HEXAGON

empowering an autonomous, sustainable future

Annual Report 2022

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About this report

The audited annual accounts and consolidated accounts can be found on pages 14–20 and 34–74. The corporate governance report examined by the auditors can be found on pages 21–27.

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

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Hexagon AB is a Swedish public limited liability company with corporate registration number 556190-4771. All values are expressed in Euros unless otherwise stated. The Euro is abbreviated EUR, thousands of Euro to KEUR, millions of Euro to MEUR, billions of Euro to bn EUR and million US dollars to MUSD. Figures in parentheses refer to 2021 unless otherwise stated. Data on markets and peers represent Hexagon's own assessments unless otherwise stated. Assessments are based on most recent available facts from published sources. While every care has been taken in the translation of this annual report, readers are reminded that the original annual report, signed by the Board of Directors, is in Swedish.

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

"We find ourselves at a point in history where we must do something that was never before possible: to achieve and sustain economic growth, prosperity and safety while we reverse the course of overconsumption, inefficiency and waste."

– Paolo Guglielmini
Hexagon President and CEO

Meet Hexagon

Empowering an autonomous, sustainable future

Hexagon is a global technology innovation leader, delivering digital reality solutions to make factories, farms and mines more productive; cities and nations safer; industrial facilities more efficient; and construction projects more profitable.

Our sensor, software and autonomous technologies free customers to navigate the "internet of things" data deluge that's essentially been holding industry back from profitable, scalable, sustainable growth. Our solutions create value by enabling customers to actually use all this data – to put it to work in new, transformative ways.

With Hexagon, customers are creating tens of thousands of jobs, fueling the growth of entire economies, improving the safety and resiliency of the world's infrastructure and safeguarding populations while accelerating access to safe, renewable energy.

Metrics that matter

We operate at scale, with revenue of over 5.2bn EUR and more than 24,000 employees across 50 countries.

We prioritise innovation, allocating 10–12% of our revenue and more than 5,000 employees to R&D.

We drive sustainable progress, operating within nine ecosystems and 27+ industries.

Delivering a better world without sacrifice

At our very core is a powerful vision that balances the needs of business with that of humanity – where data is fully leveraged to free industry and humanity to thrive and scale sustainably.

We believe in a future where economic growth does not come at the expense of the planet and people.

We believe industry can be the answer to the world's sustainability challenges by harnessing the potential of digital reality technologies, data and automation.

We believe in driving innovations that free industry to optimise efficiency, productivity, quality and safety at scale – the antidotes to waste, pollution, cost, diminishing margins and risk.

We believe in doing good by doing well – where the shift toward a more sustainable future is both prosperous and profitable.

Business overview

Geospatial Enterprise Solutions

Geospatial Enterprise Solutions (GES) includes a world-leading portfolio of reality-capture sensors — from laser scanners, airborne cameras and unmanned aerial vehicles (UAV) to monitoring equipment, mobile mapping technologies and precise positioning. The sensors are complemented by software to create 3D maps and models, which are used for decision-making in a range of software applications, covering areas such as surveying, construction, public safety, mining and agriculture.

Autonomy & Positioning

Geosystems

Safety, Infrastructure & Geospatial

Industrial Enterprise Solutions

Industrial Enterprise Solutions (IES) includes a world-leading portfolio of metrology solutions incorporating the latest sensor and software technologies for fast and accurate measurements. These solutions include technologies such as coordinate measurement machines (CMM) and laser trackers and scanners for optimising design, processes and throughput in manufacturing facilities. IES also includes a broad software portfolio, encompassing computer-aided design (CAD), computer-aided manufacturing (CAM) and computer-aided engineering (CAE) platforms. Solutions within this segment also include software for optimising design, improving productivity and creating and leveraging asset management information through the lifecycle of industrial plants and processing facilities.

Manufacturing Intelligence

Asset Lifecycle Intelligence

Breaking industry free from inertia

The rich opportunities for the post-CO_2 Generation

For decades, industry rode a steep growth curve, fuelled by innovation and cheap fossil fuels. Today, we're experiencing the consequences of that approach—business-as-usual has led to rampant waste and catastrophic environmental impacts. Hexagon is leading a new hypergrowth curve to address the fundamental sustainability challenges of our day: enabling data-driven "autonomous enterprises" that transform the CO_2 Generation to the Sustainable Generation.

The CO_2 Generation

CO_2 emissions have nearly doubled in the past 30 years. While the pace of year-on-year growth has slowed, significant declines have not been seen. We are on the way to cementing our legacy as the CO_2 Generation – the one that polluted and exploited our planet without regard for the future.

Global temperatures are expected to reach the critical threshold of 1.5°C above pre-industrial levels between 2030 and 2050. The case for industry to invest in systemic, sustainable change is only getting clearer while the cost of unsustainable industry practices continues to rise. Where some may see insurmountable obstacles, we see opportunities to drive global prosperity that is both profitable and planet-saving.

It's time for the CO_2 Generation to break away from the inertia, from its dependencies and flawed practices. It's time to make the leap to sustainability at scale, becoming the Sustainability Generation. The only way to ensure this outcome is to have industry at the table, armed with the tools that hold back waste and depletion, not progress and growth.

The superpower of autonomy

The shift to a more sustainable future is not an easy one but it's certainly swifter and simpler with autonomy. Autonomy has the power to deliver financial benefits that yield both bottom-line and top-line returns. Not only can it mimic human activity but also achieve far more than any of us – with certainty and predictably – in much less time.

While speed is important to creating systemic, sustainable change, industry's most powerful asset is data. 2.5 quintillion bytes of it is generated daily. Not surprisingly, it's grossly underleveraged. The sheer amount outruns our ability to mindfully process and use it. Even when leveraged, every decision or action we take is prone to human error.

Like human activities, data can be automated – from its creation or collection to its analysis and leverage. Quality, completeness and accessibility are already critical to data-driven decision-making. But advanced automation technologies like artificial intelligence (AI) add the ability to off-load real-time decision making from humans to algorithms.

The more industry can enable action independent of human intervention, the greater the increases in efficiency, productivity, quality and safety – the antidotes to the status quo of waste, pollution, diminishing margins and increased risk.

Shaping innovation

Making the impossible possible: profitable sustainability at scale

Tech companies play an active role in helping achieve net-zero emissions and other sustainability initiatives. Industry's impossible task is to do well and do good simultaneously. While innovation has enabled industry to drive digital transformation, in the coming years we must deliver beyond the balance sheet to create value and sustainability at scale.

The core technologies that matter

What matters most to compete in today's world? Growth and profitability? Efficiency? Productivity? Quality? Safety? Digital transformation? What about sustainability?

Thanks to advances in digital reality technologies, achieving these priorities equally is no longer insurmountable.

While there's no silver bullet – no standalone solution that can deliver the world-changing outcomes industry so urgently needs – there exists a historic opportunity for our customers to accelerate a profitable shift toward a more sustainable future.

Hexagon's innovation strategy is built on its established leadership in each of the core technologies critical to realising the full potential of data:

Reality capture

Digital capture of the physical world is the basic building block of a "digital reality" or twin. This includes documenting and preserving an exact truth about what's happened or is happening; it means measuring and recording with perfect accuracy and precision; and it's the ability to see, monitor, recognise, understand both contextually and dimensionally in 3D.

Sensor-software systems: Purposely integrated hardware, software and robotics bring autonomous agility and speed to any reality capture workflow.

Extensive, ubiquitous portfolio: Industrial, terrestrial, airborne, handheld and robotic.

Pervasive, broad application: Proven value and ease of use in wide-ranging applications – from manufacturing, surveying and construction to safety and security, industrial facility operations, forensic investigation, historic preservation, real estate, media & entertainment and more (the list is virtually endless).

Positioning

The need for accurate position information is essential for tracking and controlling the movement or mobility of assets and people. Additionally, achieving full autonomy isn't possible without positioning and other complementary technologies working together—finely-tuned and seamless—to make autonomy a reality.

Assured position, navigation and timing (PNT) for any industry: Receivers, IMUs (Inertial Measurement Unit), anti-jam antennas and correction services.

Design and simulation

Design and simulation technologies help solve real-world problems safely and efficiently – enabling the digital creation and exploration of what could be. The ability to model and simulate millions of real-world scenarios means we can predict failure and success before they occur.

Plant design software: Next generation, data-centric, rule-driven solutions to streamline engineering design processes while preserving existing data and making it more usable/reusable.

Engineering design software: 2D drafting, 3D modelling, mechanical design and building information modelling (BIM).

Extensive portfolio of planning and simulation technologies: Creation of real-world scenarios in virtual settings – from manufacturing processes and scenarios for emergency incident planning and response to construction project performance and autonomous driving simulations.

Location intelligence

Complete line of sight to dynamic situations – at any time and from any location – is indispensable to decision-making for all mission-critical applications. The ability to instantly gain insight from complex data relationships leads to big-picture understanding and proactive problem-solving.

Comprehensive portfolio of situational awareness technologies: Spanning a myriad of industries and applications, intelligence of what's happening now to help identify issues before negative consequences emerge.

Autonomous technologies

Enriching automated systems with sensors, AI and analytical capabilities enables systems to function and execute tasks without human control.

Pervasive, broad application: Software that learns and self-improves, often coupled with semi-autonomous or autonomous machines.

Beyond the digital twin: the Smart Digital Reality™

The sum of Hexagon's core technology competencies frees customers to use data to its greatest potential, where they can create and maintain a digital reality that evolves with change – the Smart Digital Reality.

Like digital twins, digital realities are built to represent anything – from human organs to entire cities. They have proven to be invaluable in reinventing industry, with infinite application. However, they can be limited by the accessibility, accuracy, integrity and completeness of the data that informs them; the same data that users rely on to improve the real world. Moreover, they can become obsolete and unusable as quickly as the speed of change of whatever they represent.

Smart Digital Realities go far beyond digital twins:

A data-rich, real-time feedback loop: Continuously informed with physical and digital world data inputs in real time, Smart Digital Realities ensure complete line of sight to ever-changing situations, providing the insight needed to be proactive, preventative and even predictive.

A single source of truth: When all data is available live, in context and in one place, real-world changes can be immediately reflected in digital counterparts. And vice-versa: simulations or learnings in the digital space can be acted on immediately in the physical world.

A workflow-driven, autonomous decision tool: Serving up the right data in the right place at the right time enables resilient teams and workflows while technologies like machine learning and AI interpret the mammoth flow of data to automate workflows, decisions and actions that reduce and even eliminate the need for human intervention.

The fast track to Smart Digital Realities: Platforms

Smart Digital Realities are revolutionary, but how easy are they to implement? Solutions and stakeholders must be linked if they are to share data and information in real time. Smart Digital Realities require a digital infrastructure that enables essential lines of communication between data, teams and technologies to deliver actionable insights within any business context.

Hexagon's portfolio includes a proprietary and disruptive technology platform named Xalt, and several domain-specific solution platforms that enable such infrastructure, helping customers break down silos, facilitate collaboration and streamline mission-critical, workflow-driven business processes.

HxGN Connect
(public sector-specific)
Breaks down stakeholder barriers, enabling citywide collaboration to power crime, incident and operations centers for optimum management of ad hoc, routine and emergency situations

Nexus
(manufacturing-specific)
Streamlines information-sharing, empowering cross-functional teams with the insights to solve unique problems and collaborate naturally in real time

HxGN SDx
(industrial facility-specific)
Provides universal access to trustworthy engineering data and documentation

HxDR
(geospatial-specific)
Transforms the way customers work with and perceive 3D spatial data

Xalt
(multi-application)
Accelerates the ability to extract the full potential of data within any business context

Power of One
(mining-specific)
Connects all processes of a mine – from the pit to the plant

HxGN AgrOn
(agribusiness-specific)
Enables the intelligent management of cultivation, harvest and transport operations

Letter from the President and CEO

The year of eight billion

We just experienced the year of eight billion.

While it would have been nice to announce that number as Hexagon's 2022 revenue, I'm talking about the moment the world's population exceeded eight billion on 14 November 2022.

To put this in perspective, since I stepped into my role as Hexagon's President and CEO in 2000, the world's population has grown by roughly two billion. That means in just 20 years, we've added more than the combined population of China and the United States. What's more alarming is we've doubled the number of people living on this planet in my lifetime alone.

Why is this significant to Hexagon — or any of us?

Because without a plan, you don't just add five billion people without consequence. We live and operate our businesses on a planet that cannot sustain our current rate of natural resource consumption. The rate now requires nearly two earths, half of which is just for food. Exacerbating this challenge, world leaders and scientists at COP27 in Egypt warned that prospects for maintaining global warming to under 1.5°C are now dim at best.

And 2022 continued a theme of market uncertainty, fanned by the flames of a dangerous war in Ukraine with its human and economic toll, an energy shortage, skyrocketing inflation, currency instability and continued supply chain constraints.

Human ingenuity

In a year where tech company valuations gave back the equivalent of the GDP of India, we're incredibly pleased to announce that Hexagon maintained its momentum in 2022, despite the macro headwinds.

We are at a point where we must all consider radical ways of conducting business profitably while sustainably cooling the planet. Systemic problems demand solutions that systemically shift how the world does business. And therein lies the greatest opportunity in history – transforming industry's planet-depleting legacy into planet-sustaining approaches that continue to drive profitability and growth.

At Hexagon, we've set our sights on this hypergrowth opportunity that necessitates world-saving technology solutions and 2022 saw great strides in this direction.

Winning in the sustainability economy

Last year, Hexagon's R-evolution enabled blue carbon credits for one of the world's largest seagrass meadows on The Bahama Banks as part of an innovative collaboration combining sensor-tagged tiger sharks, marine vessel surveys, scuba diver surveys and aerial data captured by Hexagon's airborne bathymetric LiDAR technology.

Millennia-old blue carbon habitats, such as seagrass and salt marsh habitats, are among the most productive natural solutions for fighting climate change. While blue carbon credits don't excuse industry from transitioning to carbon-free energy sources, they finance the prevention of new carbon release through the preservation of existing ecosystems and the absorption of additional carbon dioxide through the restoration of degraded habitats.

In 2022, R-evolution also launched a venture capital arm calling on entrepreneurs to tackle climate emergencies together. The R-ventures programme aims to help the green-tech startup ecosystem accelerate its next breakthroughs through seed funding or in-kind technology from Hexagon's portfolio.

Accelerating innovation

It is famously said that "you can't improve what you can't measure", which is why we believe the world's sustainable transformation depends on the insights reality capture technologies empower.

In 2022 we continued to advance reality capture by delivering two of the most sought-after necessities, speed and efficiency, with the next generation of our award-winning, ultra-fast Leica BLK360 laser scanner. We were also humbled and inspired to learn that our Leica BLK2FLY was selected as one of TIME's Best Inventions of 2022.

Our technologies aim to improve the world, turning concepts once thought impossible into tangible solutions that benefit everyone – like autonomous driving. We're thrilled to have announced a partnership with ZF, a world leader in automotive electronics and control systems, to ensure this future is safe and works reliably. The partnership will advance the integration of our positioning solutions into mass-production autonomous driving systems.

Disrupting the status quo

Accelerating the industrial metaverse

We continue to advance the utility and potential of the digital twin. We call it the Smart Digital Reality™. The foundation of any smart digital reality is the underlying 3D model. If not already part of one of our solutions or readily available via our content program, it can be time- and resource-intensive to create. To that end, in December of last year, we acquired LocLab, a leader in 3D digital twin content creation.

Whether creating 3D models of machines, buildings, manufacturing facilities or large-scale areas such as transportation networks or entire cities, LocLab's AI software compares detected objects with its vast object library of 3D elements (street objects, building components, rail equipment, etc.) to semi-automate the creation of a semantically enriched 3D model (i.e., adding context and descriptive elements).

We believe the world's sustainable transformation depends on the insights reality capture technologies empower."

Constructing a sustainable future

As digital twins become more commonplace across job sites, real-time and autonomous capabilities are increasingly vital to saving time and overcoming asset information challenges.

We strengthened our ability to intelligently power the construction industry with AVVIR, a provider of automated construction verification and progress monitoring, and iConstruct, makers of construction automation solutions. AVVIR's BIM-based, AI-powered technology stack added an easy-to-deploy solution for combing the wealth of design and construction information held within different BIM models into a single source.

Making industrial production part of the solution

While 90% of the oil and gas refineries the world will ever need are already built, the infrastructure required to produce green hydrogen has only just begun.

In 2022 we teamed up with H2U, a leading Australian hydrogen infrastructure developer, to deliver best-in-class digital asset management solutions supporting the global green hydrogen revolution. The partnership combines our deep expertise in integrating industrial facility digital ecosystems with H2U's green hydrogen and green ammonia proprietary plant designs.

For an industrial organisation to automate the full scope of its operations, operational content and procedures must be digital and connected. To facilitate industrial plant digitalisation we added Innovatia Accelerator. Its SaaS-based solutions expedite the digital transformation of paper-based, high-risk operational procedures and work processes, enabling easier governance and distribution of critical information to keep operations running optimally and smoothly.

Like power and energy, mining also needs to eliminate labor-intensive, unproductive processes that threaten sustainability. As surface ore deposits are exploited, mines are increasingly pushing deeper underground with processes that lead to blast-hole deviation, dilution and downtime.

In 2022 we expanded our mining capabilities with drilling technology that improves the speed, cost and accuracy of underground drilling with the acquisition of Minnovare. Its hardware and data-capture software combine to deliver drill data faster and more accurately than ever before.

Transforming the way things get made

Global manufacturing sectors are responsible for one-fifth of CO_2 emissions and consume 54% of the world's energy sources. It's numbers like this that motivate our focus on manufacturing.

Automotive manufacturing is a good example. Manufacturing a car has a much greater impact on the environment than the car's exhaust emissions. In 2022 we set our sights on disruptive technologies in automotive manufacturing, announcing a 100 MUSD investment in Divergent Technologies.

The company is a pioneer of green manufacturing with the first modular digital factory for the automotive industry. Its alternative production process to traditional vehicle manufacturing is less energy- and resource-intensive, delivers more efficient structures faster and achieves weight reductions between 20% and 70% leading to dramatic improvements in vehicle efficiency.

We also acquired ETQ, a leading provider of SaaS-based quality management systems (QMS). ETQ's advanced data management capabilities, driven by machine learning and AI, make quality data fully actionable and available further upstream. Not only does this reduce defects, scrap, rework and recalls, but it also enables an autonomous feedback loop, digital information trail and virtuous cycle of continuous improvement.

Creating resiliency at scale

Quickly identifying and recovering from adversity or threat has never been more critical. In 2022 we expanded our public safety portfolio with solutions that link business and operational workflows with video data. We announced the acquisition of Qognify, a leading provider of physical security and enterprise incident management software. Its solutions add tightly integrated video capabilities, providing dispatchers, responders and investigators with new levels of intelligence to serve and protect their communities.

Defined by our future

I will forever look back on 2022 with mixed emotions. I couldn't be prouder of what's been achieved over the last 23 years. As most of you know, my longtime colleague Paolo Guglielmini stepped into the role of President and CEO of Hexagon at the beginning of 2023 while I move on to my new role as Hexagon's Chairman of the Board.

Paolo and the entire Hexagon team are poised to lead this remarkable company and its customers to a future full of promise. With our solutions, our customers are creating tens of thousands of jobs, fueling the growth of entire economies, improving the safety and resiliency of the world's infrastructure and safeguarding populations while accelerating access to safe, renewable energy.

There's a great sense of urgency to achieve our ambition of creating scalable sustainability across borders and industries – and in this year of eight billion people, Hexagon is committed to creating value for each of them. I want to thank our employees, customers and shareholders for making our work possible, profitable and consequential.

Very best regards,

Ola Rollén

Our next task: achieve the impossible

As Hexagon's new President and CEO, I'm humbled to have had a front-row seat to the extraordinary.

For over a decade, I've had the privilege of working with Ola Rollén and the team he assembled to completely transform this company. Our mission has been mighty and the results of our efforts truly impactful. And now, after 23 years of extraordinary achievements under his leadership, the silent question everyone is asking is: what's next?

Our customers have come to rely on our innovative mindset. Our competitors are mindful of our market presence. Our shareholders have seen the value we can create. Our 2022 financials are a case in point: even in the face of extreme economic and geopolitical headwinds, we can still deliver excellent results. But legacy alone doesn't entitle us to a bright future – that we must earn every day.

Raising our corporate value going forward requires ensuring the sustainable growth of society as a whole. The climate is changing, biodiversity is waning and environmental damage poses grave threats to humanity. We find ourselves at a point in history where we must do something that was never before possible: to achieve and sustain economic growth, prosperity and safety while we reverse the course of overconsumption, inefficiency and waste.

Technology companies have an active role to play in helping achieve net-zero emissions and other sustainability initiatives. Our impossible task is to do well and do good simultaneously. Innovation has enabled vast economies of scale in manufacturing, energy, heavy construction, infrastructure, mining and agriculture. But in the coming years, we must empower customers across their respective industries and communities to deliver value beyond the balance sheet. We must create customer and shareholder value by enabling industry and governments to achieve sustainability at scale.

After decades of relentless innovation that has distanced Hexagon from its peers, I'm confident that our best work is still ahead. I've been handed a legacy that includes the highest level of expectations for me and our entire leadership team. To achieve what others haven't yet imagined possible. To enable sustainable value creation at scale for our customers with the same sense of urgency and speed that's driven our success in the past.

On a planet of eight billion people, sustainability at scale is the number-one business opportunity that Hexagon will pursue in the coming years. We need to move further, faster. Our innovations have led us to the limits of the possible. Today we are ready to move beyond.

Sincerely,

Paolo Guglielmini
Hexagon President and CEO

Financial plan for continued profitable growth

8-12%	5-7%	3-5%	>30%
Average total growth per year	**Average organic growth per year**	**Average growth from M&A per year**	**Adjusted operating margin**

The financial targets are to reach annual average sales growth of 8–12 per cent between 2022-2026 and an adjusted operating margin (EBIT1) of over 30 per cent by 2026. The margin target includes amortisation of surplus values (PPA). The targeted sales growth is driven by a combination of 5–7 per cent organic growth per year and 3–5 per cent structural growth per year from acquisitions.

The targets will be reached through a continued focus on innovation and customer-centric solutions to further sales growth, margins and recurring revenues.

Continued growth

Hexagon's growth strategy is focused on using technology and innovative leadership to grow organically and through acquisitions, with a focus on customer-centric solutions. Total average annual growth is estimated at 8–12 per cent, with variation expected between the years. Organic growth, which is estimated at 5–7 per cent annually, relates in part to GDP-driven growth from existing solutions, but is primarily expected to come from increasing revenues from new solutions. An increase in recurring revenue is expected through more focus on customer-centric solutions and an increase in revenue coming from software. Acquisition-related growth is estimated at approximately 3–5 per cent annually.

Proven ability to deliver margin improvements

Hexagon has proven its ability to steadily deliver enhanced margins. Since 2011, the adjusted operating margin (EBIT1) has increased by 7 percentage points. The ambitious adjusted operating margin of more than 30 per cent by 2026 will continue to be strengthened by changes to the sales mix — where software and new product generations 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 a more solution-centric business. This will trigger investments in sales resources while reducing administrative costs, which are non-accretive to profitability.

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

Development during 2022

During the first year of the new financial plan, operating net sales increased by 8 per cent organic growth, fuelled by strong demand for our solutions across regions and industries, but negatively impacted by component supply constraints and the decision to freeze business operations in Russia during the year. Adjusted operating earnings (excluding PPA) increased by 20 per cent to 1,517.8 MEUR, corresponding to an adjusted operating margin of 29.3 per cent and an adjusted operating margin (including PPA) of 27.3 per cent.

Other targets

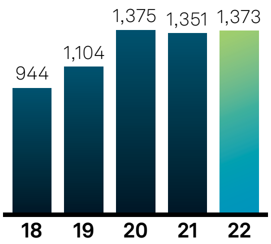
Hexagon targets the efficient use of capital in order to generate a strong cash flow, reach a sound equity ratio and achieve a balanced debt structure while generating value for shareholders.

Strong cash flow generation

A strong cash flow is necessary to finance investments, settle interest on debts and pay dividends to shareholders. Hexagon's cash conversion, i.e., the ratio at which profits are converted into cash, has averaged 84 per cent since 2013 and was 72 per cent (91) for 2022.

Hexagon's target is to reach a cash conversion of 80–90 per cent. Cash flow from operating activities, excluding non-recurring items, amounted to 1,372.7 MEUR (1,351.4).

Cash flow, MEUR

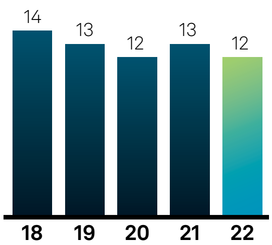


Efficient use of operating capital

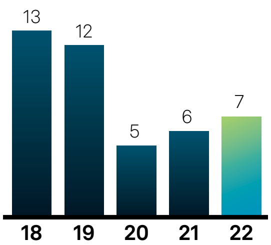
Hexagon seeks to minimise working capital and in recent years, the ratio of working capital to sales has averaged less than 10 per cent. The ratio of working capital to sales in 2022 amounted to 7 per cent (6).

The downward trend of working capital as a percentage of sales results from a business model shift towards more software-centric solutions. 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 exceeding 15 per cent over a business cycle, including goodwill from acquisitions. Return on average capital employed, excluding non-recurring items, was 11.5 per cent (13.5) in 2022.

Return on capital employed, %



Working capital to sales, %



Sustainability targets

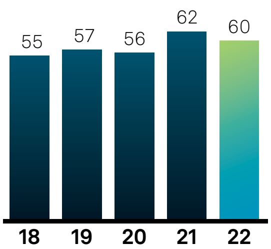
Hexagon has a goal to become carbon neutral in its scope 1 and 2 emissions by 2030, and to become carbon neutral in its whole value chain (scope 1, 2 and 3) by 2050. Hexagon has a target to conduct sustainability audits on 100 per cent of its direct suppliers in risk areas by 2023. Hexagon targets to achieve at least 30 per cent women in leading positions by 2025.

Sound equity ratio and balanced debt structure

A sound equity ratio and balanced leverage are requirements for financing acquisitions by loans. Hexagon targets an equity ratio of at least 25 per cent and has the ambition to have a net debt to EBITDA ratio of 2.5x or below. The equity ratio amounted to 60 per cent (62) and the net debt to EBITDA ratio amounted to 1.8x (1.4) at year-end 2022. Debt capital markets account for 52 per cent (78) of Hexagon's financing, while bank loans make up the remainder.

Hexagon's net financial expense amounted to -38.7 MEUR (-26.2) in 2022. The average interest rate on the Group's short- and long-term loans was 2.6 per cent (0.6) at year-end 2022.

Equity ratio, %

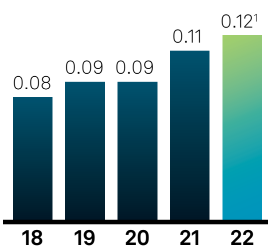


Dividend policy

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

The Board of Directors proposes a dividend of 0.12 EUR per share (0.11) for the fiscal year 2022, corresponding to 32 per cent of net earnings after tax.

Cash dividend per share, EUR



1) According to the Board of Directors' proposal

Board of Directors' report

The Board of Directors and the President of Hexagon AB hereby submit their annual report for the year of operation 1 January 2022 to 31 December 2022. 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 operating officer, the executive vice president, the chief financial officer, the chief strategy officer, the general counsel, the chief marketing officer, the chief technology officer and the divisional presidents.

Hexagon's Group functions consist of Finance (group accounting, treasury and tax), Operations, Business and Technology Development (Innovation Hub), Legal, Strategy, Marketing, Sustainability and Investor Relations.

Risks are managed by each relevant function. For more information about managing risks see page 34.

Hexagon's reporting structure

Hexagon
Hexagon's reporting structure is divided into Geospatial Enterprise Solutions and Industrial Enterprise Solutions as follows, with Group functions serving both:

Geospatial Enterprise Solutions
The business area comprises the following divisions:
- Geosystems
- Safety, Infrastructure & Geospatial
- Autonomy & Positioning

Group functions
- Finance
- Operations
- Innovation Hub
- Sustainability
- Legal
- Marketing
- Strategy
- Investor Relations

Industrial Enterprise Solutions
The business area comprises the following divisions:
- Manufacturing Intelligence
- Asset Lifecycle Intelligence

Important events 2022

Q1

Hexagon acquired **Minnovare,** a leading provider of drilling technology.

Hexagon announced a strategic partnership agreement with **The Hydrogen Utility Pty Ltd (H2U),** a leading Australian hydrogen infrastructure developer.

Q2

Hexagon acquired **ETQ**, a leading provider of SaaS-QMS (quality management system), EHS (environment, health and safety) and compliance management software.

Hexagon announced the introduction of the all-new, next-generation **Leica BLK360**, which dramatically advances reality capture by delivering two of the most sought-after necessities: speed and efficiency.

Hexagon announced that **Paolo Guglielmini will succeed Ola Rollén as President and CEO of Hexagon AB**, effective 31 December 2022.

Q3

Hexagon acquired **iConstruct Pty Ltd**, a provider of award-winning BIM (building information modelling) software.

Hexagon announced **R-ventures**, a new venture capital arm of R-evolution.

Q4

Hexagon announced a 100 MUSD investment in **Divergent Technologies Inc**, a pioneer of green manufacturing technologies.

Hexagon announced the acquisitions of **Qognify**, a leading provider of physical security and enterprise incident management software and **LocLab**, a leader in 3D digital twin content creation.

2022 in brief

- Operating net sales increased by 19 per cent to 5,175.5 MEUR (4,347.4). Using fixed exchange rates and a comparable group structure (organic growth), net sales increased by 8 per cent
- Adjusted operating earnings (EBIT1) increased by 20 per cent to 1,517.8 MEUR (1,269.6)
- Earnings before tax, excluding adjustments, amounted to 1,479.1 MEUR (1,243.4)
- Net earnings, excluding adjustments, amounted to 1,212.9 MEUR (1,018.0)
- Earnings per share, excluding adjustments, increased by 15 per cent to 44.6 Euro cent (38.8)
- Operating cash flow decreased by 14 per cent to 778.1 MEUR (904.2)

Adjusted operating margin

29%

Organic growth

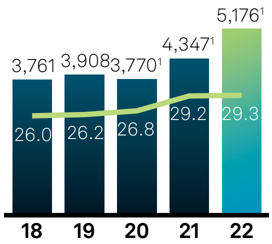
8%

Key figures[1]

	2022	2021	△%
Operating net sales	5,175.5	4,347.4	8[2]
Revenue adjustment[3]	-15.0	-6.3	n.a.
Net sales	5,160.5	4,341.1	8[2]
Adjusted operating earnings (EBIT1)	1,517.8	1,269.6	20
Adjusted operating margin	29.3	29.2	0.1
Earnings before taxes excl. adjustments	1,479.1	1,243.4	19
Adjustments (before taxes)[4]	-231.1	-259.8	n.a.
Earnings before taxes	1,248.0	983.6	27
Net earnings	1,019.1	810.0	26
Earnings per share, Euro cent	37.4	30.8	21
Operating cash flow	778.1	904.2	-14
Return on equity, %	10.5	11.6	-9
Return on capital employed, %	11.5	13.5	-15
Share price, SEK[5]	109.00	143.65	n.a.
Net debt	3,441.7	2,540.8	35
Average number of employees	23,196	21,291	9

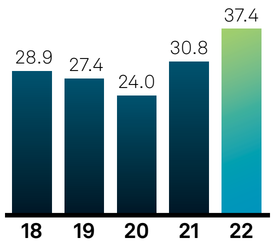
1) All figures are in MEUR unless otherwise stated
2) Adjusted to fixed exchange rates and a comparable group structure, i.e., organic growth
3) Reduction of acquired deferred revenue (haircut) related to acquisitions
4) See more information on page 57

Operating net sales, MEUR
Adjusted operating margin, %

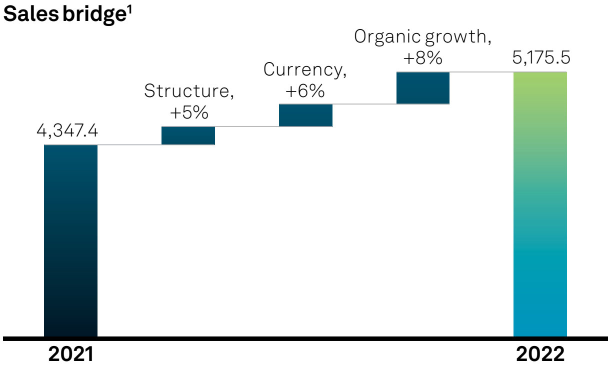


1) Operating net sales

Earnings per share, EUR



Sales bridge[1]



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

Five-year overview

MEUR	2022	2021	2020	2019[2]	2018
Operating net sales	5,175.5	4,347.4	3,770.5	3,907.7	3,760.7
Revenue adjustment[1]	-15.0	-6.3	-6.1	-	-
Net sales	5,160.5	4,341.1	3,764.4	3,907.7	3,760.7
Adjusted operating earnings (EBIT1)	1,517.8	1,269.6	1,009.5	1,023.6	978.0
Adjusted operating margin, %	29.3	29.2	26.8	26.2	26.0
Earnings before taxes excluding adjustments	1,479.1	1,243.4	982.1	996.7	955.2
Adjustments	-231.1	-259.8	-222.5	-131.4	-52.9
Earnings before taxes	1,248.0	983.6	759.6	865.3	902.3
Net earnings	1,019.1	810.0	624.7	708.6	738.1
Earnings per share, Euro cent	37.4	30.8	24.0	27.4	28.9

1) Reduction of acquired deferred revenue (haircut) related to acquisitions
2) IFRS 16 Leases was applied from 2019 without restating comparable numbers

Net sales
Operating net sales amounted to 5,175.5 MEUR (4,347.4). Using fixed exchange rates and a comparable group structure (organic growth), sales increased by 8 per cent.

Market demand
Regionally, organic growth was 10 per cent in Americas, 7 per cent in Asia, and 7 per cent in EMEA. Operating net sales in the Americas amounted to 1,995.5 MEUR (1,507.4), representing 39 per cent (35) of Group sales. North America recorded strong growth, fuelled by solid demand across most industries. South America recorded strong growth throughout the year as well, driven by a solid development in mining, agriculture, power and energy.

Operating net sales in Asia amounted to 1,408.5 MEUR (1,237.8), representing 27 per cent (28) of Group sales. China recorded moderate growth in the year, hampered by Covid-19 related restrictions and weakness in infrastructure and construction, but positively impacted by strong growth across manufacturing industries. The rest of Asia recorded strong growth, driven by strong demand in regions like India and Japan for solutions from both GES and IES.

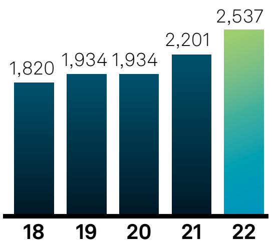
Operating net sales in EMEA amounted to 1,771.5 MEUR (1,602.3), representing 34 per cent (37) of Group sales. Western Europe recorded strong growth across all key verticals. Russia declined significantly, reflecting the impact of imposed sanctions and the internal actions taken to freeze business operations in Russia. EMEA, excluding Russia and Western Europe, recorded solid organic growth.

Geospatial Enterprise Solutions
Geospatial Enterprise Solutions (GES) operating net sales amounted to 2,537.0 MEUR (2,201.4). Using fixed exchange rates and a comparable group structure (organic growth), net sales increased by 7 per cent. Regionally, organic growth was 10 per cent in the Americas, 5 per cent in EMEA and 4 per cent in Asia. Geosystems recorded 7 per cent organic growth, driven by a strong demand across key industries, with solid contribution from new products. Safety, Infrastructure & Geospatial recorded 4 per cent organic growth, driven by growth in infrastructure and defence. Autonomy & Positioning recorded 8 per cent organic growth, positively impacted by strong demand in defence and precision agriculture markets.

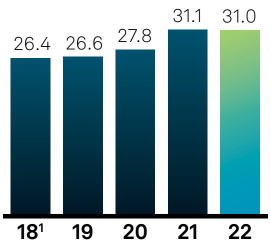
Industrial Enterprise Solutions
Industrial Enterprise Solutions (IES) operating net sales amounted to 2,638.5 MEUR (2,146.0). Using fixed exchange rates and a comparable group structure (organic growth), net sales increased by 9 per cent. Regionally, organic growth was 10 per cent in the Americas, 9 per cent in EMEA and 9 per cent in Asia. Manufacturing Intelligence recorded 10 per cent organic growth, driven by solid broad-based strength across geographies, industries and the software portfolio. The Asset Lifecycle Intelligence division recorded 7 per cent organic growth, fuelled by growth in design software, AIM (Asset Information Management) software and as well as strong contribution from EAM (Enterprise Asset Management) software.

Geospatial Enterprise Solutions

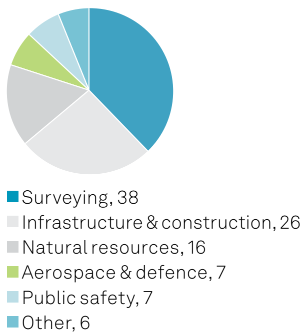
Operating net sales, MEUR



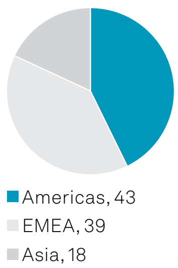
Adjusted operating margin, %



Customer segment, %

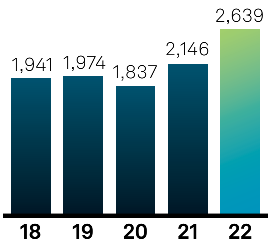


Geography, %

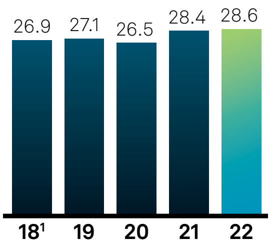


Industrial Enterprise Solutions

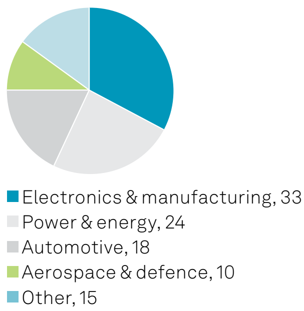
Operating net sales, MEUR



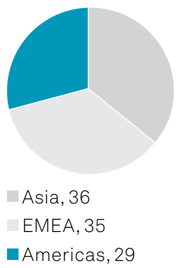
Adjusted operating margin, %



Customer segment, %



Geography, %



1) Numbers for 2018 has not been restated according to IFRS16 Leases implemented during 2019

Adjusted operating earnings

Adjusted operating earnings (EBITDA) increased by 13 per cent to 1,877.1 MEUR (1,654.1), corresponding to an adjusted EBITDA margin of 36.3 per cent (38.0). Adjusted operating earnings (EBIT1), increased by 20 per cent to 1,517.8 MEUR (1,269.6), corresponding to an adjusted operating margin (EBIT1 margin) of 29.3 per cent (29.2).

Adjusted operating earnings (EBIT1) for Geospatial Enterprise Solutions increased to 786.5 MEUR (684.7), corresponding to an adjusted operating margin of 31.0 per cent (31.1). Adjusted operating earnings (EBIT1) for Industrial Enterprise Solutions increased to 755.1 MEUR (609.1), corresponding to an adjusted operating margin of 28.6 per cent (28.4).

Segments

	Operating net sales		Adjusted operating earnings (EBIT1)	
MEUR	**2022**	**2021**	**2022**	**2021**
Geospatial Enterprise Solutions	2,537.0	2,201.4	786.5	684.7
Industrial Enterprise Solutions	2,638.5	2,146.0	755.1	609.1
Group cost	-	-	-23.8	-24.2
Total	5,175.5	4,347.4	1,517.8	1,269.6

Adjusted gross earnings

Adjusted gross earnings amounted to 3,384.7 MEUR (2,806.8). The adjusted gross margin was 65.4 per cent (64.6).

Financial income and expenses

The financial net amounted to -38.7 MEUR (-26.2) in 2022.

Adjustments

During 2022 adjustments amounted to -231.1 MEUR (-259.8). Adjustments consist of share-based program expenses (LTIP) amortisation of surplus values (PPA), acquired deferred revenue and non-recurring items related to transaction costs and freezing business operations in Russia.

Earnings before tax

Earnings before tax, excluding adjustments, amounted to 1,479.1 MEUR (1,243.4). Including adjustments, earnings before tax were 1,248.0 MEUR (983.6).

Effective tax rate

Hexagon's tax expense for the year totalled -228.9 MEUR (-173.6), corresponding to an effective tax rate of 18.3 per cent (17.6). The tax rate, excluding adjustments, was 18.0 per cent (18.0) for 2022.

Non-controlling interest

The non-controlling interest's share of net earnings was 11.5 MEUR (8.4).

Net earnings

Net earnings, excluding adjustments, amounted to 1,212.9 MEUR (1,018.0) or 44.6 Euro cent per share (38.8).

Net earnings, including adjustments, amounted to 1,019.1 MEUR (810.0) or 37.4 Euro cent per share (30.8).

Cash flow

Cash flow from operations before changes in working capital and non-recurring items amounted to 1,546.5 MEUR (1,372.8), corresponding to 57.4 Euro cent per share (52.8). Including changes in working capital, but excluding non-recurring items, cash flow from operations was 1,372.7 MEUR (1,351.4), corresponding to 51.0 Euro cent per share (52.0). Cash flow from other investment activities was -1,244.9 MEUR (-746.7). Cash flow after other investments amounted to -466.8 MEUR (157.5). The change in borrowings was 868.7 MEUR (219.9). Cash dividends to the Parent Company shareholders amounted to -295.8 MEUR (-238.4), corresponding to 0.11 Euro cent per share (0.09).

Profitability

Capital employed, defined as total assets less non-interest-bearing liabilities, increased to 13,792.6 MEUR (11,777.6). Return on average capital employed, excluding adjustments, for the last 12 months was 11.5 per cent (13.5). Return on average shareholders' equity for the last 12 months was 10.5 per cent (11.6). The capital turnover rate was 0.4 times (0.5).

Financing and financial position

Shareholders' equity, including non-controlling interest, increased to 9,864.6 MEUR (8,764.7). The equity ratio decreased to 59.9 per cent (62.2).

Following a refinancing in 2021, Hexagon's main sources of financing consist of:

1. A multicurrency revolving credit facility (RCF) established in 2021. The RCF amounts to 1,500 MEUR with a tenor of 5+1+1 years.
2. A Swedish Medium-Term Note Programme (MTN) established during 2014. The MTN programme amounts to 20,000 MSEK with tenor up to 6 years. On 31 December 2022, Hexagon had issued bonds for a total amount of 10,150 MSEK (11,650).
3. A Swedish Commercial Paper Programme (CP) established in 2012. The CP programme amounts to 15,000 MSEK with tenor up to 12 months. On 31 December 2022, Hexagon had issued commercial paper for a total amount of 7,464 MSEK (7,920) and 60 MEUR (34).

On 31 December 2022, cash and unutilised credit limits totalled 1,429.7 MEUR (1,341.5). Hexagon's net debt was 3,441.7 MEUR (2,540.8). The net indebtedness was 0.33 times (0.27). Interest coverage ratio was 27.3 times (32.4).

Investments

Ordinary investments consist mainly of investments in production facilities, production equipment and intangible assets, primarily capitalised development expenses. Of the ordinary investments of 567.5 MEUR (424.9) during 2022, approximately 67 per cent (70) 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, India and the USA, that results in products and services that are sold worldwide. The remaining part of the current investments, approximately 33 per cent, comprised mostly of investments in new facilities and in business equipment and machines. All current investments during the year have been financed by cash flow from operating activities. Investments corresponded to 11 per cent (10) of net sales. Hexagon does not expect any material change to current investment levels as a percentage of net sales in the near future. Depreciation, amortisation and impairment during the year amounted to -467.0 MEUR (-578.9).

Investments

MEUR	2022	2021
Investments in intangible fixed assets	413.9	312.2
Investments in tangible fixed assets	153.6	112.7
Divestments of tangible fixed assets	-14.8	-5.5
Total ordinary investments	**552.7**	**419.4**
Investments in subsidiaries	1,194.8	748.4
Divestments of subsidiaries	-	-0.3
Investments in financial fixed assets	59.2	4.0
Divestments of financial fixed assets	-9.1	-5.4
Total other investments	**1,244.9**	**746.7**
Total investments	**1,797.6**	**1,166.1**

Intangible fixed assets

As of 31 December 2022, Hexagon's carrying value of intangible fixed assets was 12,805.6 MEUR (10,909.4). Amortisation of intangible fixed assets was -292.4 MEUR (-250.6). 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. Goodwill as of 31 December 2022 amounted to 9,599.5 MEUR (8,205.6), corresponding to 58 per cent (58) of total assets.

Goodwill

MEUR	2022	2021
Geospatial Enterprise Solutions	2,927.9	2,693.0
Industrial Enterprise Solutions	6,671.6	5,512.6
Total	9,599.5	8,205.6

Research and development

Hexagon places a high priority on investments in R&D. Being one of the most innovative suppliers 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 addressable market for Hexagon's products and services. Total expenditure for R&D during 2022 amounted to 714.3 MEUR (566.5), corresponding to 14 per cent (13) of net sales. Development expenses are capitalised only if they pertain to new products, the cost is significant and the product is believed to have future economic benefits. The current level of R&D costs is in line with other leading companies in the industry.

R&D cost

MEUR	2022	2021
Capitalised	377.8	296.8
Expensed (excluding amortisation)	336.5	269.7
Total	**714.3**	**566.5**
Amortisation	173.5	179.0

Environmental impact

Hexagon seeks to have a positive impact on the environment by acting sustainably and addressing environmental challenges in its internal operations and value chain. By upholding high standards of environmental sustainability processes, Hexagon supports activities that aim to reduce its environmental footprint, better meet customer requests, attract and retain talent, generate savings, mitigate environmental risks and fuel innovation. The solutions portfolio, which includes precision measurement systems and simulation software, help customers optimise the use of raw materials and components, improve energy efficiency and extend product life cycles. The solutions are also used to protect the environment and increase safety by monitoring assets and predicting movements in structures in areas where natural disasters may have a serious impact on people and assets. However, Hexagon also takes accountability for the environmental challenges in its internal operations as well as in all steps of the value chain. Hexagon has stipulated the goals to become carbon neutral in its scope 1 and 2 emissions by 2030, and to become carbon neutral in the whole value chain (scope 1, 2 and 3) by 2050. The carbon targets will be achieved by increasing energy efficiency in Hexagon's facilities, reducing waste in production and emissions from business travel as

Acquisitions 2022

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 2022, Hexagon acquired the following companies:

Geospatial Enterprise Solutions

Company	Division	Area
Minnovare	Geosystems	A leading provider of drilling technology
PDSA Company LTD	Geosystems	A Hexagon Leica Geosystems distributor
Kasi Aviation Inc	Geosystems	A provider of aerial survey and mapping services
Avvir	Geosystems	A developer of SaaS-based construction progress monitoring solutions

Industrial Enterprise Solutions

Company	Division	Area
ETQ	Manufacturing Intelligence	A leading provider of SaaS-based QMS software
Vero Solutions	Manufacturing Intelligence	A distributor of Hexagon's VISI CAD CAM software
TST Tooling Software Technology LLC	Manufacturing Intelligence	A distributor of Hexagon's VISI CAD CAM software
Men At Work GmbH	Manufacturing Intelligence	A distributor of Hexagon's VISI CAD CAM software
CIM3	Manufacturing Intelligence	A distributor of Hexagon's ESPRIT CAM software
Innovatia Accelerator Inc	Asset Lifecycle Intelligence	A developer of SaaS-based digitalisation solutions in the Operations & Maintenance segment
iConstruct Pty Ltd	Asset Lifecycle Intelligence	A provider of BIM software

Read about acquisitions on page 70. →

well as in its company car fleet. Hexagon also has a goal of conducting sustainability audits on all of its key suppliers in risk countries by 2023, a goal Hexagon expects to reach. The Board is responsible for the sustainability report which contains more information about sustainability throughout Hexagon. The complete sustainability report can be found at hexagon.com.

Share capital and ownership

On December 31, 2022, Hexagon's share capital was 85,761,451 EUR, represented by 2,705,477,888 shares. Total shares outstanding was 110,250,000 Class A shares, each carrying ten votes and 2,579,427,888 Class B shares, each carrying one vote. On December 31, 2022, Melker Schörling AB, the single largest shareholder in Hexagon, held a total of 110,250,000 Class A shares and 466,256,440 Class B shares, representing 42.4 per cent of the votes and 21.3 per cent of the capital. Hexagon AB has acquired 15,800,000 of the company's own shares of Class B as of 31 December 2022. The purpose of the repurchase is to ensure Hexagon's undertakings in respect to the long-term incentive programme (other than delivery of shares to participants in the incentive programme), including covering social security costs.

Significant agreements

To the best of the Board of Director'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 72, 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 9,864.6 MEUR (8,764.7) at year-end. Hexagon's overall long-term objective is to increase earnings per share by at least 15 per cent annually and to achieve a return on capital employed of at least 15 per cent. Another Group objective is to achieve an equity ratio of 25 per cent as Hexagon is seeking to minimise the weighted average cost of capital for the company's financing.

Hexagon has undertaken to comply with a requirement regarding a key financial ratio (covenant) towards lenders. The key financial ratio is reported to lenders in conjunction with the quarterly reports. If the requirement is not complied with, the terms and conditions are renegotiated and there is a risk of a temporary increase in borrowing costs. In addition, lenders have a right to terminate loan agreements. Hexagon has never breached any covenants, not in 2022 nor in prior years.

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

Corporate governance

In accordance with the Swedish Annual Accounts Act, Hexagon has prepared a corporate governance report separate from the annual report. It can be found in this document on pages 21–27. The Corporate governance report contains the Board of Directors' report on internal control.

Dividend

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

A dividend of 0.11 EUR per share for the fiscal year 2021 was resolved by the Annual General Meeting (AGM) in April 2022. The record date was 3 May and date of settlement was 10 May 2022.

The Hexagon Board of Directors proposes a dividend of 0.12 EUR per share for the fiscal year 2022, corresponding to 32 per cent of net earnings after tax. The proposed record date will be 4 May and expected date for settlement is 11 May 2023.

Guidelines for remuneration of senior executives

The Board of Directors of Hexagon AB (publ) proposed that the AGM 2020 resolved on guidelines for remuneration to the President and CEO and other senior executives as follows. Other senior executives are defined as members of the group management. The guidelines are applicable to remuneration agreed, and amendments to remuneration already agreed, after adoption of the guidelines by the AGM 2020. These guidelines do not apply to any remuneration decided or approved by the general meeting.

A prerequisite for the successful implementation of the company's business strategy and safeguarding of its long-term interests, including its sustainability, is that the company is able to attract and retain qualified senior executives. To this end, it is necessary that the company offers competitive remuneration on market terms. These guidelines enable the company to offer the executive management a competitive total remuneration.

Variable cash remuneration covered by these guidelines shall aim at promoting the company's business strategy and long-term interests, including its sustainability.

The remuneration shall be on market terms and consist of fixed cash salary, variable remuneration, other benefits and pension. Additionally, the general meeting may – irrespective of these guidelines – resolve on, among other things, share-related or share price-related incentive programmes.
The satisfaction of criteria for awarding variable cash remuneration shall be measured over a period of one year. The variable cash remuneration is capped and shall be maximised at up to 150 per cent of the fixed annual cash salary.

For senior executives, pension benefits shall be paid not earlier than from the age of 60 years. As a general guideline, pension benefits for the CEO, including health insurance, shall be fee based. Variable cash remuneration shall not qualify for pension benefits. The pension premiums for premium defined pension shall amount to not more than 20 per cent of the fixed annual cash salary. As a general guideline, pension benefits for other executives, including health insurance, shall be fee based. Deviations from this general guideline may be made when appointing new senior executives whose employment agreements already comprise benefit-based pension plans or if the executive is covered by benefit pensions in accordance with mandatory collective agreement provisions. Variable cash remuneration shall qualify for pension benefits only to the extent required by mandatory collective agreement provisions applicable to the executive. The pension premiums for premium defined pension shall amount to not more than 25 per cent of the fixed annual cash salary. Other benefits may include, for example, life insurance, medical insurance and company cars. Premiums and other costs relating to such benefits may amount to not more than two per cent of the fixed annual cash salary.

For employments governed by rules other than Swedish, duly adjustments may be made for compliance with mandatory rules or established local practice, taking into account, to the extent possible, the overall purpose of these guidelines. The notice period for the President and CEO is six months. Upon termination by the company or in case of change of principal ownership the President and CEO is entitled to severance pay equal to 18 months of salary. The period of notice for senior executives is a maximum of 24 months. During the notice period, basic salary is the only severance pay.

The variable cash remuneration shall be linked to individualised predetermined and measurable criteria. The criteria shall be designed so as to contribute to the company's business strategy and long-term interests, including its sustainability, by for example being clearly linked to the business strategy or promote the executive's long-term development. The variable cash remuneration is based on results. The design of the criteria for variable cash remuneration contributes to the company's business strategy, long-term interests and sustainability.

To which extent the criteria for awarding variable cash remuneration has been satisfied shall be determined when the measurement period has ended. The remuneration committee is responsible for the evaluation so far as it concerns variable cash remuneration to the President and CEO. For variable cash remuneration to other executives, the President and CEO is responsible for the evaluation. For financial objectives, the evaluation shall be based on the latest financial information made public by the company. In the preparation of the Board of Directors' proposal for these remuneration guidelines, salary and employment conditions for employees of the company have been taken into account by including information on the employees' total income, the components of the remuneration and increase and growth rate over time, in the remuneration committee's and the Board of Directors' basis of decision when evaluating whether the guidelines and the limitations set out herein are reasonable.

The Board of Directors has established a remuneration committee. Remuneration to the President and CEO and other senior executives shall be prepared by the remuneration committee and resolved by the Board of Directors based on the proposal of the remuneration committee. The committee's tasks include preparing the Board of Directors' decision to propose guidelines for executive remuneration. The Board of Directors shall prepare a proposal for new guidelines at least every fourth year and submit it to the general meeting. The guidelines shall be in force until new guidelines are adopted by the general meeting. The remuneration committee shall also monitor and evaluate programs for variable remuneration for the executive management, the application of the guidelines for executive remuneration as well as the current remuneration structures and compensation levels in the company. The members of the remuneration committee are independent in relation to the company and the company management. The President and CEO and other members of the executive management do not participate in the Board of Directors' processing of and resolutions regarding remuneration-related matters in so far as they are affected by such matters.

The Board of Directors may temporarily resolve to derogate from the guidelines, in whole or in part, if in a specific case there is special cause for the derogation and a derogation is necessary to serve the company's long-term interests, including its sustainability, or to ensure the company's financial viability. As set out above, the remuneration committee's tasks include preparing the Board of Directors' resolutions in remuneration-related matters. This includes any resolutions to derogate from the guidelines. The proposed guidelines for remuneration to senior executives that were proposed and adopted by the AGM 2020 are applicable until further notice.

For a description of remuneration to senior executives see Note 30 on page 72.

Incentive programmes

The Board of Directors proposed that the Annual General Meeting resolved on implementation of a performance based long-term share programme for 2022 (Share Programme 2022/2025), for more information on the share programme see Note 30 on page 72, and page 79.

Parent company

The Parent Company's earnings before tax were -1,228.2 MEUR (-14.4). The equity was 5,040.6 MEUR (6,647.6). The equity ratio of the Parent Company was 34 per cent (51). Liquid funds including unutilised credit limits were 930.7 MEUR (916.1).

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.

Proposed appropriation of earnings

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

Premium reserve	2,903,123
Retained earnings	2,971,196
Net earnings	-1,240,173
Total	**4,634,146**

The Board of Directors proposes that these funds are allocated as follows:

Cash dividend to shareholders of 0.12 EUR per share	322,761
Balance remaining in the premium reserve	2,903,123
Balance remaining in retained earnings	1,408,262
Total	**4,634,146**

Significant events after the fiscal year

On January 12, 2023 Hexagon announced the acquisition of Projectmates, a SaaS-based, owner-focused, enterprise construction project management software provider.

Corporate governance report

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

Hexagon applies the Code, which is based on the principle "comply or explain". Hexagon did not note any deviations from the Code for the 2022 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 2022, Hexagon's share capital was EUR 85,761,451 represented by 2,705,477,888 shares, of which 110,250,000 are of Class A with ten votes each and 2,595,227,888 are of Class B with one vote each. As of 31 December 2022, Hexagon AB holds in total 15,800,000 of the company's own shares of Class B acquired on Nasdaq Stockholm. Repurchase of 6,450,000 shares was made during 2022 pursuant to the authorisation granted by the Annual General Meeting on 29 April 2022. The authorisation comprises acquisitions on Nasdaq Stockholm, on one or more occasions for the period up until the Annual General Meeting 2023, of maximum so many Series B shares that the company's holding does not exceed 10 per cent of all shares in the company at that time. According to the authorisation any acquisitions of shares on Nasdaq Stockholm may only occur at a price within the share price interval registered at that time, where share price interval means the difference between the highest buying price and the lowest selling price. The Board of Directors was further authorised, for the period up until the Annual General Meeting 2023 on one or more occasions, to resolve on transfer of the company's own Series B shares. According to the authorisation, transfer of Series B shares may be made at a maximum of 10 per cent of the total number of shares in the company from time to time. A transfer may be made with deviation from the shareholders' preferential rights on Nasdaq Stockholm as well as to third parties in connection with acquisition of a company or a business. Compensation for transferred shares can be paid in cash, through an issue in kind or a set-off. Transfers of shares on Nasdaq Stockholm may only occur at a price per share within the share price interval registered at that time. Transfer in connection with acquisitions may be made at a market value assessed by the Board of Directors. The purpose of the authorisations is to give the Board of Directors the opportunity to adjust the company's capital structure, to finance potential company acquisitions, and as a hedge for the company's share-based incentive programmes. The purpose of the repurchase during 2022 was to ensure Hexagon's undertakings in respect of the long-term incentive programmes (other than delivery of shares to participants in the incentive programmes), including covering social security costs. The Board of Directors did not exercise the authorisation to resolve on transfer of own shares during 2022.

The Annual General Meeting held on 29 April 2022 also authorised the Board of Directors to, with or without deviation from the shareholders' preferential rights, and with or without provisions for contribution in kind, set-off or other conditions, resolve to issue Series B shares, convertibles and/or warrants (with rights to subscribe for or convert into Series B shares). The authorisation may be utilised on one or more occasions during the period up until the Annual General Meeting 2023. By resolutions in accordance with the authorisation, the number of shares may be increased by a number corresponding to a maximum of 10 percent of the number of outstanding shares in the company at the time when the Board of Directors first uses the authorisation. The purpose of the authorisation is to ensure financing of acquisitions of companies, part of companies or businesses or to strengthen the company's capital base and equity/assets ratio. In case of deviation from the shareholders' preferential rights, issues by virtue of the authorisation shall be made on market conditions.

Melker Schörling AB, the single largest shareholder in Hexagon, held a total of 110,250,000 Class A shares and 466,256,440 Class B shares at year-end 2022, representing 42.4 per cent of the votes and 21.3 per cent of the capital. No other shareholder has any direct or indirect shareholding representing 10 per cent or more of the total votes.

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

Annual General Meeting

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

Nomination Committee

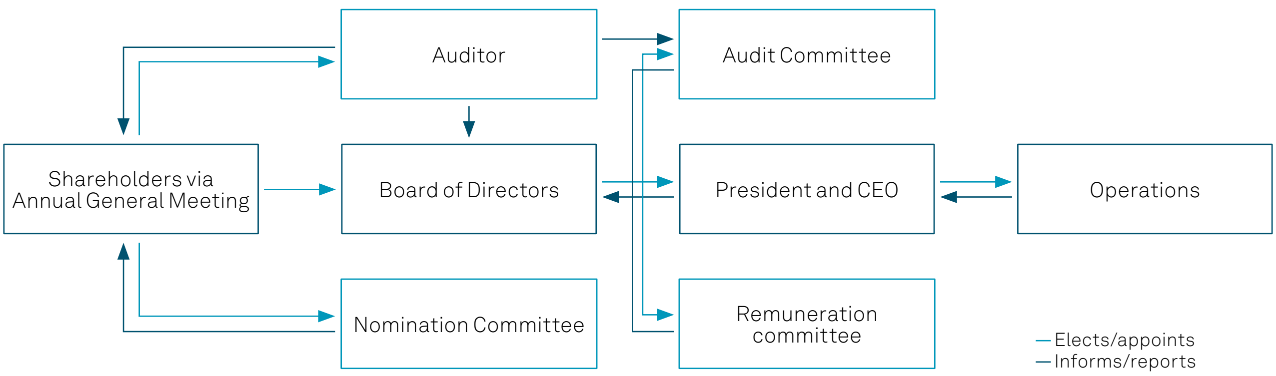
The AGM has resolved that the Nomination Committee's assignment shall comprise the preparation and presentation of proposals to the shareholders at the AGM on the election of Board members, Chair of the Board, Chair of the AGM, and the company's auditors. In addition, the Nomination Committee presents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

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

Board of Directors

In accordance with the Articles of Association, the Board of Directors of Hexagon shall consist of no less than three and not more than ten members, elected annually by the AGM for the period until the end of the next AGM. The Articles of Association of the company contain no special provisions regarding the election and discharge of Board members or regarding changes to the Articles of Association. The AGM 2022 elected ten members, including the President and Chief Executive Officer. The Chief Financial Officer and Executive Vice President, the General Counsel, the Chief Operating Officer and the Chief Strategy Officer participate in the Board meetings. Other Hexagon employees participate in the Board meetings to make presentations on particular matters if requested.

The Nomination Committee's conclusions regarding the Board members' independence in relation to the company, its management and major shareholders is presented on page 30. According to the requirements set out in the Code, the majority of the Board members elected by the AGM must be independent in relation to the company and its management and at least two of such Board members shall also be independent in relation to the company's major shareholders. The criteria set forth in the Code and other relevant factors were considered in making determinations about independence.



Key data for board members

Board Member[1]	Elected	Independent	Committee membership: Audit Committee	Committee membership: Remuneration Committee	Meeting attendance: Board of Directors	Meeting attendance: Audit Committee	Meeting attendance: Remuneration Committee
Gun Nilsson	2008	No[2]	⦿	⦿	17/17	6/6	2/2
John Brandon	2017	Yes			16/17		
Ulrika Francke	2010	Yes	⦿		17/17	6/6	
Henrik Henriksson	2017	Yes			14/17		
Erik Huggers	2021	Yes			17/17		
Ola Rollén	2000	No[3]			17/17		
Märta Schörling Andreen	2017	No[2]			16/17		
Sofia Schörling Högberg	2017	No[2]	⦿	⦿	16/17	6/6	2/2
Patrick Söderlund	2020	Yes			16/17		
Brett Watson	2021	Yes			15/17		

1) A complete presentation of the Board Members is included on pages 30–31
2) Gun Nilsson, Märta Schörling Andreen and Sofia Schörling Högberg are not deemed to be independent of the company's major shareholders
3) Ola Rollén is not deemed to be independent of the company as a result of his position as Hexagon's President and CEO

Board and committee meetings

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

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

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

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

Audit Committee

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

Remuneration Committee

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

External auditors

The AGM appoints the company's auditors. On behalf of the shareholders, the auditors' task is to examine the company's Annual Report and accounting records and the administration by the Board of Directors and the President and CEO. In addition to the audit, the auditors occasionally have other assignments, such as work relating to acquisitions and tax. Hexagon's auditors normally attend the first Board meeting each year, at which the auditor 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 Auditor's report, which describes the audit work and observations made.

Internal control

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

President and CEO and Group Management

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

The Group Management, comprising the President and CEO, divisional presidents, heads of geographical regions and certain specific Group staff functions, totals 15 persons. Group Management is responsible for the overall business development and the apportioning of financial resources between the business areas, as well as matters involving financing and capital structure. Regular management meetings constitute Hexagon's forum for implementing overall controls down to a particular business operation and in turn, down to the individual company level.

Operations

In financial terms, Hexagon's business operations are controlled on the basis of the return on capital employed. This requires focus on maximising operating earnings and minimising working capital. Hexagon's organisational structure is decentralised with central oversight and coordination. 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 2022

The AGM, held on 29 April 2022 in Stockholm, Sweden, was attended by shareholders representing 60 per cent of the total number of shares and 71 per cent of the total number of votes. The AGM was carried out solely through advance voting (postal voting) pursuant to temporary legislation due to the Covid-19 pandemic. Gun Nilsson was elected Chair of the AGM.

The following main resolutions were passed at the AGM 2022:

- Re-election of Directors Gun Nilsson, John Brandon, Ulrika Francke, Henrik Henriksson, Ola Rollén, Märta Schörling Andreen, Sofia Schörling Högberg, Patrick Söderlund, Brett Watson and Erik Huggers.
- Re-election of Gun Nilsson as Chair of the Board
- Election of the accounting firm PricewaterhouseCoopers AB (PwC) for a one-year period of mandate. PwC has appointed the authorised public accountant Bo Karlsson as auditor in charge
- Dividend of 0.11 EUR per share for 2021 as per the Board's proposal
- Resolution on approval of remuneration report for 2021
- Approval of a performance based long term incentive programme (Share Programme 2022/2025)
- Authorisation for the Board of Directors on acquisition and transfer of Hexagon shares
- Authorisation for the Board of Directors to issue shares, convertibles and/or warrants

Nomination Committee

For the proposal for the AGM 2022, the Nomination Committee applied rule 4.1 of the Code as the diversity policy related to the Committee's nomination work. The Nomination Committee confirmed that the Board of Hexagon has an equal gender balance and an appropriate composition in general. Additional criteria, such as background, experience, previous leadership roles, relevant insights into Hexagon's industries and other customary attributes were considered when nominating the directors.

In respect of the 2023 AGM, the Nomination Committee comprises:

- Mikael Ekdahl, Melker Schörling AB (Chair)
- Jan Dworsky, Swedbank Robur fonder
- Liselott Ledin, Alecta
- Anders Oscarsson, AMF and AMF Fonder

During 2022, the Nomination Committee held two minuted meetings at which the Chair gave an account of the process of evaluation of the Board's work. The Committee discussed and decided on proposals to submit to the AGM 2023 concerning the election of Chair of the AGM, the election of Chair and other Board Members, remuneration to the Board, including remuneration for committee work, and fees to the auditors. Shareholders wishing to submit proposals have been able to do so by contacting the Nomination Committee via mail or email. Addresses have been made available on Hexagon's website.

Board of Directors' activities

In 2022, the Board held 17 minuted meetings, including the statutory Board meeting. At the Board meetings, the President and CEO presented the financial and market position of Hexagon and important events affecting the company's operations. On different occasions, Hexagon senior executives presented their operations and business strategies to the Board. In addition, items such as the approval of the interim reports, the annual report, acquisitions, cyber security and sustainability 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 February 2022 the board approved the new sustainability targets and in December 2022, the Board approved the operational strategy and the financial plan for 2023.

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 Chair of the Board. In 2022, the Chair conducted a written survey with all the Board members. The result of the evaluation has been reported to and discussed by the Board and the Nomination Committee. The Board is also evaluated within the framework of the Nomination Committee's activities.

Audit Committee

During 2022, the Audit Committee comprised:

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

In 2022, 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 2022, the Remuneration Committee comprised:

- Gun Nilsson (Chair)
- Sofia Schörling Högberg

In 2022, the Committee held two minuted meetings where remuneration and other employment terms and conditions for the President and CEO and other Group Management were discussed. The Remuneration Committee also monitored and evaluated the ongoing programmes for variable remuneration to senior executives as well as the application of the guidelines for remuneration to senior managers and the structure and levels of remuneration in the company.

External auditors

The AGM 2022 re-elected the accounting firm PricewaterhouseCoopers AB (PwC) as auditor for a one-year period of mandate. PwC has appointed authorised public accountant Bo Karlsson as auditor in charge. In addition to Hexagon, he conducts auditing assignment on VNV Global (publ) and VEF AB (publ) with recent auditing assignments for such companies as ASSA ABLOY AB (publ), SKF AB (publ) and Investment AB Latour (publ).

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 2022. The address of the auditors is PricewaterhouseCoopers AB, 113 97 Stockholm, Sweden.

Remuneration principles

The following principles for remuneration to senior executives in Hexagon were adopted by the AGM 2020.

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

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

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

The guidelines for remuneration are applicable until further notice and the Board will not propose any changes in the guidelines to the AGM 2023. The complete guidelines are presented on pages 19–20.

Remuneration of Group Management

Remuneration of the President and CEO and other senior executives is presented in Note 30 on page 72. The Board has prepared a remuneration report for approval by the AGM 2023.

There are no agreements between the company and its directors or employees, other than as described in Note 30, which stipulate the right to compensation if such person voluntarily leaves the company, such person is dismissed with cause or if such person's employment is terminated as a result of a public offer for shares in the company.

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Incentive programmes

Details of the Share Programme 2020/2023, the Share Programme 2021/2024 and the Share Programme 2022/2025 are presented on page 79 (The Share section) and in Note 30 on page 72.

Remuneration of Board of Directors

Remuneration of the Board of Directors is resolved by the AGM upon proposal from the Nomination Committee. During 2022, the Chair of the Board and other Board Members received remuneration totalling 774.1 KEUR (672.7). Remuneration of the Board of Directors is presented in Note 30 on page 72.

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 73.

For more details about principles practised →

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

More information is available at hexagon.com →

- Articles of Association
- Information from earlier General Meetings
- Information about the members of the Board of Directors, the President and CEO and the auditor
- Information about the Nomination Committee, including the company's instructions for the Nomination Committee
- Information ahead of the Annual General Meeting 2023

Internal control pertaining to financial reporting

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

1. Control environment

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

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

2. Risk assessment

The significant risks affecting the internal control of financial reporting are identified and managed at group, business area, subsidiary and unit level. Within the Board, the Audit Committee is responsible for ensuring that significant financial risks and the risk of error in financial reporting is identified and managed in a manner that ensures correct financial reporting. Special priority has been assigned to identifying processes that, to some extent, give rise to a higher risk of significant error due to the complexity of the process or of the contexts in which major values are involved.

3. Control activities

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

4. Information and communication

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

5. Monitoring activities

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

Auditor's report on the corporate governance statement

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

Engagement and responsibility

It is the board of directors who is responsible for the corporate governance statement for the year 2022 on pages 21–27 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 RevR 16 The auditor's examination of the corporate governance statement. This means that our examination of the corporate governance statement is different and substantially less in scope than an audit conducted in accordance with International Standards on Auditing and generally accepted auditing standards in Sweden. We believe that the examination has provided us with sufficient basis for our opinions.

Opinions

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

Stockholm 30 March 2023

PricewaterhouseCoopers AB

Bo Karlsson
Authorised Public Accountant
Partner in charge

Helena Kaiser de Carolis
Authorised Public Accountant

> **“The world is facing significant environmental and societal challenges and it is our responsibility as a technology company to support in addressing them”**

Letter from the Chair of the Board

Dear shareholders,

It’s hard not to focus on the devastating event that shaped the year while reflecting on 2022 – the invasion by Russia of a sovereign nation that is still ongoing. The war’s impact will have far-reaching effects for years to come, as it has caused severe harm to Ukraine’s inhabitants and forced governments and businesses to sever ties with Russia. The year was also plagued by energy shortages, skyrocketing inflation and supply chain constraints. But despite this, I’m proud to say that Hexagon stood firm and maintained momentum throughout 2022.

Much like Ola and the management, I believe we are at a crossroads in time and must find new ways to conduct business. The world is facing significant environmental and societal challenges and it is our responsibility as a technology company to support in addressing them and present attractive solutions. With the aftermath of the abovementioned crises resulting in higher energy costs throughout the planet, more investments and innovation are needed to make clean technologies and energy sources more available, efficient and price competitive.

R-evolution, Hexagon’s sustainable innovation and green-tech investment subsidiary, successfully enabled blue carbon credits for one of the world’s largest seagrass meadows on The Bahama Banks. During the year, Hexagon also launched several exciting products, such as the next-generation Leica BLK360 laser scanner. Hexagon also acquired companies like LocLab, Avvir and ETQ to its Hexagon’s Smart Digital Reality strategy.

For many years I’ve had the pleasure of reflecting on Hexagon’s successes and the potential that lies ahead. It is during challenging times that a company and its leadership can prove its worth and merit. Hexagon has a proven track record and I am confident that the new leadership will take Hexagon to even greater heights. On behalf of the Board of Directors, I want to thank all Hexagon’s employees for their great work and the shareholders for their continued trust. It has been a privilege to serve as the chair of the board, and it is the Board’s privilege to continue to support Hexagon’s strategy and success for years to come.

Gun Nilsson
Chair of the Board

Board of Directors

Gun Nilsson
Born in 1955
Member of the Board since 2008
Chair of the Board since 2017
Chair of the Remuneration Committee and Member of the Audit Committee
Education: B.Sc. (Economics)
Work experience: President of Melker Schörling AB, CFO of IP-Only Group, Sanitec Group and Nobia Group, CEO of Gambro Holding AB, Deputy CEO and CFO of Duni AB
Other assignments: Board Member of Hexpol AB, AAK AB, Absolent Air Care Group AB, Bonnier Group AB and Einar Mattsson AB, Chair of The Swedish Corporate Governance Board
Previous assignments in the past five years: Board Member of Capio AB, Loomis AB and Dometic Group
Shareholding[1]: 88,662 shares of series B
Independent of the company and its management

John Brandon
Born in 1956
Member of the Board since 2017
Education: B.A. (History)
Work experience: Advisor at Conductive Ventures, Vice President International of Apple Inc., CEO Academic Systems Inc., Vice President and General Manager at North America of Adobe Systems Inc.
Other assignments: Board Member of Securitas AB
Previous assignments in the past five years: –
Shareholding[1]: 21,000 shares of series B
Independent of the company, its management and major shareholders

Ulrika Francke
Born in 1956
Member of the Board since 2010
Chair of the Audit Committee
Education: University studies
Work experience: President and CEO of Tyréns AB, City Planning Director and Street and Property Director at City of Stockholm and CEO of SBC AB
Other assignments: Chair of Vasakronan and Swedish Green Building Council, Vice Chair of Swedish Standards Institute (SIS), and Board Member of Liquid Wind, Circura, Sven Tyréns Foundation and VREF (Volvo Research and Educational Foundation) and ISO President
Previous assignments in the past five years: Chair of Knightec AB , Vice Chair of Swedbank AB, Chair of BIM Alliance Sweden and Stockholm Stadsteater AB, Board Member of Tyréns AB, Almega – the Employer's Organisation for the Swedish Service Sector and Wåhlin Fastighets AB
Shareholding[1]: 42,000 shares of series B
Independent of the company, its management and major shareholders

Henrik Henriksson
Born in 1970
Member of the Board since 2017
Education: B.Sc. (Business Administration)
Work experience: President H2GreenSteel AB, President and CEO of Scania AB, Executive Vice President of Sales and Marketing Scania, Senior Vice President of Scania Trucks, Export Director of Scania South Africa
Other assignments: Board Member Electrolux AN, Saab AB, Creades AB
Previous assignments in the past five years: Board Member of Scania AB, the Association of Swedish Engineering Industries and The Confederation of Swedish Enterprise
Shareholding[1]: 56,819 shares of series B
Independent of the company, its management and major shareholders

Erik Huggers
Born in 1973
Member of the Board since 2021
Education: B.Sc. (Business Economics & Marketing)
Work experience: President & CEO VEVO LLC, SVP Verizon Communications, President Intel Media Inc., Executive Director British Broadcasting Corporation, Senior Director Microsoft Corporation
Other assignments: Chair of the Board at Freepik Company SL, Supervisory Board Member at ProsiebenSat.1 Media SE and at Wetransfer B.V.
Previous assignments in the past five years: –
Shareholding[1]: –
Independent of the company, its management and major shareholders

Ola Rollén
Born in 1965
President and Chief Executive Officer since 2000
Member of the Board since 2000
Education: B.Sc. (Economics)
Work experience: President of Sandvik Materials Technology and Kanthal, Executive Vice President of Avesta-Sheffield
Other assignments: Board Member of Greenbridge Investment Partners Ltd.
Previous assignments in the past five years: –
Shareholding[1]: 502,075 shares of series B
Independent of major shareholders

Märta Schörling Andreen
Born in 1984
Member of the Board since 2017
Education: B.Sc. (Economics)
Work experience: Brand and innovation consultant at Pond Innovation & Design
Other assignments: Board Member of Melker Schörling AB, Hexpol AB, AAK AB and Absolent Group
Previous assignments in the past five years: –
Shareholding[1]: 110,250,000 shares of series A and 466,256,440 shares of series B through Melker Schörling AB
Independent of the company and its management

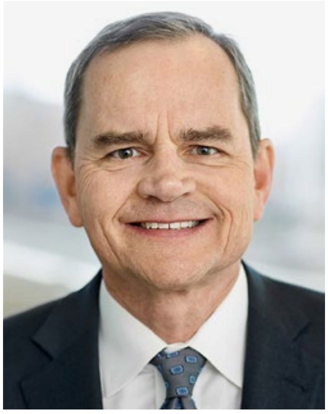
Sofia Schörling Högberg
Born in 1978
Member of the Board since 2017
Member of the Audit Committee and the Remuneration Committee
Education: B.Sc. (Economics)
Work experience: Trademark consultant at Essen International
Other assignments: Vice Chair of Melker Schörling AB, Board Member of Securitas AB and Assa Abloy AB
Previous assignments in the past five years: –
Shareholding[1]: 110,250,000 shares of series A and 466,256,440 shares of series B through Melker Schörling AB
Independent of the company and its management

Patrick Söderlund
Born 1973
Member of the Board since 2020
Education: -
Work experience: President of Embark Studios AB, DICE AB, various positions at Electronic Arts
Other assignments: Chair of Embark Studios AB, Board Member of Market Art Fair Intressenter AB, Fractal Gaming Group AB, Ortalis Group AB and Nexon Co. Ltd.
Previous assignments in the past five years: Board Member of BIMobjects AB, Peltarion AB and DICE AB
Shareholding[1]: 34,615 shares of series B
Independent of the company, its management and major shareholders

Brett Watson
Born in 1980
Member of the Board since 2021
Education: B.Sc., MBA (Finance)
Work experience: President of Koch Equity Development (KED), Senior Managing Director KED's Principal Investment Team, various positions in investment banking, principal investment and private equity
Other assignments: Board Member at Infor, Hexagon AB, Getty Images, Transaction Network Services, Globus Group, MITER Brands and the Flint Group
Previous assignments in the past five years: Board Member ADT Inc. and Solera Holdings Inc.
Shareholding[1]: –
Independent of the company, its management and major shareholders

1) Shareholdings based on information per 24 March 2023 and also include related-party holdings


Gun Nilsson


John Brandon


Ulrika Francke

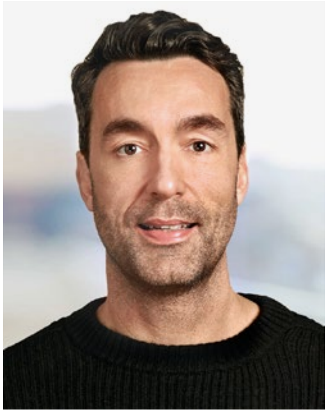

Henrik Henriksson


Erik Huggers


Ola Rollén


Märta Schörling Andreen


Sofia Schörling Högberg


Patrick Söderlund


Brett Watson

Group Management

Paolo Guglielmini
Born in 1977
President and Chief Executive Officer since 2023
Employed since 2010
Education: M.Sc., MBA (Engineering)
Work experience: President Manufacturing Intelligence division, Chief Executive Officer MSC Software, Executive Vice President Global Business Development at Manufacturing Intelligence, Project Lead CERN, Business Analyst Accenture
Other assignments: –
Previous assignments in the past five years: –
Shareholding[1]*:* 61,827 shares of series B

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

Burkhard Böckem
Born in 1971
Chief Technology Officer
Employed since 2001
Education: Ph.D. (Technology), M.Sc. (Geodesy)
Work experience: CTO Geosystems division, various R&D manager positions within Manufacturing Intelligence division
Other assignments: –
Previous assignments in the past five years: –
Shareholding[1]*:* –

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

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

Norbert Hanke
Born in 1962
Executive Vice President
Employed since 2001
Education: Diploma of Business Administration
Work experience: Chief Operating Officer Hexagon, President Manufacturing Intelligence division, Chief Financial Officer at Brown & Sharpe and various positions within the Kloeckner Group
Other assignments: –
Previous assignments in the past five years: –
Shareholding[1]*:* 158,424 shares of series B

Thomas Harring
Born in 1971
President, Geosystems division
Employed since 2003
Education: Diploma of Technically-oriented Business Administration
Work experience: Chief Operating Officer and Chief Financial Officer Geosystems division, various management positions within Geosystems, Senior Management Consultant at Baker Tilly
Other assignments: –
Previous assignments in the past five years: –
Shareholding[1]*:* 22,365 shares of series B

Li Hongquan
Born in 1966
Vice President and President of China Region
Employed since 2001.
Education: M.Sc. (Engineering)
Work experience: President of Qingdao Brown & Sharpe and Qianshao Technology Co. Ltd. Various positions in the Chinese manufacturing industry
Other assignments: –
Previous assignments in the past five years: –
Shareholding[1]*:* 840,000 shares of series B

Ben Maslen
Born in 1972
Chief Strategy Officer
Employed since 2017
Education: B.Sc. (Economics & Politics) and Chartered Accountant
Work experience: Co-head of European capital goods equity research Morgan Stanley and equity analyst at BoAML
Other assignments: Member of the Board of Martlet Capital Limited
Previous assignments in the past five years: –
Shareholding[1]*:* 7,000 shares of series B

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

Mattias Stenberg
Born in 1977
President, Asset Lifecycle Intelligence division
Employed since 2009
Education: B.Sc. (Economics)
Work experience: Chief Strategy Officer and Vice President of Strategy and Communications at Hexagon AB, various Investor Relations positions at Teleca AB and Autoliv Inc.
Other assignments: –
Previous assignments in the past five years: –
Shareholding[1]*:* 42,000 shares of series B

Josh Weiss
Born in 1986
President, Manufacturing Intelligence division
Employed since 2015
Education: B.Sc. (Finance), MBA
Work experience: COO/CDO Geosystems division, President Geosystems' mining and heavy construction businesses, Senior Manager Deloitte, various leading positions at ArcelorMittal
Other assignments: –
Previous assignments in the past five years: –
Shareholding[1]*:* –

Tony Zana
Born in 1979
General Counsel and Chief Compliance Officer
Employed since 2008
Education: D.Jur. (Law), B.Sc. (Management Information Systems)
Work experience: Deputy General Counsel at Hexagon, Vice President, General Counsel and Corporate Secretary at Intergraph Corporation, Attorney at Maynard, Cooper & Gale, Law Clerk at U.S. District Court
Other assignments: –
Previous assignments in the past five years: –
Shareholding[1]*:*–

1) Shareholdings based on information per 24 March 2023 and also include related-party holdings


Paolo Guglielmini


Robert Belkic


Burkhard Böckem


Kristin Christensen


Steven Cost


Norbert Hanke


Thomas Harring

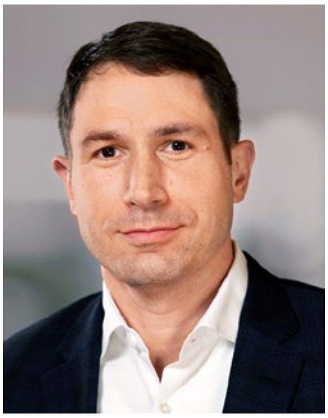

Li Hongquan


Ben Maslen


Michael Ritter


Mattias Stenberg


Josh Weiss


Tony Zana

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, sustainability and financial risks are managed at the Group level.

Market risk management

Market risks concern 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
Acquisitions and integration	
An important part of Hexagon's current and future growth strategy is to actively pursue strategic acquisitions of companies and businesses. It cannot be guaranteed, however, that Hexagon will be able to find suitable acquisition targets, nor can it be guaranteed that the necessary financing for future acquisition targets can be obtained on terms acceptable to Hexagon, or at all. A lack of acquisition financing or suitable acquisition targets may lead to a decreasing growth rate for Hexagon.	Hexagon monitors many companies to find acquisitions that can strengthen the Group's product portfolio or improve its distribution network. Potential targets are regularly evaluated based on financial, technology and commercial grounds. Every acquisition candidate's potential place in the Group is determined based on synergy simulations and implementation strategies. Every effort to complete a thorough due diligence is made in order to evaluate potential risks.
Acquisitions entail risk. The acquired entities' relations with customers, suppliers and key personnel may be negatively affected by the acquisition. There is also a risk that integration processes may prove more costly or more time consuming than estimated and that anticipated synergies in whole or in part fail to materialise. An acquisition of a company that is not conducting its business in a sustainable way or in compliance with Hexagon's Code of Business Conduct and Ethics may have a negative impact on Hexagon's reputation.	From 2000 to date, Hexagon completed more than 180 acquisitions. Based on its extensive experience in acquisitions and integration and clear strategies and goals, Hexagon is strongly positioned to successfully integrate acquired companies into the Group. In Hexagon's standard due diligence process, a number of sustainability elements are included, such as detailed consideration about the internal controls of the target company, quality business practices, environmental matters, employee matters, ISO (International Organisation for Standardisation), LEED (Leadership in Energy and Environmental Design) or other industry certifications, and anti-corruption/FCPA (Foreign Corrupt Practices Act) and export controls. Hexagon also evaluates whether target companies are following a robust code of conduct and whether the target companies' corporate responsibility and sustainability programmes are effective.
Impact of the economy and financial markets	
Hexagon engages in worldwide operations that are dependent on global economic and financial market conditions, as well as conditions that are unique to certain countries or regions. General economic and financial market conditions affect the inclination and the capabilities of Hexagon's existing and potential customers to invest in design, measurement and visualisation technologies. Weak macroeconomic conditions globally or in part of the world may therefore result in lower market growth that falls below expectations and lower revenues for Hexagon.	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.
The Covid-19 pandemic has caused significant disruption to the global economy, including in all of the regions in which Hexagon, its suppliers, distributors, business partners and customers do business and in which Hexagon's workforce is located. The Covid-19 pandemic and efforts to manage it, including those by governmental authorities, have had, and could continue to have, significant impacts on global markets. The continuing or resurgence of Covid-19 pandemic or new variants could have an impact on important Hexagon customer industries, and an increase of raw material and intermediate goods costs could impact Hexagon's sales potential and cost structure. While the duration and severity of those impacts on Hexagon's business are highly uncertain, they have had, and could continue to have, an adverse effect on the business, financial condition and results of operations in many ways.	While Hexagon have developed and continue to develop plans intended to help mitigate the negative impact of the pandemic on the business, a protracted economic downturn may limit the effectiveness of those mitigation efforts.

Risk	Risk management
Geopolitical risks	
Understanding geopolitical risk, how geography and economics influence politics and the relations between countries, is important in a world that has become more closely intertwined due to the rise of globalisation. Current geopolitical risks include the current crisis in Ukraine resulting from the invasion of the region by Russian forces and the corresponding global sanctions now facing Russian business, political and economic uncertainty surrounding the vulnerability of the interconnected global economy to pandemics and the potential for further escalation of the trade issues between the US and China. Although it is difficult to assess the evolution and impact of intensification of war hostilities, ongoing political tensions and international economic sanctions could have significant negative impacts on the global, international and European economy and the performance of financial markets and on the markets for raw materials (energy section, prices and availability of electricity and gas). Understanding how these geopolitical risks may affect Hexagon's organisation, operating results and strategies is critical to making accurate projections about Hexagon's future growth and profitability. However, what impact the Ukraine crisis, pandemics and/or an escalating trade war between the US and China will have on world trade and the global markets, and the demand for Hexagon's products, over the coming years is still fairly uncertain and will to some extent depend upon resolution of any crises and whether agreements regarding access to the markets can be settled.	In order to eliminate risks that may occur due to geopolitics, such as sanctions and/or global perception and reputational risk resulting from doing business in Russia in response to the Ukraine crisis, disruption to international commerce or the global economy, Hexagon is following developments closely while evaluating different strategies in order to prepare for and handle possible scenarios that may affect Hexagon's organisation and the ability to do business in different parts of the world in the near term and over the coming years.
Competition and price pressure	
Parts of Hexagon's operation are carried out in sectors which are subject to price pressure and rapid technological change. Hexagon's ability to compete in the market by introducing new and successful products with enhanced functionality while simultaneously cutting costs on new and existing products is of the utmost importance in order to avoid erosion of market share. Other inherent risks exist with competitors, such as consolidation or entry into Hexagon's markets by companies with significant resources. R&D efforts are costly and new product development always entails a risk of unsuccessful product launches or commercialisation, which could have material adverse consequences on Hexagon. Further, technological innovation and changing trends, such as disruptive technologies, supply chains, new market entrants or novel business models, creates inherent risks that are difficult to foresee.	Hexagon invests annually approximately 10–12 per cent of its net sales in R&D. In total more than 5,000 employees are engaged in R&D at Hexagon. The objectives for Hexagon's R&D division are to transform customer needs into products and services and to detect market and technology opportunities early on. Introducing new products and technologies requires active intellectual property management to secure Hexagon's technological position.

Operational risk management

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

Risk	Risk management
Customers	
Hexagon's business activities are conducted in a large number of markets with multiple customer categories. In 2022, Surveying was the single largest customer category and accounted for 20 per cent of net sales. For Hexagon, this customer category may involve certain risks as a downturn or weak development in the surveying sector can have a negative impact on Hexagon's business. Surveying is followed by customer categories Electronics and Manufacturing with 17 per cent, Infrastructure and Construction with 15 per cent and 10 per cent and Power and Energy with 12 per cent. Changing demand of Hexagon's customers is possible as technology needs and consumption change over time.	Hexagon has a favourable risk diversification in products and geographical areas, and no single customer or customer category is decisive for the Group's performance. The largest customer represents approximately 1 per cent of the Group's total net sales. Credit risk in customer receivables accounts for the majority of Hexagon's counterparty risk. Hexagon believes there is no significant concentration of counterparty risk. Further, in response to the Ukraine crisis, Hexagon has suspended new business in Russia. If any services are required to support and maintain those Russian customers who are not subject to sanctions, Hexagon will continue to provide such minimal support activities.
Hexagon may face risks, including reputational risks, while global conflicts persist, such as the Ukraine crisis (even though Hexagon's business in Russia is frozen) due to unauthorized use or misuse of the company's products. Further, the continuing or resurgence of the Covid-19 pandemic or any assimilated pandemic could result in delays, cancellations, or changes to user and industry conferences and other marketing events relating to Hexagon's solutions, including its own customer and partner events, which may negatively impact the ability to obtain new and retain existing customers, and effectively market Hexagon's solutions..	Hexagon's compliance programme addresses all principles contained in the Code of Business Conduct and Ethics, including export controls. Hexagon is committed to complying with appropriate export controls, and the company's compliance efforts aim to safeguard peace and security by preventing the unlawful trading of items (i.e., goods, software or technology) or diversion to destinations where they may be used for illegal purposes.
Suppliers	
Hexagon's hardware 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. Supply chain, transportation and logistics availability are increasingly difficult and costly due primarily to Covid-19 pandemic related factors and shortages. Further, Hexagon uses subcontractors, distributors, resellers and other representatives. Hexagon may face risks, including reputational risks, if suppliers are operating in ways that negatively impact human rights. The continuing or resurgence of the Covid-19 pandemic could temporarily result in an inability to meet in person or otherwise effectively communicate with current or potential vendors, suppliers, and partners, which may negatively affect current and future relationships with such vendors, suppliers, and partners and Hexagon's ability to generate demand for solutions.	Hexagon has a favourable risk diversification, and no single supplier is decisive for the Group's performance. The largest supplier accounted for approximately 1 per cent of Hexagon's total net sales in 2022. To minimise the risk of supply shortages or of excessive price variations among suppliers, Hexagon works actively to coordinate sourcing within the Group and to identify alternative suppliers for strategic components. Supplier risk surveys are performed (by Hexagon's external partner) in order to identify and mitigate risks associated with the suppliers' operations.
If there were to be unmanaged negative impacts following a supplier's noncompliance with Hexagon's Code of Business Conduct and Ethics and/or Hexagon's Supplier Code of Conduct, it may result in reputational risks for Hexagon.	Hexagon also has a sustainability risk assessment and supplier audit process in place, including handling the risk of breaches in human rights. Hexagon has a compliance programme in place for suppliers to manage social and ethical risks. Hexagon regularly conducts supplier audits to ensure suppliers are compliant with the Hexagon's Code of Business Conduct and Ethics and Hexagon's Supplier Code of Conduct.
Production and distribution units	
Hexagon's production and distribution units are exposed to risks (fire, explosion, natural hazards, machinery damages, cyber threats, infrastructure failures, power outages, etc.) that could lead to property damage and business interruption. This risk is further accentuated by climate change, which has a direct impact on the frequency and severity of these events.	Risk grading surveys are performed (by Hexagon's external partner) in order to identify and mitigate risks as well as support local management in their loss prevention work. Surveys are conducted with each subsidiary in accordance with a long-term plan. Hexagon has implemented ISO 9001 at the majority of the largest production sites.

Risk	Risk management
Human capital	
The resignation of key employees or Hexagon's failure to attract skilled and diverse personnel to all different levels within the organisation may have an adverse impact on the Group's operations. Further, maintaining Hexagon's company culture is critical to attracting and retaining top talent. Hexagon's workforce was and continues to be in various parts of its organisation, unable or unwilling to work on-site or travel as a result of event cancellations, facility closures, shelter-in-place, travel and other restrictions and changes in industry practice due to the Covid-19 pandemic, or if they, their co-workers or their family members become ill or otherwise require care arrangements. These workforce disruptions have adversely affected and could continue to adversely affect Hexagon's ability to operate, including to develop, manufacture, generate sales of, promote, market and deliver hardware and software products, solutions and services, and provide customer support. Adoption of new laws or regulations, or changes to existing laws or regulations, that may be imposed as a result of the continuing or resurgence of the Covid-19 pandemic, may cause risks in the company's ability to hire and retain skilled professionals.	Since future success is largely dependent on the capacity to retain, recruit and develop skilled staff, being an attractive employer to both potential and existing employees is an important success factor for Hexagon. Group and business area management jointly handle risks associated with human capital. Hexagon works with a structured approach to HR and market-based remuneration to ensure employee satisfaction. Hexagon uses employee engagement as the overall measure in the employee survey. In order to attract skilled employees, Hexagon cooperates with multiple universities and colleges around the world, aiming at training and hiring students with industry-ready skills.
Environment	
Hexagon provides sensors, software and data to its customers. 60 per cent of the revenues are from software and services. Hexagon does not operate any business that require carbon credits. However, stricter regulation of environmental matters can result in increased costs or further investments for the companies within Hexagon which are subject to such regulation. Climate change can result in natural disasters and increase the risk of physical damage on assets and supply shortages. Hexagon is impacted by such legislation in a manner similar to other companies operating in these fields.	Hexagon believes that it is in material compliance with all applicable laws and obligations and obtains relevant approvals where needed. Hexagon continuously monitors anticipated and implemented changes in legislation in the countries in which it operates. Hexagon routinely assesses the risk of climate change on its operations as part of its Insurance Programme. Hexagon has implemented ISO 14001 at the majority of the largest production sites and has implemented a sustainability programme to reduce its carbon impact in its own operations and in its value chain.
Business ethics and corruption	
Corruption negatively impacts communities and overall global economic development and erodes the trust necessary to build a stable business environment. Additionally, businesses such as Hexagon may be held liable for the corrupt actions taken by employees, strategic or local partners or other representatives. If Hexagon or its intermediaries fail to comply with anti-corruption laws, governmental authorities could seek to impose civil and/or criminal fines and penalties which could have an adverse effect on Hexagon's business.	For Hexagon, anti-corruption compliance is of utmost importance, as it helps Hexagon advance its financial interests and brand value. Hexagon has a robust Code of Business Conduct and Ethics and Anti-Corruption Compliance Programme in place, covering the entire Group, including policies, processes and training. The anti-corruption compliance documents include policies in such areas as gifts and entertainment (both to and from third parties), hiring candidates with government connections and engaging in and transacting business with third parties.
Cyber risks and data protection	
Hexagon relies on IT systems in its operations. Disruptions or faults in critical systems may have a negative impact on Hexagon's operations, including impact on production, Hexagon's tangible and intellectual property and, in some cases, the intellectual property and operations of external parties. The Covid-19 pandemic has presented security challenges as employees and those of Hexagon's partners, customers and service providers work remotely from non-corporate managed networks during the Covid-19 pandemic and potentially beyond. Incidents may also lead to data privacy infringements such as unauthorised access, leakage or loss of data. Data security and integrity are critical issues for the Hexagon Group. Under the GDPR, and other analogous legislation in various jurisdictions, and ePrivacy regulations, Hexagon has firm legal requirements to protect against personal information (PI) data breaches. The regulations extend to all vendors that Hexagon uses to collect, store and process PI data on its behalf. In China, there is a similar law recently adopted to protect various data types, including PI data. It is critical for Hexagon to protect and secure all data as the costs of remediating a serious breach are high and can also be damaging to Hexagon's reputation.	Cyber security risks are increasing in society in general and Hexagon works continuously to keep the company's IT systems protected. In addition, Hexagon invests in enhanced disaster recovery and data storage capabilities, cyber security expertise, and adequate insurance protection. Hexagon also mitigates IT-related risks through contracts with external parties. Hexagon has mandated that all divisions must implement a recognised cybersecurity framework. Hexagon has set the minimum standard of implementing the NIST-800-171 framework as the entry-level approach. Divisions will assess their needs as they relate to customer requirements and may need to implement more stringent frameworks such as ISO27001/NIST-800-53.

Financial risk management

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

Risk	Risk management

Currency

Risk

Hexagon's operations are mainly conducted internationally. During 2022, total operating earnings, excluding adjustments, from operations in currencies other than EUR amounted to an equivalent of 1,232.7 MEUR (975.1). Of these currencies, CHF, CNY and USD have the biggest impact on Hexagon's earnings and net assets. Currency risk is the risk that currency exchange rate fluctuations will have an adverse effect on the income statement, balance sheet or cash flow.

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 sheet are translated into EUR. The balance sheet translation exposure might substantially affect other comprehensive income negatively. Furthermore, the comparability of Hexagon's earnings between periods is affected by changes in currency exchange rates. The income statement translation exposure is described in the table below for the currencies having the largest impact on Hexagon's earnings and net assets, including the effect on Hexagon's operating earnings in 2022.

	Movement[1]	Net of income and cost	Profit impact
CHF	Strengthened 8%	Negative	Negative
USD	Strengthened 13%	Positive	Positive
CNY	Strengthened 8%	Positive	Positive
EBIT1, MEUR			97.6

1) Compared to EUR and 2021

Risk management

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

The translation exposure can be mitigated by denominating borrowings in the same currency as the corresponding net assets. But in order to have the volatility in net debt at an acceptable level, currently the majority of the borrowings is denominated in EUR.

Interest

Risk

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

Risk management

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 the year, interest rate derivatives were used to manage the interest rate risk.

Risk	Risk management
Credit	
Credit risk, i.e., the risk that customers may be unable to fulfil their payment obligations, accounts for the majority of Hexagon's counterparty risk. Financial credit risk is the exposure to default of counterparties with which Hexagon has invested cash or has entered into forward exchange contracts or other financial instruments.	Through a combination of geographical and industry diversification of customers, the risk for significant credit losses is reduced. To reduce Hexagon's financial credit risk, surplus cash is only invested with a limited number of approved banks and derivative transactions are only conducted with counterparties where an ISDA (International Swaps and Derivatives Association) netting agreement has been established. As Hexagon is a net borrower, excess liquidity is primarily used to repay external debt and therefore the average surplus cash invested with banks is kept as low as possible.
Liquidity	
Liquidity risk is the risk of not being able to meet payment obligations in full as they become due or only being able to do so at materially disadvantageous terms due to lack of cash resources.	The Group Treasury Policy states that the total liquidity reserve shall at all times be at least 10 per cent of forecasted annual net sales. At year-end 2022, cash and unutilised credit limits totalled 1,429.7 MEUR (1,341.5).
Refinancing	
Refinancing risk refers to the risk that Hexagon does not have sufficient financing available when needed to refinance maturing debt, because existing lenders decline to provide additional credit or difficulties arise in procuring new lines of credit at a given point in time. Hexagon's ability to satisfy future capital needs is to a large degree dependent on successful sales of the company's products and services. There is no guarantee that Hexagon will be able to generate necessary capital from sales or from third party financing arrangements. In this regard, the general development of the capital and credit markets is also of major importance. Hexagon, moreover, requires sufficient financing in order to refinance maturing debt. Securing these requirements demands a strong financial position of the Group, combined with active measures to ensure access to credit. There is no guarantee that Hexagon will be able to raise sufficient funds in order to refinance maturing debt.	In order to ensure that appropriate financing is in place and to decrease refinancing risk, no more than 20 per cent of the Group's gross debt, including committed credit facilities, is allowed to mature within the succeeding 12 months unless replacement facilities have been entered into. Hexagon's main sources of financing consist of: • A multicurrency revolving credit facility (RCF) established during 2021. The RCF amounts to 1,500 MEUR with a tenor of 5+1+1 years. • A Swedish Medium-Term Note Programme (MTN) established during 2014. The MTN programme amounts to 20,000 MSEK and gives Hexagon the option to issue bonds with tenors of up to 6 years. • A Swedish Commercial Paper Programme (CP) established during 2012. The CP programme gives Hexagon the option to issue commercial paper for a total amount of 15,000 MSEK with tenor up to 12 months.
Insurable risk	
Hexagon's operations, assets and staff are to a certain degree exposed to various risks of damages, losses and injuries which could tentatively threaten the Group's business continuity, earnings, financial assets and personnel.	To ensure a well-balanced insurance coverage and financial economies of scale, Hexagon's insurance programme includes, among other things, group-wide property and liability insurance, travel insurance, errors and omissions insurance and transport insurance, combined with local insurance coverage wherever needed. The insurance programme is periodically amended so that owned risk and insured risk are optimally balanced.

Legal risk management

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

Risk	Risk management
Legislation and regulation	
Hexagon's main markets are subject to extensive regulation. Hexagon's operations may be affected by regulatory changes, changes to customs duties and other trading obstacles, and pricing and currency controls, as well as other government legislation and restrictions in the countries where Hexagon is active. For example, more stringent regulations have been passed or are being developed in several jurisdictions, causing increased responsibilities for companies regarding the privacy and processing of personal data. These changing requirements and more stringent rules impose a risk of non-compliance with these data protection regulations, which could result in substantial legal fees and damage to Hexagon's reputation. Additional areas of regulatory uncertainty include laws and regulations related to environmental sustainability (including climate change). For example, new laws and regulations in response to climate change could result in increased energy efficiency for Hexagon's products and increased compliance and energy costs.	Hexagon closely monitors legislation, regulations and applicable ordinances in each market and seeks to adapt the business to identified future changes in each market. To manage country-specific risks, Hexagon observes local legislation and monitors political developments in the countries where the Group conducts operations. To this effect, Hexagon has adopted a worldwide compliance programme across the Group to ensure that its subsidiaries at all times comply with all applicable legislation, rules and ordinances. Further, with respect to the Ukraine crisis, Hexagon will continue complying with all applicable export control restrictions and sanctions laws relevant to our operations and with the rules of ethics and international standards.
Intellectual property rights	
Intellectual property infringement and plagiarism by third parties are risks to which Hexagon is exposed. There is no guarantee that Hexagon will be able to protect obtained patents, trademarks and other intellectual property rights or that submitted applications for registration will be granted. Furthermore, there is a risk that new technologies and products are developed which circumvent or replace Hexagon's intellectual property rights. Infringement disputes can, like disputes in general, be costly and time consuming and may therefore adversely affect Hexagon's business. Additionally, third parties may assert that Hexagon's products infringe their intellectual property rights.	Hexagon seeks to protect its technology innovations to safeguard the returns on the resources that Hexagon assigns to R&D. The Group strives to protect its technical innovations through patents and protects its intellectual property rights through legal proceedings when warranted. Such intellectual property rights can generally only be enforced in jurisdictions that have granted such protections or recognise these rights.
Tax	
Hexagon operates through subsidiaries in a number of jurisdictions and all cross-border transactions are normally a tax risk because there are no global transfer pricing rules. Local tax authorities follow their own local transfer pricing rules and authorities interpret transfer pricing guidelines differently. Hexagon frequently interacts with local taxing authorities and frequently has several ongoing tax audits in progress. Hexagon's interpretation of prevailing tax law, tax treaties, OECD guidelines and agreements entered into with foreign tax authorities may be challenged by tax authorities in some countries. Rules and guidelines may also be subject to future changes which can have an adverse effect on the Group's tax position. Furthermore, a change in the business or part of the business can have an impact on agreements entered into with tax authorities in some tax jurisdictions. 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. Risks are also presented by new accounting rules or interpretations by the applicable governing bodies.

Financial reports

Contents

Consolidated income statement

MEUR	Note	2022	2021
Net sales	3, 5, 24	5,160.5	4,341.1
Cost of goods sold	6, 12	-1,799.5	-1,544.0
Gross earnings		**3,361.0**	**2,797.1**
Sales expenses	6, 12	-1,019.3	-797.4
Administration expenses	6, 12	-416.7	-357.4
Research and development expenses	6, 12	-607.1	-510.8
Capital gain from sale of shares in group companies	9, 27	-	0.3
Other operating income	7, 12	187.7	207.2
Other operating expenses	7, 12	-218.9	-329.2
Operating earnings[1]	3, 13, 22, 29, 30, 31	**1,286.7**	**1,009.8**
Financial income and expenses			
Financial income	10, 24, 25	8.8	5.1
Financial expenses	10, 16, 24, 25	-47.5	-31.3
Earnings before tax	3	**1,248.0**	**983.6**
Tax on earnings for the year	11	-228.9	-173.6
Net earnings		**1,019.1**	**810.0**
Attributable to:			
Parent company shareholders		1,007.6	801.6
Non-controlling interest		11.5	8.4
1) Of which adjustments	*12*	*-231.1*	*-259.8*
Earnings include depreciation, amortisation and impairment of		-467.0	-578.9
– of which amortisation of surplus values		-107.7	-62.2
Average number of shares, thousands	21	2,693,019	2,599,293
Average number of shares after dilution, thousands	21	2,706,294	2,606,291
Earnings per share, Euro cent		37.4	30.8
Earnings per share after dilution, Euro cent		37.2	30.8

Consolidated statement of comprehensive income

MEUR	Note	2022	2021
Net earnings		1,019.1	810.0
Other comprehensive income:			
Items that will not be reclassified to income statement			
Remeasurement of pensions	22	20.8	43.7
Tax attributable to items that will not be reclassified to income statement	11	-5.0	-5.3
Total items that will not be reclassified to income statement, net of tax		**15.8**	**38.4**
Items that may be reclassified subsequently to income statement			
Exchange rate differences		435.4	503.5
Tax attributable to items that may be reclassified subsequently to income statement:			
Tax attributable to effect of translation differences	11	-35.5	-14.1
Total items that may be reclassified subsequently to income statement, net of tax		**399.9**	**489.4**
Other comprehensive income, net of tax		**415.7**	**527.8**
Total comprehensive income		**1,434.8**	**1,337.8**
Attributable to:			
Parent company shareholders		1,424.1	1,326.8
Non-controlling interest		10.7	11.0

Consolidated balance sheet

MEUR	Note	2022-12-31	2021-12-31
ASSETS			
Fixed assets			
Intangible fixed assets	8, 14	12,805.6	10,909.4
Tangible fixed assets	15	592.9	536.7
Right-of-use assets	16	198.0	201.7
Other long-term securities holdings	17, 25	78.1	20.9
Other long-term receivables	17, 18, 25	36.4	48.7
Deferred tax assets	11	122.3	105.9
Total fixed assets		13,833.3	11,823.3
Current assets			
Inventories	19	577.2	443.5
Customer receivables	5, 18, 25	1,285.8	1,090.8
Current tax receivables	11	13.3	26.5
Other receivables – interest bearing	25	0.1	1.0
Other receivables – non-interest bearing	18, 25	108.0	87.3
Prepaid expenses and accrued income	20, 25	173.0	150.5
Short-term investments	24, 25	95.4	42.8
Cash and bank balances	24, 25	390.9	429.3
Total current assets		2,643.7	2,271.7
TOTAL ASSETS		16,477.0	14,095.0
SHAREHOLDERS’ EQUITY AND LIABILITIES			
Shareholders’ equity			
Share capital	21	85.8	85.8
Other capital contributions		3,378.4	3,378.4
Revaluation reserve		-4.8	-4.8
Translation reserve		737.8	337.9
Retained earnings		5,633.0	4,934.8
Shareholders’ equity attributable to Parent company shareholders		9,830.2	8,732.1
Non-controlling interest		34.4	32.6
Total shareholders’ equity		9,864.6	8,764.7
Long-term liabilities			
Provisions for pensions	22	53.9	75.0
Other provisions	23	9.5	13.9
Deferred tax liabilities	11	581.8	478.0
Long-term liabilities – interest bearing	25	3,032.4	2,143.0
Lease liabilities	16	145.5	149.9
Other long-term liabilities – non-interest bearing	25	121.9	116.0
Total long-term liabilities		3,945.0	2,975.8
Current liabilities			
Accounts payable	25	309.8	263.2
Advance payments from customers	25	124.3	99.9
Current tax liabilities	11	77.1	71.9
Current liabilities – interest bearing	25	633.8	582.3
Lease liabilities	16	62.4	62.7
Other liabilities – non-interest bearing	25	176.4	135.3
Other provisions	23	59.2	54.8
Deferred income	20, 25	741.2	655.1
Accrued expenses	20, 25	483.2	429.3
Total current liabilities		2,667.4	2,354.5
TOTAL SHAREHOLDERS’ EQUITY AND LIABILITIES		16,477.0	14,095.0

Consolidated statement of changes in equity

MEUR	Share capital	Other capital contributions	Revaluation reserve	Translation reserve	Retained earnings	Shareholders' equity attributable to parent company shareholders	Non-controlling interest	Total share-holders' equity
Opening shareholders' equity, 2021-01-01	81.6	1,631.2	-4.8	-151.5	4,378.3	5,934.8	14.4	5,949.2
Total comprehensive income	-	-	-	489.4	837.4	1,326.8	11.0	1,337.8
Transactions with non-controlling interest	-	-	-	-	-0.3	-0.3	0.3	-
Non-cash issue	4.2	1,747.2	-	-	-	1,751.4	-	1,751.4
Repurchase of treasury shares	-	-	-	-	-62.2	-62.2	-	-62.2
Dividend	-	-	-	-	-238.4	-238.4	-5.8	-244.2
Acquisition of non-controlling interest	-	-	-	-	-	-	12.7	12.7
Share based programme (LTIP)	-	-	-	-	20.0	20.0	-	20.0
Closing shareholders' equity, 2021-12-31	85.8	3,378.4	-4.8	337.9	4,934.8	8,732.1	32.6	8,764.7
Total comprehensive income	-	-	-	399.9	1,024.2	1,424.1	10.7	1,434.8
Transactions with non-controlling interest	-	-	-	-	0.3	0.3	-0.3	-
Repurchase of treasury shares	-	-	-	-	-71.0	-71.0	-	-71.0
Dividend	-	-	-	-	-295.8	-295.8	-8.6	-304.4
Share based programme (LTIP)	-	-	-	-	40.5	40.5	-	40.5
Closing shareholders' equity, 2022-12-31	85.8	3,378.4	-4.8	737.8	5,633.0	9,830.2	34.4	9,864.6

Share capital is described in detail in Note 21.

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

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

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

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

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

Consolidated statement of cash flows

MEUR	Note	2022	2021
Cash flow from operating activities			
Operating earnings		1,286.7	1,009.8
Adjustments for items in operating earnings not affecting cash flow:			
Depreciation, amortisation and impairment		467.0	578.9
Change in provisions		-8.4	-60.3
Capital gain/loss on divestments of fixed assets		-1.3	0.9
Capital gain from sale of shares in group companies		-	-0.3
Share program expenses		40.5	25.1
Other		-6.0	9.0
Interest received		8.6	4.9
Interest paid		-46.6	-33.6
Tax paid		-235.9	-189.4
Cash flow from operating activities before changes in working capital		1,504.6	1,345.0
Cash flow from changes in working capital			
Change in inventories		-131.5	-48.8
Change in current receivables		-196.2	-142.2
Change in current liabilities		153.9	169.6
Cash flow from changes in working capital		-173.8	-21.4
Cash flow from operating activities[1]		1,330.8	1,323.6
Cash flow from ordinary investing activities			
Investments in intangible fixed assets	14	-413.9	-312.2
Investments in tangible fixed assets	15	-153.6	-112.7
Divestments of tangible fixed assets	15	14.8	5.5
Cash flow from ordinary investing activities		-552.7	-419.4
Operating cash flow		778.1	904.2
Cash flow from other investing activities			
Investments in subsidiaries	27	-1,194.8	-748.4
Divestments of subsidiaries	27	-	0.3
Investments in financial fixed assets	17	-59.2	-4.0
Divestments of financial fixed assets	17	9.1	5.4
Cash flow from other investing activities		-1,244.9	-746.7
Cash flow from financing activities			
Borrowings	24, 25	1,586.2	714.7
Repayment of debt	24, 25	-717.5	-494.8
Repurchase of treasury shares	21	-71.0	-62.2
Dividend to parent company shareholders		-295.8	-238.4
Dividend to non-controlling interests in subsidiaries		-8.6	-5.8
Cash flow from financing activities		493.3	-86,5
Cash flow for the year		26.5	71.0
Cash and cash equivalents, beginning of year[2]		472.1	397.4
Effect of translation differences on cash and cash equivalents		-12.3	3.7
Cash flow for the year		26.5	71.0
Cash and cash equivalents, end of year[2]		486.3	472.1
1) Of which non-recurring cash flow		*-41.9*	*-27.8*

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

Parent company income statement

MEUR	Note	2022	2021
Net sales	4	19.9	15.4
Administration expenses	4, 6, 29, 30, 31	-45.9	-29.0
Operating earnings		-26.0	-13.6
Financial income and expense			
Earnings from shares in group companies	9	-1,283.3	0.6
Financial income	10	216.4	93.7
Financial expenses	10	-118.0	-102.4
Earnings before tax and appropriations		-1,210.9	-21.7
Appropriations			
Group contribution, net		-2.6	0.0
Change in profit equalisation reserves		-14.7	7.3
Earnings before tax		-1,228.2	-14.4
Tax on earnings for the year	11	-12.0	2.9
Net earnings		-1,240.2	-11.5

Parent company statement of comprehensive income

MEUR	2022	2021
Net earnings	-1,240.2	-11.5
Other comprehensive income	-	-
Total comprehensive income	-1,240.2	-11.5

Parent company balance sheet

MEUR	Note	2022-12-31	2021-12-31
ASSETS			
Fixed assets			
Intangible fixed assets	14	6.4	3.0
Tangible fixed assets	15	0.0	0.0
Total intangible and tangible assets		6.4	3.0
Financial fixed assets			
Shares in group companies	17	13,488.9	10,527.4
Receivables from group companies	17	424.7	718.0
Other financial fixed assets	17	1.2	1.1
Deferred tax assets	11	-	3.0
Total financial fixed assets		13,914.8	11,249.5
Total fixed assets		13,921.2	11,252.5
Current assets			
Current receivables			
Receivables from group companies		974.8	1,737.4
Tax receivables	11	-	0.1
Other receivables		0.2	0.3
Prepaid expenses and accrued income	20	1.4	0.9
Total current receivables		976.4	1,738.7
Cash and bank balances		33.3	93.0
Total current assets		1,009.7	1,831.7
TOTAL ASSETS		14,930.9	13,084.2
SHAREHOLDERS' EQUITY AND LIABILITIES			
Shareholders' equity			
Restricted equity			
Share capital	21	85.8	85.8
Reserve for capitalised development expenses		6.4	3.0
Statutory reserve		314.3	314.3
Total restricted equity		406.5	403.1
Non-restricted equity			
Premium reserve		2,903.1	2,903.1
Retained earnings		1,731.0	3,341.4
Total non-restricted equity		4,634.1	6,244.5
Total shareholders' equity		5,040.6	6,647.6
Untaxed reserves		14.6	-
Total untaxed reserves		14.6	-
Provisions			
Other provisions		1.2	1.1
Total provisions		1.2	1.1
Long-term liabilities			
Liabilities to credit institutions	25	3,032.3	1,992.8
Total long-term liabilities		3,032.3	1,992.8
Current liabilities			
Liabilities to credit institutions	25	466.8	573.4
Accounts payable		1.5	1.2
Liabilities to group companies		6,344.7	3,860.1
Current tax liabilities	11	8.9	-
Other liabilities		0.3	1.7
Accrued expenses and deferred income	20	20.0	6.3
Total current liabilities		6,842.2	4,442.7
TOTAL SHAREHOLDERS' EQUITY AND LIABILITIES		14,930.9	13,084.2

Parent company statement of changes in equity

MEUR	Restricted shareholders' equity				Unrestricted shareholders' equity		
	Share capital	Paid-in, non-registered share capital	Reserve for capitalised development expenses	Statutory reserve	Premium reserve	Retained earnings	Total share-holders' equity
Opening balance 2021-01-01	81.6	-	0.1	314.3	1,155.8	3,656.4	5,208.2
Total comprehensive income	-	-	-	-	-	-11.5	-11.5
Capitalisation of development expenses	-	-	2.9	-	-	-2.9	-
Dividend	-	-	-	-	-	-238.4	-238.4
Non cash issue	4.2	-	-	-	1,747.2	-	1,751.4
Repurchase of treasury shares	-	-	-	-	-	-62.2	-62.2
Rounding	-	-	-	-	0.1	-	0.1
Closing balance 2021-12-31	85.8	-	3.0	314.3	2,903.1	3,341.4	6,647.6
Total comprehensive income	-	-	-	-	-	-1,240.2	-1,240.2
Capitalisation of development expenses	-	-	3.4	-	-	-3.4	-
Dividend	-	-	-	-	-	-295.8	-295.8
Repurchase of treasury shares	-	-	-	-	-	-71.0	-71.0
Closing balance 2022-12-31	85.8	-	6.4	314.3	2,903.1	1,731.0	5,040.6

Parent company statement of cash flows

MEUR	Note	2022	2021
Cash flow from operating activities			
Operating earnings		-26.0	-13.6
Adjustment for operating earnings items not affecting cash flow:			
Depreciation, amortisation and impairment		0.3	0.2
Change in provisions		14.8	-
Unrealised exchange rate gains and losses		-73.8	15.9
Dividends received		61.7	0.2
Financial income received		215.7	92.5
Financial expense paid		-116.2	-104.3
Tax paid		-0.2	1.3
Cash flow from operating activities before changes in working capital		76.3	-7.8
Cash flow from changes in working capital			
Change in current receivables		-454.0	-244.3
Change in current liabilities		-280.7	729.5
Cash flow from changes in working capital		-734.7	485.2
Cash flow from operating activities		-658.4	477.4
Cash flow from investing activities			
Investments in intangible fixed assets	14	-3.6	-3.0
Investments in tangible fixed assets	15	0.0	-
Investments in financial fixed assets	17	-330.9	-762.6
Change in long-term receivables, group companies		287.9	585.2
Cash flow from investing activities		-46.6	-180.4
Cash flow from financing activities			
Borrowings		1,577.9	565.3
Repayment of debt		-645.3	-412.7
Provisions		-	0.2
Acquisition of treasury shares	21	-71.0	-62.2
Dividend to shareholders		-295.8	-238.4
Cash flow from financing activities		565.8	-147.8
Cash flow for the year		-139.2	149.2
Cash and cash equivalents, beginning of year[1]		93.0	2.6
Effect of translation differences on cash and bank		79.5	-58.8
Cash flow for the year		-139.2	149.2
Cash and cash equivalents, end of year[1]		33.3	93.0

1) Cash and cash equivalents include cash and bank balance

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 IFRS Interpretation 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 on the next page.

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

On 30 March 2023, the Board of Directors and the President and CEO approved this annual report and consolidated accounts for publication and they will be presented to the Annual General Meeting on 2 May 2023 for adoption.

Application of new and amended standards from 2022
New changes in standards and interpretations that entered into force from 1 January 2022 are not expected to have had any material impact on the financial statements of Hexagon.

Other changes in standards and interpretations that entered into force from 1 January 2022 are not expected to have had any material impact on the financial statements of Hexagon.

Application of new standards from 2023
New standards, amended standards and interpretations that have not entered into force, have not been applied in advance in the financial reports of Hexagon and are not expected to have any material impact on the financial statements of Hexagon.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Earnings per share
The calculation of earnings per share is based on net earnings attributable to the Parent Company shareholders and on the weighted number of shares outstanding during the year. The calculation of earnings per share after dilution takes into account the quarterly calculated dilutive effect from any potential common shares.

Accounting policies in the Parent Company
The Parent Company applies the same accounting principles as the Group with the following deviations:

- In the Parent Company, the exemption in RFR 2 for IFRS 9 Financial Instruments is applied. This means, among other things, that financial instruments are valued based on acquisition value and the principles of impairment testing of loss risk provisions in IFRS 9 are applied to the Parent Company's short-term receivables and financial fixed assets.
- In the Parent Company, the exemption in RFR 2 for IFRS 16 Leasing Agreements is applied and the costs for all leasing agreements are reported on a straight-line basis over the leasing period.
- In the Parent Company participations in Group Companies are reported at acquisition value less any impairment.
- Acquisition value of shares in subsidiaries includes transaction costs and contingent consideration.
- Non-monetary assets acquired in a currency other than EUR are reported at historical exchange rates. Other assets and liabilities in currencies other than EUR are reported at the exchange rate on the balance sheet date.
- The Parent Company applies the alternative rule for group contributions and reports both submitted and received group contributions and appropriations in the income statement.

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

Approval of accounts
The Parent Company's and the consolidated financial statements will be presented to the Annual General Meeting for adoption on 2 May 2023.

NOTE 2 Critical accounting estimates and assumptions

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

Customer contracts

Parts of Hexagon's sales derive from major and complex customer contracts. The critical estimates of customer contracts include establishing the amounts that are to be recognised as income and when the income should be recognised. For example, 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 at a certain point in time. The degree of completion is established by setting incurred cost in relation to total costs required to complete the contract. The estimations are also base for any loss provision, if any.

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

Intangible assets

Intangible assets within Hexagon concern essentially pertain to goodwill, trademarks and other assets as a result of acquisition, such as customer relationships and technology. Goodwill and other acquired intangible assets with an indefinite life are not subject to annual amortisation, while other intangible assets are amortised. Insofar as the underlying operations develop negatively, an impairment requirement may arise. Impairment test is implemented if necessary, but at least once a year. Such intangible assets are subject to annual impairment testing, which is essentially based on the value in use, making assumptions about the sales trend, the Group's profit margins, on-going investments, changes in working capital and discount interest rate. Company management considers the assumptions applied to be compatible with the data received from external sources of information or from previous experience. Hexagon's goodwill on 31 December amounted to 9,599.5 MEUR (8,205.6). Other intangible assets not subject to amortisation amount to 1,060.4 MEUR (1,035.5) as of this date. Performed impairment tests demonstrate that reported values are defendable.

Tax assets and liabilities

The Board of Directors and Company Management continuously assess the carrying amount of both current and deferred tax assets and liabilities. For deferred tax assets, Hexagon has to assess the probability of whether it will be possible to utilise the deductible temporary differences that give rise to deferred tax assets to offset future taxable profits. In addition, in certain situations, the value of the deferred tax assets and liabilities may be uncertain due to ongoing tax processes, for example. Accordingly, the value of deferred tax assets and liabilities may deviate from these estimates due to a change in future earning capacity, changed tax regulations or the outcome of examinations by authorities or tax courts of issued or not yet issued tax returns. When assessing the value of deferred tax assets and liabilities, Hexagon has to form an opinion of the tax rate that will apply at the time of the reversal of the temporary differences. Hexagon recognised deferred tax liabilities, net in an amount of 459.5 MEUR (372.1) net, at the end of 2022. At the same date, the Group had tax-loss carry-forwards with a value of 49.7 MEUR (49.3) that were not recognised as assets. These assets could not be capitalised based on assessments of the opportunity to utilise the tax deficits. In comparison with the final outcome, the estimates made concerning both deferred tax assets and liabilities could have either a positive or a negative impact on earnings.

Pension obligations

Within Hexagon, there are defined-benefit pension schemes based on significant assumptions concerning future benefits pertaining to either the current or prior workforce. Pension obligations amounted to 48.2 MEUR (69.3) at the end of 2022. 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, the rate of pay increases, employee turnover and estimated length of life. A reduced discount interest rate increases the recognised pension liability. The actual outcome could deviate from the recognised amount if the applied assumptions prove to be wrong.

Business combination

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

NOTE 3 Segment reporting

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

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

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

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

2022	IES	GES	Total segments	Group expenses and eliminations	Group
Net sales	2,638.5	2,537.0	5,175.5	-15.0	5,160.5
Operating expenses	-1,883.4	-1,750.5	-3,633.9	-8.8	-3,642.7
Adjusted operating earnings (EBIT1)	**755.1**	**786.5**	**1,541.6**	**-23.8**	**1,517.8**
Adjustments	-128.8	-39.6	-168.4	-62.7	-231.1
Operating earnings (EBIT)	**626.3**	**746.9**	**1,373.2**	**-86.5**	**1,286.7**
Financial income and expenses				-38.7	-38.7
Earnings before tax				**-125.2**	**1,248.0**
Operating assets	10,109.1	5,876.3	15,985.4	-245.5	15,739.9
Operating liabilities	-1,212.5	-826.8	-2,039.3	248.4	-1,790.9
Net operating assets	**8,896.6**	**5,049.5**	**13,946.1**	**2.9**	**13,949.0**
Investments in fixed assets	240.1	374.6	614.7	20.2	634.9
Average number of employees	12,939	10,134	23,073	123	23,196
Number of employees at year-end	13,249	10,626	23,875	126	24,001
Depreciation, amortisation and impairment	-232.3	-231.9	-464.2	-2.8	-467.0

2021	IES	GES	Total segments	Group expenses and eliminations	Group
Net sales	2,146.0	2,201.4	4,347.4	-6.3	4,341.1
Operating expenses	-1,536.9	-1,516.7	-3,053.6	-17.9	-3,071.5
Adjusted operating earnings (EBIT1)	**609.1**	**684.7**	**1,293.8**	**-24.2**	**1,269.6**
Adjustments	-166.4	-65.0	-231.4	-28.4	-259.8
Operating earnings (EBIT)	**442.7**	**619.7**	**1,062.4**	**-52.6**	**1,009.8**
Financial income and expenses				-26.2	-26.2
Earnings before tax				**-78.8**	**983.6**
Operating assets	8,414.9	5,206.0	13,620.9	-200.6	13,420.3
Operating liabilities	-1,031.6	-743.8	-1,775.4	217.0	-1,558.4
Net operating assets	**7,383.3**	**4,462.2**	**11,845.5**	**16.4**	**11,861.9**
Investments in fixed assets	196.8	283.6	480.4	10.2	490.6
Average number of employees	11,846	9,346	21,192	99	21,291
Number of employees at year-end	12,471	9,515	21,986	111	22,097
Depreciation, amortisation and impairment	-271.8	-304.2	-576.0	-2.9	-578.9

NOTE 3 Segment reporting, cont.
Geographical markets

	Net sales by country[4]		Operating assets						Fixed assets	
			Assets		Liabilities		Net			
	2022	2021	2022	2021	2022	2021	2022	2021	2022	2021
EMEA[1]	1,771.5	1,602.2	5,325.1	4,888.6	-827.6	-798.1	4,497.5	4,090.5	3,961.9	4,004.0
Americas[2]	1,995.5	1,507.4	10,001.2	8,198.7	-941.3	-748.2	9,059.9	7,450.5	9,110.7	7,198.4
Asia[3]	1,408.5	1,237.8	1,143.1	1,033.5	-751.5	-712.6	391.6	320.9	523.9	445.4
Elimination of intra-group items/adjustments	-15.0	-6.3	-729.5	-700.5	729.5	700.5	-	-	-	-
Group	5,160.5	4,341.1	15,739.9	13,420.3	-1,790.9	-1,558.4	13,949.0	11,861.9	13,596.5	11,647.8

1) Sweden is included in EMEA with net sales of 76.5 MEUR (72.9) and fixed assets of 38.0 MEUR (36.5)
2) USA is included in Americas with net sales of 1,519.1 MEUR (1,135.2)
3) China is included in Asia with net sales of 722.6 MEUR (642.0)
4) Relates to the country where the customer has its residence. No single customer represented more than 0.7 per cent (1.2) of net sales

NOTE 4 Parent company intra-group purchases and sales

Of the Parent Company's net sales, 100 per cent (100) refers to sales to other group companies. Of the year's purchases in the Parent Company, 72 per cent (81) refers to purchases from group companies.

NOTE 5 Revenue from contracts with customers

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

Sale of goods
Revenue is recognised when control of the good is transferred to the customer, which coincide with the good being delivered to the customer and Hexagon has objective evidence that the customer will approve the good. The amount of the revenue will equal the consideration stated in the contract minus rebates. There is no financing component in the contract as the expected credit do not exceed one year. The Group's obligation to offer a repayment for defected goods in accordance with standard warranty terms, is accounted for as a provision, see Note 23.

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

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

Revenue from contracts where there is no alternative use of Hexagon's performance and where Hexagon has right to cost compensation if the customer cancels the contract is recognised over time. The degree of completion is determined by comparing the expenditure that has arisen in relation to the total estimated expenditure for the assignment. If the degree of completion cannot be reliably determined, only those amounts corresponding to the expenditure that has arisen are recognised as revenue, but only to the extent that it is likely that they will be remunerated by the buyer. If it appears likely that all the expenditure for an assignment will exceed total revenue, the probable loss is accounted immediately and fully, as an expense.

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

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

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

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

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

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

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

Disaggregation of revenue from contracts with customers

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

2022	Surveying	Power & energy	Infrastructure & construction	Auto-motive	Public safety	Electronics & manufacturing	Aerospace & defence	Natural resources	Other	Group
Industrial Enterprise Solutions (IES)	7.5	627.3	46.1	464.3	1.8	860.7	264.8	18.6	347.4	**2,638.5**
Geospatial Enterprise Solutions (GES)	961.0	0.6	656.6	23.4	171.5	2.9	186.0	401.3	133.7	**2,537.0**
Revenue adjustment[1]	-	-	-	-	-	-	-	-	-15.0	**-15.0**
Total	968.5	627.9	702.7	487.7	173.3	863.6	450.8	419.9	466.1	5,160.5

2021	Surveying	Power & energy	Infrastructure & construction	Auto-motive	Public safety	Electronics & manufacturing	Aerospace & defence	Natural resources	Other	Group
Industrial Enterprise Solutions (IES)	4.5	520.8	70.7	388.9	6.4	742.2	206.9	5.5	200.1	**2,146.0**
Geospatial Enterprise Solutions (GES)	867.7	0.4	569.1	24.4	159.6	4.7	155.1	313.0	107.4	**2,201.4**
Revenue adjustment[1]	-	-	-	-	-	-	-	-	-6.3	**-6.3**
Total	872.2	521.2	639.8	413.3	166.0	746.9	362.0	318.5	301.2	4,341.1

1) Reduction of acquired deferred revenue (haircut) related to acquisitions

Contract balances

Group	2022-12-31	2021-12-31
Customer receivables	1,285.8	1,090.8
Contract assets	37.5	37.5
Contract liabilities	865.5	755.0

For information on impairment of receivables and contract assets, see Note 18.

Contract assets include accrued income from fulfilling performance obligations over time. Contract liabilities include advance payments and deferred income. Deferred income relates to revenue from service, installation and training. Main portion of contract liabilities at the beginning of the year has been recognised as revenue during 2022.

NOTE 6 Operating expenses

	Group		Parent company	
	2022	2021	2022	2021
Cost of goods sold				
Cost of goods	866.1	792.1	-	-
Personnel cost	510.5	443.7	-	-
Depreciation and amortisation	74.1	66.2	-	-
Other	348.8	242.0	-	-
Total	1,799.5	1,544.0	-	-
Sales expenses				
Personnel cost	737.1	582.7	-	-
Depreciation and amortisation	52.6	43.2	-	-
Other	229.6	171.5	-	-
Total	1,019.3	797.4	-	-
General and administrative cost				
Personnel cost	281.2	236.3	23.2	6.5
Depreciation and amortisation	58.9	54.4	0.3	0.2
Other	76.6	66.7	22.4	22.3
Total	416.7	357.4	45.9	29.0
Research and development cost				
Personnel cost	303.7	254.9	-	-
Depreciation and amortisation	270.6	241.2	-	-
Other	32.8	14.7	-	-
Total	607.1	510.8	-	-

NOTE 7 Other operating income/expenses

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

Group	2022	2021
Other operating income		
Capital gain on divestment of fixed assets	5.1	1.7
Gain on divestment of assets	-	9.2
Exchange rate gains	149.6	124.6
Government grants	8.2	9.0
Reversal of unutilised amounts supplementary payments for acquired companies	16.7	54.3
Rental income	0.9	0.5
Other	7.2	7.9
Total	187.7	207.2
Other operating expenses		
Capital loss on divestment of fixed assets	-1.3	-0.8
Exchange rate losses	-153.7	-116.3
Rental related expenses	-0.5	-0.5
Impairment	-13.4	-173.3
Acquisition related expenses	-10.0	-31.2
Other[1]	-40.0	-7.1
Total	-218.9	-329.2

1) Other consists mainly of expenses related to freezing the business in Russia

NOTE 8 Impairment

Cash-generating units

Goodwill and other intangible assets with indefinite lives acquired through business combinations has been allocated to the five (five) cash generating units (CGU) below, which complies with the Group's organisation: Geosystems, Manufacturing Intelligence, Autonomy & Positioning, Asset Lifecycle Intelligence and Safety, Infrastructure & Geospatial.

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

	Geosystems		Manufacturing Intelligence		Autonomy & Positioning		Asset Lifecycle Intelligence		Safety, Infrastructure & Geospatial		Total	
	2022	2021	2022	2021	2022	2021	2022	2021	2022	2021	2022	2021
Goodwill	1,757.3	1,574.3	2,682.1	1,709.7	583.7	563.2	3,989.5	3,802.9	586.9	555.5	9,599.5	8,205.6
Other intangible assets with indefinite useful lives[1]	452.1	443.3	161.8	164.7	14.7	14.1	339.1	325.9	92.7	87.5	1,060.4	1,035.5
Intangible assets subject to amortisation[2]	541.8	422.0	751.3	459.8	98.3	93.1	648.1	601.6	106.2	91.8	2,145.7	1,668.3
Total	**2,751.2**	**2,439.6**	**3,595.2**	**2,334.2**	**696.7**	**670.4**	**4,976.7**	**4,730.4**	**785.8**	**734.8**	**12,805.6**	**10,909.4**

1) Comprises brands
2) Comprises capitalised development costs, patents, technology and other intangible assets, which are amortised linearly based on estimated useful life

Hexagon performed its annual impairment test for goodwill and other intangible assets with indefinite lives during the fourth quarter 2022 and tested if the carrying value of the CGU's exceed their recoverable value. The recoverable value is the higher of the units net realisable value and value in use, which is the discounted present value of future cash flows.

Calculation of recoverable value

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

	Discount rate after tax	
	2022	2021
Geosystems	7.6%	7.6%
Manufacturing Intelligence	9.2%	8.2%
Autonomy & Positioning	9.3%	8.9%
Asset Lifecycle Intelligence	10.1%	8.7%
Safety, Infrastructure & Geospatial	10.1%	8.7%

Key assumptions

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

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

Forecasts

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

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

Discount rates

Discount rates represent the current market assessment of the risks specific to respective CGU, taking into consideration the time value of money as well as individual risks. The discount rate calculation is based on the specific circumstances of respective CGU and is derived from its weighted average cost of capital (WACC). The WACC considers 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. Discount rate before tax is approximately 10–13%.

Growth rates used to extrapolate cash flow

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

Sensitivity to changes in assumptions

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

NOTE 9 Earnings from shares in group companies

	Group		Parent company	
	2022	2021	2022	2021
Earnings from shares in group companies				
Dividend from subsidiaries	-	-	202.5	0.6
Capital gain/loss from sale of shares in group companies	-	0.3	-	-
Impairment loss of shares in group companies	-	-	-1,485.8	-
Total	-	0.3	-1,283.3	0.6

NOTE 10 Financial income and expenses

	Group		Parent company	
	2022	2021	2022	2021
Financial income				
Interest income	7.6	4.4	0.4	0.1
Interest income, intercompany receivables	-	-	37.5	27.4
Other financial income	1.2	0.7	178.5	66.2
Total	8.8	5.1	216.4	93.7
Financial expenses				
Interest expenses	-27.0	-11.5	-24.8	-10.5
Interest expenses, lease liabilities	-7.9	-7.6	-	-
Interest expenses, intercompany liabilities	-	-	-20.7	-4.9
Net interest on pensions	-0.7	-0.7	-	-
Other financial expenses	-11.9[1]	-11.5[1]	-72.5	-87.0
Total	-47.5	-31.3	-118.0	-102.4

1) Mainly bank costs

NOTE 11 Income taxes

Income taxes comprise of:

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

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

GROUP
Tax on earnings for the year

	2022	2021
Current tax	-255.5	-208.3
Deferred tax	26.6	34.7
Total tax on earnings for the year	-228.9	-173.6

Specification of deferred tax

	2022-12-31	2021-12-31
Deferred tax assets (liabilities) comprise:		
Fixed assets	-617.3	-483.3
Inventories	51.8	27.0
Receivables	4.0	-8.8
Provisions	6.6	9.7
Other	95.2	62.1
Unutilised loss carry-forwards and similar deductions	49.9	70.5
Less items not satisfying criteria for being recognised as assets	-49.7	-49.3
Total	-459.5	-372.1
According to the balance sheet:		
Deferred tax assets	122.3	105.9
Deferred tax liabilities	-581.8	-478.0
Total, net	-459.5	-372.1

Unutilised loss carry-forwards and similar deductions not satisfying criteria for being recognised as assets have not been recognised. Deferred tax assets that depend on future taxable surpluses have been valued on the basis of both historical and forecast future taxable earnings. Hexagon is striving for a corporate structure that enables tax exemption when companies are divested and favourable taxation of dividends within the Group. Certain potential tax on dividends and divestments remains within the Group.

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

Deferred tax	2022	2021
Opening balance, net	-372.1	-358.1
Change via income statement		
Deferred tax on earnings	32.3	42.0
Change in reserve for deductions not satisfying criteria for being recognised as assets	-36.8	-5.9
Change in tax rates and tax reforms	0.4	-5.9
Items pertaining to prior years	30.7	4.5
Total	26.6	34.7
Change via other comprehensive income		
Deferred tax on other comprehensive income	-40.5	-19.4
Total	-40.5	-19.4
Change via equity		
Change via acquisitions and divestments	-58.0	-5.4
Deferred tax on share programmes	-	-5.1
Translation difference	-15.5	-18.8
Closing balance, net	-459.5	-372.1

Current tax	2022	2021
Opening balance, net	-45.4	-26.0
Change via income statement		
Current tax on earnings	-270.7	-201.1
Items pertaining to prior years	15.2	-7.2
Total	-255.5	-208.3
Change via acquisitions and divestments	-0.4	0.1
Payments, net	235.9	189.4
Translation difference	1.6	-0.6
Closing balance, net	-63.8	-45.4

NOTE 11 Income taxes, cont.

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

	2022-12-31
2023	1.6
2024	1.6
2025	2.0
2026	4.7
2027 and later	15.1
Indefinitely	176.6
Total	201.6

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

	2022	2021
Earnings before tax	1,248.0	983.6
Tax pursuant to Swedish nominal tax rate 20.6%	-257.1	-202.6
Difference in tax rates between Swedish and foreign tax rate	51.3	25.0
Revaluation of loss carry-forwards, etc.	-36.8	-2.5
Income not subject for tax	20.1	16.6
Expenses not tax-deductible	-47.7	-5.6
Change in tax rates and tax reforms	0.4	-7.6
Items not included in the booked result	-6.3	-9.5
Items pertaining to prior years	47.2	12.6
Tax, income statement	-228.9	-173.6

PARENT COMPANY

Tax on earnings for the year

	2022	2021
Current tax	-9.0	-0.1
Deferred tax	-3.0	3.0
Total tax on earnings for the year	-12.0	2.9

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

	2022	2021
Deferred tax		
Opening balance, net	3.0	-
Change via income statement		
Deferred tax on earnings	-3.0	3.0
Total	-	3.0
Closing balance, net	-	3.0
Current tax		
Opening balance, net	0.1	1.6
Change via income statement		
Current tax on earnings	-9.0	-0.1
Total	-9.0	-0.1
Payments, net	0.2	-1.3
Translation difference	-0.2	-0.1
Closing balance, net	-8.9	0.1

The Parent Company has no unutilised loss carry-forwards (14.3 MEUR).

NOTE 12 Adjustments

Adjustments consists of expenses related to the share programme (LTIP), amortisation of surplus values (PPA) and non-recurring items which refers to income and expenses that are not expected to appear on a regular basis and impact comparability between periods.

Group	2022	2021
Acquired deferred revenue	-15.0	-6.3
Cost nature		
Personnel costs	-20.2	-8.1
Transaction costs	-16.7	-9.0
Impairments	-25.6	-132.2
Integration costs	-	-11.2
Amortisation of surplus values	-107.7	-62.2
Share based program	-44.7	-28.3
Other	-1.2	-2.5
Total cost nature	-216.1	-253.5
Total adjustments	-231.1	-259.8
Function		
Net sales	-15.0	-6.3
Cost of goods sold	-8.6	-2.9
Sales expenses	-51.3	-31.1
Administration expenses	-21.2	-11.0
Research and development expenses	-91.4	-55.2
Other operating expenses	-43.6	-153.3
Total adjustments	-231.1	-259.8

NOTE 13 Government grants

During the year some of the subsidiaries within the Group have received government grants. Government grants have been recognised in accordance with IAS 20. Receivables and revenue are recognised when there is a reasonable assurance that the terms and conditions will be met, and it is reasonably certain that the grant will be received. The government grants received during the year mainly consist of furlough compensations, education of employees and R&D funding. The table below shows how the grants are allocated to functions.

Group	2022	2021
Function		
Cost of goods sold	0.2	0.3
Sales expenses	0.6	0.4
Administration expenses	0.3	0.2
Research and development expenses	1.2	0.6
Other operating income	8.2	9.0
Total	10.5	10.5

NOTE 14 Intangible fixed assets

Intangible fixed assets could be acquired separately, as part of a business combination or internally generated. The Group's intangible fixed assets include mainly capitalised development expenses, trademarks and goodwill. Trademarks, goodwill, technology and customer relations are often acquired as part of a business combination, while capitalised development expenses are internally generated. Any impairments are reported as other operating expenses in the income statement.

The impairment for the year relates to impairment of releases of earn-out provisions. See Note 8 for further disclosures about impairment.

Capitalised development expenses

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

Capitalised development expenses are measured at cost less accumulated amortisations and impairment. Amortisation is accounted for linearly based on estimated useful life and expensed as a research and development expense. Useful life for capitalised development expenses is 2-10 years. The assets' residual value and useful life are tested on each closing date and are adjusted if necessary.

Trademarks

Separately acquired trademarks are measured at cost. Trademarks acquired as part of a business combination are measured at fair value at acquisition date. In cases where the assets have a limited useful life, amortisation is estimated to 5 years. If the trademark can be used without any time limitations, it is not subject to amortisation according to plan. A new assessment is done yearly. The right to use the name Leica derives from a contractual useful life under an agreement that expires in 81 years' time. The agreement contains clauses stipulating extension opportunities. Since Hexagon is of the opinion that there is reason to believe that it will be possible to extend the agreement without considerable expenditure, the value of the right to use the name Leica is not subject to amortisation.

Goodwill

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

Other intangible assets

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

Group 2022	Capitalised development expenses	Trademarks	Goodwill	Other intangible fixed assets	Total
Acquisition value, opening balance	2,491.3	1,050.5	8,213.9	1,614.5	13,370.2
Investments	377.8	0.1	-	36.0	413.9
Investments/divestments of business	-	0.7	1,023.0	318.4	1,342.1
Sales/disposals	-32.8	-	-	-7.6	-40.4
Reclassification	-2.3	-	-	19.9	17.6
Translation differences	24.1	31.2	371.4	50.7	477.4
Acquisition value, closing balance	**2,858.1**	**1,082.5**	**9,608.3**	**2,031.9**	**15,580.8**
Amortisation, opening balance	-1,366.1	-	-	-595.0	-1,961.1
Amortisation for the year	-173.5	-	-	-118.9	-292.4
Investments/divestments of business	-	-	-	-0.2	-0.2
Sales/disposals	28.1	-	-	7.5	35.6
Reclassification	0.2	-	-	-17.3	-17.1
Translation differences	-13.0	-	-	-10.4	-23.4
Amortisation, closing balance	**-1,524.3**	**-**	**-**	**-734.3**	**-2,258.6**
Impairments, opening balance	-408.4	-15.0	-8.3	-68.0	-499.7
Impairment for the year	-3.9	-6.2	-	-	-10.1
Sales/disposals	4.3	-	-	-	4.3
Reclassification	-0.1	-	-	-	-0.1
Translation differences	-6.6	-0.9	-0.5	-3.0	-11.0
Impairments, closing balance	-414.7	-22.1	-8.8	-71.0	-516.6
Carrying value	**919.1**	**1,060.4**	**9,599.5**	**1,226.6**	**12,805.6**

Group 2021	Capitalised development expenses	Trademarks	Goodwill	Other intangible fixed assets	Total
Acquisition value, opening balance	2,163.5	1,006.0	5,713.3	1,051.7	9,934.5
Investments	296.8	-	-	15.4	312.2
Investments/divestments of business	-	0.5	2,106.4	478.5	2,585.4
Sales/disposals	-19.6	-	-	-2.4	-22.0
Reclassification	-0.8	-	-	0.8	-
Translation differences	51.4	44.0	394.2	70.5	560.1
Acquisition value, closing balance	**2,491.3**	**1,050.5**	**8,213.9**	**1,614.5**	**13,370.2**
Amortisation, opening balance	-1,172.3	-	-	-502.9	-1,675.2
Amortisation for the year	-179.0	-	-	-71.6	-250.6
Sales/disposals	12.9	-	-	2.3	15.2
Reclassification	-0.1	-	-	-0.1	-0.2
Translation differences	-27.6	-	-	-22.7	-50.3
Amortisation, closing balance	**-1,366.1**	**-**	**-**	**-595.0**	**-1,961.1**
Impairments, opening balance	-251.7	-14.2	-7.7	-43.9	-317.5
Impairment for the year	-153.9	-	-	-19.4	-173.3
Sales/disposals	5.9	-	-	-	5.9
Reclassification	0.1	-	-	-	0.1
Translation differences	-8.8	-0.8	-0.6	-4.7	-14.9
Impairments, closing balance	-408.4	-15.0	-8.3	-68.0	-499.7
Carrying value	**716.8**	**1,035.5**	**8,205.6**	**951.5**	**10,909.4**

Amortisation of intangible fixed assets allocated by function:

Group	2022	2021
Cost of goods sold	-5.9	-3.0
Sales expenses	-23.6	-14.6
Administration expenses	-4.7	-3.4
Research and development expenses	-258.1	-229.6
Other operating expenses	-0.1	0.0
Total	**-292.4**	**-250.6**

Other intangible fixed assets

Parent company	2022	2021
Acquisition value, opening balance	3.5	0.5
Investments	3.6	3.0
Investments/divestments of business	1.1	-
Acquisition value, closing balance	**8.2**	**3.5**
Amortisation, opening balance	-0.5	-0.4
Amortisation for the year	-0.3	-0.1
Investments/divestments of business	-1.0	-
Amortisation, closing balance	**-1.8**	**-0.5**
Carrying value	**6.4**	**3.0**

NOTE 15 Tangible fixed assets

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

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

• 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

Group 2022	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	395.7	37.0	389.7	397.1	16.3	1,235.8
Investments	42.3	1.2	42.2	77.0	-9.1	153.6
Investments/divestments of business	0.7	-	0.4	8.9	-	10.0
Sales/disposals	-3.7	-1.0	-10.5	-32.9	-	-48.1
Reclassification	1.8	0.1	-10.5	-8.7	-0.4	-17.7
Translation differences	0.9	0.1	2.8	2.5	0.3	6.6
Acquisition value, closing balance	437.7	37.4	414.1	443.9	7.1	1,340.2
Depreciation, opening balance	-147.5	-2.3	-288.4	-260.4	-0.1	-698.7
Depreciation for the year	-16.2	-0.3	-24.1	-49.3	-	-89.9
Investments/divestments of business	-0.5	-	-0.1	-4.1	-	-4.7
Sales/disposals	2.5	-	10.2	22.4	-	35.1
Reclassification	-0.8	-	7.6	10.3	-	17.1
Translation differences	-0.7	-	-2.6	-2.5	-	-5.8
Depreciation, closing balance	-163.2	-2.6	-297.4	-283.6	-0.1	-746.9
Impairment, opening balance	-0.2	-0.1	-0.1	-	-	-0.4
Impairments, closing balance	-0.2	-0.1	-0.1	-	-	-0.4
Carrying value	274.3	34.7	116.6	160.3	7.0	592.9

Group 2021	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	319.0	35.0	344.9	354.0	51.2	1,104.1
Investments	58.1	0.0	39.6	53.3	-38.3	112.7
Investments/divestments of business	0.6	-	0.0	3.5	-	4.1
Sales/disposals	-5.0	-	-4.9	-31.7	-	-41.6
Reclassification	0.4	-	0.1	-0.2	-0.1	0.2
Translation differences	22.6	2.0	10.0	18.2	3.5	56.3
Acquisition value, closing balance	395.7	37.0	389.7	397.1	16.3	1,235.8
Depreciation, opening balance	-130.2	-1.6	-261.2	-230.4	-0.1	-623.5
Depreciation for the year	-14.2	-0.5	-24.3	-43.2	0.0	-82.2
Investments/divestments of business	-0.1	-	0.0	-1.8	-	-1.9
Sales/disposals	4.7	-	4.5	26.8	-	36.0
Reclassification	-0.3	-	0.0	0.4	-	0.1
Translation differences	-7.4	-0.2	-7.4	-12.2	0.0	-27.2
Depreciation, closing balance	-147.5	-2.3	-288.4	-260.4	-0.1	-698.7
Impairment, opening balance	-0.2	-0.1	-0.2	-	-	-0.5
Sales/disposals	-	-	0.1	-	-	0.1
Impairments, closing balance	-0.2	-0.1	-0.1	-	-	-0.4
Carrying value	248.0	34.6	101.2	136.7	16.2	536.7

Depreciation of tangible fixed assets allocated by function:

Group	2022	2021
Cost of goods sold	-54.4	-48.7
Sales expenses	-7.3	-6.7
Administration expenses	-20.6	-19.6
Research and development expenses	-7.3	-7.0
Other operating expenses	-0.3	-0.2
Total	-89.9	-82.2

Equipment

Parent company	2022	2021
Acquisition value, opening balance	0.1	0.1
Investments	0.0	-
Acquisition value, closing balance	0.1	0.1
Depreciation, opening balance	-0.1	0.0
Depreciation for the year	0.0	-0.1
Depreciation, closing balance	-0.1	-0.1
Carrying value	0.0	0.0

NOTE 16 Leasing

Hexagon as lessee

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

Assets and liabilities arising from lease contracts are measured on a present value basis. Lease liabilities include the net present value of fixed payments, variable payments based on an index or a rate, amounts expected to be paid under residual value guarantees, exercise price of purchase options that will reasonably certainly be exercised and payments of penalties for terminating the lease, if such option will be exercised.

The future payments are discounted using the implicit interest rate in the contract. If that rate could not be determined, the group's incremental borrowing rate could be used. The discount rate is updated semi-annually.

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

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

Rent discounts as a direct consequence of the Covid-19 pandemic are recognised as a variable lease fee in the income statement. No material rent discounts have been received during the year.

Group 2022	**Real estate**	**Vehicles**	**Machinery**	**Office equipment**	**Total**
At the beginning of the year	297.5	47.8	1.5	4.2	351.0
New contracts	52.9	13.8	0.2	0.5	67.4
Termination of contracts	-41.4	-14.2	-0.1	-0.6	-56.3
Remeasurements	15.6	0.9	0.0	0.1	16.6
Reclassification	0.6	-	-	-0.7	-0.1
Translation differences	2.4	-0.3	0.0	0.0	2.1
Acquisition value, closing balance	**327.6**	**48.0**	**1.6**	**3.5**	**380.7**
Depreciation, opening balance	-121.5	-25.3	-0.8	-1.7	-149.3
Depreciation for the year	-59.5	-13.8	-0.4	-0.9	-74.6
Termination of contracts	28.6	13.9	0.2	0.6	43.2
Remeasurements	-1.0	-0.1	-	0.0	-1.1
Reclassification	-0.5	0.0	-	-	-0.5
Translation differences	-0.7	0.2	0.0	0.0	-0.5
Amortisation, closing balance	**-154.6**	**-25.0**	**-1.0**	**-2.0**	**-182.7**
Carrying value	**173.0**	**23.0**	**0.6**	**1.5**	**198.0**

Group 2021	**Real estate**	**Vehicles**	**Machinery**	**Office equipment**	**Total**
At the beginning of the year	266.2	43.1	1.7	3.8	314.8
New contracts	50.0	14.8	0.3	0.6	65.7
Termination of contracts	-43.4	-11.3	-0.5	-0.4	-55.6
Remeasurements	13.8	0.9	0.0	0.3	15.0
Reclassification	0.3	-	-	-0.3	0.0
Translation differences	10.6	0.3	0.0	0.2	11.1
Acquisition value, closing balance	**297.5**	**47.8**	**1.5**	**4.2**	**351.0**
Depreciation, opening balance	-86.3	-20.7	-0.9	-1.8	-109.7
Depreciation for the year	-56.4	-15.1	-0.4	-0.9	-72.8
Termination of contracts	25.6	11.0	0.5	0.4	37.5
Remeasurements	-0.3	0.0	-	-	-0.3
Reclassification	-0.5	-0.2	-	0.6	-0.1
Translation differences	-3.6	-0.2	0.0	-0.1	-3.9
Amortisation, closing balance	**-121.5**	**-25.2**	**-0.8**	**-1.8**	**-149.3**
Carrying value	**176.0**	**22.6**	**0.7**	**2.4**	**201.7**

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

Group	**2022**	**2021**
Cost of goods sold	-13.8	-14.5
Sales expenses	-21.7	-21.9
Administration expenses	-33.6	-31.4
Research and development expenses	-5.2	-4.6
Other operating expenses	-0.3	-0.4
Total	-74.6	-72.8

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

Group	**2022**	**2021**
At the beginning of the year	212.6	215.1
Additions	67.4	65.7
Interest	7.9	7.7
Payments	-81.5	-79.1
Translation difference	1.5	3.2
Closing balance	207.9	212.6
Of which current liabilities	62.4	62.7
Of which non-current liabilities	145.5	149.9

NOTE 16 Leasing, cont.

The maturity structure of the lease liabilities is presented in the table Group's maturity structure of interest bearing financial liabilities – undiscounted cashflows in Note 24.

The Group had total cash outflows for leasing of 81.5 MEUR (79.1) in 2022.

Expenses regarding short-term leases and leases of low value are insignificant in relation to the Group as a whole.

Hexagon as lessor

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

Agreements where a group entity is lessor

Group 2022-12-31	Machinery, equipment, etc.
Lease payments due in	
2023	2.5
2024–2027	5.9
Total	8.4

Group 2021-12-31	Machinery, equipment, etc.
Lease payments due in	
2022	0.5
2023–2026	0.1
Total	0.6

NOTE 17 Financial fixed assets

	Other long-term securities holdings		Other long-term receivables	
Group	2022	2021	2022	2021
Opening balance	20.9	15.7	48.7	64.7
Investments	58.2	3.5	1.0	0.5
Acquired as subsidiary	-	-	1.4	0.0
Sales	-	-	-9.1	-5.4
Impairments	-	-	0.0	-9.0
Reclassification	-	-	-7.2	-3.7
Translation differences	-1.0	1.7	1.6	1.6
Closing balance	78.1	20.9	36.4	48.7

	Shares in group companies		Receivables from group companies		Other financial fixed assets	
Parent company	2022	2021	2022	2021	2022	2021
Opening balance	10,527.4	8,013.6	718.0	1,260.9	1.1	0.9
Shareholder's contribution	1,228.8	2,513.9	-	-	-	-
Redemption of shares	-1,485.8	-	-	-	-	-
Investments	3,218.5	-	-	-	-	-
Divestments	0.0	-0.1	-	-	-	-
Increase/decrease in receivables	-	-	-293.3	-542.9	0.1	0.2
Closing balance	13,488.9	10,527.4	424.7	718.0	1.2	1.1

Other long-term securities holdings

Group	2022-12-31	2021-12-31
Clothing Tech LLC	7.0	4.7
Divergent Technologies Inc	46.9	-
Eucliedon PTY	1.0	1.0
CICV Co Ltd	13.6	13.9
Hangzhou Unitree Technology Co	3.8	-
Huixin Quanzhi Gongye Hulian Keji Co Ltd	1.0	1.0
Martlet Capital	4.5	-
Other	0.3	0.3
Total	78.1	20.9

Subsidiaries of Hexagon AB

	Corp ID. No.	Reg. Office/ Country	No. of shares	Portion of share capital and voting rights, %	Carrying amount 2022-12-31	Carrying amount 2021-12-31
Clever Together AB	556070-5138	Stockholm, Sweden	2,500	100	0.0	0.0
Hexagon Corporate Services Ltd	-	Hong Kong	10,000	100	-	0.0
Hexagon Corporate Solutions Ltd	-	England	1	100	0.0	0.0
R-evolution AB	556016-3049	Stockholm, Sweden	200,000	100	21.0	21.0
Hexagon Global Services AB	556788-2401	Stockholm, Sweden	1,000	100	-	0.0
Hexagon Intergraph AB	556370-6828	Stockholm, Sweden	1,000	100	226.5	0.0
Hexagon Position Intelligence Ltd	-	England	3	100	261.0	261.0
Hexagon Solutions AB	556083-1124	Stockholm, Sweden	100,000	100	1.6	1.6
Hexagon Technology Center GmbH[1]	-	Switzerland	583	79.8	1,859.6	3,345.4
Intergraph Corporation	-	USA	1,000	100	4,047.5	4,047.6
Hexagon Smart Solutions AB	556394-3678	Stockholm, Sweden	1,439,200	100	3,841.9	2,839.5
Tecla AB	556068-1602	Stockholm, Sweden	160,000	100	1.6	1.6
Östgötaeken AB	556197-2380	Stockholm, Sweden	2,000	100	9.7	9.7
Leica Geosystems AG	-	Switzerland	633,546	100	3,218.5	-
Total					13,488.9	10,527.4

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

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
Aging analysis of receivables, 31 December 2022, net of impairment losses							
Other non-current receivables	34.2	0.4	0.1	-	0.0	1.7	36.4
Accounts receivable	942.5	136.0	66.8	42.7	24.9	72.9	1,285.8
Other current receivables – non-interest bearing	99.3	3.4	1.1	0.6	0.1	3.5	108.0
Total	1,076.0	139.8	68.0	43.3	25.0	78.1	1,430.2
Aging analysis of receivables, 31 December 2021, net of impairment losses							
Other non-current receivables	47.1	0.2	0.0	-	0.0	1.4	48.7
Accounts receivable	801.7	111.7	56.1	32.2	16.3	72.8	1,090.8
Other current receivables – non-interest bearing	77.0	4.6	1.3	1.0	0.1	3.3	87.3
Total	925.8	116.5	57.4	33.2	16.4	77.5	1,226.8

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

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

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

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

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

Reserve for expected credit loss

Group	2022-12-31	2021-12-31
Opening balance	44.7	37.4
Reserve for anticipated losses	14.6	12.6
Adjustment for actual losses	-2.0	-3.7
Reclaimed expected losses	-8.0	-6.4
Increase through acquisition	0.6	2.5
Translation differences	-0.6	2.3
Closing balance	49.3	44.7

NOTE 19 Inventories

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

Group	2022-12-31	2021-12-31
Raw materials and supplies	285.7	215.8
Work in progress	52.3	47.6
Finished goods and goods for sale	239.2	180.1
Total	577.2	443.5
Value adjustment reserve includes provisions for obsolescence of	-75.1	-71.1

NOTE 20 Prepaid expenses and accrued income/accrued expenses and deferred income

Prepaid expenses and accrued income

	Group		Parent company	
	2022-12-31	2021-12-31	2022-12-31	2021-12-31
Accrued invoicing	17.2	21.8	-	-
Accrued interest income	0.8	0.6	-	-
Work in progress	20.3	15.7	-	-
Prepaid maintenance costs	16.7	13.8	-	-
Prepaid license costs	31.2	22.6	-	-
Prepaid products and services	61.3	52.0	-	-
Prepaid rent	5.3	5.2	0.1	0.1
Prepaid insurance	6.0	3.5	0.1	-
Other items	14.2	15.3	1.2	0.8
Total	173.0	150.5	1.4	0.9

Accrued expenses and deferred income

	Group		Parent company	
	2022-12-31	2021-12-31	2022-12-31	2021-12-31
Accrued personnel-related expenses	320.1	263.9	16.9	1.6
Accrued sales commission	26.3	30.6	-	-
Accrued installation and training expenses	0.6	1.3	-	-
Accrued R&D expenses	5.6	5.0	-	-
Accrued fees	21.7	16.1	0.1	0.1
Accrued royalties	4.4	4.8	-	-
Accrued interest expenses	2.3	3.8	2.3	3.8
Work in progress	22.5	28.0	-	-
Prepaid revenue	741.2	655.1	-	-
Other items	79.7	75.8	0.7	0.8
Total	1,224.4	1,084.4	20.0	6.3

NOTE 21 Share capital and number of shares

Parent company

		Number of shares								
		Outstanding			Repurchased	Total issued				
	Quota value per share, EUR	Class A	Class B	Total	Class B	Class A	Class B	Total	Share capital, MEUR
Opening balance 2021	0.22	15,750,000	351,154,802	366,904,802	646,000	15,750,000	351,800,802	367,550,802	81.6
Acquisition of treasury shares	0.22	-	-204,000	-204,000	204,000	-	-	-	-
Split 7:1	0.03	94,500,000	2,105,704,812	2,200,204,812	5,100,000	94,500,000	2,110,804,812	2,205,304,812	-
Non-cash issue	0.03	-	132,622,274	132,622,274	-	-	132,622,274	132,622,274	4.2
Acquisition of treasury shares	0.03	-	-3,400,000	-3,400,000	3,400,000	-	-	-	-
Closing balance 2021	0.03	110,250,000	2,585,877,888	2,696,127,888	9,350,000	110,250,000	2,595,227,888	2,705,477,888	85.8
Acquisition of treasury shares	0.03	-	-6,450,000	-6,450,000	6,450,000	-	-	-	-
Closing balance 2022	0.03	110,250,000	2,579,427,888	2,689,677,888	15,800,000	110,250,000	2,595,227,888	2,705,477,888	85.8

Each series A share entitles the holder to 10 votes and each series B share to 1 vote. All shares entail the same right to share of profits in Hexagon. Dividend per share paid in 2022 regarding the financial year of 2021 amounted to 0.11 EUR (0.09).

Average number of shares before and after dilution, thousands

	2022	2021
Average number of shares before dilution	2, 693,019	2,599,293
Estimated average number of potential shares pertaining to warrants plans	13,275	6,998
Average number of shares after dilution	2,706,294	2,606,291

NOTE 22 Pension provisions

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

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

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

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

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

GROUP

Provisions – defined-benefit plans

	2022-12-31	2021-12-31
Pension obligations	668.9	779.1
Fair value of plan assets	-715.5	-741.4
Pension obligations less plan assets	**-46.6**	**37.7**
Unrecognised assets	94.8	31.6
Pension obligations, net	**48.2**	**69.3**

Pension expenses - defined-benefit plans

	2022	2021
Current service cost	32.8	32.4
Interest expense	4.2	2.6
Calculated interest income	-3.5	-1.9
Change in terms and conditions	0.1	-0.1
Total	**33.6**	**33.0**

Total pension expenses impact on the income statement

	2022	2021
Operating expenses – defined benefit plans	32.8	32.4
Operating expenses – defined contribution plans	54.2	45.2
Operating earnings impact	**87.0**	**77.6**
Net interest expenses – defined benefit plans	0.7	0.7
Earnings before tax impact	**87.7**	**78.3**

Defined-benefit obligations

2022-12-31	Plan assets	Pension obligations	Net
Switzerland	664.2	-588.3	75.9
Other countries	51.3	-80.6	-29.3
Total (fair/present value)	**715.5**	**-668.9**	**46.6**
Unrecognised assets	-94.8	-	-94.8
Pension provisions, net	**620.7**	**-668.9**	**-48.2**
Of which:			
Reported as asset (other non-current receivables)			5.7
Reported as liability			-53.9

2021-12-31	Plan assets	Pension obligations	Net
Switzerland	676.3	-663.5	12.8
Other countries	65.1	-115.6	-50.5
Total (fair/present value)	**741.4**	**-779.1**	**-37.7**
Unrecognised assets	-31.6	-	-31.6
Pension provisions, net	**709.8**	**-779.1**	**-69.3**
Of which:			
Reported as asset (other non-current receivables)			5.7
Reported as liability			-75.0

Three-year summary

	2022-12-31	2021-12-31	2020-12-31
Fair value of plan assets	715.5	741.4	637.6
Pension obligations	-668.9	-779.1	-758.4
Net	**46.6**	**-37.7**	**-120.8**
Unrecognised assets	-94.8	-31.6	-3.5
Recognised value	**-48.2**	**-69.3**	**-124.3**

Pension obligations

	2022-12-31	2021-12-31
Opening balance	779.1	758.4
Change in terms and conditions	-4.9	-9.2
Current service cost	32.8	32.4
Interest expense	4.2	2.6
Benefits paid	-24.1	-26.2
Acquired/divested subsidiaries	-0.1	0.2
Settlement of pension obligations	-0.3	0.0
Actuarial gains/losses – Financial assumptions	-147.7	22.7
Actuarial gains/losses – Demographic assumptions	-0.4	-21.3
Actuarial gains/losses – Experience adjustments	24.5	10.7
Currency translation differences	5.8	8.8
Closing balance	**668.9**	**779.1**

Plan assets

	2022-12-31	2021-12-31
Opening balance	741.4	637.6
Change in terms and conditions	-9.4	4.2
Calculated interest income	3.5	1.9
Contributions – employer	20.2	18.2
Contributions – employee	16.5	13.9
Benefits paid	-23.3	-25.4
Return on plan assets excluding calculated interest income as above	-39.7	83.9
Currency translation differences	6.3	7.1
Closing balance	**715.5**	**741.4**

NOTE 22 Pension provisions, cont.

Fair value of plan assets

	2022-12-31	2021-12-31
Equities and similar financial instruments	209.8	256.9
Interest bearing securities, etc.	256.1	232.3
Real estate	249.6	252.2
Total	715.5	741.4

For 2023, the contributions to defined benefit plans are estimated at 42.8 MEUR, of which employer's contribution 23.6MEUR.

Characteristics of the pension obligations

The following applies for the Swiss plans which represent 88 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 on the age of the plan member and it guarantees an interest rate, which is annually determined by the Pension Fund. The minimum legal rate as fixed by the Swiss government has to be credited to the minimum savings account. The interest is not allowed to negative, even if the actual return on assets is negative (capital protection). The other kind of plans in Switzerland are of similar nature.

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

Remaining duration is in average 20 year.

Actuarial assumptions for the defined-benefit pension schemes

(weighted average, where applicable)	2022	2021
Discount interest rate, %	0.5	0.3
Inflation, %	0.8	0.8
Future salary increase, %	2.3	2.7

For 88 per cent of the defined benefit obligation, the Swiss BVG 2020 tables have been used for the actuarial assumptions regarding employee turnover and life expectancy.

Sensitivity analysis

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

	Change in assumption, %	Effect, MEUR	Change in assumption, %	Effect, MEUR
Discount rate	-0.3	-22.9	+0.3	6.9
Salary increase	-0.5	-7.8	+0.5	-7.9
Employee turnover	-1.0	-0.6	+1.0	-0.5

	Change in assumption, no. of years	Effect, MEUR	Change in assumption, no. of years	Effect, MEUR
Life expectancy	-1.0	16.9	+1.0	-16.9

NOTE 23 Other provisions

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

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

Warranties

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

Group

	Restructuring provisions	Warranty provisions	Other provisions	Total
Opening balance 2021-01-01	38.3	16.0	8.7	63.0
Provision for the year	31.1	18.2	3.0	52.3
Utilisation	-27.6	-16.0	-1.5	-45.1
Reversal of unutilised amounts	-3.9	-0.3	-0.3	-4.5
Translation difference	2.0	0.7	0.3	3.0
Closing balance 2021-12-31	39.9	18.6	10.2	68.7
Provision for the year	63.4	22.2	0.8	86.4
Increase through acquisition of businesses	0.8	-	3.6	4.4
Utilisation	-44.0	-22.3	-2.8	-69.1
Reversal of unutilised amounts	-3.5	-1.2	-4.1	-8.8
Reclassification	-15.1	-	0.0	-15.1
Translation difference	1.9	0.0	0.3	2.2
Closing balance 2022-12-31	43.4	17.3	8.0	68.7

Restructuring provisions

Restructuring provisions primarily relates to transaction costs and cost in connection with the decision to freeze operations in Russia in the first quarter of 2022 and transaction-and integration costs in the fourth quarter of 2021. The remaining part of restructuring provisions are mainly related to personnel and are expected to become due within 12 months.

Warranty provisions

Warranty provisions are estimated based on previous years statistical data and are evaluated 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 consist of provisions for buildings, tax and legal disputes and also legally required personnel related provisions. The personnel related provisions are considered as long-term.

NOTE 24 Financial risk management

Risk management

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

Currency risk

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

Transaction exposure

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

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

Translation exposure – Balance sheet

Translation exposure arises when the net assets are translated into EUR upon consolidation. Translation differences from net assets in other currencies than EUR reported in other comprehensive income during 2022 were 435.4 MEUR (503.5).

Net exposure per currency

	2022-12-31	Hedging rate
USD	8,568.4	0%
GBP	509.7	0%
CAD	459.3	0%
CNY	443.8	-
AUD	265.7	-
BRL	127.2	0%
INR	79.5	6%
Other	268.5	0%
Total	**10,722.1**	**0%**

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

	2022	2021
USD	2,076.9	1,575.7
EUR	1,054.8	958.3
CNY	648.4	577.2
GBP	214.8	193.4
JPY	175.8	171.1
CAD	130.8	102.9
Other	859.0	762.5
Total	**5,160.5**	**4,341.1**

Interest rate risk

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

During 2022 interest rate derivatives were used in order to manage the interest rate risk.

Financial income and expenses

	2022	2021
Interest income	7.6	4.4
Interest expense	-35.6	-19.8
Other financial income and expense	-10.7	-10.8
Net	**-38.7**	**-26.2**

Credit risk

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

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

Credit risk also includes the risk that customers will not pay receivables that the company has invoiced or intends to invoice. Through a combination of geographical and business segmental diversification of the customers the risk for significant customer credit losses is reduced. An aging analysis of the receivables can be found in Note 18.

Liquidity risk

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

On 31 December 2022, cash and unutilised credit limits totalled 1,429.7 MEUR (1,341.5).

NOTE 24 Financial risk management, cont.

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

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

	2023		2024 – 2025		2026 and later		Total	
	Capital	Interest	Capital	Interest	Capital	Interest	Capital	Interest
Liabilities to credit institutions								
Revolving Credit	-	1.0	-	2.1	40.0	2.0	40.0	5.1
Term loan	400.0	45.9	1,300.0	17.3	-	-	1,700.0	63.2
Lease liability	62.4	6.5	76.0	8.1	69.5	8.7	207.9	23.3
Bond loans	214.6	16.4	583.8	21.6	366.7	22.8	1,165.1	60.8
Commercial paper[1]	-	22.5	-	46.0	741.8	44.8	741.8	113.3
Other lenders	18.7	0.5	0.1	0.0	-	-	18.8	0.5
Total liabilities to credit institutions	695.7	92.8	1,959.9	95.1	1,218.0	78.3	3,873.6	266.2
Other interest bearing liabilities	0.5	0.0	0.0	0.0	0.0	0.0	0.5	0.0
Total interest bearing liabilities	696.2	92.8	1,959.9	95.1	1,218.0	78.3	3,874.1[2]	266.2

1) The Commercial Paper Programme is supported by the long-term revolving credit facilities as back-up and therefore classified as long-term
2) Interest bearing liabilities in the Parent Company, 3,499.1 MEUR

There were interest rate derivatives pertaining to borrowing on 31 December 2022. 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

	2022-12-31	2021-12-31
EUR	100%	100%
INR	0%	0%
JPY	0%	0%
GBP	0%	0%
Other	0%	0%
Total	100%	100%

Refinancing risk

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

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

Following a refinancing in 2021, Hexagon's main sources of financing consist of:

1) A multicurrency revolving credit facility (RCF) established during Q4 2021. The RCF amounts to 1,500 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 20,000 MSEK. On 31 December 2022, Hexagon had issued bonds of a total amount of 10,150 MSEK (11,650).
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 2022, Hexagon had issued commercial paper of a total amount of 7,464 MSEK (7,920) and 60 MEUR (34). The 1,500 MEUR multicurrency revolving facility support the commercial paper programme.

During Q2 2022 Hexagon issued a private placement bond to SEK (Swedish Export Agency) of 2,000 MSEK with a tenor of 7 years.

A two-year term loan of 150 MEUR was established during Q3 2021, of which 150 MEUR was utilised as per 31 December 2022.

A term loan of 200 MEUR with a tenor of 2+1+1 years was established during Q3 2021, of which 200 MEUR was utilised as per 31 December 2022.

Three term loans of 250 MEUR each with a tenor of 2+1+1 years was established during Q1 2022, of which 750 MEUR was utilised as per 31 December 2022.

A two-year term loan of 350 MEUR was established during Q1 2022, of which 350 MEUR was utilised as per 31 December 2022.

A term loan of 250 MEUR with a tenor of 1+1 years was established during Q3 2022, of which 250 MEUR was utilised as per 31 December 2022.

Group's capital structure

	2022-12-31	2021-12-31
Interest bearing liabilities and provisions	3,928.0	3,012.9
Cash, bank and short-term investments	-486.3	-472.1
Net debt	3,441.7	2,540.8
Shareholders' equity	9,864.6	8,764.7

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 2022 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, CHF, CNY and USD. Compared to last year the EUR has weakened against CHF, CNY and USD. Since Hexagon has a majority of the operating earnings denominated in CNY and USD, this had a positive impact on operating earnings. The strengthening of the CHF had a negative impact since a considerable part of the costs are denominated in CHF. An isolated strengthening in the exchange rate for EUR by 5 per cent for all assets and liabilities denominated in non-EUR currencies would have had an immaterial effect on net income but a negative effect on equity of 535.3 MEUR (441.8) net, and vice versa, after the impact of hedging.

During 2022, total operating earnings, excluding adjustments, from operations in other currencies than EUR amounted to an equivalent of 1,232.7 MEUR (975.1). An isolated change in the exchange rate for EUR by 5 per cent against all other currencies would have a net effect on operating earnings of approximately 61.6 MEUR (48.8).

The average interest fixing period in the Group's total loan portfolio as of year-end 2022 was less 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 25.5 MEUR (16.6) in the coming 12 months earnings.

NOTE 25 Financial instruments

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

Classification

The Group classifies financial assets in the following categories:

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

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

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

Measurement

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

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

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

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

Impairment

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

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

Financial instruments - Fair value

Assets	**2022-12-31**		**2021-12-31**	
	Carrying amount	**Fair value**	**Carrying amount**	**Fair value**
Assets measured at fair value through profit or loss				
Other long-term securities holdings	78.1	78.1	20.9	20.9
Assets measured at amortised cost				
Long-term receivables	36.4	36.4	48.7	48.7
Accounts receivable	1,285.8	1,285.8	1,090.8	1,090.8
Other current receivables	108.1	108.1	88.3	88.3
Accrued income	37.5	37.5	37.5	37.5
Accrued interest	0.8	0.8	0.6	0.6
Short-term investments	95.4	95.4	42.8	42.8
Cash and cash equivalents	390.9	390.9	429.3	429.3
Total	2,033.0	2,033.0	1,758.9	1,758.9

Liabilities	**2022-12-31**		**2021-12-31**	
	Carrying amount	**Fair value**	**Carrying amount**	**Fair value**
Financial liabilities measured at fair value through profit or loss				
Estimated supplementary payments for acquired companies	162.1	162.1	136.2	136.2
Currency forward and swap contracts – short term	16.1	16.1	24.4	24.4
Currency forward and swap contracts – long-term	78.8	78.8	3.8	3.8
Financial liabilities measured at *amortised* cost				
Long-term liabilities – interest bearing[1]	3,099.1	3,113.5	2,139.2	2,129.7
Other long-term liabilities – non-interest bearing	121.9	121.9	5.2	5.2
Current liabilities – interest bearing[1]	628.6	629.1	557.9	557.6
Accounts payable	309.8	309.8	263.2	263.2
Other current non-interest bearing liabilities	300.7	300.7	235.2	235.2
Accrued expenses	480.9	480.9	425.5	425.5
Accrued interest	2.3	2.3	3.8	3.8
Total	5,200.3	5,215.2	3,794.4	3,784.6

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

NOTE 25 Financial Instruments, cont.

Financial instruments valued at fair value

	2022-12-31			2021-12-31		
	Level 1	Level 2	Level 3	Level 1	Level 2	Level 3
– Currency forward and swap contracts	-	-94.9	-	-	-28.2	-
– Estimated supplementary payments for acquired companies	-	-	162.1	-	-	136.2
– Other long-term securities holdings	-	78.1	-	-	20.9	-
Total	-	-16.8	162.1	-	-7.3	136.2

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 2022, there were no transfers between levels.

Estimated supplementary payments for acquired companies

	2022	2021
Opening balance	136.2	131.6
Present value adjustment	1.1	0.9
Increase through acquisition of businesses	60.6	65.5
Payment of supplementary acquisition considerations	-18.4	-11.9
Reversal of unutilised amounts	-16.7	-54.3
Translation difference	0.7	4.4
Closing balance	162.1	136.2

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

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

Changes in liabilities arising from financing activities

	Group	Parent company
Opening balance 2021-01-01		
Cash flow	219.9	152.6
Lease liabilities	61.9	-
Acquisitions	0.2	-
Translation differences	8.0	-0.6
Closing balance 2021-12-31	2,937.9	2,566.2
Cash flow	868.7	932.6
Lease liabilities	59.5	-
Acquisitions	5.6	-
Translation differences	2.4	0.3
Closing balance 2022-12-31	3,874.1	3,499.1

NOTE 26 Assets pledged and contingent liabilities

Pledged assets to credit institutions for loans, bank overdrafts and guarantees

	Group		Parent company	
December 31	2022	2021	2022	2021
Pledged assets	2.8	2.9	-	-
Total	2.8	2.9	-	-

Contingent liabilities

	Group		Parent company	
December 31	2022	2021	2022	2021
Guarantees in favour of group companies	-	-	171.0	167.0
Other contingent liabilities	7.9	4.2	0.4	0.1
Total	7.9	4.2	171.4	167.1

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:

	ETQ	Other	2022	2021
Intangible fixed assets	255,0	49,6	304.6	485.5
Tangible fixed assets	-	11,1	11.1	2.7
Other fixed assets	1,8	0,9	2.7	0.1
Total fixed assets	256,8	61,6	318.4	488.3
Current receivables, inventories, etc.	10,1	8,0	18.1	41.9
Cash and cash equivalents	16,1	6,0	22.1	5.3
Total current assets	26,2	14,0	40.2	47.2
Total assets	283,0	75,6	358.6	535.5
Provisions	58.3	0.9	59.2	5.5
Long-term liabilities	-	10.3	10.3	2.2
Total long-term liabilities	58.3	11.2	69.5	7.7
Current liabilities, etc.	32.9	26.9	59.8	62.8
Total liabilities	91.2	38.1	129.3	70.5
Identifiable net assets at fair value	191.8	37.5	229.3	465.0
Non-controlling interest in equity in acquired companies	-	-	-	-12.7
Goodwill	887.4	135.6	1,023.0	2,106.4
Total purchase consideration transferred	1,079.2	173.1	1,252.3	2,558.7
Less cash and cash equivalents in acquired group companies	-16.1	-0.6	-22.1	-5.3
Less unpaid acquisition price	-	-75.9	-75.9	-65,5
Payment of unpaid portion of acquisition price from prior acquisitions	-	40.5	40.5	11.9
Cash flow from acquisitions of group companies, net	1,063.1	131.7	1,194.8	2,499.8
Payment with own shares	-	-	-	-1,751.4
Group companies/ businesses, net	1,063.1	131.7	1,194.8	748.4

During 2022, Hexagon acquired the following companies:

- Minnovare, a leading provider of drilling technology
- PDSA Company LTD, a Hexagon Leica Geosystems distributor
- ETQ, a leading provider of SaaS-based quality management software
- Innovatia Accelerator Inc, a developer of SaaS-based digitalisation solutions in the Operations and Maintenance segment

- Vero Solutions, a distributor of Hexagon's VISI CAD CAM software
- TST Tooling Software Technology LLC, a distributor of Hexagon's VISI CAD CAM software
- Kasi Aviation Inc, a provider of aerial survey and mapping services
- Men At Work GmbH, a distributor of Hexagon's VISI CAD CAM software
- iConstruct Pty Ltd, a provider of BIM software
- Avvir, a developer of SaaS-based construction progress monitoring solutions
- CIM3, a distributor of Hexagon's ESPRIT CAM software

Further information related to the acquisitions of ETQ is presented below. The other acquisitions are individually assessed as immaterial from a group perspective which is why only aggregated information is presented. The analysis of the acquired net assets is preliminary and the fair value might be subject to change.

Contingent considerations are recognised to fair value (level 3 according to definition in IFRS 13) each reporting period and based on the latest relevant forecast for the acquired company. The valuation method is unchanged compared to the previous period. The estimated liability for contingent considerations amounted to 162.1 MEUR (136.2) as of 31 December, whereof the fair value adjustment in 2022 amounted to 16.7 MEUR (54.3). In connection with the valuation of contingent considerations the assets acquired and liabilities assumed in the purchase price allocation are reviewed. Any indication of impairment due to the revaluation of contingent considerations is considered and adjustments are made to off-set the impact from revaluation.

Acquisitions analysis
Acquisition of ETQ
In April 2022, Hexagon acquired ETQ, a leading provider of SaaS-based QMS (quality management system), EHS (environment, health and safety) and compliance management software.

Background and reasons for the transaction
ETQ's SaaS QMS solution provides the data backbone for automating the collection and delivery of manufacturing quality control data, non-conformance reports, customer feedback and more. It provides an enterprise view of quality management across the entire product lifecycle. ETQ's broad portfolio of best-in-class applications comes with out-of-the- box functionality and no-code configurability, enabling customers to tailor the solution to their unique needs and optimise critical business processes to achieve their quality, safety and environmental goals. Given the strong fit across Hexagon's manufacturing and process industries and the significant scope for geographical expansion, the transaction is expected to generate sales synergies of over 40 MUSD, with very strong incremental margins, by 2026.

From the date of acquisition, ETQ has contributed 50.6 MEUR of net sales in 2022. If the acquisition had taken place at the beginning of the year, the contribution to net sales would have been 65.2 MEUR. The contribution to the group operating margin has been accretive.

Acquisitions analysis 2021
Acquisition of Infor's EAM business
In July 2021, Hexagon acquired Infor's global EAM business (enterprise asset management), a best-in-class, SaaS-based asset management solution – Infor EAM – which is used to track assets, digitalise maintenance operations and enable customers in nearly any industry to reach optimum operational efficiency.

Background and reasons for the transaction
EAM solutions provide the foundation of digital innovation in asset-intensive industries where digital realities, or digital operational twins, are increasingly leveraged to provide a single source of truth and complete line-of-sight to ever- changing situations. This includes the condition and performance of fixed assets – from capital and process equipment (machines, trucks, valves, turbines, and pumps) to critical infrastructure (road, railway, pipeline and communications networks) to entire buildings and facilities. By combining enterprise asset management system with Hexagon's portfolio puts Hexagon in a unique position to drive further digital transformation across the customer base. By integrating Infor EAM's built-in, industry-specific asset management capabilities with Hexagon's digital reality solutions and platforms, Hexagon can improve capital asset performance in ways beyond what EAM can achieve standalone.

From the date of consolidation (1 October), Infor's EAM business has contributed 38.1 MEUR of net sales in 2021. If the acquisition had taken place at the beginning of the year, the contribution to net sales would have been 150.9 MEUR. The contribution to the group operating margin has been accretive.

NOTE 28 Average number of employees

	2022			2021		
	Men	**Women**	**Total**	**Men**	**Women**	**Total**
Parent company	9	10	19	5	10	15
Subsidiaries	17,989	5,188	23,177	16,435	4,841	21,276
Total, Group	**17,998**	**5,198**	**23,196**	**16,440**	**4,851**	**21,291**
Average number of employees by country						
Nordic region	532	150	682	524	144	668
Rest of Europe	6,311	1,708	8,019	6,109	1,586	7,695
Total, Europe	**6,843**	**1,858**	**8,701**	**6,633**	**1,730**	**8,363**
North America	4,471	1,388	5,859	3,859	1,367	5,226
South America	811	225	1,036	712	170	882
Africa	130	54	184	111	40	151
Australia and New Zealand	348	89	437	270	79	349
Asia	5,395	1,584	6,979	4,855	1,465	6,320
Total, Group	**17,998**	**5,198**	**23,196**	**16,440**	**4,851**	**21,291**

NOTE 29 Employee benefits

Salaries and remuneration	**2022**	**2021**
Parent company	22.5	9.8
(of which performance related pay and bonus)	(6.7)	(3.0)
Subsidiaries	1,678.2	1,385.5
(of which performance related pay and bonus)	(199.1)	(160.7)
Total, Group	**1,700.7**	**1,395.3**

Social security expenses	**2022**	**2021**
Parent company	2.8	2.3
(of which pension expenses)	(1.6)	(1.4)
Subsidiaries	263.8	219.6
(of which pension expenses)	(86.1)	(76.9)
Total, Group	**266.6**	**221.9**
(of which pension expenses)	(87.7)	(78.3)

At year-end, the board of directors in Hexagon AB consists of ten board members of which four are women and six are men. The President and Chief Executive Officer and other senior executives consists of 14 men and one woman.

NOTE 30 Remuneration to senior executives

Pursuant to resolutions by the Annual General Meeting, the Chair of the Board and Board members were paid remuneration totalling 774.1 KEUR (672.7). The Chair of the Board received 188.1 KEUR and other Board members 63.0 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 Chair of the Remuneration Committee received 8.0 KEUR and each member received 5.7 KEUR. The Chair of the Audit Committee received 25.9 KEUR and each member received 21.2 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 the 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, Tony Zana, General Counsel, Burkhard Böckem, Chief Technology Officer, Ben Maslen, Chief Strategy Officer, Kristin Christensen, Chief Marketing Officer, Norbert Hanke, Executive Vice President, Li Hongquan, Vice President and President of China Region, Jürgen Dold, Executive Vice President, Paolo Guglielmini, Chief Operating Officer, Mattias Stenberg, President Asset Lifecycle Intelligence division, Michael Ritter, President Offroad Autonomy Portfolio, Steven Cost, President Safety, Infrastructure & Geospatial division, Thomas Harring, President Geosystems division and Josh Weiss, President Manufacturing Intelligence division.

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

Pension

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

Severance pay

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

Advisory and resolution model

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

Remuneration and other benefits

	Basic salary/ Director fees		Variable remuneration		Other benefits[1]		Pension expenses		Total	
KEUR	2022	2021	2022	2021	2022	2021	2022	2021	2022	2021
Gun Nilsson, Chair of the Board	217.3	222.8	-	-	-	-	-	-	217.3	222.8
John Brandon	63.0	63.6	-	-	-	-	-	-	63.0	63.6
Ulrika Francke	88.9	88.2	-	-	-	-	-	-	88.9	88.2
Henrik Henriksson	63.0	63.6	-	-	-	-	-	-	63.0	63.6
Erik Huggers	63.0	7.8	-	-	-	-	-	-	63.0	7.8
Märta Schörling Andreen	63.0	63.6	-	-	-	-	-	-	63.0	63.6
Sofia Schörling Högberg	89.9	91.7	-	-	-	-	-	-	89.9	91.7
Patrick Söderlund	63.0	63.6	-	-	-	-	-	-	63.0	63.6
Brett Watson	63.0	7.8	-	-	-	-	-	-	63.0	7.8
Ola Rollén, President and Chief Executive Officer	3,920.0	3,363.8	4,967.0	1,681.9	7,840.0	-	784.0	672.8	17,511.0	5,718.5
Other senior executives (14 people)[2]	11,272.1	8,654.0	12,931.3	10,934.6	63.3	56.4	1,298.4	939.3	25,565.1	20,584.3
Total	**15,966.2**	**12,690.5**	**17,898.3**	**12,616.5**	**7,903.3**	**56.4**	**2,082.4**	**1,612.1**	**43,850.2**	**26,975.5**

1) Other benefits for President and CEO comprise a severance payment in accordance with the current employment contract equal to 24 months of salary which is a derogation from the guidelines for remuneration to senior executives approved in accordance with the Board mandate. Other benefits for other senior executives comprise company car and insurance (excluding pension insurance). Expenses for Share programme amounts to 1.4 MEUR for the President and CEO and to 3.9 MEUR for Other senior executives

2) Including costs for part of the year for senior executives who acceded the position 1st of July 2022 and resigned the position 1st of October 2022. Executive Vice President is included in Other senior executives, more detailed information on remuneration to the Executive Vice President can be found in the Remuneration Report 2022

Share Programme

At the Extraordinary General Meeting on 1 December 2020, it was decided to implement the Share Programme 2020/2023, at the Annual General Meeting on 29 April 2021 it was decided to implement the Share Programme 2021/2024 and on the Annual General Meeting on 29 April 2022 it was decided to implement the Share Programme 2022/2025 for key employees in the company. Hexagon's share programme is accounted for according to IFRS 2 and is classified as an equity-settled share-based payment transaction, which means the programme is reported within equity. Social fees are reported as a liability in the balance sheet. Participants in the share programmes are offered to be granted, free of charge, performance awards which may entitle to shares of Class B if performance conditions are met during the measurement periods 1 January 2020 to 31 December 2023, 1 January 2021 to 31 December 2024 and 1 January 2022 to 31 December 2025. The purpose of the share programme is to strengthen Hexagon's ability to retain and recruit competent employees, provide competitive renumeration and to align the interest of the shareholders with the interest of the employees concerned. The total cost of the share-based incentive programmes is estimated at 60 MEUR each and is recognised as a personnel expense in profit or loss during the vesting period.

Allocated performance awards in Share Programme 2020/2023[1]

	Number of awards[1]	Market value, EUR
President and Chief Executive Officer	167,874	1,645,165
Other senior executives (14 people)	480,655	4,710,419
Other employees	4,145,022	40,621,216
Total	4,793,551	46,976,800

1) Relates to allocated performance awards, restated after share split 7:1, which may entitle to shares of Class B to be received during year 2024 if the performance conditions are met

Allocated performance awards in Share Programme 2021/2024[1]

	Number of awards[1]	Market value, EUR
President and Chief Executive Officer	150,321	1,473,146
Other senior executives (14 people)	421,206	4,127,819
Other employees	3,988,614	39,088,417
Total	4,560,141	44,689,382

1) Relates to allocated performance awards which may entitle to shares of Class B to be received during year 2025 if the performance conditions are met

Allocated performance awards in Share Programme 2022/2025[1]

	Number of awards[1]	Market value, EUR
President and Chief Executive Officer	200,000	1,960,000
Other senior executives (14 people)	533,330	5,226,634
Other employees	4,716,729	46,223,944
Total	5,450,059	53,410,578

1) Relates to allocated performance awards which may entitle to shares of Class B to be received during year 2026 if the performance conditions are met

NOTE 31 Remuneration of the Group's auditors

	Group		Parent company	
	2022	2021	2022	2021
PwC				
Audit	4.8	4.5	0.9	0.5
Audit-related fees	-	-	-	-
Tax assignments[1]	0.9	0.6	-	-
Other fees	-	-	-	-
Total, PwC	5.7	5.1	0.9	0.5
Audit, others	0.8	0.5	-	-
Total	6.5	5.6	0.9	0.5

1) Tax assignments mainly relates to tax return compliance, transfer pricing and questions relating to tax legislation and compliance

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 Group and Schörling Group.

NOTE 33 Subsequent events after the financial year's end

On 12 January, 2023 Hexagon announced the acquisition of Projectmates, a SaaS-based, owner-focused, enterprise construction project management software provider.

NOTE 34 Appropriation of earnings

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

Premium reserve	2,903,123
Retained earnings	2,971,196
Net earnings	-1,240,173
Total	4,634,146

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

Cash dividend to shareholders of 0.12 EUR per share	322,761
Balance remaining in the premium reserve	2,903,123
Balance remaining in retained earnings	1,408,262
Total	4,634,146

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 30 March 2023

Gun Nilsson
Chair of the Board

John Brandon
Member of the Board

Ulrika Francke
Member of the Board

Henrik Henriksson
Member of the Board

Erik Huggers
Member of the Board

Ola Rollén
Member of the Board

Märta Schörling Andreen
Member of the Board

Sofia Schörling Högberg
Member of the Board

Patrick Söderlund
Member of the Board

Brett Watson
Member of the Board

Paolo Guglielmini
President and CEO

Our Audit Report was submitted on 30 March 2023

PricewaterhouseCoopers AB

Bo Karlsson
Authorised Public Accountant
Partner in charge

Helena Kaiser de Carolis
Authorised Public Accountant

Auditor’s report

To the general meeting of the shareholders of Hexagon AB (publ), 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 2022. The annual accounts and consolidated accounts of the company are included on pages 14–20, 34–74 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 parent company and the group as of 31 December 2022 and its financial performance and cash flow for the year then ended in accordance with the Annual Accounts Act. The consolidated accounts have been prepared in accordance with the Annual Accounts Act and present fairly, in all material respects, the financial position of the group as of 31 December 2022 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.

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

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

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

Our audit approach
Audit scope
We designed our audit by determining materiality and assessing the risks of material misstatement in the consolidated financial statements. In particular, we considered where management made subjective judgments; for example, in respect of significant accounting estimates that involved making assumptions and considering future events that are inherently uncertain. As in all of our audits, we also addressed the risk of management override of internal controls, including among other matters consideration of whether there was evidence of bias that represented a risk of material misstatement due to fraud.

We tailored the scope of our audit in order to perform sufficient work to enable us to provide an opinion on the consolidated financial statements as a whole, taking into account the structure of the Group, the accounting processes and controls, and the industry in which the group operates.

The Hexagon Group comprises a large number of subsidiaries. None of these subsidiaries have, individually, been deemed to be significant for the audit of the Group. For the Group audit, we have selected the Parent company and a large number of entities allocated across the Group’s five business areas for Group reporting. The majority of the subsidiaries in the Group are also subject to statutory audits according to local requirements. For other reporting units, analytical audit procedures are performed as a part of the audit of the consolidation. The Group audit team has performed site visits in a selected number of legal entities as well as performed work on the finance and accounting consolidation processes, treasury operations among others.

Materiality
The scope of our audit was influenced by our application of materiality. An audit is designed to obtain reasonable assurance whether the financial statements are free from material misstatement. Misstatements may arise due to fraud or error. They are considered material if individually or in aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of the consolidated financial statements.

Based on our professional judgment, we determined certain quantitative thresholds for materiality, including the overall group materiality for the consolidated financial statements as a whole. These, together with qualitative considerations, helped us to determine the scope of our audit and the nature, timing and extent of our audit procedures and to evaluate the effect of misstatements, both individually and in aggregate on the financial statements as a whole.

Key audit matter
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
Key audit matter
Hexagon customer offerings contains solutions in which hardware and software are integrated as well as services and licenses. The critical management estimates of customer contracts include establishing the amounts that are to be recognised as income and when the income should be recognised.

For integrated customer contracts management need to assess if revenue should be allocated to each revenue type as different accounting principles apply for these revenue types. Management makes estimates of completed performance in relation to the contractual terms and conditions as these performance obligations are or can be fulfilled at different points in time.

Part of Hexagons business comes from major long term, complex and fixed-price customer contracts. Management makes estimates of completed performance in relation to the contractual terms as a base for recognising revenue on every reporting date, these estimations are also the base for any potential loss provision.

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

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

How our audit addressed the Key audit matter
Our audit included, amongst others a combination of testing of internal controls over financial reporting including procedures to test key application configurations, analytical procedures including analysing complete transactional data sets with software tools to identify large transactions, anomalies, unexpected trends or variation. We have, in order to validate revenue for existence and accuracy performed detailed tests of new major contracts in the Hexagon subsidiaries. We have also assessed that disclosures are appropriate.

Business combinations
Key audit matter
Acquisition of new businesses and the consolidation of new businesses (business combinations) include purchase price allocations of the fair values of acquired assets and liabilities including identification of goodwill and other intangible assets. The valuation is partly based on management assumptions of the future earnings of the acquired business and valuation of intangible assets at fair value.

The acquisitions contracts include contingent earn-out payments which are included in the acquisition cost as a contingent consideration and remeasured at every reporting date and thus subject to management estimates and assumptions.

Business combinations have been a key audit matter in our audit due to the degree of management judgment in identifying and accounting of various acquired intangible assets.

Accounting principles for business combinations are included in Note 1 and key estimates and assumptions used for fair values of acquired assets and assumed liabilities as well as identification of intangible assets and contingent consideration are included in Note 2.

How our audit addressed the Key audit matter
Our audit procedures included, amongst others assessment of significant purchase agreements, test of the purchase price allocations including calculation and accounting for contingent considerations. We have involved our valuation specialists to challenge the valuation and calculation methods used by management. We have also assessed that disclosures are appropriate.

Goodwill and other intangible assets with indefinite useful lives
Key audit matter
The carrying value of goodwill, and other intangible assets with indefinite useful lives represent some 65 percent of reported total assets. IFRS require annual impairment tests or when there is an indication that values could be impaired, given that the carrying value of these assets are not amortised.

Market data, Hexagon's business plans and forecasts on future development forms the expectations on sales, earnings and cash flows that are central in the model to calculate a recoverable value to be compared to the booked carrying value.

We have focused on the valuation of goodwill and intangible assets with indefinite useful lives as these items involve a large degree of judgment on behalf of management in assessing future cash flows.

The key assumptions used and management's sensitivity analysis for how changes in key assumptions would affect the value in use are presented in Note 8. As stated in Note 2 the impairment test require management estimates and assumptions such as projected cash flows, future market conditions and discount rates.

How our audit addressed the Key audit matter
Our audit procedures included amongst others a review of management impairment tests of goodwill and intangible assets with indefinite lives. We have examined whether Hexagon's impairment test is based on the divisions' (cash generating units) financial forecasts approved by management. We also evaluated the sensitivity analysis for changes in significant parameters, which, individually or on a collective basis, could imply the existence of an impairment requirement. Valuation experts have been involved to challenge the assumptions and estimates made by management. We have also assessed that disclosures are appropriate.

Other information than the annual accounts and consolidated accounts
This document also contains other information than the annual accounts and consolidated accounts and is found on pages 1-13, 29–33, 79–85. 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 Director's and the Managing Director

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

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

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

Auditor's responsibility

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

A further description of our responsibility for the audit of the annual accounts and consolidated accounts is available on Revisorsinspektionen's website: www.revisorsinspektionen.se/revisornsansvar. This description is part of the auditor's report.

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 Director's and the Managing Director of Hexagon AB (publ) for the year 2022 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 Director's 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 Director's 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' equity, consolidation requirements, liquidity and position in general.

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

Auditor's responsibility

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

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

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

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

A further description of our responsibility for the audit of the administration is available on Revisorsinspektionen's website: www.revisorsinspektionen.se/revisornsansvar. This description is part of the auditor's report.

The auditor's examination of the ESEF report
Opinion
In addition to our audit of the annual accounts and consolidated accounts, we have also examined that the Board of Directors and the Managing Director have prepared the annual accounts and consolidated accounts in a format that enables uniform electronic reporting (the Esef report) pursuant to Chapter 16, Section 4(a) of the Swedish Securities Market Act (2007:528) for ABC AB (publ) for the financial year 2022.

Our examination and our opinion relate only to the statutory requirements.

In our opinion, the Esef report has been prepared in a format that, in all material respects, enables uniform electronic reporting.

Basis for Opinions
We have performed the examination in accordance with FAR's recommendation RevR 18 Examination of the Esef report. Our responsibility under this recommendation is described in more detail in the Auditors' responsibility section. We are independent of Hexagon AB (publ) 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 evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Responsibilities of the Board of Director's and the Managing Director
The Board of Directors and the Managing Director are responsible for ensuring that the Esef report has been prepared in accordance with the Chapter 16, Section 4(a) of the Swedish Securities Market Act (2007:528), and for such internal control that the Board of Directors and the Managing Director determine is necessary to prepare the Esef report without material misstatements, whether due to fraud or error.

Auditor's responsibility
Our responsibility is to form an opinion with reasonable assurance whether the Esef report is in all material respects prepared in a format that meets the requirements of Chapter 16, Section 4(a) of the Swedish Securities Market Act (2007:528), based on the procedures performed.

RevR 18 requires us to plan and execute procedures to achieve reasonable assurance that the Esef report is prepared in a format that meets these requirements.

Reasonable assurance is a high level of assurance, but it is not a guarantee that an engagement carried out according to RevR 18 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 aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of the Esef report.

The audit firm applies ISQC 1 Quality Control for Firms that Perform Audits and Reviews of Financial Statements, and other Assurance and Related Services Engagements and accordingly maintains a comprehensive system of quality control, including documented policies and procedures regarding compliance with professional ethical requirements, professional standards and legal and regulatory requirements.

The examination involves obtaining evidence, through various procedures, that the Esef report has been prepared in a format that enables uniform electronic reporting of the annual accounts and consolidated accounts. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement in the report, whether due to fraud or error. In carrying out this risk assessment, and in order to design procedures that are appropriate in the circumstances, the auditor considers those elements of internal control that are relevant to the preparation of the Esef report by the Board of Directors and the Managing Director, but not for the purpose of expressing an opinion on the effectiveness of those internal controls. The examination also includes an evaluation of the appropriateness and reasonableness of assumptions made by the Board of Directors and the Managing Director.

The procedures mainly include a validation that the Esef report has been prepared in a valid XHTML format and a reconciliation of the Esef report with the audited annual accounts and consolidated accounts.

Furthermore, the procedures also include an assessment of whether the consolidated statement of financial performance, financial position, changes in equity, cash flow and disclosures in the Esef report has been marked with iXBRL in accordance with what follows from the Esef regulation.

PricewaterhouseCoopers AB, was appointed auditor of Hexagon AB (publ) by the general meeting of the shareholders on 29 April 2022 and has been the company's auditor since 2021.

Stockholm 30 March, 2022

PricewaterhouseCoopers AB

Bo Karlsson *Authorised Public Accountant* *Partner in charge*	Helena Kaiser de Carolis *Authorised Public Accountant*

The share

Share price development and trading
In 2022, the Hexagon share price decreased by 13.1 per cent to 109.00 SEK as of 31 December. The share price reached the 52-week high of 146.05 SEK on 3 January and the 52-week low on 29 September at 100.75 SEK. Hexagon's total market capitalisation as of 31 December 2022 was 282,879.8 MSEK.

Ownership structure
At year-end 2022, Hexagon had 57,171 registered shareholders (50,034). Shareholders in the USA accounted for the largest foreign holding, representing 30.1 per cent (31.2) of total shares followed by the UK, representing 5.4 per cent (5.6). The ten largest owners held 54.7 per cent (55.9) of the share capital and 66.9 per cent (67.7) of the votes.

Share capital
At year-end 2022, Hexagon's share capital amounted to 85,761,451 EUR, represented by 2,705,477,888 shares, of which 110,250,000 are of Class A with ten votes each and 2,595,227,888 are of Class B with one vote each. Each share has a quota value of 0.03 EUR. Hexagon AB has acquired 15,800,000 of the company's own shares of Class B as of 31 December 2022. The purpose of the repurchase is to ensure Hexagon's undertakings in respect of the long-term incentive programmes (other than delivery of shares to participants in the incentive programmes), including covering social security costs.

Incentive programmes
At the Annual General Meeting on 29 April 2022, it was decided to implement the Share Programme 2022/2025. Participants in the share programme are offered to be granted, free of charge, performance awards that may entitle them to receive shares, provided that the performance conditions are fulfilled. The performance condition is related to the development of Hexagon's earnings per share compared with the target level set by the Board during the measurement period 1 January 2022 to 31 December 2025, where the last financial year during the measurement period is compared with the financial year preceding the measurement period. The fulfilment of the performance-based condition will be presented in the annual report for the financial year 2025.

Shares allotted are acquired by a third party, in its own name, and transferred to the participants in accordance with the Share Programme 2022/2025. The total costs for the share programme upon full fulfilment of the performance condition are estimated to amount to a maximum of approximately 60 MEUR allocated over the vesting period.

Dividend and share split
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.

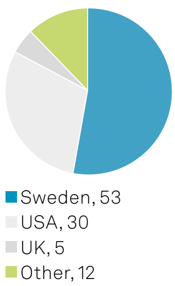
The Board of Directors proposes a dividend of 0.12 EUR (0.11) per share for 2022. The proposed dividend amounts to 32 per cent of the year's earnings per share after tax.

13%

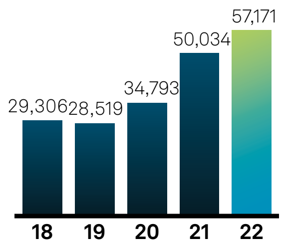
Share price decrease 2022

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

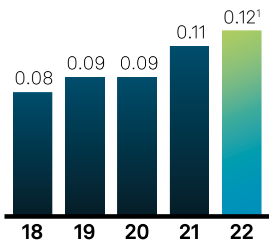
Geographic distribution of shareholdings, %



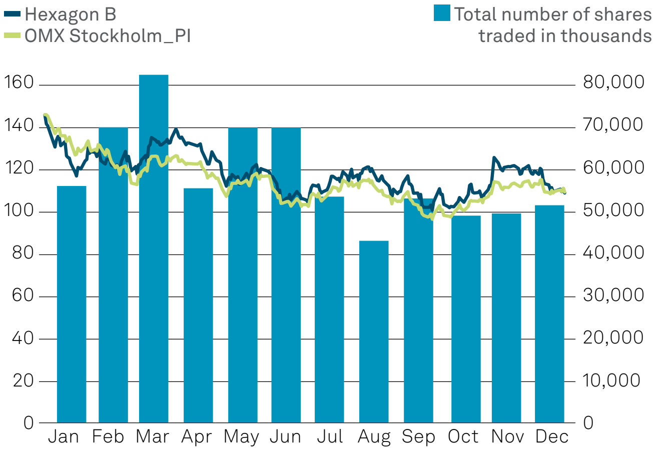
Number of shareholders



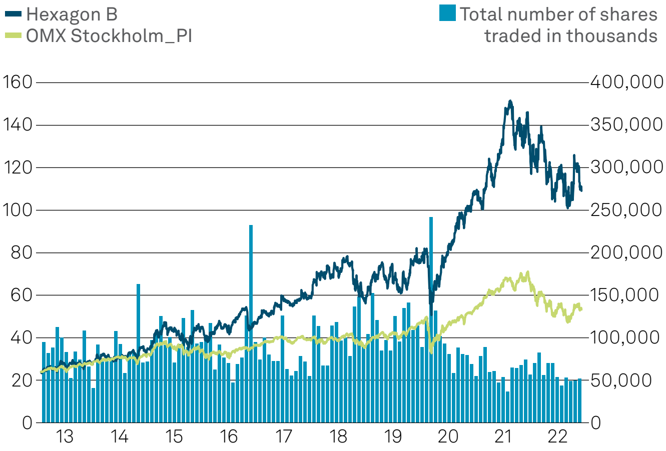
Cash dividend per share, EUR



1) According to the Board of Directors' proposal



Source: Nasdaq



Source: Nasdaq

Class of shares	Number of shares	Number of votes	% of capital	% of votes
A shares	110,250,000	1,102,500,000	4.1	29.9
B shares	2,579,427,888	2,579,427,888	95.3	70.1
Holding of treasury B shares	15,800,000	-	0.6	-
Total	**2,705,477,888**	**3,681,927,888**	**100.0**	**100.0**

Largest shareholders

Owner/manager/deposit bank	A shares	B shares	% of capital	% of votes
Melker Schörling AB	110,250,000	466,256,440	21.31	42.42
State Street Bank and Trust Co.	-	249,320,733	9.22	6.74
JP Morgan Chase Bank NA	-	193,988,022	7.17	5.25
Swedbank Robur Fonder	-	129,122,623	4.77	3.49
JP Morgan Securities LLC	-	112,911,642	4.17	3.05
Alecta Tjänstepension Ömsesidigt	-	82,570,000	3.05	2.23
BNY Mellon NA (Former Mellon)		66,320,740	2.45	1.79
The Northern Trust Company	-	66,301,196	2.45	1.79
AMF Försäkring och Fonder	-	65,957,013	2.44	1.78
CBNY-Norges Bank	-	59,842,938	2.21	1.62
Handelsbanken Fonder	-	51,620,276	1.91	1.40
BNY Mellon SA/NV (Former BNY)	-	51,180,862	1.89	1.38
Brown Brothers Harriman & Co.	-	50,154,652	1.85	1.36
Ramsbury Invest AB	-	50,000,000	1.85	1.35
SEB Investment Management	-	47,420,943	1.75	1.28
Första AP-Fonden	-	30,186,710	1.12	0.82
Clearstream Banking S.A.	-	28,573,602	1.06	0.77
Folksam	-	23,931,898	0.88	0.65
Nordea Investment Funds	-	22,426,560	0.83	0.61
Livförsäkringsbolaget Skandia, Ömsesidigt	-	20,522,594	0.76	0.56
Subtotal, 20 largest shareholders[1]	**110,250,000**	**1,868,609,444**	**73.14**	**80.35**
Summary, others	-	726,618,44	26.26	19.65
Total number of outstanding shares	**110,250,000**	**2,579,427,888**	**99.40**	**100.0**
Holding of treasury B shares	-	15,800,000	0.60	-
Total number of issued shares	**110,250,000**	**2,595,227,888**	**100.0**	**100.0**

1) The concentration corresponds to the 20 largest shareholders presented in the list
Source: Euroclear Sweden AB as of 30 December 2022

Key data per share

	2022	2021	2020	2019	2018
Shareholder's equity, EUR	3.65	3.24	2.31	2.36	2.09
Net earnings, Euro cent	37.4	30.8	24.0	27.4	28.9
Cash flow, Euro cent	51.0	52.0	53.4	43.1	37.4
Cash dividend, EUR	0.12[1]	0.11	0.09	0.09	0.08
Pay-out ratio, %	32.1	35.7	38.7	32.3	29.2
Share price, EUR	9.80	14.02[2]	74.72	50.25	39.79
P/E ratio[3]	26	46	45	26	20

1) According to the Board of Directors' proposal
2) Share split 7:1 2021, historical data has not been restated
3) Based on the share price on 31 December and calendar year earnings

The Hexagon share

Year Transaction	Nominal value, SEK/EUR	A shares, change	B shares, change	A shares, total	B shares, total	Share capital, SEK/EUR
2000	10			840,000	13,953,182	147,931,820
2002 Rights issue	10	210,000	3,488,295	1,050,000	17,441,477	184,914,770
2004 New issue, warrants exercised	10		10,170	1,050,000	17,451,647	185,016,470
2005 New issue, warrants exercised	10		722,635	1,050,000	18,174,282	192,242,820
2005 Bonus issue	12			1,050,000	18,174,282	230,691,384
2005 Split 3:1	4	2,100,000	36,348,564	3,150,000	54,522,846	230,691,384
2005 New issue, warrants exercised	4		154,500	3,150,000	54,677,346	231,309,384
2005 Issue in kind of consideration shares[1]	4		11,990,765	3,150,000	66,668,111	279,272,444
2005 Issue in kind of consideration shares[1]	4		82,000	3,150,000	66,750,111	279,600,444
2006 Rights issue	4	787,500	16,687,527	3,937,500	83,437,638	349,500,552
2006 New issue, warrants exercised	4		508,933	3,937,500	83,946,571	351,536,284
2006 Compulsory redemption, Leica Geosystems	4		198,635	3,937,500	84,145,206	352,330,824
2006 New issue, warrants exercised	4		309,119	3,937,500	84,454,325	353,567,300
2007 New issue, warrants exercised[2]	4		58,170	3,937,500	84,512,495	353,625,470
2007 Bonus issue	6			3,937,500	84,512,495	530,699,970
2007 Split 3:1	2	7,875,000	169,024,990	11,812,500	253,537,485	530,699,970
2008 New issue, warrants exercised[2]	2		169,785	11,812,500	253,707,270	531,039,540
2008 Repurchase of shares	2		-1,311,442	11,812,500	252,395,828	531,039,540
2009 Sale of repurchased shares, warrants exercised	2		138,825	11,812,500	252,534,653	531,039,540
2010 Sale of repurchased shares, warrants exercised	2		20,070	11,812,500	252,554,723	531,039,540
2010 Rights issue	2	3,937,500	83,845,572	15,750,000	336,400,295	707,284,354
2011 Rights issue	2		339,335	15,750,000	336,739,630	707,284,354
2011 Change of functional currency to EUR	0.22			15,750,000	336,739,630	78,471,187
2012 Sale of repurchased shares, warrants exercised	0.22		185,207	15,750,000	336,924,837	78,471,187
2013 Sale of repurchased shares, warrants exercised	0.22		967,340	15,750,000	337,892,177	78,471,187
2013 New issue, warrants exercised	0.22		1,354,800	15,750,000	339,246,977	78,771,810
2014 New issue, warrants exercised	0.22		2,392,236	15,750,000	341,639,213	79,302,633
2015 New issue, warrants exercised	0.22		2,947,929	15,750,000	344,587,142	79,956,762
2016 New issue, warrants exercised	0.22		106,000	15,750,000	344,693,142	79,980,283
2018 New issue, warrants exercised	0.22		2,481,550	15,750,000	347,174,692	80,530,925
2019 New issue, warrants exercised	0.22		4,614,810	15,750,000	351,789,302	81,554,881
2020 New issue, warrants exercised	0.22		11,500	15,750,000	351,800,802	81,557,432
2020 Repurchase of treasury shares	0.22		-646,000	15,750,000	351,154,802	81,557,432
2021 Split 7:1	0.03	94,500,000	2,105,704,812	110,250,000	2,456,655,614	81,557,432
2021 Issue in kind of consideration shares[3]	0.03		132,622,274	110,250,000	2,587,877,888	85,761,451
2021 Repurchase of shares	0.03		-4,828,000	110,250,000	2,595,227,888	85,761,451
2022 Repurchase of shares	0.03		-6,450,000	110,250,000	2,579,427,888	85,761,451
Total number of outstanding shares	0.03			110,250,000	2,579,427,888	85,761,451

1) Issues in kind in connection with the acquisition of Leica Geosystems whereby shares in Leica Geosystems were contributed in exchange for B shares in Hexagon
2) Issue in kind in connection with annual block exercise in Leica Geosystems' warrant programme whereby shares in Leica Geosystems received by the programme participants based on the exercise of warrants were contributed in exchange for B shares in Hexagon
3) Issue in kind in connection with the acquisition of Infor's EAM business

Ownership structure

Holding per shareholder	Number of shareholders	No. of A shares	No. of B shares
1–500	39,513	-	4,330,666
501–1,000	5,493	-	4,135,954
1,001–2,000	3,969	-	5,830,763
2,001–5,000	3,795	-	12,095,453
5,001–10,000	1,768	-	12,978,622
10,001–20,000	1,055	-	14,705,986
20,001–50,000	747	-	22,937,894
50,001–100,000	310	-	21,767,090
100,001–500,000	288	-	60,385,242
500,001–1,000,000	52	-	38,156,767
1,000,001–5,000,000	114	-	278,342,474
5,000,001–10,000,000	26	-	184,911,713
10,000,001-	41	110,250,000	1,934,649,264
Total number of issued shares	57,171	110,250,000	2,595,227,888

Source: Euroclear Sweden AB as of 30 December 2022

Analysts following Hexagon AB

Organisation	Name
ABG Sundal Collier	Olof Cederholm
Bank of America	Alexander Virgo
Barclays	Sven Merkt
Berenberg	Nay Soe Naing
Bernstein	Nicholas Green
Carnegie	Mikael Laséen
Citi	Pavan Daswani
Danske Bank	Viktor Trollsten
Deutsche Bank	Johannes Schaller
DNB	Joachim Gunell
Goldman Sachs	Mohammed Moawalla
Handelsbanken	Daniel Djurberg
HSBC	Puneet Garg
JP Morgan	Toby Ogg
Kepler Cheuvreux	Johan Eliason
Morgan Stanley	Adam Wood
Nordea	Agnieszka Vilela
SEB Equities	Erik Golrang
UBS Investment Research	Magnus Kruber

Quarterly income statements

MEUR	2022 Q1	2022 Q2	2022 Q3	2022 Q4	2022 Year	2021 Q1	2021 Q2	2021 Q3	2021 Q4	2021 Year
Net sales	1,159.7	1,282.3	1,316.6	1,401.9	5,160.5	977.9	1,075.6	1,077.2	1,210.4	4,341.1
Gross earnings	744.3	834.2	856.0	926.5	3,361.0	629.6	692.8	692.1	783.0	2,797.1
Sales expenses	-226.9	-250.0	-262.6	-279.8	-1,019.3	-181.7	-190.0	-192.4	-233.3	-797.4
Administration expenses	-100.7	-99.8	-107.5	-108.7	-416.7	-82.4	-83.4	-85.3	-106.3	-357.4
Research and development expenses	-141.7	-153.0	-155.4	-157.0	-607.1	-120.6	-123.1	-130.8	-136.3	-510.8
Capital gain from sale of shares in Group companies	-	-	-	-	-	-	0.3	-	-	0.3
Other income and expenses, net	-39.1	3.2	11.9	-7.2	-31.2	8.6	-0.4	3.8	-134.0	-122.0
Operating earnings[1]	235.9	334.6	342.4	373.8	1,286.7	253.1	296.2	287.4	173.1	1,009.8
Financial income/expenses net	-5.8	-5.6	-8.9	-18.4	-38.7	-7.6	-6.8	-6.3	-5.5	-26.2
Earnings before tax	230.1	329.0	333.5	355.4	1,248.0	245.5	289.4	281.1	167.6	983.6
Tax	-45.7	-59.2	-60.0	-64.0	-228.9	-44.2	-52.1	-50.5	-26.8	-173.6
Net earnings[2]	184.4	269.8	273.5	291.4	1,019.1	201.3	237.3	230.6	140.8	810.0
1) of which adjustments	-99.2	-43.9	-43.8	-44.2	-231.1	-18.2	-18.4	-23.2	-200.0	-259.8
2) of which non-controlling interest	2.6	3.1	3.3	2.5	11.5	1.6	2.1	2.2	2.5	8.4
Earnings include depreciation/ amortisation and impairments of	-103.6	-116.0	-114.5	-132.9	-467.0	-108.8	-101.7	-116.6	-251.8	-578.9
Earnings per share, Euro cent[3]	6.7	9.9	10.0	10.7	37.4	7.8	9.2	8.9	5.1	30.8
Earnings per share after dilution, Euro cent[3]	6.7	9.9	10.0	10.7	37.4	7.8	9.2	8.9	5.1	30.8
Earnings per share excl. adjustments, Euro cent[3]	9.9	11.2	11.4	12.1	44.6	8.4	9.8	9.6	11.0	38.8
Average number of shares (thousands)[3]	2,695,712	2,694,555	2,691,928	2,689,882	2,693,019	2,567,698	2,566,906	2,566,556	2,696,013	2,599,293
Average number of shares after dilution (thousands)[3]	2,705,912	2,707,105	2,706,478	2,705,682	2,706,294	2,573,039	2,572,856	2,573,906	2,705,363	2,606,291

3) Historical data has been restated after share split 7:1

10-year summary

MEUR	2013	2014	2015	2016	2017	2017[3]	2018	2019[4]	2020	2021	2022
Income statement											
Net sales	2,429.7	2,622.4	3,043.8	3,149.2	3,448.4	3,448.1	3,760.7	3,907.7	3,764.4	4,341.1	5,160.5
Operating earnings (EBITDA)	642.2	743.5	912.3	970.0	1,109.5	1,107.0	1,197.7	1,339.1	1,411.6	1,654.1	1,877.1
Adjusted operating earnings (EBIT1)[5]	527.2	602.8	725.0	771.3	880.2	877.7	978.0	1,023.6	1,009.5	1,269.6	1,517.8
Operating earnings	492.8	542.1	656.1	736.1	762.1	759.6	925.1	892.2	787.0	1,009.8	1,286.7
Earnings before tax	458.9	508.5	629.6	714.3	739.4	736.9	902.3	865.3	759.6	983.6	1,248.0
- of which adjustments	-34.4	-60.7	-68.9	-35.2	-118.1	-118.1	-52.9	-131.4	-222.5	-259.8	-231.1
Net earnings	371.2	406.2	505.1	578.6	673.8	671.2	738.1	708.6	624.7	810.0	1,019.1
- of which non-controlling interest	3.3	3.4	5.2	5.3	7.1	7.1	8.1	6.2	6.6	8.4	11.5
Balance sheet											
Current assets	1,193.3	1,410.7	1,492.7	1,672.4	1,815.4	1,799.8	2,061.6	2,118.4	1,894.1	2,271.7	2,643.7
Fixed assets	4,280.3	5,401.3	5,939.4	6,241.7	6,813.8	6,813.8	7,622.5	8,482.2	8,809.5	11,823.3	13,833.3
Non-interest bearing liabilities and provisions	962.6	1,216.5	1,360.7	1,474.5	1,666.8	1,664.7	1,901.0	1,939.7	1,981.1	2,317.4	2,684.4
Interest bearing liabilities and provisions	1,664.7	2,125.3	1,969.1	1,848.8	2,344.3	2,344.6	2,463.9	2,584.0	2,773.3	3,012.9	3,928.0
Shareholders' equity	2,846.3	3,470.2	4,102.3	4,590.8	4,618.1	4,604.4	5,319.2	6,076.9	5,949.2	8,764.7	9,864.6
Total assets	5,473.6	6,812.0	7,432.1	7,914.1	8,629.2	8,613.4	9,684.1	10,600.6	10,703.6	14,095.0	16,477.0
Key ratios											
Adjusted operating margin, %	22	23	24	24	26	25	26	26	27	29	29
Return on capital employed, %	12	12	12	13	13	13	14	13	12	13	12
Return on equity, %	13	13	13	14	15	15	15	12	10	12	11
Investments	216.3	232.5	230.3	257.6	275.6	275.6	389.1	399.1	383.3	419.4	552.7
Equity ratio, %	52	51	55	58	54	54	55	57	56	62	60
Share of risk-bearing capital, %	57	56	61	64	59	59	60	62	60	66	63
Interest coverage ratio (times)	12.7	14.3	20.3	27.9	27.1	27.0	31.9	26.8	23.5	32.4	27.3
Net debt/equity ratio (times)	0.49	0.50	0.38	0.30	0.40	0.40	0.35	0.31	0.37	0.27	0.33
Cash flow before changes in working capital and excluding non-recurring items	538.0	619.2	749.9	832.1	882.3	879.7	1,004.8	1,125,5	1,153.2	1,372.8	1,546.5
Cash flow after changes in working capital and excluding non-recurring items	506.8	563.4	722.6	782.1	907.2	907.2	944.1	1,103.6	1,374.5	1,351.4	1,372.7
Earnings per share, Euro cent	14.9	16.1	19.9	22.7	26.4	26.3	28.9	27.4	24.0	30.8	37.4
Earnings per share after dilution, Euro cent	14.7	16.1	19.9	22.7	26.3	26.3	28.7	27.4	24.0	30.8	37.2
Cash flow per share before changes in working capital and excluding non-recurring items, Euro cent	21.7	24.9	29.9	33.0	35.0	34.9	39.7	44.0	44.9	52.8	57.4
Cash flow per share after changes in working capital and excluding non-recurring items, Euro cent	20.4	22.6	28.7	31.0	36.0	36.0	37.4	43.1	53.4	52.0	51.0
Equity per share, EUR	1.14	1.38	1.62	1.81	1.83	1.82	2.09	2.36	2.31	3.24	3.65
Closing share price, SEK	203	242	315	326	411	411	408	525	750	144	109
Cash dividend per share, EUR	0.04	0.05	0.06	0.07	0.08	0.08	0.08	0.09	0.09	0.11	0.12[2]
Average number of shares (thousands)	2,472,582	2,490,348	2,515,709	2,523,031	2,523,101	2,523,101	2,526,594	2,554,286	2,572,780	2,599,293	2,693,019
Average number of shares after dilution (thousands)	2,488,374	2,500,575	2,518,719	2,526,153	2,531,123	2,531,123	2,536,107	2,556,694	2,573,914	2,606,291	2,706,294
Number of shares, closing balance (thousands)	2,484,979	2,501,723	2,522,359	2,523,101	2,523,101	2,523,101	2,540,475	2,572,773	2,568,335	2,696,128	2,689,678
Average number of employees	13,931	14,865	15,891	16,460	17,543	17,543	19,249	20,250	20,343	21,291	23,196

1) Restated - IAS 19
2) As proposed by the Board of Directors
3) Restated – IFRS 15
4) IFRS 16 is applied from 2019, comparison numbers have not been restated
5) From 2021 adjusted operating earnings (EBIT1) is excluded from amortisation of surplus values in the purchase price allocation (PPA), comparison numbers have been restated

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

Financial definitions

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

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

Adjustments
Adjustments consists of expenses related to the share programme (LTIP), amortisation of surplus values (PPA) and non-recurring items which refers to income and expenses that are not expected to appear on a regular basis and impact comparability between periods.

Adjusted operating earnings (EBIT1)
Operating earnings excluding adjustments. Adjustments are excluded to facilitate the understanding of the Group's operational development and to give comparable numbers between periods.

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

Adjusted operating margin
Adjusted operating earnings (EBIT1) as a percentage of net sales for the year.

Capital employed
Total assets less non-interest bearing liabilities.

Capital turnover rate
Net sales for the year divided by average capital employed.

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

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

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

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

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

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

Gross margin
Gross earnings divided by operating net sales.

Interest coverage ratio
Earnings after financial items plus financial expenses divided by financial expenses.

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

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

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

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

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

Pay-out ratio
Dividend per share as a percentage of earnings per share.

P/E ratio
Share price divided by earnings per share.

Profit margin before tax
Earnings after financial items as a percentage of net sales.

Return on capital employed (12-month average)
Twelve months to end of period earnings after financial items, excluding adjustments, 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 shareholders' equity (12-month average)
Twelve months to end of period net earnings excluding non-controlling interests as a percentage of twelve months to end of period average shareholders' equity excluding non-controlling interests last twelve months. The twelve months average equity is based on quarterly average equity.

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

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

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

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

Business definitions

AI Artificial Intelligence

AIM Asset Information Management

Americas North America, South America and Central America

Asia Asia (excluding Middle East), Australia and New Zealand

BIM Building Information Modelling

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

EAM Enterprise Asset Management

EHS Environment, Health and Safety

EMEA Europe, Middle East and Africa

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

ESG Environmental, Social and Governance

GDPR General Data Protection Regulation

GES Hexagon's operating segment Geospatial Enterprise Solutions

IES Hexagon's operating segment Industrial Enterprise Solutions

IMU Inertial Measurement Unit

ISDA International Swaps and Derivatives Association

Laser tracker A portable measurement system that uses a laser

OECD Organisation of Economic Cooperation and Development

R&D Research and development

QMS Quality Management System

SaaS Software as a service

Currency codes

AUD	Australian Dollar	**GBP**	British Pound
BRL	Brazilian Real	**INR**	Indian Rupee
CAD	Canadian Dollar	**JPY**	Japanese Yen
CHF	Swiss Franc	**SEK**	Swedish Kronor
CNY	Chinese Yuan	**USD**	US Dollar
EUR	Euro		

NORDIC SWAN ECOLABEL
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Shareholder information

Annual General Meeting 2023
The Annual General Meeting (AGM) will be held on Tuesday 2 May 2023 at 16:00 CET at IVA Konferenscenter, Grev Turegatan 16 in Stockholm, Sweden. Shareholders who wish to attend the AGM in person, by proxy or by postal voting must

- be registered in the share register maintained by Euroclear Sweden AB on Friday 21 April 2023. 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 21 April 2023.
- give notice to the Company of their intention to participate no later than Tuesday 25 April 2023 in accordance with the instructions below.

Participation in person or by proxy
Notification of participation in the AGM can be made via Hexagon's website hexagon.com, by post to Hexagon AB, "Annual General Meeting", c/o Euroclear Sweden AB, P.O. Box 191, SE-101 23 Stockholm, Sweden, or by telephone +46 8 402 92 21 no later than 25 April 2023.

Upon notification, the shareholder shall state name, personal or corporate identity number, address, telephone number (daytime) and shareholding. Proxies and representatives of legal entities must submit relevant authorisation documents before the meeting. Proxy forms are available on the Company's website and will be sent by post to shareholders who contact the Company and state their address.

Participation by postal voting
A special form must be used for postal voting. The form is available on the Company's website. Notification to the meeting does not need to be made separately as the postal voting form is also valid as notification.

The completed and signed postal voting form can be sent by post to Hexagon AB, "Annual General Meeting", c/o Euroclear Sweden, P.O. Box 191, SE-101 23 Stockholm, Sweden or by e-mail to GeneralMeetingService@euroclear.com. The completed and signed form must be received by Euroclear Sweden AB no later than 25 April 2023. Shareholders may also, no later than 25 April 2023, cast a postal vote electronically by verifying with BankID via Euroclear Sweden AB's website https://anmalan.vpc.se/EuroclearProxy. The shareholder may not provide the postal vote with special instructions or conditions. If so, the entire postal vote is invalid. Further instructions and conditions can be found in the postal voting form and on https://anmalan.vpc.se/EuroclearProxy.

Dividend
The Board of Directors proposes that a dividend of 0.12 EUR per share be declared for the financial year 2022. As record day for right to receive dividend, the Board of Directors proposes Thursday 4 May 2023. If the AGM resolves in accordance with the proposal, the dividend is expected to be paid through Euroclear Sweden AB starting on Thursday 11 May 2023. 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 2023
Hexagon will issue financial information concerning the business year 2023 on the following dates:

Q1 Interim Report	28 April 2023
Q2 Interim Report	26 July 2023
Q3 Interim Report	27 October 2023
Year-End Report	1 February 2024

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

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