

MEUR	2016	2015
Net earnings	38.2	2,955.0
Other comprehensive income	-	-
<b>Total comprehensive income</b>	<b>38.2</b>	<b>2,955.0</b>

# PARENT COMPANY BALANCE SHEET

MEUR	Note	2016	2015
<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>		<b>0.1</b>	<b>0.1</b>
<b>Financial fixed assets</b>			
Shares in group companies	16	4,330.6	4,327.0
Receivables from group companies	16	2,872.6	3,334.7
Other financial fixed assets	16	0.4	0.3
<b>Total financial fixed assets</b>		<b>7,203.6</b>	<b>7,662.0</b>
<b>Total fixed assets</b>		<b>7,203.7</b>	<b>7,662.1</b>
<b>Current assets</b>			
<b>Current receivables</b>			
Receivables from group companies		802.7	222.1
Other receivables		0.3	0.3
Prepaid expenses and accrued income	20	0.3	0.7
<b>Total current receivables</b>		<b>803.3</b>	<b>223.1</b>
Cash and bank balances		15.5	24.1
<b>Total current assets</b>		<b>818.8</b>	<b>247.2</b>
<b>TOTAL ASSETS</b>		<b>8,022.5</b>	<b>7,909.3</b>
<b>SHAREHOLDERS' EQUITY AND LIABILITIES</b>			
<b>Shareholders' equity</b>			
<b>Restricted equity</b>			
Share capital	21	80.0	80.0
Statutory reserve		314.3	314.3
<b>Total restricted equity</b>		<b>394.3</b>	<b>394.3</b>
<b>Non-restricted equity</b>			
Premium reserve		922.4	922.4
Retained earnings		3,372.0	3,488.8
<b>Total non-restricted equity</b>		<b>4,294.4</b>	<b>4,411.2</b>
<b>Total shareholders' equity</b>		<b>4,688.7</b>	<b>4,805.5</b>
<b>Provisions</b>			
Other provisions		0.4	0.3
<b>Total provisions</b>		<b>0.4</b>	<b>0.3</b>
<b>Long-term liabilities</b>			
Liabilities to credit institutions	24	1,469.0	1,775.0
<b>Total long-term liabilities</b>		<b>1,469.0</b>	<b>1,775.0</b>
<b>Current liabilities</b>			
Liabilities to credit institutions	24	214.8	35.1
Accounts payable		0.3	0.9
Liabilities to group companies		1,646.0	1,290.3
Other liabilities		0.1	0.1
Accrued expenses and deferred income	20	3.2	2.1
<b>Total current liabilities</b>		<b>1,864.4</b>	<b>1,328.5</b>
<b>TOTAL SHAREHOLDERS' EQUITY AND LIABILITIES</b>		<b>8,022.5</b>	<b>7,909.3</b>

## CHANGES IN PARENT COMPANY SHAREHOLDERS' EQUITY

MEUR	Restricted shareholders' equity			Unrestricted shareholders' equity		Total shareholders' equity
	Share capital	Paid-in, non-registered share capital	Statutory reserve	Premium reserve	Retained earnings	
Opening balance 2015-01-01	79.3	0.0	314.3	857.5	634.1	1,885.2
Total comprehensive income	-	-	-	-	2,955.0	2,955.0
Dividend	-	-	-	-	-125.8	-125.8
Group contribution, received	-	-	-	-	25.5	25.5
New share issues	0.7	-	-	37.7	-	38.4
New share issues in progress	-	0.0	-	0.5	-	0.5
Warrants exercised	-	-	-	26.7	-	26.7
Closing balance 2015-12-31	80.0	0.0	314.3	922.4	3,488.8	4,805.5
Total comprehensive income	-	-	-	-	38.2	38.2
Dividend	-	-	-	-	-155.0	-155.0
New share issues	0.0	-	-	1.4	-	1.4
New share issues in progress	0.0	-	-	-1.4	-	-1.4
Closing balance 2016-12-31	80.0	0.0	314.3	922.4	3,372.0	4,688.7



# PARENT COMPANY CASH FLOW STATEMENT

MEUR	Note	2016	2015
<b>Cash flow from operating activities</b>			
<b>Operating earnings</b>		<b>-6.7</b>	<b>-19.5</b>
Adjustment for operating earnings items not affecting cash flow:			
Depreciation, amortisation and impairment losses		0.0	9.6
Unrealised exchange rate gains and losses		149.0	-67.2
Interest received		255.3	271.6
Dividends received		-	224.0
Interest paid		-214.7	-147.9
Tax paid		0.0	-
<b>Cash flow from operating activities before changes in working capital</b>		<b>182.9</b>	<b>270.6</b>
<b>Cash flow from changes in working capital</b>			
Change in current receivables		-93.0	27.3
Change in current liabilities		382.7	304.1
<b>Cash flow from changes in working capital</b>		<b>289.7</b>	<b>331.4</b>
<b>Cash flow from operating activities</b>		<b>472.6</b>	<b>602.0</b>
<b>Cash flow from investing activities</b>			
Investments in financial fixed assets	16	-3.6	-135.0
Change in long-term receivables, group companies		-200.7	-172.5
<b>Cash flow from investing activities</b>		<b>-204.3</b>	<b>-307.5</b>
<b>Cash flow from financing activities</b>			
Borrowings		181.7	848.1
Repayments		-308.0	-1,023.7
Warrants issued		-	26.7
New share issues, net of expenses		-	38.9
Provisions		0.1	0.3
Dividend to shareholders		-155.0	-125.8
<b>Cash flow from financing activities</b>		<b>-281.2</b>	<b>-235.5</b>
<b>Cash flow for the year</b>		<b>-12.9</b>	<b>59.0</b>
<b>Cash and bank balances, beginning of year<sup>1</sup></b>		<b>24.1</b>	<b>13.2</b>
Effect of translation differences on cash and bank		4.3	-48.1
<b>Cash flow for the year</b>		<b>-12.9</b>	<b>59.0</b>
<b>Cash and bank balances, end of year<sup>1</sup></b>		<b>15.5</b>	<b>24.1</b>

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

# NOTES

## NOTE 1 ACCOUNTING POLICIES

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

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

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

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

On 27 March 2017, the Board of Directors and the President approved this annual report and consolidated accounts for publication, and they will be presented to the Annual General Meeting on 2 May 2017 for adoption.

### APPLICATION OF NEW AND AMENDED ACCOUNTING RULES

There are no new or amended standards and interpretations from IASB and IFRIC which has come into force during the year, that has any effect on the financial statements of Hexagon, as of 1 January 2016.

### STANDARDS ISSUED BUT NOT YET EFFECTIVE

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 2017 or later.

**IFRS 9 Financial instruments** – the standard replaces IAS 39 Financial Instruments: Recognition and Measurement and provides a logical model for classification and measurement, a single, forward-looking 'expected loss' impairment model and a substantially reformed approach to hedge accounting. The standard will be applied as of 1 January 2018. Financial instruments that would affect the Hexagon financial statements if remeasured occur in limited extent, why the standard is not expected to have any significant impact on the Group's financial statements.

**IFRS 15 Revenue from contracts with customers** – the standard replaces IAS 11 Construction contracts, IAS 18 Revenue, IFRIC 13 Customer loyalty programs, IFRIC 15 Agreements for the construction of real estate, IFRIC 18 Transfer of assets from customers and SIC 31 Revenue – Barter Transactions Involving Advertising Services. The new standard provides a five-step model to determine when to recognise revenue. According to the new present standards, revenues are to be recognised when the essential risk and rewards associated with the goods or services are transferred to the buyer. The new model specifies that revenue should be recognised when (or as) an entity transfers control of goods or services to a customer at the amount to which the entity expects to be entitled. Depending on whether certain criteria are met, revenue is then recognised. The standard will be applied as of 1 January 2018. The standard will have a certain impact on contracts recognised with percentage of completion method and on capitalization of sales commissions. Hexagon has not yet finalised the analysis of potential impacts on the financial statements but the current assessment is that the new standard will not have any significant impact.

**IFRS 16 Leases** – the standard replaces IAS 17 Leases and IFRIC 4 Determining an Arrangement contains a lease, SIC-15 Operating Leases - Incentives and SIC-27 Evaluating the Substance of Transactions involving the legal form of lease. The present standard require the lessee to classify their leases as either finance leases or operating leases, which are accounted for differently. The operating leases does not require lessees to recognise assets and liabilities (off balance sheet leases). That together with limited information requirements has caused an inconsistency in the financial statements. The new standard requires the lessees to recognise assets and liabilities from the lease in the balance sheet, except short-term leases (less than 12 months) and/or leases of assets of low value. The standard also require more information from both parties regarding the lease. The standard will be applied as of 1 January 2019. Hexagon has not yet finalised the analysis of potential impacts on the financial statements.

Other changes in standards and interpretations that enter into force from 1 January, 2017 are not expected to have any impact on the financial statements of Hexagon.

### BASIS OF REPORTING FOR THE PARENT COMPANY AND THE GROUP

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

Assets and liabilities are reported at historical cost with the exception of 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. 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 and contingent 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

**NOTE 1 Accounting Policies, cont.**

is paid in cash, assumed liabilities or issue of own shares. Contingent considerations are included in the acquisition cost and carried at their fair value at the acquisition date. Revaluations of contingent considerations are recorded in the income statement. 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 to this rule 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 the section below.

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. Goodwill is recognised in accordance with the section Goodwill and other intangible assets below. Non-controlling interests are recognised at the acquisition date, either at its fair value or at its proportionate share of the carrying value of the acquires identifiable assets and liabilities. Acquisition of non-controlling interest is reported as transactions between shareholders, i.e. in 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 is recorded in the income statement.

**ASSOCIATED COMPANIES AND JOINT VENTURES**

Hexagon applies the equity method for accounting associated companies and joint ventures. Associated companies are those companies over which Hexagon, directly or indirectly, has a material influence. Joint ventures are defined as companies over which Hexagon, through partnership agreements with one or more parties, exercises a joint controlling influence over the operational and financial control.

Any difference between the acquisition value and equity value at the time of acquisition is termed goodwill, and is included in the acquisition value. In the consolidated balance sheet, holdings in associated companies are recognised at acquisition value adjusted for dividends; share in profits or losses during the holding period and accumulated impairment losses. The consolidated income statement includes share in associated companies' earnings after elimination of any inter-company gains.

For accounting of shares in associated companies the most recent available financial reports from the associated company are used.

**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. Gains that arise from transactions with associated companies and joint ventures are eliminated to an extent corresponding to the Group's ownership interest in the company. Losses are eliminated in the same way as gains, but only to the extent that there is no impairment loss.

**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 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 on the basis of 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.

**REVENUES**

Hexagon applies the following principles for revenue recognition:

**Sales of goods**

Revenues from sales of goods are recognised when all the following conditions are satisfied:

- The company has transferred the essential risks and benefits associated with the ownership of the goods to the buyer;
- The company does not retain any commitment in ongoing management usually associated with ownership, and nor does the company exert any actual control over the goods that have been sold;

**Revenues can be reliably calculated if;**

- It is likely that the financial benefits for the seller associated with the transaction will accrue to the seller;
- The expenditure that has arisen or is expected to arise as a consequence of the transaction can be reliably calculated;
- Installation revenues comprise an insignificant portion of total revenues for equipment sold with a commitment to install the equipment.

**Sales of services/contracts and similar assignments**

Income from the sale of services is recognised on the basis of the degree of completion at the balance sheet date, when all the following conditions are satisfied:

- Income attributable to the assignment can be reliably calculated;
- It is likely that the financial benefits to the contractor associated with the assignment will accrue to the contractor;
- The percentage of completion can be reliably calculated;
- The expenditure that has arisen and the expenditure that remains to complete the assignment can be reliably calculated.

The percentage of completion is determined by comparing the expenditure that has arisen in relation with 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 revenues, 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 revenues, the probable loss is accounted immediately, and fully, as an expense.

**RESEARCH AND DEVELOPMENT EXPENDITURE**

Expenditure for research is expensed as incurred, while expenditure for development is capitalised as follows: Capitalisation of development expenses in the Group are only applied to new products where significant development costs are involved, where the products have a probable earnings potential that Hexagon may benefit from, and the costs are clearly distinguishable from ongoing product development expenditure. Straight-line depreciation and amortisation are done based on estimated economic life. Possible impairment is continuously evaluated. Depreciation, amortisation and impairment are in income statement reported as research and development expenditure.

**GOVERNMENT GRANTS**

Hexagon accounts for government grants that were decided and paid out during the year. Government grants have been reported as a reduction of the Group's expenses in the function where the expenses occurred.

**LEASING**

The Group has 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 capital 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.

**OTHER OPERATING REVENUES/EXPENSES**

Other operating revenues/expenses primarily consist of gains/losses from sales of fixed assets, currency exchange gains and losses related to operating assets and liabilities, acquisition related expenses and revenues for letting of premises and other assets with corresponding expenses.

**FINANCIAL ASSETS AND LIABILITIES AND OTHER INSTRUMENTS**

Financial instruments recognised in the balance sheet include, on the asset side, cash and bank, accounts receivables, shares, loans receivable and derivatives. Liabilities include trade accounts payable, loans payable, supplementary payments and derivatives.

Financial instruments are initially recognised at cost, corresponding to the instrument's fair value plus transaction expenses for all financial instruments with the exception of those in the category financial assets at fair value through profit or loss. Subsequent measurement at fair value or amortised cost depends on how they are classified, as indicated below. Fair value of listed financial assets and liabilities are determined at market prices. Hexagon also applies different valuation methods to determine the fair value of financial assets and liabilities that are managed in an inactive market. These valuation methods are based on the valuation of similar instruments, discounted cash flows or accepted valuation models.

Amortised cost is determined using the effective interest rate calculated on the date of acquisition.

**FINANCIAL ASSETS AND LIABILITIES ARE CLASSIFIED IN ONE OF THE FOLLOWING CATEGORIES:**

**Financial assets and liabilities at fair value through profit or loss**

Financial derivative instruments are recognised at fair value, with changes in fair value recognised in profit and loss, apart from cases where the derivative fulfils the requirement for cash flow hedging, in which case the change in value is recognised directly in other comprehensive income until the hedged transaction has been recognised in income statement.

**Available for sale**

Hexagon considers listed holdings of securities as being available for sale, which means that the change in value up to the selling date is recognised directly in other comprehensive income. Unlisted shares and participations whose value cannot be determined reliably are recognised at acquisition cost.

**Held-to-maturity investments**

Assets held to maturity are valued at amortised costs, applying the effective interest rate method. No financial instruments were classified in this category during 2016 and 2015.

**Loans receivable and accounts receivable**

Accounts receivable are recognised at the amount expected to be received based on an individual valuation. Accounts receivable have a short maturity, due to which they are recognised at their nominal amount without discounting. Impairment losses on accounts receivable are recognised in operating expenses.

Other receivables are receivables that arise when the company provides money without the intent to trade its claim.

**Other financial liabilities**

Bank loans classified as other financial liabilities are initially recognised at the amount received after deducting transaction expenses. After acquisition, the loans are carried at amortised cost, according to the effective rate method.

Trade accounts payable are carried at amortised cost. Trade accounts payable have a short expected maturity and are carried without discounting at their nominal amount.

**Cash and bank**

Cash and bank consist of cash and cash equivalents, immediately accessible balances with banks and similar institutions, and short-term liquid investments with a maturity from acquisition date of less than three months, which are exposed to no more than an insignificant risk of fluctuation in value.

**DERIVATIVES AND HEDGE ACCOUNTING**

Balances and transactions are to some extent hedged, and hedge accounting is applied if the hedging actions taken have the stated objective of constituting a hedge, have a direct correlation to the hedged item and effectively hedge the item. An effective hedge generates financial effects that offset those that arise through the hedged position. When hedging fair value, the change in the fair value of the hedging instrument is recognised in the income statement together with the change in the value of the liability or asset to which the risk hedging applies. When hedging cash flow, the change in value of the hedging instrument is recognised directly in other comprehensive income until the hedged transaction has been recognised.



#### NOTE 1 Accounting Policies, cont.

The value of the net assets of subsidiaries whose functional currency is not EUR, including goodwill and other intangible assets, is partly hedged, mainly through currency loans. Currency forward contracts are used to a lesser extent. In the consolidated financial statements, the after-tax effects of hedging are offset against those translation differences that were recognised directly in other comprehensive income regarding the international operations.

#### PENSION AND SIMILAR COMMITMENTS

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. Only exist in limited extent in Sweden.

#### 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 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.

#### INCOME TAXES

##### Income taxes comprise:

- 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.

#### 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.

#### GOODWILL AND OTHER INTANGIBLE FIXED ASSETS

Goodwill comprises the difference between the acquisition cost and fair value of the Group's share of acquired companies' identifiable net assets on the date of acquisition. Goodwill is recognised at acquisition value less accumulated impairment losses. Other acquisition-related intangible assets primarily comprise various types of intellectual rights such as brands, patents and customer relations.

Both acquisition-related and other intangible assets are reported at acquisition value less accumulated amortisation and impairment losses, if any. Acquisition-related intangible assets with an indefinite life are not amortised, but are tested for impairment on an annual basis.

#### 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/losses on the divestment of a tangible fixed asset are recognised in the income statement as other operating income/cost 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 balance-sheet 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:

• Capitalised development expenditure	2–6 years
• Patents and trademarks <sup>1</sup>	5 years
• Other intangible assets	2–20 years
• 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

<sup>1</sup> The value of trademarks obtained via acquired operations is determined by means of the acquisition analysis. 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 87 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.

#### IMPAIRMENT

Goodwill and other intangible assets with an indefinite life are subject to annual impairment testing. All tangible and intangible assets are impairment tested if indications of an impairment requirement arise, meaning if the recognised value of an asset exceeds its recoverable value. If an impairment need is identified, the item is impaired to an amount corresponding to the recoverable value.

The recoverable value is the higher of the asset's net realisable value and the value in use, meaning the discounted present value of future cash flows. Previous impairments are reversed by relevant amounts matching the degree to which the impairment is

#### NOTE 1 Accounting Policies, cont.

no longer warranted, although goodwill impairments are never reversed.

If independent cash flows cannot be isolated for individual assets, the assets are grouped at the lowest level where independent cash flows can be identified (cash-generating units). See further Note 8.

#### EARNINGS PER SHARE

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

#### ACCOUNTING POLICIES IN THE PARENT COMPANY

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

- The Parent company does not apply IAS 39.
- 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.

#### 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 approval on 2 May 2017.

### 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.

#### 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 patents, trademarks and goodwill. 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. The assumptions made by the Board of Directors are presented above. 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 4,027.1 MEUR (3,812.6). Other intangible assets not subject to amortisation amount to 918.3 (885.6) MEUR as of this date. Impairment tests performed did not give rise to any impairment.

#### 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 417.7 MEUR (357.4), net, at the end of 2016. At the same date, the Group had tax-loss carry-forwards with a value of 45.8 MEUR (62.9) 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 acquires 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 OPERATING SEGMENTS

Hexagon's operations are organised, governed and reported in two operating segments, Industrial Enterprise Solutions (IES) and Geospatial Enterprise Solutions (GES). The operating segment IES comprises the divisions Manufacturing Intelligence and PPM. The operating segment GES comprises the divisions Geosystems, Positioning Intelligence and Safety & Infrastructure.

2016	IES	GES	Total segments	Group expenses and eliminations	Group
Net sales	1,569.9	1,579.3	3,149.2	-	3,149.2
Operating expenses	-1,170.8	-1,224.5	-2,395.3	-17.8	-2,413.1
<b>Operating earnings (EBIT)<sup>1</sup></b>	<b>399.1</b>	<b>354.8</b>	<b>753.9</b>	<b>-17.8</b>	<b>736.1</b>
Non-recurring items	-	-	-	-	-
<b>Operating earnings (EBIT)</b>	<b>399.1</b>	<b>354.8</b>	<b>753.9</b>	<b>-17.8</b>	<b>736.1</b>
Net interest income/expenses				-21.8	-21.8
<b>Earnings before taxes</b>				<b>-39.6</b>	<b>714.3</b>
Operating assets	4,664.1	3,786.8	8,450.9	-910.0	7,540.9
Operating liabilities	-528.3	-1,239.0	-1,767.3	933.1	-834.2
<b>Net operating assets</b>	<b>4,135.8</b>	<b>2,547.8</b>	<b>6,683.6</b>	<b>23.1</b>	<b>6,706.7</b>
<sup>1</sup> Of which share in associated companies earnings	0.4	0.0	0.4	-	0.4
Shares in associated companies	-	1.4	1.4	-	1.4
Investments in fixed assets	101.9	158.8	260.7	0.3	261.0
Average number of employees	8,454	7,934	16,388	72	16,460
Number of employees at year-end	8,640	7,877	16,517	75	16,592
Depreciation, amortisation and impairment	-94.5	-138.5	-233.0	-0.9	-233.9

2015	IES	GES	Total segments	Group expenses and eliminations	Group
Net sales	1,537.1	1,506.7	3,043.8	-	3,043.8
Operating expenses	-1,127.5	-1,198.4	-2,325.9	-25.2	-2,351.1
<b>Operating earnings (EBIT)<sup>1</sup></b>	<b>409.6</b>	<b>308.3</b>	<b>717.9</b>	<b>-25.2</b>	<b>692.7</b>
Non-recurring items	-20.6	-16.0	-36.6	-	-36.6
<b>Operating earnings (EBIT)</b>	<b>389.0</b>	<b>292.3</b>	<b>681.3</b>	<b>-25.2</b>	<b>656.1</b>
Net interest income/expenses				-26.5	-26.5
<b>Earnings before taxes</b>				<b>-51.7</b>	<b>629.6</b>
Operating assets	4,511.0	3,500.7	8,011.7	-900.6	7,111.1
Operating liabilities	-511.6	-1,202.9	-1,714.5	941.8	-772.7
<b>Net operating assets</b>	<b>3,999.4</b>	<b>2,297.8</b>	<b>6,297.2</b>	<b>41.2</b>	<b>6,338.4</b>
<sup>1</sup> Of which share in associated companies earnings	0.1	0.0	0.1	-	0.1
Shares in associated companies	2.2	1.3	3.5	-	3.5
Investments in fixed assets	103.1	138.9	242.0	0.4	242.4
Average number of employees	7,967	7,857	15,824	67	15,891
Number of employees at year-end	8,170	7,893	16,063	69	16,132
Depreciation, amortisation and impairment	-82.8	-134.0	-216.8	-2.8	-219.6

Geographical markets	Operating Assets <sup>1</sup>								Tangible and intangible fixed assets	
	Net sales by country <sup>3</sup>		Assets		Liabilities		Net			
	2016	2015	2016	2015	2016	2015	2016	2015	2016	2015
EMEA <sup>2</sup>	1,193.7	1,147.2	4,308.3	4,197.0	-1,243.4	-1,205.6	3,064.9	2,991.4	3,031.5	2,521.8
Americas	1,076.5	1,049.2	4,040.7	3,711.4	-427.1	-415.7	3,613.6	3,295.7	3,009.5	3,251.1
Asia	879.0	847.4	472.8	430.2	-444.6	-378.9	28.2	51.3	124.6	82.1
Elimination of Intra-Group items / Adjustments	-	-	-1,280.9	-1,227.5	1,280.9	1,227.5	-	-	-	-
Group	3,149.2	3,043.8	7,540.9	7,111.1	-834.2	-772.7	6,706.7	6,338.4	6,165.6	5,855.0

<sup>1</sup> 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.

<sup>2</sup> Sweden is included in EMEA with net sales of 71.8 MEUR (61.8) and tangible and intangible fixed assets of 31.3 MEUR (29.1).

<sup>3</sup> Relates to the country where the customer has its residence. No single customer represented more than 2.0 per cent (2.0) 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 82 per cent (68) of the Parent company's purchases.

#### NOTE 5 NET SALES

	Group		Parent Company	
	2016	2015	2016	2015
Surveying	693.7	682.5	-	-
Power and energy	553.8	596.4	-	-
Infrastructure and construction	391.8	329.8	-	-
Automotive	306.3	288.8	-	-
Public safety	297.2	283.6	-	-
Electronics and manufacturing	382.1	387.4	-	-
Aerospace and defence	254.0	241.0	-	-
Other	270.3	234.3	20.2	12.5
<b>Total</b>	<b>3,149.2</b>	<b>3,043.8</b>	<b>20.2</b>	<b>12.5</b>

#### NOTE 7 OTHER OPERATING INCOME AND OPERATING EXPENSES

	Group	
	2016	2015
<b>Other operating income</b>		
Capital gain on divestment of fixed assets	0.6	-
Exchange rate gains	51.5	63.8
Government grants	2.3	0.9
Fair value adjustments	18.6	20.7
Rental income	2.8	2.4
Other	5.3	9.0
<b>Total</b>	<b>81.1</b>	<b>96.8</b>
<b>Other operating expenses</b>		
Capital loss on divestment of fixed assets	-1.1	-0.9
Exchange rate losses	-46.1	-70.3
Rental related expenses	-4.0	-6.0
Impairment	-4.5	-10.2
Acquisition related expenses	-7.9	-2.2
Other	-9.0	-5.5
<b>Total</b>	<b>-72.6</b>	<b>-95.1</b>

#### NOTE 6 OPERATING EXPENSES

	Group		Parent Company	
	2016	2015	2016	2015
<b>Cost of goods sold</b>				
Cost of goods	622.2	607.3	-	-
Personnel cost	368.1	340.5	-	-
Depreciation and amortisation	27.7	25.7	-	-
Other	229.2	248.4	-	-
<b>Total</b>	<b>1,247.2</b>	<b>1,221.9</b>	<b>-</b>	<b>-</b>
<b>Research and development cost</b>				
Personnel cost	145.0	126.3	-	-
Depreciation and amortisation	164.0	139.2	-	-
Other	24.1	47.6	-	-
<b>Total</b>	<b>333.1</b>	<b>313.1</b>	<b>-</b>	<b>-</b>
<b>Sales expenses</b>				
Personnel cost	396.4	386.5	-	-
Depreciation and amortisation	11.9	9.5	-	-
Other	165.0	165.7	-	-
<b>Total</b>	<b>573.3</b>	<b>561.7</b>	<b>-</b>	<b>-</b>
<b>General and administrative cost</b>				
Personnel cost	171.1	193.5	5.2	4.1
Depreciation and amortisation	19.8	24.6	0.0	9.6
Other	78.2	74.7	21.7	18.3
<b>Total</b>	<b>269.1</b>	<b>292.8</b>	<b>26.9</b>	<b>32.0</b>



## NOTE 8 IMPAIRMENTS

### 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 Hexagon'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	
	2016	2015	2016	2015	2016	2015	2016	2015	2016	2015	2016	2015
Goodwill	1,117.9	1,001.7	537.4	544.4	362.6	341.9	460.0	408.5	1,549.2	1,516.1	4,027.1	3,812.6
Other intangible assets with indefinite useful lives <sup>1</sup>	437.3	419.4	64.5	64.5	15.7	14.5	79.3	76.3	321.5	310.9	918.3	885.6
Intangible assets subject to amortisation <sup>2</sup>	314.4	295.1	233.6	216.4	72.8	59.3	118.4	116.6	186.2	181.5	925.4	868.9
<b>Total</b>	<b>1,869.6</b>	<b>1,716.2</b>	<b>835.5</b>	<b>825.3</b>	<b>451.1</b>	<b>415.7</b>	<b>657.7</b>	<b>601.4</b>	<b>2,056.9</b>	<b>2,008.5</b>	<b>5,870.8</b>	<b>5,567.1</b>

<sup>1</sup> Comprises the right to use the Leica name and other owned names and brands.

<sup>2</sup> Comprises capitalised development costs, patents, technology and other intangible assets.

Hexagon performed its annual impairment test as per 31 December 2016. 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 was 6.6% (6.8). The growth rate used to extrapolate the cash flows beyond the five-year period was approximately 2.0% (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 was 7.8% (7.8). The growth rate used to extrapolate the cash flows beyond the five-year period was approximately 2.0% (2.0). This growth rate is assessed on a conservative basis and is set equal to the expected future 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 was 8.0% (8.0). The growth rate used to extrapolate the cash flows beyond the five-year period was approximately 2.0% (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 was 9.1% (9.0). The growth rate used to extrapolate the cash flows beyond the five-year period was approximately 2.0% (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 was 9.1% (9.0). The yearly growth rate used to extrapolate the cash flows beyond the five-year period was approximately 2.0% (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 are 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.

NOTE 8 Impairments, cont.

#### 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.

#### Sensitivity to changes in assumptions

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

### NOTE 9 EARNINGS FROM SHARES IN GROUP COMPANIES AND ASSOCIATES

	Group		Parent Company	
	2016	2015	2016	2015
<b>Earnings from shares in group companies</b>				
Dividend from subsidiaries	-	-	-	224.0
Capital gain/loss from sale of shares in group companies	0.7	-	-	2,625.1
<b>Total</b>	<b>0.7</b>	<b>-</b>	<b>-</b>	<b>2,849.1</b>
<b>Earnings from shares in associated companies</b>				
Share of income in associated companies	0.4	0.1	-	-
<b>Total</b>	<b>0.4</b>	<b>0.1</b>	<b>-</b>	<b>-</b>

### NOTE 10 FINANCIAL INCOME AND EXPENSES

	Group		Parent Company	
	2016	2015	2016	2015
<b>Financial income</b>				
Interest income	4.7	5.7	0.1	0.0
Interest income, intercompany receivables	-	-	91.9	88.2
Other financial income	0.1	0.4	167.0	184.9
<b>Total</b>	<b>4.8</b>	<b>6.1</b>	<b>259.0</b>	<b>273.1</b>
<b>Financial expenses</b>				
Interest expenses	-15.2	-18.5	-12.8	-14.4
Interest expenses, intercompany liabilities	-	-	-4.8	-1.4
Net interest on pensions	-1.8	-1.7	-	-
Other financial expenses	-9.6	-12.4	-198.1	-131.9
<b>Total</b>	<b>-26.6</b>	<b>-32.6</b>	<b>-215.7</b>	<b>-147.7</b>

### NOTE 11 INCOME TAXES

#### GROUP

#### Tax on earnings for the year

Group	2016	2015
Current tax	-91.5	-100.2
Deferred tax	-44.2	-24.3
<b>Total tax on earnings for the year</b>	<b>-135.7</b>	<b>-124.5</b>

#### Specification of deferred tax

	2016-12-31	2015-12-31
<b>Deferred tax assets (liabilities) comprise:</b>		
Fixed assets	-497.9	-406.5
Inventories	10.5	15.0
Receivables	11.3	2.6
Provisions	17.6	14.4
Other	25.1	8.3
Unutilised loss carry-forwards and similar deductions	61.5	71.7
Less items not satisfying criteria for being recognised as assets	-45.8	-62.9
<b>Total</b>	<b>-417.7</b>	<b>-357.4</b>

#### According to the balance sheet:

Deferred tax assets	55.0	59.4
Deferred tax liabilities	-472.7	-416.8
<b>Total, net</b>	<b>-417.7</b>	<b>-357.4</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 taxes on dividends and divestments remain within the Group.

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

Deferred taxes	2016	2015
<b>Opening balance, net</b>	<b>-357.4</b>	<b>-295.8</b>
<b>Change via income statement</b>		
Deferred tax on earnings	-40.6	-20.3
Change in reserve for deductions not satisfying criteria for being recognised as assets	-2.0	1.9
Change in tax rates and items pertaining to prior years	-1.6	-5.9
<b>Total</b>	<b>-44.2</b>	<b>-24.3</b>
<b>Change via other comprehensive income</b>		
Deferred tax on other comprehensive income	5.7	-4.4
<b>Total</b>	<b>5.7</b>	<b>-4.4</b>
Change via acquisitions and divestments	-10.3	-1.3
Reclassification	-	-9.6
Translation difference	-11.5	-22.0
<b>Closing balance, net</b>	<b>-417.7</b>	<b>-357.4</b>

Current taxes	2016	2015
Opening balance, net	-12.5	-31.2
<b>Change via income statement</b>		
Current tax on earnings	-95.3	-97.7
Items pertaining to prior years	3.8	-2.5
<b>Total</b>	<b>-91.5</b>	<b>-100.2</b>
<b>Change via acquisitions and divestments</b>		
Payments, net	-0.8	-0.2
Translation difference	92.1	120.0
	1.3	-0.9
<b>Closing balance, net</b>	<b>-11.4</b>	<b>-12.5</b>

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

	2016-12-31
2017	7.1
2018	0.6
2019	3.6
2020	14.8
2021 and later	68.5
Indefinitely	153.2
<b>Total</b>	<b>247.8</b>

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

	2016	2015
<b>Earnings before tax</b>	<b>714.3</b>	<b>629.6</b>
Tax pursuant to Swedish nominal tax rate 22%	-157.1	-138.5
Difference in tax rates between Swedish and foreign tax rate	19.5	20.5
Revaluation of loss carry-forwards, etc.	1.9	-0.8
Permanent differences	0.3	-1.8
Change in tax rates and items pertaining to prior years	-0.3	-3.9
<b>Tax, income statement</b>	<b>-135.7</b>	<b>-124.5</b>

#### PARENT COMPANY

Tax on earnings for the year	2016	2015
Current tax	-0.2	0.0
<b>Total tax on earnings for the year</b>	<b>-0.2</b>	<b>0.0</b>

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

	2016	2015
<b>Deferred taxes</b>		
Opening balance, net	0.0	0.0
<b>Change via income statement</b>		
Deferred tax on earnings	-8.2	-30.6
Change in reserve for deductions not satisfying criteria for being recognised as assets	8.2	33.5
Change in tax rates and items pertaining to prior years	-	-2.9
<b>Total</b>	<b>0.0</b>	<b>0.0</b>
<b>Closing balance, net</b>	<b>0.0</b>	<b>0.0</b>
<b>Current taxes</b>		
Opening balance, net	0.0	-0.1
<b>Change via income statement</b>		
Current tax on earnings	-0.2	0.0
<b>Total</b>	<b>-0.2</b>	<b>0.0</b>
<b>Closing balance, net</b>	<b>-0.2</b>	<b>0.0</b>

The Parent company has no unutilised loss carry-forwards (37.5).

#### NOTE 12 NON-RECURRING ITEMS

	2016	2015
<b>Nature</b>		
Personnel costs	-	-27.1
Capital loss of sales of fixed assets	-	-1.6
Impairments	-	-7.9
<b>Total</b>	<b>-</b>	<b>-36.6</b>
<b>Function</b>		
Cost of goods sold	-	-14.3
Sales expenses	-	-8.6
Administration expenses	-	-8.3
Research and development expenses	-	-3.4
Other operating expenses	-	-2.0
<b>Operating earnings</b>	<b>-</b>	<b>-36.6</b>

Non-recurring items relate to a cost savings programme that was introduced in the first quarter of 2015.

#### 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.

	2016	2015
<b>Function</b>		
Cost of goods sold	0.1	-
Research and development expenses	0.3	-
Other operating income	2.3	0.9
<b>Total</b>	<b>2.7</b>	<b>0.9</b>

## NOTE 14 INTANGIBLE FIXED ASSETS

### GROUP

#### Intangible fixed assets

2016	Capitalised development expenses	Patents	Trademarks	Goodwill	Other intangible fixed assets	Total
Acquisition value, opening balance	1,097.8	122.4	885.6	3,812.6	525.9	6,444.3
Investments	197.1	0.9	0.0	-	8.7	206.7
Investments/divestments of business	-13.9	0.8	22.1	149.1	31.2	189.3
Sales/Disposals	-18.3	0.0	-	-	-17.8	-36.1
Reclassification	0.0	-	-	-	-1.6	-1.6
Translation differences	15.7	1.4	10.6	65.4	4.3	97.4
<b>Acquisition value, closing balance</b>	<b>1,278.4</b>	<b>125.5</b>	<b>918.3</b>	<b>4,027.1</b>	<b>550.7</b>	<b>6,900.0</b>
Amortisation, opening balance	-497.9	-66.7	-	-	-189.6	-754.2
Amortisation for the year	-130.6	-8.1	-	-	-36.2	-174.9
Investments/divestments of business	5.2	-0.1	-	-	-1.2	3.9
Sales/Disposals	16.0	0.0	-	-	6.8	22.8
Reclassification	0.0	-	-	-	0.8	0.8
Translation differences	-4.1	-0.1	-	-	-3.5	-7.7
<b>Amortisation, closing balance</b>	<b>-611.4</b>	<b>-75.0</b>	<b>-</b>	<b>-</b>	<b>-222.9</b>	<b>-909.3</b>
Impairments, opening balance	-97.6	-	-	-	-25.4	-123.0
Impairment for the year	-4.5	-	-	-	-	-4.5
Sales/Disposals	2.3	-	-	-	7.9	10.2
Translation differences	-1.5	-	-	-	-1.1	-2.6
<b>Impairments, closing balance</b>	<b>-101.3</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-18.6</b>	<b>-119.9</b>
<b>Carrying value</b>	<b>565.7</b>	<b>50.5</b>	<b>918.3</b>	<b>4,027.1</b>	<b>309.2</b>	<b>5,870.8</b>

2015	Capitalised development expenses	Patents	Trademarks	Goodwill	Other intangible fixed assets	Total
Acquisition value, opening balance	896.2	122.9	822.1	3,418.4	446.2	5,705.8
Investments	186.0	0.4	-	-	8.2	194.6
Investments/divestments of business	-	-	23.3	170.6	45.9	239.8
Sales/Disposals	-11.8	-0.2	-	-	-1.9	-13.9
Reclassification	2.7	-3.7	-	22.9	3.5	25.4
Translation differences	24.7	3.0	40.2	200.7	24.0	292.6
<b>Acquisition value, closing balance</b>	<b>1,097.8</b>	<b>122.4</b>	<b>885.6</b>	<b>3,812.6</b>	<b>525.9</b>	<b>6,444.3</b>
Amortisation, opening balance	-385.9	-60.5	-	-	-149.4	-595.8
Amortisation for the year	-109.7	-7.8	-	-	-35.2	-152.7
Sales/Disposals	4.6	0.0	-	-	1.9	6.5
Reclassification	0.0	2.9	-	-	-0.8	2.1
Translation differences	-6.9	-1.3	-	-	-6.1	-14.3
<b>Amortisation, closing balance</b>	<b>-497.9</b>	<b>-66.7</b>	<b>-</b>	<b>-</b>	<b>-189.6</b>	<b>-754.2</b>
Impairments, opening balance	-89.7	-	-	-	-21.5	-111.2
Impairment for the year	-6.9	-	-	-	-4.7	-11.6
Sales/Disposals	7.3	-	-	-	-	7.3
Translation differences	-8.3	-	-	-	0.8	-7.5
<b>Impairments, closing balance</b>	<b>-97.6</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-25.4</b>	<b>-123.0</b>
<b>Carrying value</b>	<b>502.3</b>	<b>55.7</b>	<b>885.6</b>	<b>3,812.6</b>	<b>310.9</b>	<b>5,567.1</b>

Capitalised expenditure on research and development pertains mainly to new software for sale. Trademarks mainly comprise the right to use the "Leica" name and other owned names and brands. These are assessed to be used without any time limitations and are not subject to amortisation. Other intangible fixed assets primarily consist of customer bases and technology identified upon acquisition.

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

	Group	
	2016	2015
Cost of goods sold	-1.7	-0.6
Sales expenses	-5.3	-4.5
Administration expenses	-4.2	-7.0
Research and development expenses	-160.5	-135.9
Other operating expenses	-3.2	-4.7
<b>Total</b>	<b>-174.9</b>	<b>-152.7</b>

#### Other intangible fixed assets

	Parent Company	
	2016	2015
Acquisition value, opening balance	11.9	11.9
Investments	0.0	0.0
Sales/Disposals	-11.6	-
<b>Acquisition value, closing balance</b>	<b>0.3</b>	<b>11.9</b>
Amortisation, opening balance	-11.8	-2.2
Amortisation for the year	0.0	-1.7
Impairment for the year	0.0	-7.9
Sales/Disposals	11.6	-
<b>Amortisation, closing balance</b>	<b>-0.2</b>	<b>-11.8</b>
<b>Carrying value</b>	<b>0.1</b>	<b>0.1</b>



## NOTE 15 TANGIBLE FIXED ASSETS

### GROUP

#### Tangible fixed assets

2016	Buildings	Land and other real estate	Machinery and other technical plants	Equipment, tools and installation	Construction in progress and advances to suppliers	Total
Acquisition value, opening balance	205.5	32.5	264.2	174.1	7.2	683.5
Investments	7.6	0.3	21.0	23.7	1.7	54.3
Investments/divestments of business	1.0	-	-2.1	7.3	0.8	7.0
Sales/disposals	-3.6	-0.5	-5.3	-15.3	-0.5	-25.2
Reclassification	2.7	-1.1	4.0	1.4	-1.6	5.4
Translation differences	2.1	0.4	2.2	3.2	-1.8	6.1
<b>Acquisition value, closing balance</b>	<b>215.3</b>	<b>31.6</b>	<b>284.0</b>	<b>194.4</b>	<b>5.8</b>	<b>731.1</b>
Depreciation, opening balance	-70.5	-3.6	-192.9	-125.4	-3.2	-395.6
Depreciation for the year	-9.4	-1.0	-22.2	-21.4	-0.5	-54.5
Investments/divestments of business	0.0	-	1.4	-4.9	-0.5	-4.0
Sales/disposals	1.6	0.0	5.0	14.7	0.4	21.7
Reclassification	-1.2	-	1.8	-0.6	0.0	0.0
Translation differences	-1.4	-0.1	-0.2	-2.2	0.0	-3.9
<b>Depreciation, closing balance</b>	<b>-80.9</b>	<b>-4.7</b>	<b>-207.1</b>	<b>-139.8</b>	<b>-3.8</b>	<b>-436.3</b>
<b>Carrying value</b>	<b>134.4</b>	<b>26.9</b>	<b>76.9</b>	<b>54.6</b>	<b>2.0</b>	<b>294.8</b>

2015	Buildings	Land and other real estate	Machinery and other technical plants	Equipment, tools and installation	Construction in progress and advances to suppliers	Total
Acquisition value, opening balance	216.9	36.3	254.6	157.0	6.1	670.9
Investments	6.5	0.0	18.8	18.6	3.9	47.8
Investments/divestments of business	0.2	-	0.4	2.7	-	3.3
Sales/disposals	-9.3	-5.0	-5.0	-11.5	-0.5	-31.3
Reclassification	-16.4	0.0	-7.2	0.8	-7.2	-30.0
Translation differences	7.6	1.2	2.6	6.5	4.9	22.8
<b>Acquisition value, closing balance</b>	<b>205.5</b>	<b>32.5</b>	<b>264.2</b>	<b>174.1</b>	<b>7.2</b>	<b>683.5</b>
Depreciation, opening balance	-60.8	-3.1	-183.1	-110.3	-1.7	-359.0
Depreciation for the year	-10.7	-0.6	-22.8	-20.7	-0.5	-55.3
Investments/divestments of business	-0.1	-	-0.1	-1.3	-	-1.5
Sales/disposals	3.8	0.0	4.8	10.4	0.4	19.4
Reclassification	-0.9	-0.1	10.5	1.5	-1.4	9.6
Translation differences	-1.8	0.2	-2.2	-5.0	0.0	-8.8
<b>Depreciation, closing balance</b>	<b>-70.5</b>	<b>-3.6</b>	<b>-192.9</b>	<b>-125.4</b>	<b>-3.2</b>	<b>-395.6</b>
<b>Carrying value</b>	<b>135.0</b>	<b>28.9</b>	<b>71.3</b>	<b>48.7</b>	<b>4.0</b>	<b>287.9</b>

#### Depreciation of tangible fixed assets allocated by function:

	Group	
	2016	2015
Cost of goods sold	-26.0	-25.1
Sales expenses	-6.6	-5.0
Administration expenses	-15.6	-17.6
Research and development expenses	-3.5	-3.3
Other operating expenses	-2.8	-4.3
<b>Total</b>	<b>-54.5</b>	<b>-55.3</b>

#### Equipment

	Parent Company	
	2016	2015
Acquisition value, opening balance	0.0	0.0
<b>Acquisition value, closing balance</b>	<b>0.0</b>	<b>0.0</b>
Depreciation, opening balance	0.0	0.0
Depreciation for the year	0.0	0.0
<b>Depreciation, closing balance</b>	<b>0.0</b>	<b>0.0</b>
<b>Carrying value</b>	<b>0.0</b>	<b>0.0</b>

## NOTE 16 FINANCIAL FIXED ASSETS

Group	Shares in associated companies		Other long-term securities holdings		Other long-term receivables	
	2016	2015	2016	2015	2016	2015
Opening balance	3.5	3.6	4.9	4.7	16.6	16.3
Investments	-	-	-	-	5.6	5.2
Acquired as subsidiary	-1.9	-	-	-	-0.4	0.1
Earnings participations, etc.	0.4	0.1	-	-	-	-
Capital gains/losses	-	-	-0.3	-	-	-
Sales	-0.1	-	-0.1	-	-3.9	-5.3
Reclassification	-	-	-	-	-2.7	-0.2
Translation differences	-0.5	-0.2	-0.2	0.2	0.2	0.5
<b>Closing balance</b>	<b>1.4</b>	<b>3.5</b>	<b>4.3</b>	<b>4.9</b>	<b>15.4</b>	<b>16.6</b>

Parent Company	Shares in Group companies		Receivables from Group companies		Other financial fixed assets	
	2016	2015	2016	2015	2016	2015
Opening balance	4,327.0	3,017.7	3,334.7	1,612.8	0.3	0.1
Shareholders contribution	3.6	2,469.8	-	-	-	-
Sales	-	-1,160.5	-	-	-	-
Reclassification	-	-	-	-	-	-0.1
Increase/decrease in receivables	-	-	-462.1	1,721.9	0.1	0.3
<b>Closing balance</b>	<b>4,330.6</b>	<b>4,327.0</b>	<b>2,872.6</b>	<b>3,334.7</b>	<b>0.4</b>	<b>0.3</b>

### OTHER LONG-TERM SECURITIES HOLDINGS

	Group	
	2016-12-31	2015-12-31
BIMObject AB	3.3	3.4
Euclidean PTY	1.0	1.1
Other	0.0	0.4
<b>Total</b>	<b>4.3</b>	<b>4.9</b>

Subsidiaries of Hexagon AB	Corp ID. No.	Reg. Office/ Country	No. of shares	Portion of share capital and voting rights, %	Carrying amount	
					2016-12-31	2015-12-31
Hexagon Förvaltning AB	556016-3049	Stockholm, Sweden	200,000	100	23.1	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	735.7	735.7
Hexagon Positioning Ltd	-	England	3	100	154.6	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	75.1	2,388.0	2,388.0
Intergraph Holding Company	-	USA	1	100	1,007.5	1,003.9
Johnson Industries AB	556099-2967	Stockholm, Sweden	100,000	100	7.3	7.3
Römned AB	556394-3678	Stockholm, Sweden	1,439,200	100	11.2	11.2
Tecla AB	556068-1602	Stockholm, Sweden	160,000	100	1.6	1.6
Other companies, mainly dormant	-	-	-	100	0.0	0.0
<b>Total</b>					<b>4,330.6</b>	<b>4,327.0</b>

<sup>1</sup> 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

	Portion of, %				Carrying amount Group		Share of income in associated companies			
	Num-ber of shares	Share capital	Voting rights	Portion of shareholders' equity	2016-12-31	2015-12-31	Before tax	Tax	Before tax	Tax
							2016	2016	2015	2015
Aircraft Concept GmbH	50	40	40	0.0	0.1	0.0	0.0	0.0	0.0	0.0
Alberta Ltd	100	50	50	1.2	1.2	1.1	0.0	0.0	0.0	0.0
Bridge In SARL	-	-	-	-	-	0.1	0.0	0.0	0.0	0.0
H&S Server and Laser	-	50	50	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HostSure Ltd	-	-	-	-	-	2.2	0.4	0.0	0.1	0.0
Navgeocom Severo-Zapad	-	45	45	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Navgeocom Yug	-	45	45	0.0	0.1	0.1	0.0	0.0	0.0	0.0
<b>Total</b>				<b>1.2</b>	<b>1.4</b>	<b>3.5</b>	<b>0.4</b>	<b>0.0</b>	<b>0.1</b>	<b>0.0</b>

Aircraft Concept GmbH has its registered office in Germany.

Alberta Ltd has its registered office in Edmonton, Canada. Was divested in beginning of 2017.

Bridge In SARL has its registered office in France. Was divested during 2016.

H&S Server and Laser has its registered office in Las Vegas, USA.

HostSure Ltd has its registered office in Northern Ireland. Recognised as wholly owned subsidiary as of 2016.

Navgeocom Severo-Zapad has its registered office in Russia.

Navgeocom Yug has its registered office in Russia.

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
<b>Aging analysis of receivables, 31 December 2016, net of impairment losses</b>							
Other long-term receivables	11.3	1.3	-	0.0	0.6	2.2	15.4
Customer receivables	590.1	79.3	38.1	17.6	8.6	54.3	788.0
Other receivables – non-interest bearing	52.6	1.8	1.1	0.0	0.0	1.4	56.9
<b>Total</b>	<b>654.0</b>	<b>82.4</b>	<b>39.2</b>	<b>17.6</b>	<b>9.2</b>	<b>57.9</b>	<b>860.3</b>

### Aging analysis of receivables, 31 December 2015, net of impairment losses

Other long-term receivables	11.9	0.5	0.3	1.3	1.2	1.4	16.6
Customer receivables	507.3	64.3	31.3	20.1	12.7	52.6	688.3
Other receivables – non-interest bearing	47.1	1.5	1.1	0.2	0.1	1.1	51.1
<b>Total</b>	<b>566.3</b>	<b>66.3</b>	<b>32.7</b>	<b>21.6</b>	<b>14.0</b>	<b>55.1</b>	<b>756.0</b>

### Reserve for doubtful receivables

	Group	
	2016-12-31	2015-12-31
Opening balance	25.6	26.4
Reserve for anticipated losses	10.3	12.4
Adjustment for actual losses	-3.5	-2.2
Reversal of unutilised amounts	-7.3	-10.5
Translation differences	-0.1	-0.5
<b>Closing balance</b>	<b>25.0</b>	<b>25.6</b>

## NOTE 19 INVENTORIES

	Group	
	2016-12-31	2015-12-31
Raw materials and supplies	175.2	158.4
Work in progress	29.7	35.2
Finished goods and goods for sale	221.8	221.3
<b>Total</b>	<b>426.7</b>	<b>414.9</b>
Value adjustment reserve includes provisions for obsolescence etc of	-64.2	-53.6

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

### PREPAID EXPENSES AND ACCRUED INCOME

	Group		Parent Company	
	2016-12-31	2015-12-31	2016-12-31	2015-12-31
Accrued invoicing	21.8	20.5	-	-
Accrued interest income	0.2	0.3	-	-
Work in progress	39.5	34.6	-	-
Prepaid maintenance costs	5.1	4.0	-	-
Prepaid products and services	14.1	12.2	-	-
Prepaid rent	3.2	3.3	0.1	0.1
Prepaid insurance	5.5	5.7	0.1	0.1
Other items	13.3	20.6	0.1	0.5
<b>Total</b>	<b>102.7</b>	<b>101.2</b>	<b>0.3</b>	<b>0.7</b>

### ACCRUED EXPENSES AND DEFERRED INCOME

	Group		Parent Company	
	2016-12-31	2015-12-31	2016-12-31	2015-12-31
Accrued personnel-related expenses	156.0	145.9	0.3	0.2
Accrued sales commission	17.9	18.4	-	-
Accrued installation and training expenses	7.2	7.3	-	-
Accrued R&D expenses	2.3	3.0	-	-
Accrued fees	6.5	6.0	0.1	0.1
Accrued royalties	4.0	5.0	-	-
Accrued interest expenses	3.6	2.0	2.2	1.2
Prepaid service revenues	11.5	9.3	-	-
Work in progress	22.2	24.3	-	-
Other prepaid revenues	254.3	235.7	-	-
Other items	53.8	51.2	0.6	0.6
<b>Total</b>	<b>539.3</b>	<b>508.1</b>	<b>3.2</b>	<b>2.1</b>

## NOTE 21 SHARE CAPITAL AND NUMBER OF SHARES

Parent Company	Quota value per share, EUR	Number of shares						Share capital, MEUR
		Outstanding			Total issued			
		Class A	Class B	Total	Class A	Class B	Total	
Opening balance 2015	0.22	15,750,000	341,639,213	357,389,213	15,750,000	341,639,213	357,389,213	79.3
New share issues								
- exercise of warrants	0.22	-	2,947,929	2,947,929	-	2,947,929	2,947,929	0.7
Closing balance 2015	0.22	15,750,000	344,587,142	360,337,142	15,750,000	344,587,142	360,337,142	80.0
New share issues								
- exercise of warrants	0.22	-	106,000	106,000	-	106,000	106,000	0.0
Closing balance 2016	0.22	15,750,000	344,693,142	360,443,142	15,750,000	344,693,142	360,443,142	80.0

Warrants exercised until 2015-12-31 incurred a new share issue in progress of 106,000 new shares of series B. The new share issue was finalised in the first quarter of 2016.

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 regarding 2015 amounted to 0.43 EUR (0.35) per share.

### AVERAGE NUMBER OF SHARES BEFORE AND AFTER DILUTION, THOUSANDS

	2016	2015
Average number of shares before dilution	360,433	359,387
Estimated average number of potential shares pertaining to warrants plans	446	430
<b>Average number of shares after dilution</b>	<b>360,879</b>	<b>359,817</b>



## NOTE 22 PENSION PROVISIONS AND SIMILAR OBLIGATIONS

### OVERVIEW

#### Provisions – Defined-benefit plans

	2016-12-31	2015-12-31
Pension obligations	679.8	657.7
Fair value of plan assets	-548.5	-534.3
<b>Pension obligations less plan assets</b>	<b>131.3</b>	<b>123.4</b>
Unrecognised assets	0.1	0.1
<b>Pension provision, net</b>	<b>131.4</b>	<b>123.5</b>

#### Pension expenses – Defined-benefit plans

	2016	2015
Current service cost	25.3	26.2
Interest expense	8.0	11.7
Calculated interest income	-6.2	-10.0
Change in terms and conditions	-2.6	-2.2
Employees' own contribution	-11.2	-11.5
<b>Pension expenses – defined-benefit plans</b>	<b>13.3</b>	<b>14.2</b>

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

	2016	2015
Operating expenses		
- defined-benefit plans	11.5	12.5
Operating expenses		
- defined contribution plans	30.5	30.6
<b>Operating earnings impact</b>	<b>42.0</b>	<b>43.1</b>
Net interest expenses		
- defined-benefit plans	1.8	1.7
<b>Earnings before tax impact</b>	<b>43.8</b>	<b>44.8</b>

#### Defined-benefit obligations

	Plan assets	Pension obligations	Net
<b>2016-12-31</b>			
Switzerland	496.2	-585.4	-89.2
Other countries	52.3	-94.4	-42.1
<b>Total (fair/present value)</b>	<b>548.5</b>	<b>-679.8</b>	<b>-131.3</b>
Unrecognised assets			-0.1
<b>Pensions provisions, net</b>			<b>-131.4</b>

#### Of which:

Reported as asset (other non-current receivables)	0.6
Reported as liability	-132.0

	Plan assets	Pension obligations	Net
<b>2015-12-31</b>			
Switzerland	482.6	-569.9	-87.3
Other countries	51.7	-87.8	-36.1
<b>Total (fair/present value)</b>	<b>534.3</b>	<b>-657.7</b>	<b>-123.4</b>
Unrecognised assets			-0.1
<b>Pensions provisions, net</b>			<b>-123.5</b>

#### Of which:

Reported as asset (other non-current receivables)	0.5
Reported as liability	-124.0

#### Three year summary

	2016-12-31	2015-12-31	2014-12-31
Fair value of plan assets	548.5	534.3	489.4
Pension obligations	-679.8	-657.7	-575.5
<b>Net</b>	<b>-131.3</b>	<b>-123.4</b>	<b>-86.1</b>
Unrecognised assets	-0.1	-0.1	-1.3
<b>Book-value</b>	<b>-131.4</b>	<b>-123.5</b>	<b>-87.4</b>

#### Pension obligations

	2016	2015
Opening balance	657.7	575.5
Change in terms and conditions	-1.0	-2.2
Current service cost	25.3	26.2
Interest expense	8.0	11.7
Benefits paid	-33.1	-33.8
Acquired/divested subsidiaries	-0.2	-1.3
Settlement of pension obligations	-1.6	-2.4
Actuarial gains/losses		
- Financial assumptions	22.6	25.3
Actuarial gains/losses		
- Demographic assumptions	8.8	-1.9
Actuarial gains/losses		
- Experience adjustments	-3.5	1.6
Currency translation differences	-3.2	59.0
<b>Closing balance</b>	<b>679.8</b>	<b>657.7</b>

#### Plan assets

	2016	2015
Opening balance	534.3	489.4
Calculated interest income	6.2	10.0
Contributions – employer	14.3	15.4
Contributions – employee	11.2	11.5
Benefits paid	-33.2	-35.4
Acquired/divested subsidiaries	-	-1.1
Return on plan assets excluding calculated interest income as above	18.5	-11.8
Currency translation differences	-2.8	56.3
<b>Closing balance</b>	<b>548.5</b>	<b>534.3</b>

**Fair value of plan assets**

	2016-12-31	2015-12-31
Equities and similar financial instruments	190.1	146.9
Interest-bearing securities, etc.	179.2	230.2
Real estate	179.2	157.2
<b>Total</b>	<b>548.5</b>	<b>534.3</b>

For 2017, the contributions to defined benefit plans are estimated at 26.6 MEUR, of which employer's contribution 12.3 MEUR.

**Characteristics of the pension obligations**

The following applies for the Swiss plans which represent 82 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 yearly 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 be negative, even if the actual return on assets is negative (capital protection). The other kinds 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 16 year.

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

(weighted average, where applicable)	2016	2015
Discount interest rate, %	1.4	1.4
Inflation, %	0.6	0.5
Future salary increase, %	0.8	0.7

For 82% 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	-0.5	49.9	+0.5	-43.9
Salary increase	-0.5	-3.6	+0.5	3.8
Employee turnover	-1.0	9.8	+1.0	-8.8

	Change in assumption, no. of years	Effect, MEUR	Change in assumption, no. of years	Effect, MEUR
Life expectancy	-1.0	-32.1	+1.0	32.1

**NOTE 23 OTHER PROVISIONS GROUP**

	Restructuring provisions	Warranty provisions	Other provisions	Total
<b>Opening balance 2015-01-01</b>	<b>0.4</b>	<b>12.7</b>	<b>10.0</b>	<b>23.1</b>
Provision for the year	37.4	6.9	0.8	45.1
Increase through acquisition of businesses	-	0.0	0.0	0.0
Utilisation	-16.3	-5.6	-1.9	-23.8
Reversal of unutilised amounts	0.0	-1.0	-0.2	-1.2
Reclassification	-9.5	-	-	-9.5
Translation difference	0.0	0.8	0.2	1.0
<b>Closing balance 2015-12-31</b>	<b>12.0</b>	<b>13.8</b>	<b>8.9</b>	<b>34.7</b>
Provision for the year	0.6	7.7	0.7	9.0
Increase through acquisition of businesses	-	0.1	0.6	0.7
Utilisation	-8.4	-5.9	-2.6	-16.9
Reversal of unutilised amounts	-1.3	-1.1	-0.3	-2.7
Translation difference	-0.2	0.0	0.0	-0.2
<b>Closing balance 2016-12-31</b>	<b>2.7</b>	<b>14.6</b>	<b>7.3</b>	<b>24.6</b>

**Restructuring provisions**

Restructuring provisions primarily relates to a cost savings programme that was introduced in the first quarter of 2015. The remaining part of restructuring provisions are 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 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 tax and legal disputes and also legally required personnel related provisions. The personnel related provisions are considered as long-term.

## NOTE 24 FINANCIAL INSTRUMENTS

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, i.e. 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 arise 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 2016 were 69.8 MEUR (256.2). Other postings in other comprehensive income relate to revaluation of external loans to hedge net assets in subsidiaries and amounted to -0.1 MEUR (-12.7).

### Net exposure per currency

	2016-12-31	Hedging rate
USD	2,930.8	0%
GBP	360.3	0%
CAD	307.5	1%
CNY	273.8	-
BRL	154.0	1%
CHF	-111.6	-1%
INR	58.8	17%
Other	212.3	0%
<b>Total</b>	<b>4,185.9</b>	<b>1%</b>

### 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

	2016	2015
USD	1,224.9	1,160.9
EUR	695.6	657.8
CNY	363.9	352.0
GBP	152.1	149.9
JPY	77.5	65.0
AUD	71.2	66.2
Other	564.0	592.0
<b>Total</b>	<b>3,149.2</b>	<b>3,043.8</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. Interest rate exposure arise 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 2016 interest rate derivatives were used in order to manage the interest rate risk.

### Financial income and expenses

	2016	2015
Interest income	4.7	5.7
Interest expense	-17.0	-20.2
Other financial income and expense	-9.5	-12.0
<b>Net</b>	<b>-21.8</b>	<b>-26.5</b>

### CREDIT RISK

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

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

Credit risk also includes the risk that customers will not pay receivables that the company has invoiced or intends to invoice. Through a combination of geographical and business segmental diversification of the customers the risk for significant customer credit losses is reduced. An aging analysis of the receivables can be found in Note 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 shall at all times be at least 10 per cent of the Group's forecasted annual net sales.

On 31 December 2016, cash and unutilised credit limits totalled 1,595.3 MEUR (1,242.5).

**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.

	2017		2018-2019		2020 and later		Total	
	Capital	Interest	Capital	Interest	Capital	Interest	Capital	Interest
<b>Liabilities to credit institutions</b>								
Revolving Credit	-	-	-	-	-	-	-	-
Bond loans	214.3	9.4	383.7	15.4	279.9	6.5	877.9	31.3
Commercial paper <sup>1</sup>	-	2.6	-	5.0	805.4	4.3	805.4	11.9
Other lenders	20.8	1.4	1.6	0.2	0.3	0.0	22.7	1.6
<b>Total liabilities to credit institutions</b>	<b>235.1</b>	<b>13.4</b>	<b>385.3</b>	<b>20.6</b>	<b>1,085.6</b>	<b>10.8</b>	<b>1,706.0</b>	<b>44.8</b>
Other interest-bearing liabilities	2.1	0.3	2.1	0.3	3.2	0.5	7.4	1.1
<b>Total interest-bearing liabilities</b>	<b>237.2</b>	<b>13.7</b>	<b>387.4</b>	<b>20.9</b>	<b>1,088.8</b>	<b>11.3</b>	<b>1,713.4<sup>2</sup></b>	<b>45.9</b>

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

<sup>2</sup> Interest-bearing liabilities in the Parent company, 1,683.8 MEUR

There were interest rate derivatives pertaining to borrowing at 31 December 2016. 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**

	2016-12-31	2015-12-31
EUR	98%	98%
USD	1%	1%
INR	1%	1%
CAD	0%	0%
Other	0%	0%
<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 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 a tenor of 5+1+1 years.
- 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 10,000 MSEK. 31 December 2016, Hexagon had issued bonds of a total amount of 6,750 MSEK (6,750).
- 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 2016, Hexagon had issued commercial paper of a total amount of 7,565 MSEK (7,351) and 11 MEUR (-). 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.

**Group's capital structure**

	2016-12-31	2015-12-31
Interest-bearing liabilities and provisions	1,848.8	1,969.1
Cash, bank and short-term investments	-284.0	-225.5
<b>Net Debt</b>	<b>1,564.8</b>	<b>1,743.6</b>
<b>Shareholders' equity</b>	<b>4,590.8</b>	<b>4,102.3</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 2016 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 USD, CHF and CNY. Compared to last year the EUR has strengthened against CHF and CNY and weakened against USD. Since Hexagon has a majority of the operating earnings denominated in USD and CNY, this had a net 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 1 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 41.6 MEUR (38.4) net, and vice versa, after the impact of hedging.

During 2016, total operating earnings, excluding non-recurring items, from operations in other currencies than EUR amounted to an equivalent of 465.9 MEUR (570.5). An isolated change in the exchange rate for EUR by 1 per cent against all other currencies would have a net effect on operating earnings of approximately 4.7 MEUR (5.7).

The average interest fixing period in the Group's total loan portfolio as of year-end 2016 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 8.8 MEUR (10.9) in the coming 12 months earnings.



**FINANCIAL INSTRUMENTS – FAIR VALUE**

	2016-12-31		2015-12-31	
	Carrying amount	Fair value	Carrying amount	Fair value
<b>Assets</b>				
<b>Available-for-sale financial assets</b>				
Other long-term securities holdings	4.3	4.3	4.9	4.9
<b>Loan receivables and account receivables</b>				
Long-term receivables	15.4	15.4	16.6	16.6
Accounts receivable	788.0	788.0	688.3	688.3
Other current receivables	57.5	57.5	52.1	52.1
Accrued income	61.3	61.3	55.1	55.1
Accrued interest	0.2	0.2	0.3	0.3
Short-term investments	60.1	60.1	59.8	59.8
Cash and bank balances	223.9	223.9	165.7	165.7
<b>Total</b>	<b>1,210.7</b>	<b>1,210.7</b>	<b>1,042.8</b>	<b>1,042.8</b>

	2016-12-31		2015-12-31	
	Carrying amount	Fair value	Carrying amount	Fair value
<b>Liabilities</b>				
<b>Financial liabilities valued at fair value through income statement</b>				
Estimated supplementary payments for acquired companies	118.4	118.4	115.9	115.9
<b>Derivative instruments</b>				
Currency forward and swap contracts – short term	-8.4	-8.4	-	-
Currency forward and swap contracts – long term	-19.3	-19.3	22.7	22.7
<b>Financial liabilities valued at accrued acquisition value</b>				
Long-term liabilities – interest bearing <sup>1</sup>	1,495.5	1,501.6	1,760.1	1,759.2
Other long-term liabilities – non interest-bearing	12.3	12.3	3.9	3.9
Current liabilities – interest bearing <sup>1</sup>	245.6	245.6	57.5	57.5
Accounts payable	175.7	175.7	162.7	162.7
Other current non interest-bearing liabilities	110.0	110.0	100.2	100.2
Accrued expenses	269.9	269.9	261.1	261.1
Accrued interest	3.6	3.6	2.0	2.0
<b>Total</b>	<b>2,403.3</b>	<b>2,409.4</b>	<b>2,486.1</b>	<b>2,485.2</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**

	2016-12-31			2015-12-31		
	Level 1	Level 2	Level 3	Level 1	Level 2	Level 3
- Currency forward and swap contracts	-	-27.7	-	-	22.7	-
- Estimated supplementary payments for acquired companies	-	-	-118.4	-	-	-115.9
- Other long-term securities holdings	-	4.3	0.0	-	4.6	0.3
<b>Total</b>	<b>-</b>	<b>-23.4</b>	<b>-118.4</b>	<b>-</b>	<b>27.3</b>	<b>-115.6</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 2016, there were no transfers between levels.

**ESTIMATED SUPPLEMENTARY PAYMENTS FOR ACQUIRED COMPANIES**

	2016	2015
Opening balance	115.9	90.9
Present value adjustment	0.6	1.3
Increase through acquisition of businesses	42.0	49.9
Payment of supplementary acquisition considerations	-25.7	-8.1
Reversal of unutilised amounts	-18.6	-20.9
Translation difference	4.2	2.8
<b>Closing balance</b>	<b>118.4</b>	<b>115.9</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.

## NOTE 25 RENTED ASSETS

### LEASING/RENTAL AGREEMENTS OF AN OPERATIONAL NATURE

2016-12-31	Group		Parent Company	
	Machinery, equipment etc.	Premises	Machinery, equipment etc.	Premises
Expenses due for payment in				
2017	13.9	31.5	0.0	0.3
2018-2021	16.1	80.8	0.0	-
2022 or later	0.9	76.7	-	-
<b>Total</b>	<b>30.9</b>	<b>189.0</b>	<b>0.0</b>	<b>0.3</b>

2015-12-31	Group		Parent Company	
	Machinery, equipment etc.	Premises	Machinery, equipment etc.	Premises
Expenses due for payment in				
2016	14.7	28.0	0.0	0.3
2017-2020	19.7	63.6	0.0	-
2021 or later	1.1	23.4	-	-
<b>Total</b>	<b>35.5</b>	<b>115.0</b>	<b>0.0</b>	<b>0.3</b>

The amounts are non-discounted minimum undertakings pursuant to contract. Costs for leasing/rents for the financial year were 49.8 MEUR (44.2).

### LEASING/RENTAL AGREEMENTS OF A FINANCIAL NATURE

2016-12-31	Group		Parent Company	
	Machinery, equipment etc.	Premises	Machinery, equipment etc.	Premises
Expenses due for payment in				
2017	0.9	-	-	-
2018-2021	0.8	-	-	-
2022 or later	0.0	-	-	-
<b>Total</b>	<b>1.7</b>	<b>-</b>	<b>-</b>	<b>-</b>

2015-12-31	Group		Parent Company	
	Machinery, equipment etc.	Premises	Machinery, equipment etc.	Premises
Expenses due for payment in				
2016	0.2	0.0	-	-
2017-2020	0.2	0.0	-	-
2021 or later	0.0	-	-	-
<b>Total</b>	<b>0.4</b>	<b>0.0</b>	<b>-</b>	<b>-</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.

## NOTE 26 ASSETS PLEDGED AND CONTINGENT LIABILITIES

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

December 31	Group		Parent Company	
	2016	2015	2016	2015
Company mortgage	0.1	-	-	-
Other	0.1	1.0	-	-
<b>Total</b>	<b>0.2</b>	<b>1.0</b>	<b>-</b>	<b>-</b>

### CONTINGENT LIABILITIES

December 31	Group		Parent Company	
	2016	2015	2016	2015
Guarantees in favour of Group companies	-	-	36.2	37.6
Other contingent liabilities	2.4	1.2	0.1	0.1
<b>Total</b>	<b>2.4</b>	<b>1.2</b>	<b>36.3</b>	<b>37.7</b>

## 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:

	2016	2015
Intangible fixed assets	48.9	69.2
Tangible fixed assets	8.3	1.8
Other fixed assets	2.2	0.1
<b>Total fixed assets</b>	<b>59.4</b>	<b>71.1</b>
Current receivables, inventories, etc.	33.4	10.8
Cash and cash equivalents	8.9	3.9
<b>Total current assets</b>	<b>42.3</b>	<b>14.7</b>
<b>Total assets</b>	<b>101.7</b>	<b>85.8</b>
Provisions	12.8	1.7
Long-term liabilities	0.8	0.2
<b>Total long-term liabilities</b>	<b>13.6</b>	<b>1.9</b>
Current liabilities, etc.	27.1	9.1
<b>Total liabilities</b>	<b>40.7</b>	<b>11.0</b>
<b>Identifiable net assets at fair value</b>	<b>61.0</b>	<b>74.8</b>
Shares in associated companies	-1.9	-
Goodwill <sup>1</sup>	149.1	170.6
<b>Total purchase consideration transferred</b>	<b>208.2</b>	<b>245.4</b>
Less cash and cash equivalents in acquired Group companies	-8.9	-3.9
Less unpaid acquisition price	-49.3	-55.3
Plus payment of unpaid portion of acquisition price from prior years	33.5	8.1
<b>Cash flow from acquisitions of Group companies, net</b>	<b>183.5</b>	<b>194.3</b>

During 2016, Hexagon acquired the following companies:

- GPS Solutions Inc., an American based software company within high precision positioning
- Paul MacArthur Limited (SCCS), a British supplier of Leica Geosystems surveying equipment
- SigmaSpace Corporation, an American 3D mapping company
- M&P Survey Equipment Ltd, a British supplier of Leica Geosystems surveying equipment
- Forming Technologies Inc. (FTI), a Canadian based provider of manufacturing software solutions
- AICON 3D Systems GmbH, a German based provider of measuring systems for industrial manufacturing
- HostSure Limited, a provider of Cloud Technology and Services to the power and energy sector, based in Ireland
- NESTIX Oy, a provider of data-centric software solutions for managing and optimising steel fabrication, based in Finland
- GeoRadar, a provider of radar solutions for structural health monitoring and underground utility detection, based in Italy
- Multivista, a provider of visual, cloud-based construction documentation solutions, based in Canada and USA
- Apodius GmbH, a start-up company specialised in measurement solutions for fibre composite components, based in Germany
- GISquadrat GmbH, a provider of data capture and applications for infrastructure networks and public services, based in Austria
- Micro-Top, a distributor of metrology solutions, based in Romania

The acquisitions are individually assessed as immaterial from a group perspective why only aggregated information is presented. The analysis of the acquired net assets is preliminary and the fair value might be subject to change. The purchase price allocation analysis is completed as soon as the valuation of the acquired balance sheet is determined, which occurs at the latest one year from the acquisition date. Further information related to the larger acquisitions is presented in the acquisition analysis section below.

### ACQUISITIONS ANALYSIS

#### Acquisition of SCCS

As of 13 January 2016, after customary regulatory approvals were received, Hexagon became the owner of SCCS, one of the UK's leading suppliers of surveying equipment to the engineering and infrastructure market and a Leica Geosystems distributor. SCCS offer customers rent, purchase and service options.

#### Background and reasons for the transaction

As the UK continues to fund major infrastructure projects with more stringent processes related to Building Information Modelling (BIM), collaboration between the construction and software sectors becomes increasingly vital. SCCS's local market expertise and relationships coupled with Hexagon's digital technologies that enable new, data-enabled ways of working will strengthen adoption of Hexagon's solutions in this area.

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 SCCS's own market.

From the date of acquisition, SCCS has contributed 19.2 MEUR of net sales during 2016. If the acquisition had taken place at the beginning of the year, the contribution to net sales would have been 19.2 MEUR. The contribution to the earnings has been lower than the Group operating margin.

#### Acquisition of SigmaSpace

As of 18 February 2016, after customary regulatory approvals were received, Hexagon became the owner of SigmaSpace, a provider of next-generation technologies used to rapidly deliver high-quality 3D maps of the Earth. SigmaSpace offers a unique LiDAR technology – Single Photon LiDAR (SPL) – which enables 3D data collection at much higher speed and resolution than conventional systems.

#### Background and reasons for the transaction

Today, accurate and geo-referenced 3D visualisations have become an absolute necessity in real-world situations due to the insight they can provide – from urban planning and emergency services to aviation safety and disaster response. SigmaSpace has been enabling private and government clients, including NASA and the U.S. Department of Defense, respond to the growing need for this kind of data.

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 i) combining Geosystems and SigmaSpace's technologies and solutions ii) increasing Hexagon's total market in excess of SigmaSpace's own market.

The acquired intangible assets, were assigned to trademarks that are not subject to amortisation and capitalized development expenses with useful lives of 10-12 years. The intangible assets have been valued using a discounted cash flow method.

From the date of acquisition, SigmaSpace has contributed 11.7 MEUR of net sales during 2016. If the acquisition had taken place at the beginning of the year, the contribution to net sales would have been 13.9 MEUR. The contribution to the earnings has been lower than the Group operating margin.

<sup>1</sup>30.8 out of 149.1 is assessed to be tax deductible.

NOTE 27 *Net Assets in Acquired and Divested Businesses, cont.*

#### **Acquisition of FTI**

On 23 March 2016, after customary regulatory approvals were received, Hexagon acquired FTI, a provider of manufacturing software solutions designed to reduce the development time and material costs of sheet metal components. FTI serves original equipment manufacturers (OEMs) and suppliers in the automotive, aerospace, electronics, and appliance industries with sheet metal design, simulation, feasibility and costing solutions.

#### **Background and reasons for the transaction**

Sheet metal is used extensively in the production of car bodies, aircraft, electronics enclosures and many other applications. Rapid, cost-efficient design and manufacturing of sheet metal components is key to addressing the rising challenges of manufacturing efficiencies. FTI's technology portfolio coupled with its engineering services and years of expertise in the sheet metal industry, enables customers to validate designs before they go into production and immediately reduce labour and material costs.

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 i) combining Manufacturing Intelligence's and FTI's technologies and solutions ii) increasing Hexagon's total market in excess of FTI's own market.

The acquired intangible assets, were assigned to trademarks that are not subject to amortisation, capitalized development expenses and customer relationships with useful lives of 12-15 years. The intangible assets have been valued using a discounted cash flow method.

From the date of acquisition, FTI has contributed 6.0 MEUR of net sales during 2016. If the acquisition had taken place at the beginning of the year, the contribution to net sales would have been 7.2 MEUR. The contribution to the earnings has been larger than the Group operating margin.

#### **Acquisition of AICON 3D Systems**

On 30 March 2016, after customary regulatory approvals were received, Hexagon acquired AICON 3D Systems, a leading provider of optical and portable non-contact 3D measuring systems for industrial manufacturing.

#### **Background and reasons for the transaction**

AICON meets measurement needs of renowned automotive manufacturers and companies in the aerospace, shipbuilding, renewable energy and mechanical engineering markets. Its technology portfolio includes portable coordinate measuring machines for universal applications and specialised optical 3D measuring systems that enable efficient, high-precision monitoring, quality assurance and control in manufacturing production.

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 i) combining Manufacturing Intelligence's and AICON's technologies and solutions ii) increasing Hexagon's total market in excess of AICON's own market.

The acquired intangible assets, were assigned to trademarks that are not subject to amortisation, capitalized development expenses and customer relationships with useful lives of 12-15 years. The intangible assets have been valued using a discounted cash flow method.

From the date of acquisition, AICON 3D Systems has contributed 17.0 MEUR of net sales during 2016. If the acquisition had taken place at the beginning of the year, the contribution to net sales would have been 20.0 MEUR. The contribution to the earnings has been in line with the Group operating margin.

#### **Acquisition of GeoRadar**

On 14 July 2016, after customary regulatory approvals were received, Hexagon acquired the GeoRadar division of the Italian-based company Ingegneria dei Sistemi S.p.A. The GeoRadar division provides radar solutions for structural health monitoring and underground utility detection.

#### **Background and reasons for the transaction**

GeoRadar's structural health monitoring solutions enable engineers to remotely monitor movements and vibrations of the earth. Its underground utility detection solutions provide engineers with dimensional information such as size and location of buried pipes and/or the health condition of roads and rail tracks. GeoRadar's solutions complement Hexagon's reality capture solutions, enriching the portfolio across a wide variety of segments like surveying, construction and mining.

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 i) combining Geosystem's and GeoRadar's technologies and solutions ii) increasing Hexagon's total market in excess of GeoRadar's own market.

The acquired intangible assets, were assigned to trademarks that are not subject to amortisation, capitalized development expenses and customer relationships with useful lives of 12-15 years. The intangible assets have been valued using a discounted cash flow method.

From the date of acquisition, GeoRadar has contributed 8.9 MEUR of net sales during 2016. If the acquisition had taken place at the beginning of the year, the contribution to net sales would have been 16.9 MEUR. The contribution to the earnings has been larger than the Group operating margin.

#### **Acquisition of Multivista**

On 15 August 2016, after customary regulatory approvals were received, Hexagon acquired Multivista, a leading provider of visual, cloud-based construction documentation solutions.

#### **Background and reasons for the transaction**

Multivista's visual construction documentation enables visibility of construction progress throughout the life cycle of a built asset. Its construction photography and video services provide progressive, digital records of ground-up development. The acquisition strengthens Hexagon's breadth of expertise in the changing construction landscape and offers opportunities to augment Multivista's documentation portfolio with 3D reality capture solutions.

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 i) combining Geosystem's and Multivista's technologies and solutions ii) increasing Hexagon's total market in excess of Multivista's own market.

The acquired intangible assets, were assigned to trademarks that are not subject to amortisation, capitalized development expenses and customer relationships with useful lives of 12-15 years. The intangible assets have been valued using a discounted cash flow method.

The acquisition has no significant impact on Hexagon's earnings.

#### **ACQUISITION ANALYSIS 2015**

##### **Acquisition of Q-DAS**

As of 14 April 2015, after regulatory approvals, Hexagon became the owner of Q-DAS. Based in Germany, Q-DAS has offices and partner distribution companies around the world. Already compatible with both Hexagon and third-party solutions, the Q-DAS software portfolio is widely used in manufacturing sectors where



NOTE 27 Net Assets in Acquired and Divested Businesses, cont.

high production volumes and dimensional quality needs require statistical analysis – like the automotive sector where Q-DAS is the de-facto standard.

#### Background and reasons for the transaction

Software solutions have become a vital part of optimizing the manufacturing process. Furthering Hexagon's strategy to expand its software portfolio in this area, the Q-DAS acquisition adds software to support the data management needs of a factory. While people, materials and methods can all lead to fluctuations in machine and process capability, Hexagon's solutions will now provide the means to more accurately observe and evaluate the production process in real time, enabling workers to control and suppress fluctuations as they occur. This helps customers avoid costly mistakes, align with global industry standards and achieve manufacturing efficiencies with high-quality output. The Q-DAS portfolio will strengthen Hexagon's metrology planning solution, MMS (Metrology Management System), which is designed to provide easy access to measurement data – from any source or supplier – all in one place. The application of statistical procedures will improve measurement accuracy and consistency while also helping to automate the analysis of measurement results – making quality data fully actionable throughout the production process.

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 i) combining Hexagon and Q-DAS technologies and ii) increasing Hexagon's total market in excess of Q-DAS own market. The acquired intangible assets, was assigned to trademarks that are not subject to amortisation, capitalized development expenses and other assets with useful lives of 12-15 years. The intangible assets have been valued using a discounted cash flow method. From the date of acquisition, Q-DAS has contributed 11.4 MEUR of net sales in 2015. If the acquisition had taken place at the beginning of the year, the contribution to net sales would have been 15.0 MEUR.

The analysis of the acquired net assets has been finalised.

#### Acquisition of EcoSys

As of 2 October 2015, after regulatory approvals, Hexagon became the owner of EcoSys Management LLC, a provider of best-in-class enterprise planning and project controls software based in Colorado USA. EcoSys helps customers address the time and cost challenges of capital project management on a global scale.

#### Background and reasons for the transaction

Asset-intensive industries, such as oil and gas and construction, demand predictability and control in order to navigate the complexities of building and operating their facilities. Engineering, Procurement and Construction companies (EPCs) and owner operators must be able to mitigate the risks associated with budget overruns and schedule delays in order to optimise their return on capital project investments. The acquisition of EcoSys broadens PPM's enterprise engineering portfolio to include project controls. EcoSys EPC (Enterprise Planning & Controls), its flagship product, is an industry leading software solution for the project controls industry. Its web-based platform helps customers implement best practices for planning and managing project portfolios, controlling project costs and improving project performance. Additionally, the integration of project scheduling (4D) and cost management (5D) with PPM's 3D design and construction solutions will strengthen Hexagon's capabilities in the BIM (Building Information Modelling) market.

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 i) combining Intergraph and EcoSys technologies ii) increasing Hexagon's total market in excess of EcoSys own market. The acquired intangible assets, was assigned to trademarks that are not subject to amortisation, capitalized development expenses and customer relationships with useful lives of 12-15 years. The intangible assets have been valued using a discounted cash flow method. From the date of acquisition, EcoSys has contributed 8.4 MEUR of net sales in 2015. If the acquisition had taken place at the beginning of the year, the contribution to net sales would have been 25.5 MEUR.

The analysis of the acquired net assets has been finalised.

#### BOOK-VALUE OF DIVESTED ASSETS AND LIABILITIES:

	2016	2015
Intangible fixed assets	8.7	-
Tangible fixed assets	1.5	-
<b>Total fixed assets</b>	<b>10.2</b>	<b>-</b>
Current assets	13.6	-
<b>Total assets</b>	<b>23.8</b>	<b>-</b>
Provisions	0.1	-
Current liabilities	1.7	-
<b>Total liabilities</b>	<b>1.8</b>	<b>-</b>
<b>Book-value of divested assets, net</b>	<b>22.0</b>	<b>-</b>
Capital gain	0.7	-
<b>Total purchase consideration transferred</b>	<b>22.7</b>	<b>-</b>
Less cash and cash equivalents in divested Group companies	-9.8	-
<b>Cash flow from divestments of companies/businesses</b>	<b>12.9</b>	<b>-</b>

In December 2016, Hexagon divested Prim'Tools Ltd that was reported within the segment Geospatial Enterprise Solutions (GES).

#### NOTE 28 AVERAGE NUMBER OF EMPLOYEES

	2016			2015		
	Men	Women	Total	Men	Women	Total
Parent Company	3	10	13	5	9	14
Subsidiaries	12,561	3,886	16,447	12,095	3,782	15,877
<b>Total, Group</b>	<b>12,564</b>	<b>3,896</b>	<b>16,460</b>	<b>12,100</b>	<b>3,791</b>	<b>15,891</b>
<b>Average number of employees by country</b>						
Nordic region	472	126	598	458	119	577
Rest of Europe	4,738	1,154	5,892	4,477	1,036	5,513
<b>Total, Europe</b>	<b>5,210</b>	<b>1,280</b>	<b>6,490</b>	<b>4,935</b>	<b>1,155</b>	<b>6,090</b>
North America	3,168	1,125	4,293	3,017	1,064	4,081
South America	498	173	671	610	153	763
Africa	17	3	20	18	5	23
Australia and New Zealand	255	52	307	226	95	321
Asia	3,416	1,263	4,679	3,294	1,319	4,613
<b>Total, Group</b>	<b>12,564</b>	<b>3,896</b>	<b>16,460</b>	<b>12,100</b>	<b>3,791</b>	<b>15,891</b>

## NOTE 29 EMPLOYEE BENEFITS

### SALARIES AND REMUNERATION

	Board, CEO and other Senior Executives		Other employees	
	2016	2015	2016	2015
Parent Company	5.0	5.1	1.3	1.4
(of which performance related pay and bonus)	(1.5)	(1.5)	(0.1)	(0.1)
Subsidiaries	24.7	22.6	966.3	933.3
(of which performance related pay and bonus)	(5.6)	(8.4)	(79.3)	(81.6)
<b>Total, Group</b>	<b>29.7</b>	<b>27.7</b>	<b>967.6</b>	<b>934.7</b>

### SOCIAL SECURITY EXPENSES

	All employees	
	2016	2015
Parent Company	2.2	2.6
(of which pension expenses)	(1.1)	(1.3)
Subsidiaries	151.1	147.2
(of which pension expenses)	(40.9)	(41.8)
<b>Total, Group</b>	<b>153.3</b>	<b>149.8</b>
(of which pension expenses)	(42.0)	(43.1)

Pension expenses for Boards of Directors and Chief Executive Officers in the Group amounted to 3.0 MEUR (2.8). Pension commitments to Boards of Directors and Chief Executive Officers in the Group were 4.7 MEUR (3.6).

At year-end, three Board members were women and three were men. The President and Chief Executive Officer and other senior executives consists of 11 men and one woman.

Of all the Group's Board members, Presidents and other senior executives, 45 were women and 427 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 427.1 KEUR (400.3). The Chairman of the Board received 137.3 KEUR and other Board members 55.4 KEUR each. The President and Chief Executive Officer of Hexagon AB did not receive any director fees. In addition to ordinary director fees, remuneration is paid for work on committees. The Chairman of the Remuneration

Committee received 9.0 KEUR and each member received 6.3 KEUR. The Chairman of the Audit Committee received 21.1 KEUR and each member received 15.8 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, Mattias Stenberg, Chief Strategy Officer, Kristin Christensen, Chief Marketing Officer, Edgar Porter, Chief Human Resources Officer, Li Hongquan, President Hexagon China, Jürgen Dold, President Hexagon Geosystems, Norbert Hanke, President Hexagon Manufacturing Intelligence, Steven Cost, President Hexagon Safety & Infrastructure and Gerhard Sallinger, President PPM.

Variable remuneration is based on the Group's profitability. 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 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 is six months. Upon termination by the Company or in case of change of principal ownership the President 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	
	2016	2015	2016	2015	2016	2015	2016	2015	2016	2015
Melker Schörfling, Chairman of the Board	146.2	126.7	-	-	-	-	-	-	146.2	126.7
Gun Nilsson	77.6	75.9	-	-	-	-	-	-	77.6	75.9
Jill Smith	71.3	69.5	-	-	-	-	-	-	71.3	69.5
Ulrika Francke	55.4	53.4	-	-	-	-	-	-	55.4	53.4
Ulrik Svensson	76.6	74.8	-	-	-	-	-	-	76.6	74.8
Ola Rollén, President and Chief Executive Officer	2,460.2	2,644.6	1,230.2	1,322.3	-	-	492.0	528.9	4,182.4	4,495.8
Other senior executives (eleven people)	6,244.9	6,163.6	3,548.0	4,330.8	205.0	260.9	417.6	455.7	10,415.5	11,211.0
<b>Total</b>	<b>9,132.2</b>	<b>9,208.5</b>	<b>4,778.2</b>	<b>5,653.1</b>	<b>205.0</b>	<b>260.9</b>	<b>909.6</b>	<b>984.6</b>	<b>15,025.0</b>	<b>16,107.1</b>

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

**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
Sale	2019-12-31	7,107,660	7,107,660	347.80
Closing balance 2016	2019-12-31	7,107,660	7,107,660	347.80

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

2016-12-31	Number	Acquisition price, SEK
President and Chief Executive Officer	-	-
Other senior executives (ten people)	1,650,000	41,250,000
Other employees	5,457,660	136,441,500
<b>Total</b>	<b>7,107,660</b>	<b>177,691,500</b>

**NOTE 31 REMUNERATION OF THE GROUP'S AUDITORS**

	Group		Parent Company	
	2016	2015	2016	2015
Audit, Ernst & Young	4.3	4.6	0.4	0.3
Audit, Others	0.4	0.3	-	-
Audit related	0.7	0.2	-	-
Tax	1.6	2.3	-	-
<b>Total</b>	<b>7.0</b>	<b>7.4</b>	<b>0.4</b>	<b>0.3</b>

**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****ACQUISITION OF MSC SOFTWARE**

On 2 February 2017, Hexagon announced that an agreement had been signed to acquire MSC Software (MSC). MSC is a leading supplier of CAE software (simulation). MSC, based in Newport Beach, California, USA, has more than 1,200 employees in 20 countries. Preliminary purchase price allocation analysis will be provided in the interim report after the authority approvals have been obtained and the transaction is closed, which is expected during the second quarter.

Key facts:

- Purchase price of 834 MUSD on a cash and debt-free basis (Enterprise Value)
- In 2016, MSC generated proforma sales of 230 MUSD, with strong profitability and a high percentage of recurring revenue
- The transaction will be fully financed via bank facilities and Hexagon's net debt to EBITDA target of 2.5 times will not be exceeded
- Non-cash PPA adjustments (Purchase Price Allocations) of approximately 10 MEUR related to impairment of overlapping technologies and approximately 20-30 MEUR related to a revenue recognition adjustment of deferred revenue (haircut) will impact the income statement during 2017
- Cash transaction costs will amount to approximately 2 MEUR
- MSC will be accretive to Hexagon's earnings as of closing

**COST-SAVINGS PROGRAMME**

Hexagon has launched a company-wide cost-savings programme in Q1 2017 with a focus on reducing administration costs.

The programme will affect approximately 480 employees and is expected to drive cash cost savings of approximately 24 MEUR in 2017 and 43 MEUR per annum as of 2018 when fully implemented. The cash flow impact of the programme amounts to approximately -34 MEUR. The restructuring costs will be reported as non-recurring items (NRI) in Q1 2017.

## NOTE 34 APPROPRIATION OF EARNINGS

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

Premium reserve	922,400
Retained earnings	3,333,818
Net earnings	38,202
<b>Total</b>	<b>4,294,420</b>

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

Cash dividend to shareholders of 0.48 EUR per share	173,013 <sup>1</sup>
Balance remaining in the premium reserve	922,400
Balance remaining in retained earnings	3,199,007
<b>Total</b>	<b>4,294,420</b>

<sup>1</sup> The amount is based on the number of shares issued and outstanding on 31 December 2016, namely 360,443,142.

## SIGNING OF THE ANNUAL REPORT

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

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

Stockholm, Sweden 27 March 2017

Melker Schörling  
*Chairman*

Ulrika Francke  
*Member of the Board*

Gun Nilsson  
*Member of the Board*

Jill Smith  
*Member of the Board*

Ola Rollén  
*Member of the Board  
President and Chief Executive Officer*

Our Audit Report was submitted on 28 March 2017

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 2016. The annual accounts and consolidated accounts of the company are included on pages 42-87 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 2016 and its financial performance and cash flow for the year ended in accordance with Annual Accounts Act. The consolidated accounts have been prepared in accordance with Annual Accounts Act and present fairly, in all material respects, the financial position of the group as of 31 December 2016 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. The statutory administration report is consistent with the other parts of the annual accounts and consolidated accounts.

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

### 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.

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.

### Revenue recognition

The Company is using the percentage of completion methods to recognise revenue for large fixed priced projects. The percentage of completion is primarily determined comparing the incurred cost in relation with the estimated total cost. The Company's judgment is involved in estimating the cost to complete including the assessment of the remaining contingencies for projects until final delivery and acceptance.

The Company also enters into revenue arrangements that contain multiple elements, such as hardware, software, and/or services. For these arrangements, the Company's judgment is applied to allocate revenue to each element as different accounting principles are applied for different delivered elements.

Due to the high degree of the Company's judgment involved in revenue recognition using percentage of completion method and in arrangements containing multiple elements accounting for these type of arrangements have been a key audit matter in our audit.

Accounting principles for revenue recognition are included in Note 1 and key assumptions and judgments used for complex revenue arrangements are included in Note 2.

In our audit we have for sample of customer contracts reviews contractual terms and project documentation including side arrangements and amendments in order to evaluate the accounting principles used for revenue recognition. For a sample of large fixed price projects we have evaluated significant judgments made by managements and evaluated status of the projects including management's assessment of cost to complete. For projects where revenue is recognised using the percentage of completion method we have on a sample basis tested that incurred cost such as invoices and hours spent are related to the projects. We have also evaluated the process and tested controls in relation to revenue recognition. Furthermore we have evaluated status of legal proceedings in respect of large projects including examination of various claims. For multi-element arrangement contracts we have assessed the appropriateness of revenue split between elements and the accounting principle used for each element. In addition, we have evaluated if the disclosures are in line with the requirements.

### Impairment test of goodwill and trademarks

As per December 31 2016 goodwill amounts to 4,027.1 MEUR and trademarks with indefinite life amounts to 918.3 MEUR in the consolidated balance sheet. Impairment tests are as described in Note 1 carried out annually or when there is an indication of impairment. Goodwill and trademarks acquired through business combinations are allocated to cash generating units (CGUs), and when the carrying value exceeds the estimated recoverable amount, the asset is written down to the recoverable amount. The recoverable amount is the higher of the CGUs net realisable value and the value in use, meaning the discounted value of future cash flows. The cash flow projections derives from next year's budget and forecasts for another 4 years approved by senior management. As stated in Note 2, these cash projections include making assumptions about sales trends, profit margins and discounts rates.

For 2016, no impairment deemed to exist. Note 8 described key assumptions used and management's sensitivity analysis for how changes in key assumptions would affect the value in use. Following the assumptions required for the calculation of value in use we have assessed valuation of goodwill and trademarks as a key audit matter in the audit.

We have evaluated the Company's process to develop and perform impairment tests. We have examined how 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

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 value at the acquisition date.

As described in Note 2, the fair value determinations of assets acquired and liabilities assumed require management to make estimated 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 acquirer'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 118.4 MEUR as per December 31, 2016 and is disclosed in Note 24.

In our audit we have, amongst other audit procedures, 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 reconciled identified contingent consideration amounts with management's summary of outstanding contingent considerations. In addition, we have reviewed the disclosures and determined if they are in line with the requirements.

#### **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 1-41 and pages 91-97. 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 the 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 objective are to obtain reasonable assurance about whether the annual accounts and consolidated accounts as a whole are free from material misstatements, 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 risk of material misstatement of the annual accounts and consolidated account, 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 on 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 account. 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 in 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 controls that we identified.

We must also provide 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 or when, in extremely rare circumstances, we determine that a matter should not be communicated in the auditor's report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

## **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 2016 and the proposed appropriations of the company's profit or loss.

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

### **Basis for Opinions**

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

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

### **Responsibilities of the Board of Directors and the Managing Director**

The Board of Directors is responsible for the proposal for appropriations of the company's profit or loss. At the proposal of a dividend, this includes an assessment of whether the dividend is justifiable considering the requirements which the company's

and the group's type of operations, size and risks place on the size of the parent company's and the group's equity, consolidation requirements, liquidity and position in general.

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

### **Auditor's responsibility**

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

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

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

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

As part of an audit in accordance with generally accepted auditing standards in Sweden, we exercise professional judgment and maintain professional skepticism throughout the audit. The examination of the administration and the proposed appropriation if 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.

Stockholm, 28 March 2017  
Ernst & Young AB

Rickard Andersson  
*Authorized Public Accountant*

## QUARTERLY INCOME STATEMENTS

MEUR	2016					2015				
	Q1	Q2	Q3	Q4	Year	Q1	Q2	Q3	Q4	Year
Net sales	724.2	795.8	779.7	849.5	3,149.2	705.1	780.7	742.3	815.7	3,043.8
Gross earnings	442.3	479.5	466.4	513.8	1,902.0	421.0	472.6	444.8	483.5	1,821.9
Sales expenses	-136.0	-147.0	-140.9	-149.4	-573.3	-143.8	-141.3	-134.2	-142.4	-561.7
Administration expenses	-64.4	-68.7	-60.5	-75.5	-269.1	-75.0	-70.3	-67.3	-80.2	-292.8
Research and development expenses	-80.1	-83.2	-85.7	-84.1	-333.1	-87.3	-78.4	-71.9	-75.5	-313.1
Earnings from shares in associated companies	-0.1	0.0	0.4	0.1	0.4	0.0	0.1	0.0	0.0	0.1
Capital gain/loss from sale of shares in group companies	-	-	-	0.7	0.7	-	-	-	-	-
Other income and expenses, net	-1.2	6.5	0.1	3.1	8.5	-1.7	-5.4	-3.6	12.4	1.7
Operating earnings <sup>1</sup>	160.5	187.1	179.8	208.7	736.1	113.2	177.3	167.8	197.8	656.1
Financial income/expenses net	-5.2	-4.9	-5.6	-6.1	-21.8	-7.6	-7.0	-6.1	-5.8	-26.5
Earnings before tax	155.3	182.2	174.2	202.6	714.3	105.6	170.3	161.7	192.0	629.6
Tax	-29.5	-34.6	-33.1	-38.5	-135.7	-21.6	-34.1	-32.3	-36.5	-124.5
Net earnings <sup>2</sup>	125.8	147.6	141.1	164.1	578.6	84.0	136.2	129.4	155.5	505.1
<sup>1</sup> of which non-recurring items	-	-	-	-	-	-36.6	-	-	-	-36.6
<sup>2</sup> of which non-controlling interest	1.2	1.5	1.6	1.0	5.3	1.2	1.6	1.5	0.9	5.2
Earnings include depreciation/ amortisation and impairments of	-54.8	-56.8	-57.3	-65.0	-233.9	-48.8	-52.4	-51.3	-67.1	-219.6
Earnings per share, EUR	0.35	0.41	0.39	0.45	1.59	0.23	0.37	0.36	0.43	1.39
Earnings per share after dilution, EUR	0.35	0.41	0.39	0.45	1.59	0.23	0.37	0.36	0.43	1.39
Earnings per share excluding non-recurring items, EUR	0.35	0.41	0.39	0.45	1.59	0.31	0.37	0.36	0.43	1.47
Average number of shares (thousands)	360,402	360,443	360,443	360,443	360,433	357,675	359,759	359,999	360,114	359,387
Average number of shares after dilution (thousands)	360,754	360,455	361,657	360,649	360,879	358,331	360,054	360,222	360,659	359,817



# 10-YEAR SUMMARY

	MSEK				MEUR									
	2007	2008	2009	2010	2008	2009	2010	2011	2012	2012 <sup>1</sup>	2013	2014	2015	2016
<b>Income statement</b>														
Net sales	14,587	14,479	11,811	14,096	1,511.0	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
Operating earnings (EBITDA)	3,054	3,267	2,537	3,458	340.1	238.9	362.4	542.4	610.3	605.7	642.2	743.5	912.3	970.0
Operating earnings (EBIT1)	2,421	2,548	1,784	2,604	265.3	168.0	272.9	439.8	489.5	484.9	507.7	578.1	692.7	736.1
Operating earnings	2,270	2,448	1,600	1,447	254.9	150.6	151.7	431.3	489.5	484.9	492.8	542.1	656.1	736.1
Earnings before tax	2,056	2,129	1,442	1,058	221.6	135.8	110.9	372.4	441.3	434.2	458.9	508.5	629.6	714.3
- of which non-recurring items	-151	-100	-184	-1,304	-10.4	-17.4	-136.6	-8.5	-	-	-14.9	-36.0	-36.6	-
Net earnings	1,811	1,859	1,254	875	193.5	118.1	91.7	297.4	357.4	351.1	371.2	406.2	505.1	578.6
- of which non-controlling interest	11	12	9	17	1.2	0.8	1.8	2.2	2.9	2.9	3.3	3.4	5.2	5.3
<b>Balance sheet</b>														
Current assets	7,944	8,070	6,617	9,436	737.0	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
Fixed assets	16,996	19,431	18,809	35,451	1,774.5	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
Non-interest bearing liabilities and provisions	4,310	3,833	3,126	7,153	350.0	305.0	797.8	914.7	920.1	915.3	962.6	1,216.5	1,360.7	1,474.5
Interest bearing liabilities and provisions	10,584	11,654	9,816	18,258	1,064.3	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
Shareholders' equity	10,046	12,014	12,484	19,476	1,097.2	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
Total assets	24,940	27,501	25,426	44,887	2,511.5	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

<sup>1</sup> Restated – IAS 19

Key ratios	MSEK				MEUR									
	2007	2008	2009	2010	2008	2009	2010	2011	2012	2012 <sup>1</sup>	2013	2014	2015	2016
Operating margin, %	17	18	15	18	18	15	18	20	21	20	21	22	23	23
Return on capital employed, %	14	12	8	10	12	8	10	11	11	11	11	12	12	12
Return on equity, %	20	18	10	6	18	10	6	13	13	13	13	13	13	14
Investments	825	1,005	821	832	104.6	77.3	87.2	135.9	171.8	171.8	216.3	232.5	230.3	257.6
Equity ratio, %	40	44	49	43	44	49	43	47	51	51	52	51	55	58
Share of risk-bearing capital, %	43	45	51	48	45	51	48	52	56	56	57	56	61	64
Interest coverage ratio (times)	8.9	7.0	9.5	3.6	7.0	9.5	3.6	7.0	9.3	8.8	12.7	14.3	20.3	27.9
Net debt/equity ratio (times)	0.88	0.89	0.66	0.82	0.89	0.66	0.82	0.66	0.54	0.56	0.49	0.50	0.38	0.30
Cash flow before changes in working capital and excluding non-recurring items SEK/EUR	2,472	2,587	2,003	2,805	269.3	189.1	294.1	397.2	494.4	494.4	538.0	619.2	749.9	832.1
Cash flow after changes in working capital and excluding non-recurring items SEK/EUR	2,027	1,755	2,621	2,483	182.7	247.4	260.4	369.0	497.3	497.3	506.8	563.4	722.6	782.1
Earnings per share, SEK/EUR	5.95	6.10	4.13	2.83	0.64	0.39	0.30	0.84	1.01	0.99	1.04	1.13	1.39	1.59
Earnings per share after dilution, SEK/EUR	5.93	6.09	4.13	2.83	0.63	0.39	0.30	0.84	1.00	0.99	1.03	1.13	1.39	1.59
Cash flow per share before changes in working capital and excluding non-recurring items, SEK/EUR	8.17	8.55	6.64	9.24	0.89	0.63	0.97	1.13	1.40	1.40	1.52	1.74	2.09	2.31
Cash flow per share after changes in working capital and excluding non-recurring items, SEK/EUR	6.70	5.80	8.70	8.18	0.60	0.82	0.86	1.05	1.41	1.41	1.43	1.58	2.01	2.17
Equity per share, SEK/EUR	33	40	41	55	3.62	4.02	6.15	7.15	7.84	7.77	8.00	9.68	11.36	12.70
Closing share price, SEK	118	33	93	144	33	93	144	103	163	163	203	242	315	326
Cash dividend per share, SEK/EUR	2.06	0.44	1.05	1.40	0.04	0.10	0.15	0.17	0.28	0.28	0.31	0.35	0.43	0.48 <sup>2</sup>
Average number of shares (thousands)	302,643	302,687	301,509	303,655	302,687	301,509	303,655	352,484	352,499	352,499	353,226	355,764	359,387	360,433
Average number of shares after dilution (thousands)	303,505	303,202	301,768	303,677	303,202	301,768	303,677	352,546	353,494	353,494	355,482	357,225	359,817	360,879
Number of shares, closing balance (thousands)	302,725	301,422	301,580	352,150	301,422	301,580	352,150	352,490	352,675	352,675	354,997	357,389	360,337	360,443
Average number of employees	8,406	9,062	7,549	8,179	9,062	7,549	8,179	12,475	13,203	13,203	13,931	14,865	15,891	16,460

<sup>1</sup> Restated – IAS 19<sup>2</sup> As proposed by the Board of Directors

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

# FINANCIAL DEFINITIONS

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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, analyze 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. A significant part of the purchase consideration is often allocated to intangible assets. 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 before change in working capital and 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.

## DIVIDEND YIELD

Dividend per share as a percentage of earnings per share.

## 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 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 divestments of subsidiaries.

## NET DEBT

Interest-bearing liabilities including pension liabilities and interest-bearing provisions less cash and cash equivalents.

## NET INDEBTEDNESS

Interest-bearing liabilities less interest-bearing current receivables and liquid assets divided by 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 non-recurring items.

## OPERATING EARNINGS (EBITDA)

Operating earnings excluding non-recurring items and amortisation and depreciation of fixed assets.

## OPERATING MARGIN

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

## ORGANIC GROWTH

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

## PAY-OUT RATIO

Dividend per share in per cent of share price.

## P/E RATIO

Share price divided by earnings per share.

## PROFIT MARGIN BEFORE TAXES

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. 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 the NASDAQ OMX Stockholm stock exchange 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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### **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.

### **BIG DATA**

Large volume of data that can be analysed for insights that lead to better decisions.

### **BIM**

Building Information Modeling. A process which increases the use of technology in construction industry.

### **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.

### **EPC**

Engineering, Procurement and Construction. Engineering companies delivering design, purchases and building within big projects.

### **GES**

Hexagon's operating segment Geospatial Enterprise Solutions.

### **GIS**

Geographic Information Systems.

### **GNSS**

Global Navigation Satellite System.

### **GPS**

Global Positioning System.

### **IES**

Hexagon's operating segment Industrial Enterprise Solutions.

### **IOT**

Internet of Things. Connects objects to the Internet.

### **ISDA**

International Swaps and Derivatives Association.

### **LASER TRACKER**

A portable measurement system that uses a laser.

### **LIDAR**

Light Detection and Ranging. A technology to collect topographic data using laser.

### **MULTISTATION**

An integrated total station and 3D laser scanner.

### **NAFTA**

North American Free Trade Agreement.

### **OECD**

Organisation of Economic Cooperation and Development.

### **R&D**

Research and development.

### **TOTAL STATION**

An electronic theodolite with an integrated distance meter.

### **UAV**

Unmanned Aerial Vehicle.

## CURRENCY CODES

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AUD Australian Dollar

BRL Brazilian Real

CAD Canadian Dollar

CHF Swiss Franc

CNY Chinese Yuan

EUR Euro

GBP British Pound

INR Indian Rupee

JPY Japanese Yen

SEK Swedish Kronor

USD US Dollar



# INFORMATION FOR SHAREHOLDERS

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## ANNUAL GENERAL MEETING 2017

The Annual General Meeting will be held on Tuesday 2 May 2017 at 17:00 CET at City Conference Center, Drottninggatan 71 B i 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 25 April 2017. 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 25 April 2017.
- 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 0.48 EUR per share be declared for the financial year 2016.

As record day for right to receive dividend, the Board of Directors proposes Thursday 4 May 2017. If the Annual General Meeting resolves in accordance with the proposal, the dividend is expected to be paid through Euroclear Sweden AB starting on Thursday 11 May 2017.

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 2016

Hexagon will issue financial information concerning the business year 2017 on the following dates:

Q1 Interim Report	2 May 2017
Q2 Interim Report	27 July 2017
Q3 Interim Report	27 October 2017
Year-End Report	6 February 2018

## 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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