Annual Report 2019

ASSA ABLOY

Experience a safer
and more open world

Every day, we help billions of people to experience a more open world with innovative solutions that enable safe, secure and convenient access to physical and digital places

Contents

The annual accounts and consolidated accounts of the company are included on pages 39–93 and 97 in this document.

ASSA ABLOY in your daily life

We are part of people's everyday life all over the world! You will find ASSA ABLOY's products and solutions in your home, at work or school, when you shop or travel. Some products are very visible to you like keys, locks and doors, while other products are embedded in solutions like e-passports and identity solutions. In this report we present some of our products and offerings under the vignette "ASSA ABLOY in your daily life."

ASSA ABLOY in brief

Who are we?

The ASSA ABLOY Group is the global leader in access solutions. Our offering covers products and services related to openings; such as locks, doors, gates and entrance automation solutions. We are also experts in trusted identities; with keys, cards, tags, mobile and biometric identity verification systems as parts of our offering.

What do we do?

Every day, we help billions of people to experience a more open world with innovative solutions that enable safe, secure and convenient access to physical and digital places.

For who?

We provide efficient door openings, trusted identities, entrance automation and service for institutional and commercial customers, as well as for the residential market. We have the largest installed base of locks and access solutions in the world, with a large share of sales in the stable aftermarket.

Where are we?

We have leading positions in most of Europe, North and South America, Asia and Oceania.

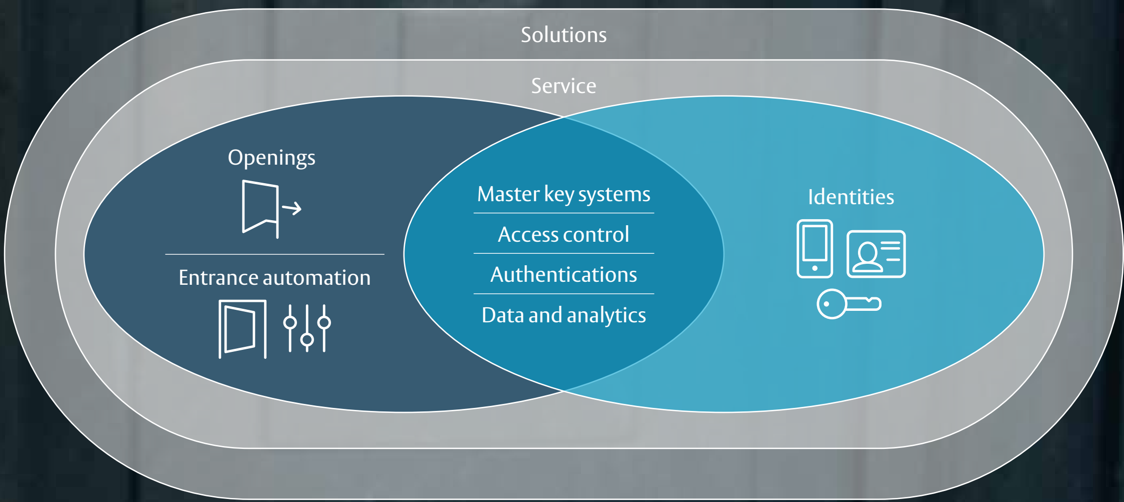
Our divisions

The regional divisions manufacture and sell mechanical and electromechanical locks, digital door locks, cylinders and security doors, adapted to the local market's standards and security requirements.

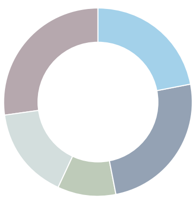
The global divisions manufacture and sell electronic access control, identification products and entrance automation.

Our brands

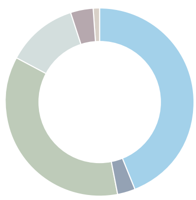
We have considerable value in our well-known brands. Our brands play an important role in creating trust, loyalty and differentiation. We use a multi-brand strategy to leverage on our global and local strengths and to address different market segments, customer segments and routes to market.



Sales by division 2019



Sales by region 2019



The year in figures

94,029
Sales, SEK M

9.22
Earnings per share, SEK[1]

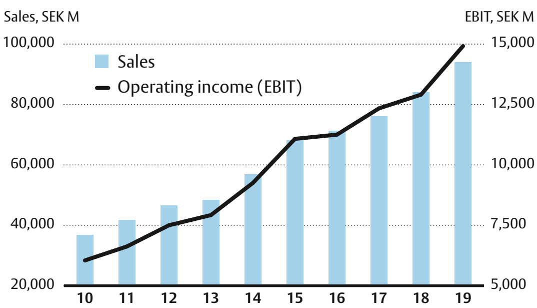
[1] Excluding restructuring items.

- Sales increased by 12% to SEK 94,029 M (84,048) driven by continued strong growth for electromechanical products.
- Twelve acquisitions were completed, contributing to net acquired growth of 3% for the year.
- Continued good earnings and strong cash flow were achieved. Operating margin excluding items affecting comparability was 15.9% (15.4).
- Investments in product development continued at a fast pace. Sales generated by products launched during the last three years was 27% (27).

Key figures	2018	2019	Change
Sales, SEK M	84,048	94,029	12%
of which: Organic growth, %	5	3	
of which: Acquired growth, net total, %	2	3	
of which: Exchange rate effects, %	3	6	
Operating income (EBIT), SEK M[1]	12,909	14,920	16%
Operating margin, %[1]	15.4	15.9	
Income before tax (EBT), SEK M[1]	12,110	13,883	15%
Operating cash flow, SEK M[2]	11,357	14,442	27%
Return on capital employed, %[1]	16.2	17.0	
Dividend, SEK/share	3.50	3.85[3]	10%

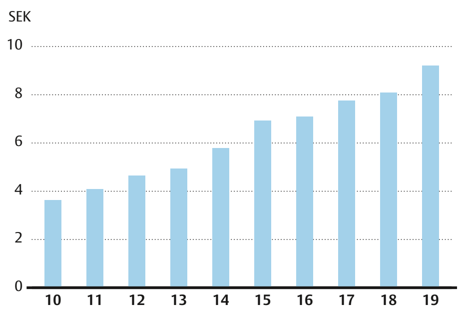
[1] Excluding impairment of goodwill and other intangible assets of SEK 5,595 M in 2018. Restructuring costs of SEK 1,218 M in 2018 and SEK 312 M in 2019.
[2] Excluding restructuring payments.
[3] As proposed by the Board of Directors.

Sales and operating income (EBIT)[1]



[1] Excluding items affecting comparability.

Earnings per share[2]



[2] Earnings per share has been restated due to the 3:1 share split in 2015.

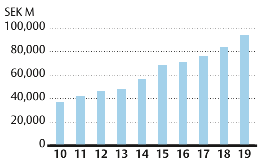
Goals and outcomes

The financial and sustainability targets have been set at challenging but achievable levels. The financial targets have been set to balance growth with a return level that will bring substantial value creation. During the last ten years, ASSA ABLOY has grown more than 9% annually and achieved an adjusted operating margin of more than 16%. The sustainability targets were determined in 2015. New sustainability targets will be defined in 2020.

Over a business cycle

10%

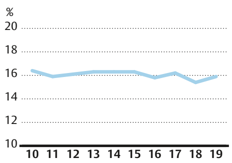
Annual growth through a combination of organic and acquired growth



Total sales grew 12% with organic and acquired growth making up 6%. The organic growth decelerated during the year due to a slowdown in the global economy. We announced the acquisition of agta record, which will be the largest acquisition since 2011 and add about 4% in acquired revenue. During the last ten years, our average annual growth has been more than 9%.

16–17%

Operating margin

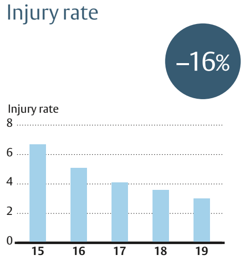


The adjusted operating margin was 15.9% in 2019. Significant investments in R&D that affected the margin negatively by 40 basis points were offset by lower raw material costs and effects of our efficiency initiatives. During the last ten years, our annual operating margin has been more than 16%.

Target 2020 vs. 2015

–55%

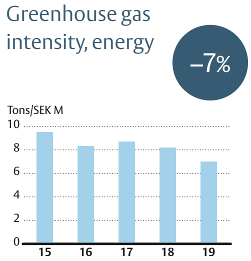
Injury rate



The injury rate was down 16% in 2019 and is down by 55% since 2015, in line with the target. We have worked structurally with the working environment throughout the entire organization and in particular targeted business areas that have had higher incident rates. During the last five years, our injury rate has improved by 14% annually.

–20%

Greenhouse gas intensity, energy



Our greenhouse gas intensity related to the Group's energy consumption decreased by 7% in 2019 and is down 22% since 2015, above the target. This has been achieved through focused energy efficiency and productivity improvement initiatives. During the last four years, our total greenhouse gas intensity is down 47%.

Achievements

Products

202
number of new patents were filed

27%
of sales from new products launched in the last three years

395
increase in the number of R&D employees

- First important orders for a distress system solution to increase hotel personnel's safety in the US.
- Clemson University ordered our mobile key solution from HID with ASSA ABLOY electronic locks to enable students to use their mobile phone on campus to open doors in Apple wallet, providing a more user-friendly experience.
- Together with other key industry players we established FiRa Consortium to drive the seamless user experiences using Ultra-Wideband Technology.

Operational improvements

SEK 710 M
in efficiency savings from MFP programs

10%
sales increase per employee

5
factories were closed

Sustainability

Improved energy efficiency
–10%

Total greenhouse gas reduction[1]
–21%

Water consumption decreased
–8%

Audited suppliers
1,175

[1] Intensity

Awards

- Secure Campus in the US for Attack Resistant Openings
- DIY Week UK 'Best Security Product' for Sync Smart Alarm
- Gold winner in German Brand Award
- Govies Government Security Award

Investments in product development and people to drive future growth

Dear shareholders,
I am pleased to report another successful year for ASSA ABLOY in which we generated good growth with record profits and cash flow. During the year, we strengthened our Group culture and launched our new core values and beliefs. We accelerated our investments in R&D, which is a key enabler for our sustainable and profitable growth. In the manufacturing footprint program we achieved our highest ever annual efficiency gains. The initiatives taken strengthen ASSA ABLOY's leadership within access solutions and position us as an agile and strong company with significant profitable growth opportunities.

Financial overview
In 2019, our total sales grew by 12% to SEK 94,029 M, with organic growth of 3%, net acquired growth of 3% and a positive currency effect of 6%. The organic growth was driven by strong growth in Americas and Global Technologies, and good growth in EMEA and Entrance Systems.

Although uncertainty in many markets increased during the year due to weaker new construction and lower GDP growth rates, the demand was generally healthy. Demand continued to be strong in the US, in particular for our residential smart locks and in the institutional and commercial segments. In Europe, Africa and South America demand was mixed.

Sales development in APAC was slightly negative due to notable declining market conditions in Korea and declining sales in China. During the year we implemented our new strategy in China involving factory consolidations and a more selective sales approach, which affected sales negatively in the short term. At the same time, the strategy has stabilized our Chinese business, with slightly improved margins, supported by several efficiency activities. We are now seeing the first results from the actions initiated in China, but we still have a long journey ahead of us.

"Market growth through customer relevance, product leadership, cost-efficiency and evolution through people form the cornerstones of our strategy."

The accelerated investments in product development continue to generate growth, and 27% of our sales was generated by products launched during the last three years. Electromechanical products grew by 18%. They now make up 31% of sales compared with 23% five years ago and continue to be our fastest-growing product segment.

We completed 12 acquisitions during the year adding SEK 3 bn in annual revenue. The acquisition of agta record, a Swiss pedestrian door company and our biggest acquisition since 2011, will add close to 4% to the Group's revenue when concluded.

Our operating result increased by 16% to SEK 14,920 M, the operating margin improved to 15.9%, and our return on capital employed (ROCE) increased to 17.0%. The improvements are a result of continued investments in our competitive product portfolio, actions initiated already in 2018 to offset the higher raw material costs and our other operational efficiency measures. In total, the efficiency savings were above SEK 700 M from our manufacturing footprint program. At the end of the year we provided SEK 312 M in additional restructuring costs in accordance with our original plan for the manufacturing footprint program. Operating cash flow was at a record level of SEK 14,442 M, supported by improvements in working capital. The cash conversion improved to 104%.

Together we grow
ASSA ABLOY's decentralized organizational structure has been a key to our success. It has enabled us to offer relevant products and solutions locally, while at the same time being agile and adapting quickly to changing market conditions.

However, as more of our products and solutions become connected, we can realize more synergies between our different regions, business areas and divisions. The global roll out of our August software platform for our smart residential locks is a good example of how we can achieve more

In November 2019, ASSA ABLOY celebrated its 25th anniversary. In a special event, several different sites participated in a live webcast which all employees were invited to watch. Together we celebrated!

synergies through increased internal collaboration, while maintaining our decentralized organizational structure.

A strong common culture is the cornerstone for successful internal collaboration. In 2019 we launched our common core values: Empowerment, Innovation and Integrity and strengthened our common culture with our 'Together We' program, encouraging further collaboration and realizing more synergies across the Group. While we benefit from our decentralized organization, we can also benefit and grow as an organization by learning from each other and collaborating more.

Our strategic objectives

We have fine-tuned our four strategic objectives: Growth through customer relevance; Product leadership through innovation; Cost-efficiency in everything we do; and Evolution through people.

We further extended and strengthened our product portfolio and invested in our market presence in order to increase customer value. We invested in our different channels to market and grew our service and customer support organization in a significant way.

Innovation is an enabler for our sustainable and profitable growth where digitization provides many opportunities. We increased our R&D expenses by SEK 673 M and R&D represented 3.8% of our sales in 2019. We accelerated R&D investments in general and for Global Technologies in particular. In this division we invest in new verticals such as elderly care, critical infrastructure and student accommodation and further expand our specific access solutions. Enhanced customer value at a lower cost and a reduced environmental footprint are basic principles for all our development projects. Please take a look at a few examples of new products that we have launched recently on pages 36–37 in this report.

Our manufacturing footprint program, where we consolidate production facilities, sales offices and warehouses, is an important contributor to improvements in efficiency. In addition to the larger ongoing programs, smaller day-to-day lean improvements are equally important. In fact, these efficiency activities generated savings, that we reinvest in R&D and our presence in the market, which in turn will contribute to our growth. Realizing cost efficiency is a journey that never ends and we continue to see potential to further reduce operational costs. These efficiency activities also contribute to our improved sustainability performance.

All these activities cannot happen and be successfully implemented without our talented and committed employees. Our people are our most important asset and our future depends on that we can continue to attract, retain and develop the right people and evolve with them. We work on many initiatives to strengthen what we do in this area. For example, we invest in external talent via graduate programs and we focus on providing our employees with development opportunities, with the aim to help them to grow into bigger roles within the organization. By enabling our people to develop continuously and by providing them with a varied, challenging and long-term career, we lay an important foundation for ASSA ABLOY's future success.

Sustainability is an enabler for value creation

ASSA ABLOY is committed to reducing its environmental footprint and to help to mitigate climate change, to meet the needs of future generations. In the last four years we have reduced our water intensity by 43% and our total greenhouse gas intensity is down 47%. About 12% of our total energy consumption is generated by renewable resources, a figure we will continue to focus on increasing in the coming years. We are committed to working towards an injury-free workplace and our health & safety performance has improved with an injury rate reduction of 55% since 2015. Our customers require our products to be produced in a sustainable way, while also helping to enable them to reduce their own environmental footprint. Although we can always do more, as a Group, we are well positioned to address this demand. Importantly, our strategic objectives are well aligned with improving our sustainable solutions and we will stay focused on addressing these important challenges and opportunities.

Finally, I would like to thank our employees for their dedicated work in 2019. It has delivered results and value in many dimensions, including improving our operating margin. In November, we celebrated the foundation of ASSA ABLOY 25 years ago. It is a very successful period that we can look back to as an inspiration for the future. I would also like to thank our shareholders and other stakeholders for your trust and interest in ASSA ABLOY. We will do our best to deserve it in the coming years.

Thank you!

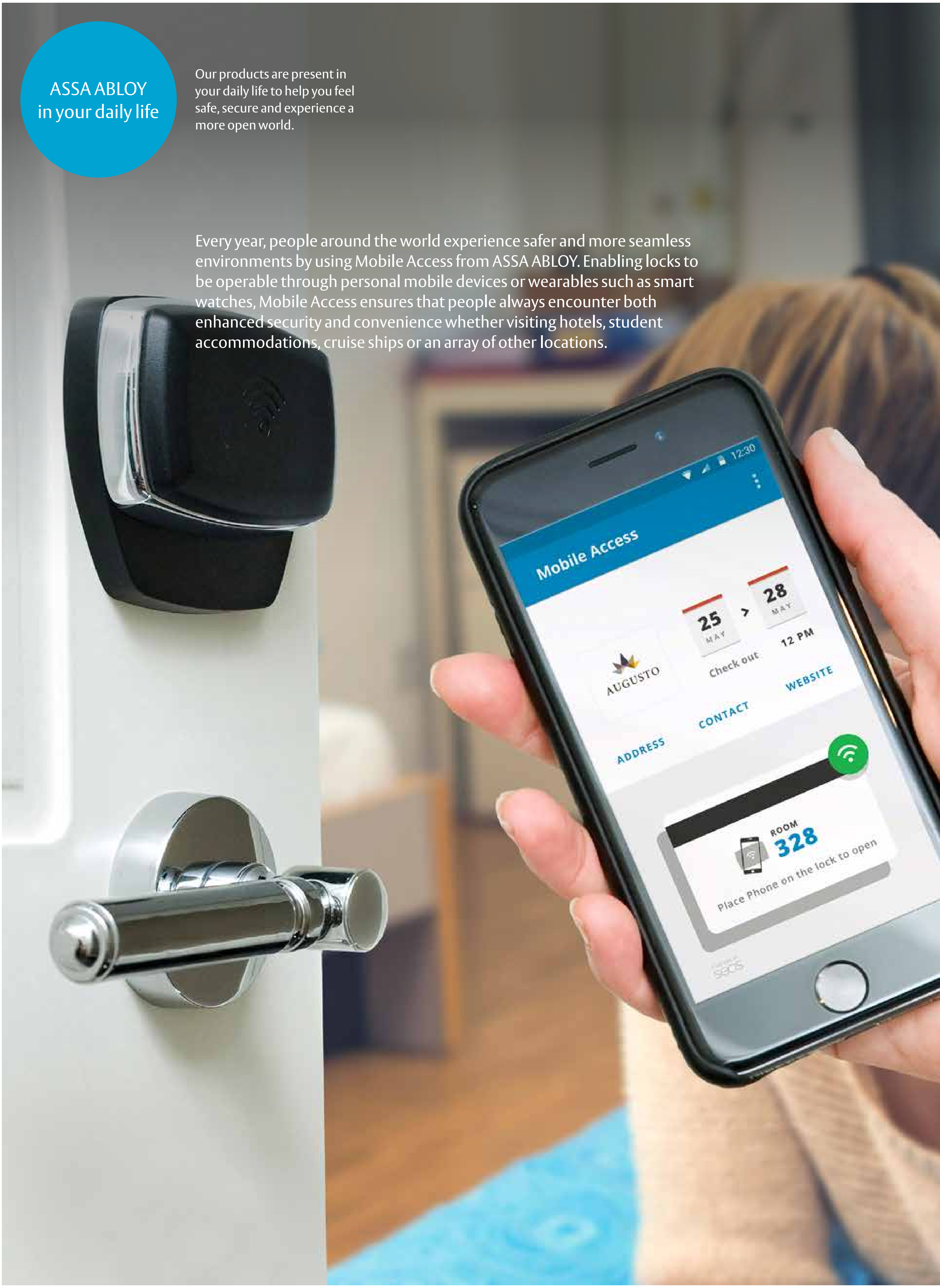
Stockholm, 6 February 2020

Nico Delvaux
President and CEO

ASSA ABLOY in your daily life

Our products are present in your daily life to help you feel safe, secure and experience a more open world.

Every year, people around the world experience safer and more seamless environments by using Mobile Access from ASSA ABLOY. Enabling locks to be operable through personal mobile devices or wearables such as smart watches, Mobile Access ensures that people always encounter both enhanced security and convenience whether visiting hotels, student accommodations, cruise ships or an array of other locations.



A good industry

The demand for convenient access solutions has long-term favorable drivers. ASSA ABLOY is well positioned to benefit from the industry and the megatrends that support our long-term growth in a sustainable and compliant way.

Market overview

The industry for access solutions has a lengthy history, with standards being developed over a long time. It has evolved from wooden mechanical locks into sophisticated access solutions, now also entailing different types of identification such as fingerprints and face recognition. The value of the global industry for access solutions and trusted identities is above USD 100 billion annually, with good underlying drivers.

Through continuous evolution, local standards have emerged, driven by local needs and lock companies. As a result, the market for access solutions is very fragmented, even more so in emerging markets.

At ASSA ABLOY, we secure buildings from the perimeter to their shell and core. We are the largest provider of access solutions, but due to the fragmentation of the market our global market share is still low, meaning that we still have significant potential to grow.

Trends

There are several trends that drive increased demand for access solutions, including meeting the individual's most basic need for safety and security. These trends are expected to contribute to a continued growing demand for security solutions at a faster pace than the average growth of the global economy.

Megatrends

Urbanization

People are moving from rural areas into urbanized areas. This transfer creates demand for new buildings and thereby also new access solutions. The trend is particularly evident in emerging markets, where an increased need for housing, workplaces and stores drives demand for access solutions.

Today about 55% of the world´s population lives in urban areas. The United Nations project that the number of people living in urban areas could increase by 2.5 billion by 2050, including 400 million in India and 250 million in China.

Source: UN DESA 2018

Demand for security

To be safe and secure is a basic human need. In a world with a high perception of uncertainty, the demand and need for convenient and efficient access solutions is increasing – both in the residential and non-residential segments. The growth is further supported by the demand for additional time-efficient solutions, as time is a precious asset.

Studies in the US and Sweden of crime perceptions confirm that the perception of uncertainty remains at unchanged levels. Property crimes have decreased in both countries in the past ten years while the number of assaults and other violent crimes has recently increased in Sweden.

Source: The Swedish National Council for Crime Prevention, Gallup, Bureau of Justice Statistics

Sustainability

The focus and demand for sustainable, energy- and resource-efficient access solutions in buildings is increasing. This requires more transparency in relation to the environmental impact from the product, sustainable production and good working conditions. Also, there is an increasing amount of regulation of standards in an increasing number of countries for more energy-efficient buildings and access solutions.

A global study among architects, contractors and building owners indicates that the demand for green projects will continue to increase – 47% of the respondents believe that more than 60% of their projects will be green by 2021.

Source: Dodge Data and Analytics

Industry trends

New technologies

Emerging technologies and technical innovations enable the development of new convenient solutions for customers and provide new business opportunities. The proportion of electromechanical products that we sell has increased from 23% to 31% over the last five years. The change of the product mix to more electromechanical products will continue and provides many business opportunities, while supporting recurring revenues and software monetization.

The demand for new technology continues to be strong and our organic growth for electromechanical products has continued to be high, with an average organic growth of 9% during the last three years.

Source: ASSA ABLOY

Regulation

A changing regulative environment, with local regulations, as well as applications and codes, results in an increasing demand for updated and compliant access solutions. Different standards in different countries require adaptation of products, which creates hurdles and complexity while preventing commoditization of these products.

Regulations for the European market are decided by EU directives which have a significant impact on our industry. In 2019 the EU Directive n° 2011/65/EU was implemented with restrictions on using ten different hazardous substances in electronic equipment. ASSA ABLOY was one of the first in our industry to be compliant with the directive.

Source: EUR-Lex

ASSA ABLOY as an investment

Sales
+169%
in 10 years

EPS
+200%
in 10 years

ASSA ABLOY is the global leader in access solutions with operations in more than 70 countries. By continuously optimizing our production and developing new innovative products that cater for customer needs and demand, we have created significant customer and shareholder value since our foundation in 1994. Our ambition is to continue to create great customer value and improve shareholder value.

1 **Good industry to be in** – We are subject to some underlying strong trends supporting growth and demand for our products. These include increased demand for security and sustainable buildings, urbanization, a shift to new technologies, changing codes and continuous changes in local market regulation (see page 7). Our customer offering is represented by critical affordable products which, in combination with the fundamental growth trends and high exposure to the aftermarket, imply that the demand is less cyclical than in many other industries.

2 **Consistent profitable growth** – We have a strong track record of profitable growth. Our revenue has grown by more than 9% annually during the last ten years and the adjusted EBIT-margin has been stable at above16%. We continue to focus on growing through customer relevance and being cost efficient in everything we do, which enables us to deliver consistent profitable growth. Profitable growth is also enabled by the shift to electromechanical products and investments in our people.

3 **Leading market position** – We have the largest installed base of locks and different access solutions in the world, which we actively upgrade. Two thirds of our revenue is generated from the aftermarket, which provides us with a stable customer and revenue base.

4 **Investing in innovation** – We invest close to 4% of our revenue in R&D. Given the size of our business, this gives us a competitive advantage, both short and long term. Our innovation capacity is based on our common platforms, the global reach but local competence of our innovation organization, our ~2,800 R&D employees and more than 9,000 patents. During the last three years some 27% of our revenue has been derived from products launched in the previous three years.

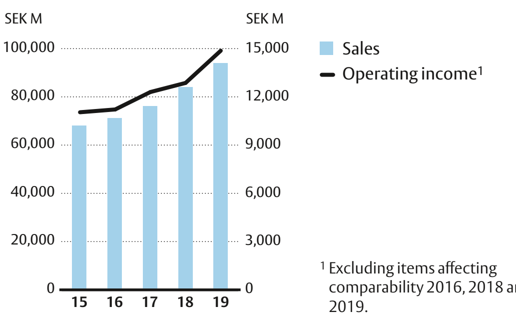
5 **Strong acquisition record** – Since 1994 we have acquired almost 300 companies globally. In many cases, the businesses are leading access providers in their respective market with well-established customer bases and brands. After realizing synergies, we aim to grow the businesses and increase their profitability and margins. This strategy has proven successful and since 2009, we have acquired businesses with about SEK 34 billion in sales that after integration have generated significant value.

6 **Strong brand portfolio** – There is considerable value in our well-known brands that play an important role in creating trust, loyalty and differentiation. We use a multi-brand strategy to combine global and local strengths. ASSA ABLOY is the Group brand and is increasingly becoming the leading brand for commercial door solutions. We also have strong master brands to continue to be a leader in each of the core areas of our business and a portfolio of other brands in markets and segments where needed. In total, we have 130 endorsed brands that complement our offering. Our brands are often leading brands in their market, such as Yale, which is one of the world's most well-known residential lock brands.

7 **Operational efficiency** – Our production is structured around local assembly lines close to the customer, adapted according to the local standards, with some strategic components concentrated at Group plants, such as cylinders, rim locks and electromechanical products. This enables us to quickly supply our products efficiently to our customers. We also continue to optimize our supply chain, product setup and footprint and work with lean processes and automation.

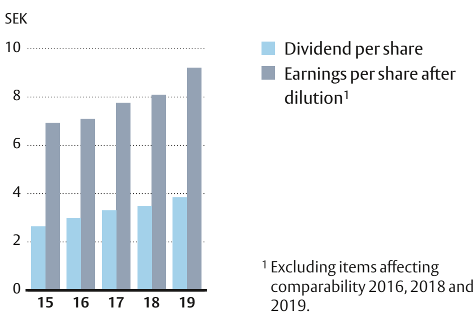
8 **Active sustainability initiatives** – About one third of our revenue is generated by products which have an environmental product declaration (EPD), based on a life cycle assessment. When we develop new products, our ambition is to minimize their environmental impact and embodied carbon footprint, while maximizing sustainability attributes, such as energy efficiency, during the products' in-use phase of their lifecycle. This gives us a competitive advantage, especially in larger projects. We are also continuously reducing our environmental footprint in production, and monitoring and improving the safety of our people.

Sales and operating income



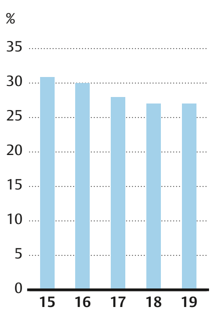
[1] Excluding items affecting comparability 2016, 2018 and 2019.

Dividend and earnings per share



[1] Excluding items affecting comparability 2016, 2018 and 2019.

New product ratio



Value creation business model

Our vision is to be the global leader in providing innovative access solutions that help people feel safe, secure and experience a more open world. By responsibly using human capital, natural resources and capital, we continuously create sustainable value not only for our shareholders, but also for other stakeholders.

Resources

- Financial capital
- 49,000 employees in over 70 countries
- Strong common processes in a decentralized customer-focused organization
- Sustainability as an integrated part in all business processes within the Group
- Efficient production and assembly facilities all over the world
- Strategic and cost-effective suppliers
- Strong patents, brands and well-diversified product portfolio that meets local regulations and standards
- Customers all over the world with a large installed product base

External factors

- Growing security needs
- Urbanization
- Digitization
- Automation
- Sustainability

Our most important activities

Developing, producing and delivering access solutions and trusted identities to commercial and residential customers.

Activities include:

- Innovation and product development
- Sourcing, manufacturing, and streamlining of processes
- Integration of acquisitions
- Services, advisory and support
- Marketing and sales

What we create

31% of sales are from electromechanical products

27% of sales are from entrance automation

25% of sales are from mechanical locks

17% of sales are from security doors and hardware

27% of sales are from products launched in the past three years

Value for stakeholders

Customers

- Security, safety and convenience
- Technology and product leadership
- Sustainable products with environmental product declaration

Suppliers and partners

- Technological development
- Stable partner
- Earnings and employment

Shareholders and investors

- Dividends and capital appreciation

Employees

- Safe workplace
- Professional development and income
- Ethically, stable and long-term business

Society

- Growth
- Employment
- Sustainability
- Increased safety and security

Strategic overview

The Group's strategic direction is to lead the trend towards the world's most innovative and well-designed access solutions. Our purpose is to help people feel safe, secure and experience a more open world.
Our core values, beliefs and strategic objectives help guide our way.

Purpose

To every day help people feel safe, secure and experience a more open world

Vision

To be the global leader in providing innovative access solutions that help people feel safe and secure so that they can experience a more open world

Mission

- Building sustainable shareholder value
- Providing added value to our customers, partners and end-users
- Being a world leading organization where people succeed
- Conducting business in an ethical, compliant and sustainable way

Financial targets

Growth

5%
organic

5%
acquired

=

10%
total

EBIT

16–17%

Strategic objectives

Growth through customer relevance

Product leadership through innovation

Cost-efficiency in everything we do

Evolution through people

Core values & beliefs

Empowerment
We have trust in people

Innovation
We have the courage to change

Integrity
We stand up for what's right

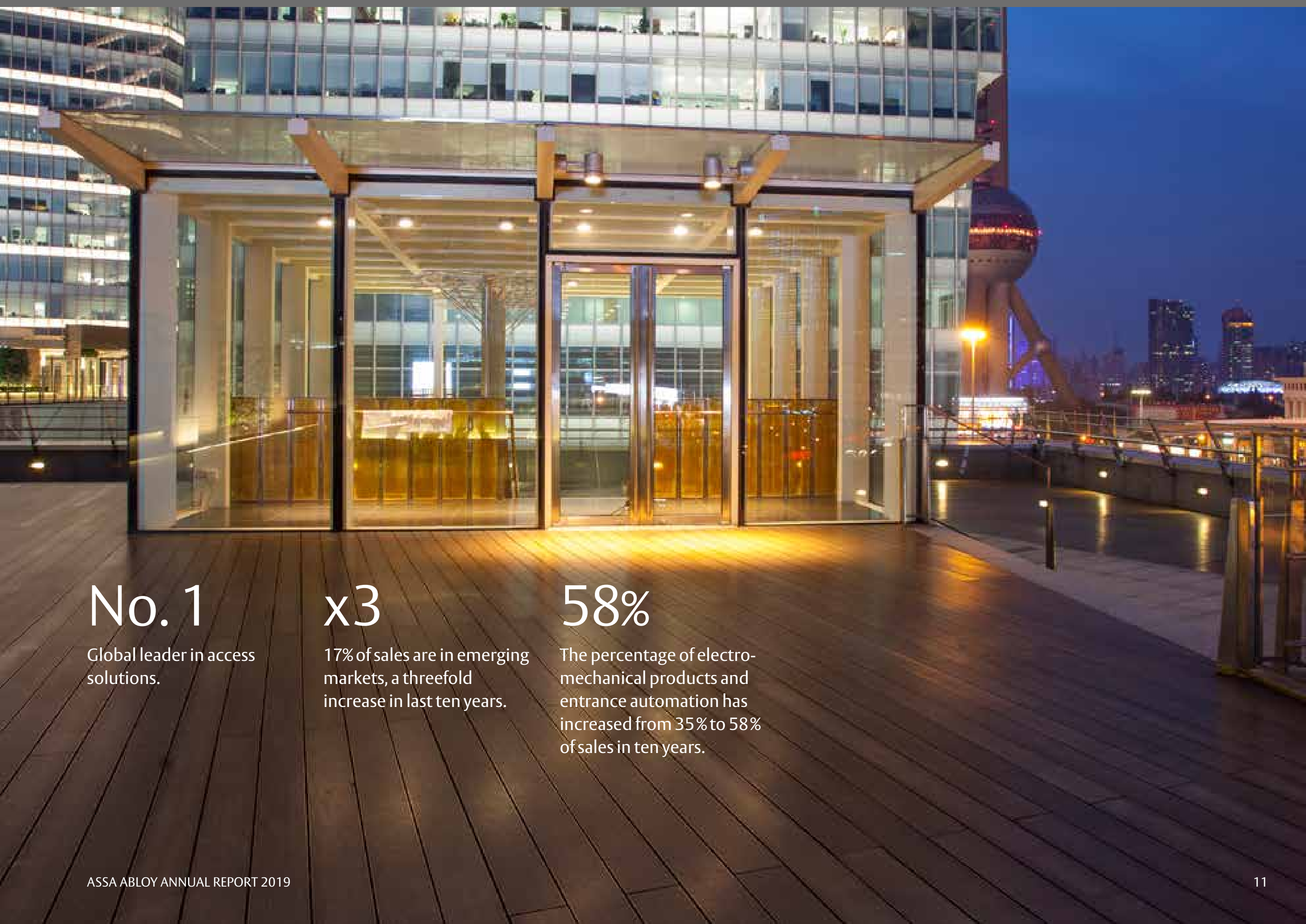
Strategic objective #1
Growth through customer relevance

ASSA ABLOY is a global company with local presence. We have achieved this position through successful acquisitions, our leading brands, strongly-positioned sales channels and a large installed base of products which we actively and constantly upgrade. We believe that continued growth starts with understanding our customers and being relevant to their needs. Our ambition is to maintain our leadership, meeting the demands for safety, security, convenience and sustainability.

How can ASSA ABLOY accelerate growth?
Underlying market conditions continue to offer many opportunities in general. Sources that have delivered growth for us in the last few years, such as expanding around our core business, upgrading from mechanical to electromechanical, expansion into secure identities, will continue to be highly attractive, sources of growth in the future. Despite the uncertain nature of emerging markets, these also offer good potential. With many growth opportunities available, the most important aspect of accelerated growth is prioritizing and focusing on the right opportunities and not spread ourselves too thin across everything at the same time.

What are the greatest opportunities?
The greatest opportunities are in the electromechanical, connected and smart products and more specifically the commercial and institutional verticals where high requirements for quality, performance and security are combined with local market standards. Here, our understanding of customer needs in combination with good product knowledge is highly needed in the sales process, which is an important reason why we have achieved such a leading position in the installed base. A large installed base also allows further growth in the aftermarket for sales of software services, such as mobile keys and field service contracts.

Björn Lidefelt
Chief Commercial Officer



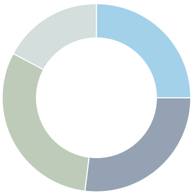
No. 1
Global leader in access solutions.

x3
17% of sales are in emerging markets, a threefold increase in last ten years.

58%
The percentage of electromechanical products and entrance automation has increased from 35% to 58% of sales in ten years.

How we work to grow through customer relevance

Sales by product group, 2019



- Mechanical locks, lock systems and fittings, 25%
- Entrance automation, 27%
- Electromechanical and electronic locks, 31%
- Security doors and hardware, 17%

The Group sees fast-growing demand for electromechanical products, as well as electronic and digital solutions. Since 2009 these have sharply increased from 24% to 31% of Group sales. Mechanical products continue to increase, but electromechanical products are growing considerably faster.

ASSA ABLOY grows customer relevance through:

- Market insights and segmentation
- Customer experience
- Branding
- Commercial excellence
- Emerging markets

Market insights and segmentation

Insights into our markets, competitors and customers are important to identify and prioritize opportunities. We therefore continuously monitor the operating environment and how it is changing. By predicting scenarios of how, where and when markets will change and the impact this will have on our business, we can swiftly anticipate changes. Using these insights, we segment our markets into industry verticals and develop our offering and skills to serve specific verticals in the best way. Clear customer segmentation is essential to be able to identify customer-specific needs and build a relevant value proposition to that segment.

Institutional and commercial markets represent some 75% of our total sales with the rest generated by residential customers. Two thirds of our business is generated in the aftermarket with the remaining 33% from new construction. The aftermarket is of a recurring nature and includes renovations, replacements and upgrades as well as ongoing services. Our ambition is to generate more recurring revenues and increase field service penetration through new software-related offerings and enhanced service packages. Growth in the aftermarket is also supported by the increased demand for electromechanical products, which are more frequently replaced and upgraded than mechanical solutions. The aftermarket is less cyclical than new construction, which means that our sales and customer composition implies a lower cyclicality of sales and profit.

Our ambition is to increase our market position through increased customer relevance. This is achieved by delivering differentiated products and solutions that address specific customer needs, including local requirements, regulations and standards, as well as the need for integration into new or existing security systems. We aim to be an expert in total access solutions in each customer segment and to increase the focus on new and existing verticals such as logistics, elderly care and hospitality. At the same time we continue to develop more innovative mechanical products and drive the conversion to electromechanical solutions.

To reach the different segments, our market organization works closely with architects, security consultants, large end customers and distributors. Given the fragmented nature of our market, these relationships are established locally.

Customer experience

Customer experience is at the center of everything we do. The experience we deliver to our customers must always meet their expectations. New intelligent tools and technologies allow us to measure and understand customer in a way that has not been possible before. Our performance has never been more transparent than it is now, with the growth of e-commerce and social media. To consistently deliver in accordance or above the customer's expectation, we start by understanding what their requirements are. Customers have different expectations on product features, lead time for delivery, and after-market services.

Many things influence customer experience such as price, quality, delivery, design and brand image. We use Net Promoter Score (NPS) to measure our customer experience. Our goal is to achieve the top NPS score in our industry.

Breakdown of ASSA ABLOY's sales

75%

Commercial
Institutional and commercial market – share of sales

25%

Residential
Private customers and residential market – share of sales

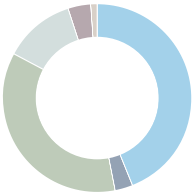
33%

New construction
New buildings – share of sales

67%

Aftermarket
Renovations, remodeling and additions, replacements and upgrades of existing access solutions, as well as ongoing service – share of sales

Sales by region, 2019



- North America, 44%
- South America, 3%
- Europe, 36%
- Asia, 12%
- Oceania, 4%
- Africa, 1%

Branding

The ASSA ABLOY Group has considerable value in its well-known brands. They play an important role in creating trust, loyalty and differentiation. We use a multi-brand strategy to make the most of our global and local strengths and to address different markets, customer segments and routes to market.

ASSA ABLOY is the Group brand and employer brand and is increasingly becoming the leading master brand for our commercial business, as we are consolidating our brand portfolio to create brand consistency and awareness. To continue to be the leader in each of the core areas of our business, we build multiple strong master brands: ASSA ABLOY for commercial openings and entrance automation, Yale for the residential market and HID for secure identity and access management. Our master brands are strong, promoted brands. We also have a portfolio of other brands, endorsed by any of the master brands, which complement the master brands in markets and segments where needed. About 70% of our total sales are under the ASSA ABLOY master brand while 20% are under the HID or Yale brands.

In addition, the Group has brands that are not associated with ASSA ABLOY. These brands, representing some 10% of our total sales, have leading expertise in specialty products and services, and are important complements to our market presence and positioning. These brands are usually sold through distributors and installers.

We create consistent brand experiences, which are critical to building trust and to increase the protection of our brand and business; we have clear brand guidelines and work with industrial design to create a compelling and consistent design of our products. The products are designed in a smart way to achieve an optimal balance between different features, value to the customers and cost. We have been recognized for this and won several design awards during the year; for example, the German Brand Award, the Design Value Award, and Red Dot Brand Award.

german brand award '19 gold

Design Value Award Winner

reddot winner 2019 construction brand

Examples of awards in 2019

Commercial excellence

A structured sales process enables us to go beyond the natural development of our skilled sales force. Our sales funnel and customer dialogue are supported by information captured in customer relationship management systems, enabling us to prioritize our sales efforts and approach the customer with the right information to hand.

Sales excellence

Recognizing that not all sales is done the same way, we differentiate our sales approaches, such as specification-driven sales and retail sales, to design the right processes, tools and benchmark cases for a specific way of selling. Depending on the business nature and market conditions, we set out appropriate routes to market strategies.

We have the potential to grow within our existing indirect channels by leveraging the skills and reach of our channel partners, which we do for most of our business. In selected verticals where the business requires close end-user contact, we go direct to the customer. For example, to hotels we sell hotel-customer check-in experience and in Entrance Systems we sell full door solutions. This allows us to understand and serve the customer needs in the best way. The field service and aftermarket business offers us opportunities for increased profitability and customer loyalty. With the introduction of software and connectivity in our products, new opportunities for recurring revenue are arising.

By analyzing the reach of our sales force we can identify gaps and allocate resources to cover all parts of the market. We also aim to be involved in the decision making process early in a customer's purchase process phase. This is done through vertical specialization and specifications. We use Openings Studio, our own Building Information Modeling software. This allows hardware and architects to produce complete opening models with door, frame and hardware specifications integrated with the building design software.

Pricing

Our ambition is to capture the full value of our products and services through price. Pricing is a continuous core business activity that follows defined processes. To fulfill this we have dedicated pricing managers to drive price optimization. Price performance and price activities are tracked through common Key Performance Indicators to create transparency and visualize results.

We apply value-based pricing, which means that products should be priced based on the value to the customer. Price is differentiated, by how and who we sell to, in a structured, efficient and compliant way, using solid discount and rebates governed by approval thresholds and escalations. We pro-actively manage fluctuations in our cost base and are ready

ASSA ABLOY's brands

ASSA ABLOY

Group brand and employer brand

ASSA ABLOY HID Yale

Master brands

ABLOY MUL-T-LOCK PANPAN Amarr IdenTrust

TESA ASSA ABLOY · SARGENT ASSA ABLOY · LOCKWOOD ASSA ABLOY · KAD ASSA ABLOY · + more brands

Endorsed brands

to increase price to protect our profitability and to drive an inflationary dynamic in the market.

E-business

E-business embraces all digital touch points throughout a customer journey from digital marketing at the beginning to the after-sales support at the end. With e-business, we are able to serve our customers in a better and more efficient way by making it easier to buy from us. It allows us to present the customer with all necessary information throughout the customer journey and enables us to measure how this information influences purchase decisions. We have a target to significantly grow our online sales and we will do this both through our own e-shop and through third-party e-commerce sites.

Sustainability

Customers demand more sustainable products, including environmental and material transparency, which is fueled by the strong growth in certified 'green buildings'. This trend is expected to continue. Our sales team and specification consultants can help our customers to reduce their environmental footprint by adopting the Group's expanding line of products with green attributes. For example, as part of the specification process, we can specify projects with environmental product declaration (EPD) products, which assists our customers to get green building certificates. By staying relevant and developing more products that improve the sustainability as well as being produced sustainably, we can further strengthen our competitiveness.

Emerging markets

The market for access solutions has grown rapidly in emerging markets over the last ten years. During the same period we have more than tripled our sales, both through acquisitions and organic growth. Our share of sales in the emerging markets is now 17% of total sales.

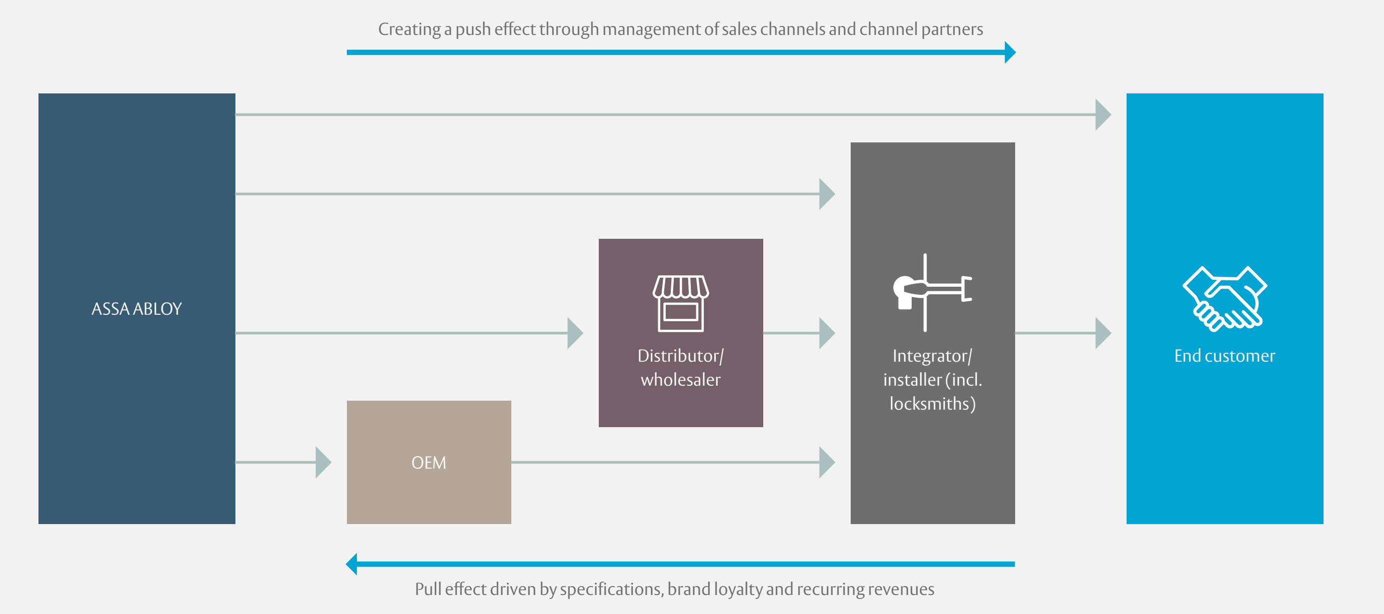
Demand for mechanical locks is somewhat stronger in emerging markets than in mature markets; however, growth of electromechanical access solutions is driven by urbanization and a stronger economy. This is evident both in the commercial segment and the residential market, where the potential of connectivity drives demand for connected locks and smart home security.

Our emerging market strategy focuses on key markets in Asia, South America and Africa. For these focus markets we will invest in the local organization as well as consider acquisitions. We will also invest more in our master brands ASSA ABLOY, Yale and HID, complemented by investments in strong brands such as PANPAN in China and Papaiz in Brazil. In some emerging markets, we have a strong position in the premium segments but need to expand our offering into the mid-end segment in order to accelerate growth. This will be done either through acquisitions or internal development of new product lines. To ensure cost competiveness, we will continue to increase our efficiency in the local supply chains. As an example, we are building more local production in South East Asia.

With a large population, Asia has the greatest growth potential. The vast Chinese market, where the Group is one of the largest suppliers of access solutions, remains important.

Sales channels

The majority of our sales go through distributors. Most markets are fragmented where we sell our products to several distributors. We work proactively with these distributors in product marketing and product development, with the aim to grow our share of their business. The end-customers are influenced by specification, and also by direct relationships with some key accounts.



ASSA ABLOY in your daily life

Our products are present in your daily life to help you feel safe, secure and experience a more open world.

In every region of the world, we have successfully engineered and deployed e-passports and ID solutions that are being used by millions of people every day. HID provides solutions to governments for the secure creation and issuance of physical and mobile identities. The software systems and physical documents are designed to meet the needs of local agencies, partners and our government customers.

Strategic objective #2
Product leadership through innovation

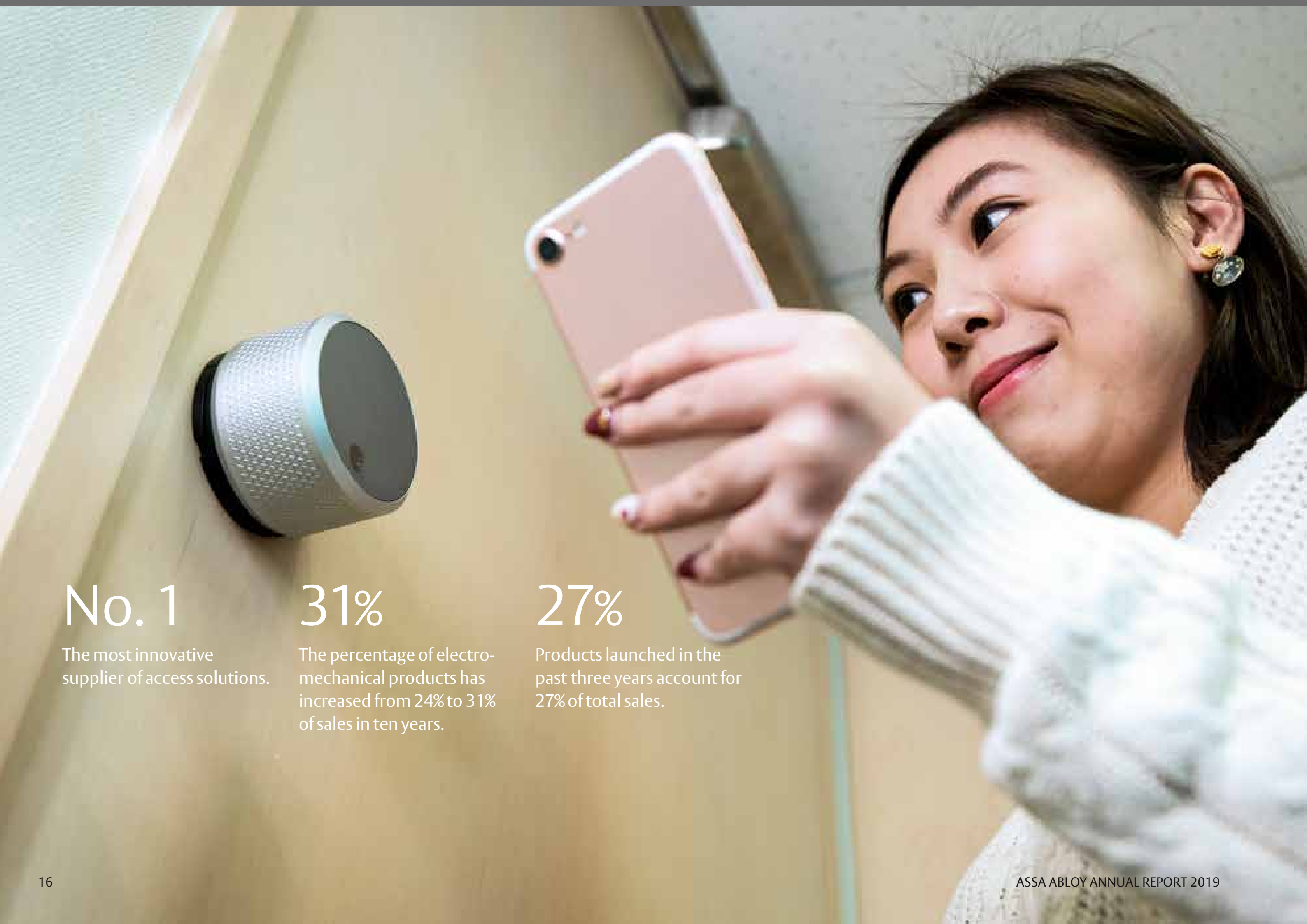
Product leadership is is one of the most important drivers for organic growth. We achieve this through innovation, which is at the core of everything we do. Our innovation capacity is reflected in our high innovation rate, and our ability to develop mechanical, electro-mechanical and digital products that meet or exceed our customers' expectations.

How can ASSA ABLOY maintain its product leadership?
This starts by understanding the customers' needs and providing added value to our customers, partners and end-users. We will continue to focus on security and safety, and to always be right the first time. Product leadership can also be achieved through continuous improvement in how we work, as well as harnessing the potential of new technologies.

What innovation trends do you see?
The emergence of new technologies will be important to our industry in the years to come. Connected products, wireless solutions and sustainable products that harvest their own energy are just a few examples of new technologies that allow us to create new business models or enhance existing ones.

How does digitalization affect our innovation work?
Digitalization offers the possibility to add customer value to traditional products and also opens the door to completely new products and services. It provides a huge opportunity, both for our customers and for us. For example, the performance of existing products can be enhanced to foresee maintenance needs, thus solving issues before they arise. The use of modern digital tools in product development has started already, and will continue to make ASSA ABLOY more efficient, particularly in more complex projects.

Johan Warnström
Chief Technology Officer



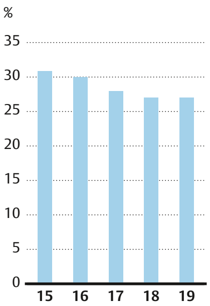
No. 1
The most innovative supplier of access solutions.

31%
The percentage of electro-mechanical products has increased from 24% to 31% of sales in ten years.

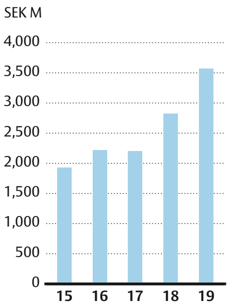
27%
Products launched in the past three years account for 27% of total sales.

How we work with innovation to ensure product leadership

Percentage of sales of products launched in past three years



Investments in research and development



The constant flow of new, enhanced, innovative and sustainable products is an essential driver for our target of 5% organic growth and our margin development. Through our product leadership, we gain long-term competitive advantages. The innovation processes build on customer and end-user insights, while cost savings are achieved through improved designs, new materials, software and components, as well as continuous improvement of the development and production process.

Products less than three years old accounted for 27% of total sales in 2019, exceeding our target of at least 25% of total sales and building on a high level of our innovation rate and capacity over the last decade.

ASSA ABLOY's product leadership is achieved through:

- Developing and exploiting the advantages of a Group-wide, structured innovation process.
- Applying lean principles and deep customer insight to product management and development.
- Developing and using common modular platforms and common technologies.
- Investing SEK 3.6 bn in R&D, including in our competence centers, in 2019.

Innovation processes

Our overall objective with our innovation process is to exceed customers' expectations. This will improve customer benefits and also our competitive position. To maintain our position as innovation leaders, we need to excel at what we develop and how we develop it. Our innovation system is our 'engine' to excel both in customer relevance and execution. Identifying and defining the customer benefits at an early stage in the product development process ensures that enhanced customer benefits are integrated at minimum cost.

Product management, along with customer and market insights, helps us identify and select the right things to do – to create what our customers really want. A lean and agile approach increases efficiency in the development process. Through cross-functional teams, that include functions such as sales, marketing and R&D, we can align and ensure that the organization aims at common goals.

The right mix of pre-product, new product and continuous product innovation assists us in achieving long-term growth and profitability. In pre-product innovation, we explore and learn from new technologies with a long-term perspective. Sustainable solutions, wireless connectivity, software and identification are some core technologies that lay the foundation for our pre-product innovation work.

New product innovation brings new products to market and can be defined as the transformation of an opportunity into a product available for sale. Our product innovation process is based on a structured gateway process where all potential products have to pass five decision points on their way from idea to released product.

Continuous product innovation is the management of products already in the market. There may be new opportunities with these products for new feature upgrades or quality improvements that will maximize profitability over the course of their lifecycle.

Product management

Product management means managing a product or a solution throughout its lifecycle to maximize customer and business value. It ensures that each product group has a vision-based plan founded on market insight, technology development, customer value and the strengths of each product. This includes the long-term planning of which new products to introduce, monitoring and optimizing the performance of products in the market and the termination of products that are no longer needed. Effective product management requires thorough and first-hand knowledge of products, technology, customers, end users, competition and where the market is heading. Based on this knowledge, generation plans and product roadmaps are formed, ensuring future products and growth.

Product management has a central role and functions as the dynamic force in the innovation system. Product management results in the transformation of insights from the market and visions from executive leadership into real concepts and guides a product from cradle to grave.

Product managers are based in product units and are responsible for a product group, its generation plan and roadmap. Product managers have important counterparts, the product marketing managers, who operate from regional sales units and are responsible for taking the products to the market and commercializing them.

In addition to divisional R&D competence centers, our Shared Technologies organization is the Group's development center for global technology platforms. Its modular approach to both hardware and software is the basis for the important strategic solutions, providing an opportunity to reuse components and advanced technologies on a global scale. Shared Technologies is also a center for our advanced research and investments in pre-product innovation.

Intellectual property management

We continuously invest in developing our extensive portfolio of intellectual property (IP) to protect our investment in state-of-the-art and industry-leading products. The aim is to continue to expand the size and breadth of the IP portfolio and develop unique customer value from our innovations. By capitalizing, sharing and controlling the IP portfolio we can achieve full value from our product innovation.

We have systematic processes and expertise to ensure that we register and protect our IP. The IP portfolio is aligned with commercial priorities and desired product positions and we defend our rights against competitors and potential infringers. The patent and design strategy also includes monitoring other patents and patent applications in the industry. We also use our valuable IP to enable co-development processes and build foundations for trusted partnerships.

IP management is integrated into our entire innovation system, from capturing pre-product innovation value as new inventions or trade secrets, to supporting new product innovation with strong patents and trademarks, and, finally, ensuring our continuous product innovation through commercial contracts and active defense of our valuable IP. Our portfolio includes some 9,000 patents, trademarks and designs.

Product quality, safety and security

We are committed to deliver products and services that meet or exceed our customers' demands on quality, security and safety. This is essential to maintain our position as a trusted supplier in access solutions, and to protect our customers and brands. Based on a holistic approach and fact based decision-making, where issues are examined from different perspectives, we utilize a 'first time right' principle. For all our products we ensure that they meet the highest demands for quality and design as well as safety and security. We also conduct product failure analysis to secure a high level of quality throughout the lifecycle of a product.

Design to value

Design to value enables us to focus our innovation work on what our customers are willing to pay for. By designing to value we balance features against cost. It is important that design to value is an integral part of the early stages of new and continuous product innovation.

Design to value is a cross-functional approach where fact-based trade-off decisions are made based on insight from customers, competitors and suppliers. The process also includes design for service, design for manufacturing and design at the lowest overall cost, which aims to increase growth and profitability. The following activities are key to the design to value process:

- We design products to make them easier to service. This drives sales in the aftermarket and leads to closer and better relationships with the customer.
- We apply design for manufacturing to make our products easier to produce and distribute in the most cost-efficient way.
- We apply industrial design to ensure that we have an attractive and user-centric design that is consistently applied across all product ranges.

Customer insight is key to ensuring that design decisions are evaluated in relation to the perceived customer value of a product's qualitites.

Product platforms

CLIQ®	CLIQ is a secure locking system with advanced microelectronics in programmable keys and cylinders. The system offers a large number of combinations of mechanical and electronic products, which satisfy various requirements for secure, flexible access control. Most types of locks can be fitted with CLIQ technology, which together with various software programs provides the global market with customized, flexible access control solutions.
seos	Seos is an identification technology solution that allows the customer to use various devices, from smart cards to cell phones, for secure access to applications. Seos' applications range from building access control, computer login and cashless payments to IoT (Internet of Things) applications, time and attendance reporting, and secure printing.
aperio®	Aperio is a technology developed as a complement to existing electronic access control systems. It is a convenient solution for end-users to improve the security and control of their premises. Central to Aperio is a wireless communications protocol, which functions at short distances and can connect an online access control system to an Aperio-compatible mechanical lock.
Accentra™	Accentra is a cloud-based access control system that focuses on solutions for multi-family buildings and small and medium-sized enterprises. A scalable infrastructure through a cloud provider, provides a high level of service and full control over information in a centrally based security system. Accentra supports multiple global products at door level (Aperio, Yale, ASSA and HID readers) and is developed for, and deployed in, a true cloud environment for a global reach, while complying with local demands.
HI-O TECHNOLOGY™	Hi-O (Highly intelligent Opening) is a concept that simplifies installation, service and maintenance of connected doors thanks to advanced technology and the plug-and-play principle. Hi-O is a standardized technology for control and security of door environments. The technology enables communication between all the components included in a door opening solution.

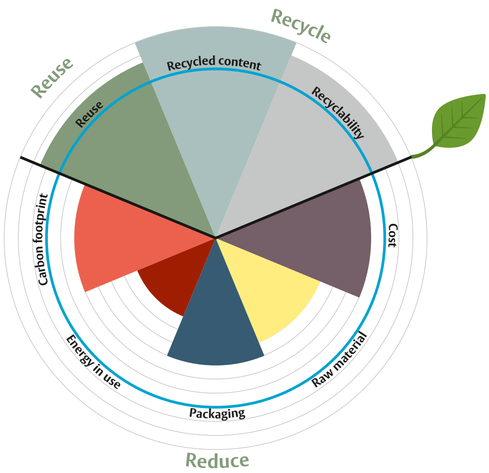
Sustainable innovation

Sustainability is a journey of continuous improvement. Our sustainability program has the ambition to decrease our, and our customers' impact on the environment by reducing the resources we use in our operations, such as materials, energy and water, as well as reducing the impact of the product when it is used and ultimately disposed of. We are also commited to working towards an injury-free workplace.

Sustainability is a key driver and an integral part of product innovation and is therefore integrated into the product development process from the concept stage to end of life. Through sustainable innovation we aim to develop products that are efficient and have less impact on the environment. We do this by creating products that, for example, harvest energy, are easier to recycle, reduce the energy consumption of buildings or have 'green attributes' that have positive effects on the environment and our competitive offering.

Our sustainability compass directs us towards a lifecycle approach and raises the profile of sustainability-related design criteria during the development of new products. The compass is used to outline the sustainability vision for individual products and is divided into three main areas: reduce, reuse and recycle.

Sustainability Compass



The Sustainability Compass is a tool to increase our efficiency and decrease the environmental footprint. The Compass includes eight dimensions:
- Reduce – five areas
- Reuse
- Recycle – two areas

The green leaf indicates sustainable footprint to minimize the footprint throughout the life cycle.

Digital factory

As the product portfolio contains an increasing share of digital solutions, software and data, revenues will shift toward more recurring services. Subscription-based agreements for upgrades, data and analysis, as well as software licenses, are increasing. The trend toward complex, multi-functional systems creates new business opportunities, promotes close customer relationships, and generates stronger recurring revenue streams.

To support and provide service to customers who use our digital solutions, we have a digital service organization whose primary objective is to deliver a world-class customer experience that is always available, with no downtime and no service windows. The digital factory is a cross-functional approach that creates a seamless link between product development, IT operations, service operations and the customer. It underpins the introduction, delivery and continuous support of our digital products.

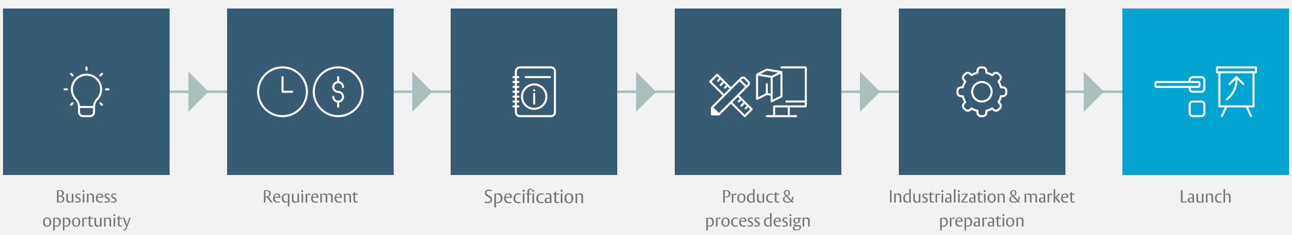
Central to the digital factory is the joint cooperation between product development and IT operations. When a digital product is ready for the market, our team and agile ways of working ensure that we deliver a world-class customer experience. We do this by ensuring that:
- Digital products and services are made available for the customer through our secure private cloud.
- Uptime and response times are in line with customer expectations.
- Continuous software updates are deployed and the customer is supported during the configuration and integration phases.

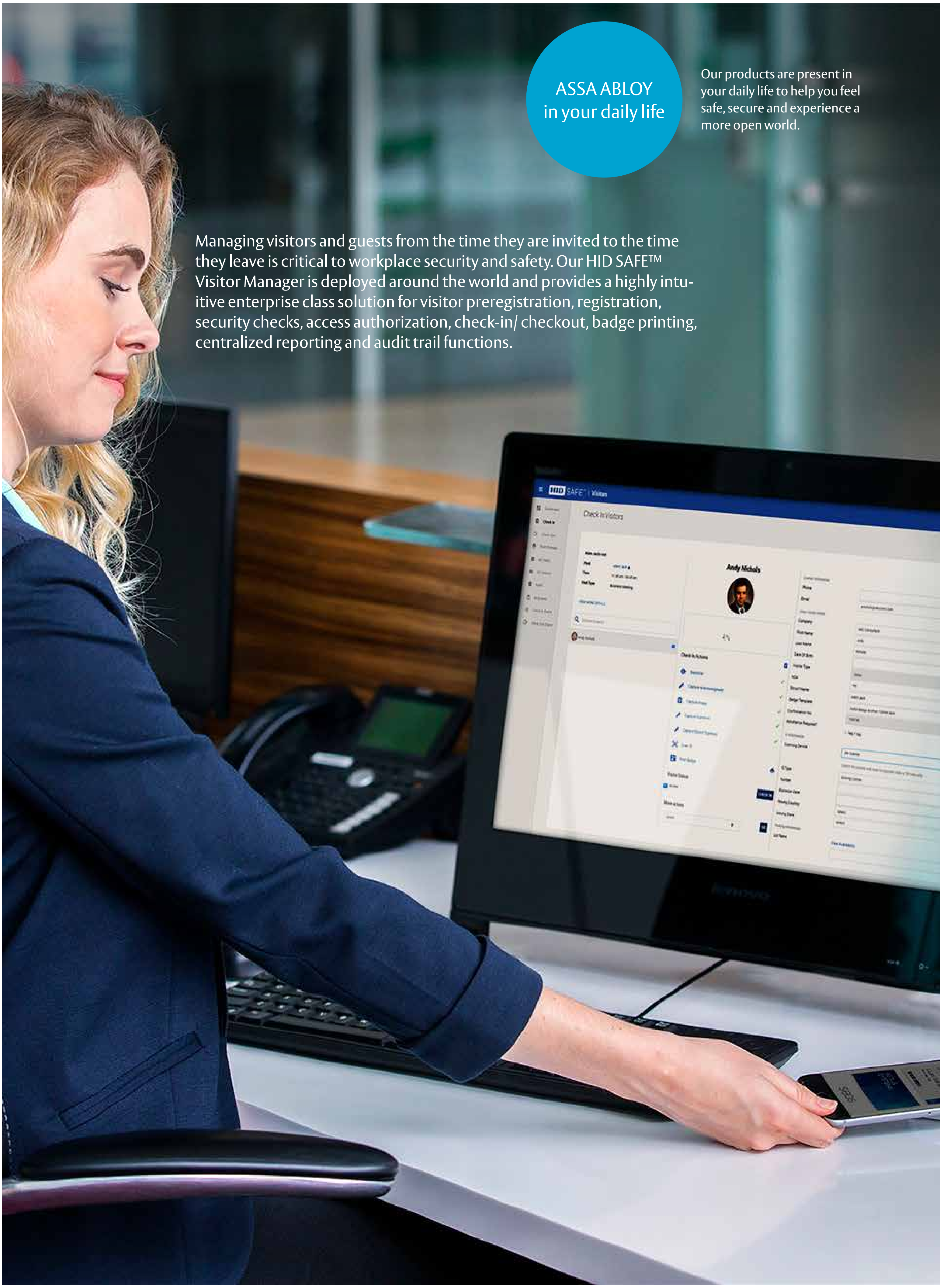
R&D

During the year, we expensed SEK 3,565 M in R&D and we had 2,794 R&D employees, including product development, in all divisions. We also secure innovation capacity through acquisitions by complementing existing operations to increase our offering in openings, identities and entrance automation.

Innovation process

Our innovation process starts with the identification of opportunities. Once an opportunity has been identified, a pre-study is undertaken. In the next phase, we carry out a feasibility study to specify the requirements for the development of the product. During the product and process design phase, the plans resulting from the studies are executed and the product is developed. The next phase is the validation of the product, production and customer acceptance. Finally, the product launch is the culmination of the product having passed through all these phases.





ASSA ABLOY in your daily life

Our products are present in your daily life to help you feel safe, secure and experience a more open world.

Managing visitors and guests from the time they are invited to the time they leave is critical to workplace security and safety. Our HID SAFE™ Visitor Manager is deployed around the world and provides a highly intuitive enterprise class solution for visitor preregistration, registration, security checks, access authorization, check-in/ checkout, badge printing, centralized reporting and audit trail functions.

Strategic objective #3
Cost-efficiency in everything we do

ASSA ABLOY continues to improve cost efficiency and quality through the implementation of operational excellence and sustainable operations. We do this through an increasingly holistic approach to operations – including cross-divisional cooperation and continuous streamlining of manufacturing, professional sourcing and processes. All activities must translate to improved efficiency for the Group that can be used for value-creating activities.

You joined ASSA ABLOY in early 2019. What have you focused on in your first year?
I've focused on getting to know our widespread operations organization and highly competent teams across the globe. In the spirit of our 'Together we' strategy, we have also commenced a set of Group-wide and joint operations initiatives related to sourcing, the supply chain and manufacturing.

What are the main opportunities to increase efficiency further?
We can further intensify our sourcing efforts and, in particular, work closer in partnerships with our largest suppliers and share them between several divisions. The footprint of the end-to-end supply chain can also be further optimized. We will include a logistics network, offices, shared services and continue our factory optimization efforts in the footprint program.

How will increasing environmental requirements affect the operations?
My fundamental belief is that truly lean operations – end-to-end lean – contribute positively to the environment. These cause less waste at the same time as we minimize quality problems and over-processing, and reduce energy. Smart and innovative product designs use less material, which also contributes positively.

David Simonsson
Chief Operating Officer

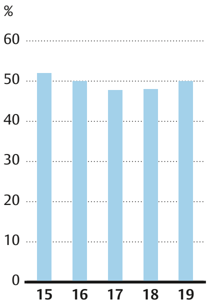
50%
Share of total purchases in low-cost countries.

–24%
The number of direct material suppliers has been reduced by 24% over the past five years.

SEK 710 M
Efficiency savings from MFP programs in 2019.

Cost-efficiency in everything we do

Share of total purchases in low-cost countries



Raw materials, components and finished goods from low-cost countries accounted for 50% of the Group's total purchases in 2019.

Efficient manufacturing footprint and outsourcing
To consolidate and improve our production structure and overall manufacturing efficiency, we are reducing the number of factories we have through multi-year structural programs. In addition, we are reducing the amount of other sites we have, such as offices and warehouses, to increase efficiency in the organizational structure and to enhance performance. The number of manufacturing sites is by far outnumbered by other locations and sites, including warehouses. Thus, there are also significant efficiency gains to achieve in streamlining other sites.

Production of our more strategic components, such as cylinders, rim locks and some electromechanical products, is concentrated in the Group's own production plants, while other more standard components are increasingly sourced from production partners. The goal is to concentrate product assemblies to sophisticated plants close to customers, primarily in mature markets. Since the first Manufacturing Footprint Program (MFP) in 2006, 93 production plants have been closed and about 70 offices. A majority of the production units in mature markets are final assembly lines or customization centers. We are also investing in automation and in robotics, where suitable, to improve manufacturing efficiency.

With the ambition to, over time, focus and develop long-term MFP plans, in 2018 we launched a MFP covering a period of three years. The MFP entails the closure of 14 production plants and about 30 offices, with a total cost of the program of SEK 1,530 M, of which SEK 312 M was accounted for in 2019. In 2019, the restructuring programs proceeded well and led to efficiency improvements of SEK 710 M and a reduction of 1,367 employees. The number of employees in low-cost countries was about 20,500 in 2019, representing 42% of the total workforce.

Professional sourcing
Professional sourcing ensures competitiveness through improved quality, better delivery times and cost reductions. This includes the application of traditional sourcing practices such as multi-tendering, benchmarking, and group-wide contracts, to validate competitiveness, as well as process and product optimizations. We apply 'should-cost' analysis and e-auctions to ensure the best total cost, quality and performance of our supplier base. To ensure correct execution across the Group, we have initiated the implementation of a new sourcing policy in 2019, aimed at hardwiring professional sourcing principles in our organization.

We focus on the largest suppliers, representing a significant share of total spend, and identify partners among these that can contribute to cost efficiency by being both competitive and innovative. Consequently, the total number of suppliers is expected to decrease when volumes can be allocated to fewer strategic suppliers. Over the past five years, the number of direct material suppliers has been reduced by 24% to around 7,900 worldwide, with a majority in low-cost countries. In 2019, the number of direct material suppliers decreased by 5% on Group level.

The criteria set on partner suppliers ensure that the selected suppliers contribute to improved cost efficiency. Our strategic suppliers then become involved in product development and work closely with us. The cooperation allows the strategic partners to deliver products and services, while enjoying larger volumes as we grow. We use consistent performance monitoring and evaluation tools to identify both the best and worst performers; the latter may not remain as suppliers or may only remain so if they meet certain criteria.

With cost-efficiency in everything we do, our aim is to continuously improve quality and further strengthen our competitiveness through:

- Efficient manufacturing footprint and outsourcing
- Professional sourcing and streamlining of processes
- Operational excellence
- Reducing the environmental footprint

Ameristar in Tulsa, US.

Suppliers are categorized and segmented based on the strategic needs identified according to different quality categories. The divisions have specialized purchasing managers for each component category.

Operational excellence

Operational excellence is where problem-solving, teamwork and leadership results in the ongoing improvement in the organization. The process involves focusing on the customers' needs, keeping the employees empowered, and continually improving the current activities. The starting point is good leadership that drives the right behaviour, supported by structures such as steering, follow up and lean principles.

To improve operational excellence, we use lean principles to increase productivity in all processes, across all divisions, including automation, robotizing and digitization. In parallel we are also running a seamless flow program to improve and automate our administrative flows. The lean elements include material flow, quality assurance and control, equipment and maintenance strategy – including automation, and manpower systems – to maximize an optimized workflow. These underpin and support lean principles in a successful operational organization.

Quality is an integral part of lean principles, impacting every stage of the value chain from innovation to purchasing, across production and administration to sales and service. This includes both technical tools as well as the involvement of management and employees. An increased focus on sustainability, improved purchase processes to ensure high quality at best cost and enhancing product quality with smarter designs are all underpinning quality performance. Material choice with the aim to, for example, eliminate waste, does not only reduce product cost but it also improves quality, while reducing manual processing in support functions also improves operational quality.

Logistics and supply chain

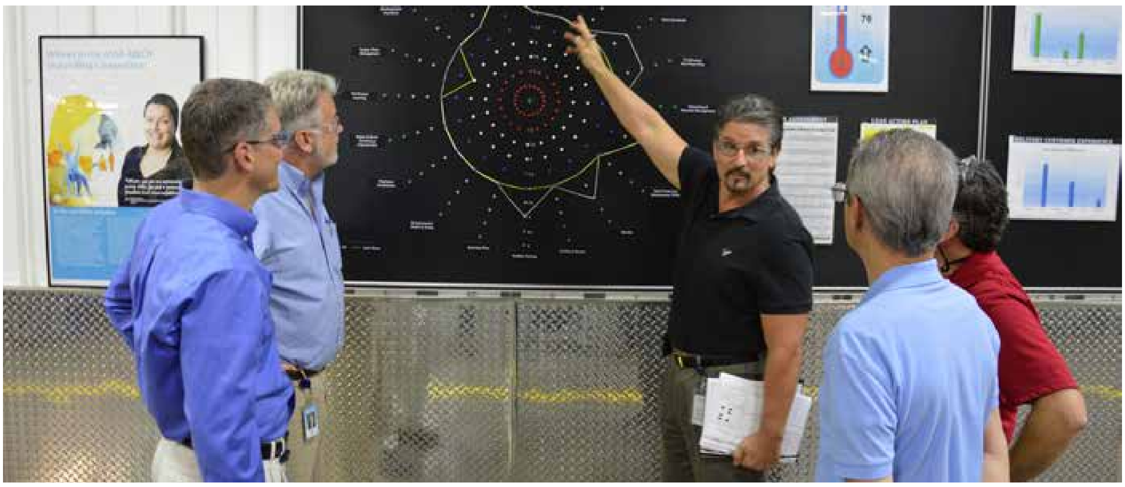
Logistics provides a competitive advantage: improved global logistics result in lower costs, increased flexibility, improved delivery performance and quality for customers and a better work environment as well as a lowered environmental footprint. Our global logistics are a result of, and depend on, the existing manufacturing footprint as well as on warehouse locations. These locations are optimized, based on our sales and operations planning. Through increasing the cross-divisional collaboration and realizing the full potential in logistics and warehousing, we can improve our operational performance. For us, 2019 was a year of execution as we continued to coordinate and focus on reducing the cost of our inbound logistic providers, while creating a more efficient structure for logistics centers with a high degree of standardization of materials and products. This also included further development of standardized digital processes to enable fast, efficient and secure transportation solutions.

Seamless flow

Seamless flow is an administrative improvement program that is central in achieving fully automated information flows and makes us more efficient. The overall ambition with the Seamless flow program is to digitalize the company and make us more efficient. It will help us achieve fully automated information flows. The aim is to optimize and streamline processes, especially in sales support, production and the supply chain, enabling a seamless customer experience throughout all interactions.

Achieving production transparency implies improved material cost control, improved decision-making procedures, shorter development times, and increased collaboration between marketing and sales staff. To be successful in Seamless flow, a holistic view on master data management is required, in combination with a simplified and consolidated application landscape that is supported by a robust application integration architecture. A supportive tool is the Enterprise Resource Planning (ERP) system, which enable us to improve the quality of administrative flows and processes. It is freeing up resources that can be dedicated to direct customer relationships instead of support functions and other back-end administrative functions. We are currently consolidating the different ERPs in the Group.

Review of the lean metrics at the Sargent factory in New Haven, US.



Value Analysis and Value Engineering
Value Analysis (VA) is a structured process for optimizing cost and customer value in existing products. The same applies to Value Engineering (VE), which is part of the product development process, focusing on new products.

Value Analysis/Value Engineering (VA/VE) entails an in-depth analysis of the product's design, components and production methods, which systematically reduces costs and enhances customer value with improved quality. The governing principles for selecting products for Value Analysis are material content, conversion complexity and volume. These will ensure maximum payback.

Reducing our environmental footprint
Improving resource efficiency by reducing the consumption of materials, energy, water, waste and greenhouse gases (GHGs) in our production processes, are some of the focus areas within our cost efficiency initiatives. Reducing waste – all forms of waste – helps to minimize our environmental footprint and reduce cost while enabling us to better service our customers. Improving sustainability and environmental performance is organically integrated into all operations' focus areas and processes. Consolidating the manufacturing footprint helps to maximize resource efficiency across the Group. Supplier sustainability audits are a core part of supply management and sourcing. The VA/VE process makes a significant contribution to the sustainability impact of our products, reducing the embodied carbon footprint and energy consumption during manufacturing. Lean and sustainability go hand in hand. Lean, like sustainability, aims to reduce all forms of non-value adding waste. Lean tools are also very applicable to sustainability initiatives. Improving health and safety performance is a key part of our operations and sustainability objectives, working towards an injury-free workplace. We reinforce a culture of health and safety on all levels of the organization, proactively identifying risks and implementing safety improvements to minimize the likelihood of an injury occurring. The health and safety culture has resulted in a substantial reduction in lost time injury rate of 55% between 2015 and 2019 and thereby supported improvements in operational performance.

Digital wall at ASSA ABLOY's factory in Rychnov, Czech Republic.

Strategic objective #4
Evolution through people

ASSA ABLOY has about 49,000 employees in more than 70 countries around the world. Developing our people, and growing their careers within ASSA ABLOY, is how we secure the Group's future success and growth. Our ambition is to create a culture that adds value to the business and encourages internal mobility, diversity and knowledge sharing, while supporting our ambition to be an employer of choice. To align our people across the world to focus on the right things and working together, we have during 2018–2019 launched and activated our shared values, – empowerment, innovation and integrity, which will guide us in our daily work.

What has been your focus in 2019?
'Evolution through people' was added to our strategic objectives and we have focused on what that means for us and our people. We have put together a plan that will transform what we do to add even more value to our business. An important starting point is our common identity – Together we – which has come to life through our common core values in a series of workshops across the Group.

How do you work with empowering all employees?
This goes hand in hand with being a supportive manager who is able to set a clear vision. With the power to act comes not only responsibility, but accountability. Our leaders have to ensure that our people have what they need to take on challenging work. Empowerment is also important when it comes to career development. We value initiative, that the employee put themselves in the driving seat, show motivation, passion and that they are ready for the next step.

How are you working with attracting the best talent?
Our diverse organization and multiple brands are unique, and candidates looking for a place to grow and develop have great opportunities to do so with us. ASSA ABLOY is a big job market itself, and we are proud of that. Many organizations claim they are special, but they haven't worked for ASSA ABLOY! There is 'special' and then there is us, and our uniqueness is what make us come together and drive our business forward. That's Together we for you.

Maria Romberg Ewerth
Executive Vice President and Chief Human Resources Officer

27
different nationalities in senior management positions.

87%
of the employees participated in the most recent employee survey.

3.0
injuries per million hours worked. Since 2015 the injury rate decreased by 55%.

Evolution through people

Common culture

ASSA ABLOY is a diverse Group with a shared purpose and vision that unites us across geographies, and our divisions, brands and companies. This is underpinned by our three shared values: empowerment, innovation and integrity. These values are central to us as an organization, with the ambition to be always growing, never boring and leading right. A strong identity and inclusive culture helps us to work together and ensure that we are all heading in the same direction.

In 2019, the Group identity 'Together we' was launched. The ambition is to, in our decentralized structure, work more closely together cross-divisionally to create synergies and work as one Group heading in the same direction. With a holistic approach, we can better address our customers and make ASSA ABLOY stronger.

Together we

Employee experience

Our aim is to always improve the employee experience and enable a personalized development journey. It should be tailored to everyone's individual needs and choices, from recruitment and onboarding to development and growth.

We strive to support agile working methods by providing collaboration tools and equipment to enable people to work flexibly. Simplicity and agility are valued and we believe in an inclusive working environment, clear feedback and having a workplace that encourages engagement, experimentation and efficiency in everything that we do.

Talent management

To be a competitive employer, we aim to give people the opportunity to grow in their career and develop their talent within the organization. We encourage an environment where it is easy to move between roles, functions, businesses, divisions and countries. A continuous dialogue between managers and employees, focusing on development and growth is also encouraged. We strive to offer interesting roles in which employees can make a meaningful contribution to the business, relevant to the employees' experience, capabilities and interests.

Talent management also involves attracting the right people to our organization. With the aim to develop our own talent, we also run several graduate and trainee programs, with the EMEA program being the most developed and longest running.

Leadership

Our culture needs supportive, trusting and engaging managers. This requires managers who are driven and motivated leaders and who can inspire others to share our business vision and goals. Good leaders can lead without formal authority and have the ability to encourage working together within teams and across the Group.

We have leadership programs for our managers both at Group and divisional level. The development agenda is built on a leadership framework that guides our shared approach. Its foundation consists of two development programs for senior managers: ASSA ABLOY MMT and ASSA ABLOY IMD. About 620 of the Group's senior managers from 35 countries have participated in the IMD program since 2005. It includes a customized program, developed in collaboration with the Swiss management school, the International Institute for Management Development (IMD) in Lausanne, with 30 participants per intake.

Ethical and social responsibility

As an ethical and socially responsible employer, ASSA ABLOY promotes diversity and inclusion.

We bring people together to harness diverse perspectives and resources. We are good corporate citizens, act ethically and with integrity, and always comply with laws and regulations. Any form of discrimination or harassment in the workplace such as in terms of race, ethnicity, sexual orientation, gender, religion, age, disability, political opinion, and nationality, is not tolerated. We work with non-governmental organizations and trade unions, as well as initiating and supporting employee-volunteer activities. Underlying our ethical and social responsibility practices is a culture of visibility and transparency.

Health and safety

Health and safety is part of our DNA. ASSA ABLOY is committed to provide a safe work environment, which we have worked systematically with for a long time. The Group-wide safety agenda promotes safe behavior, reduces workplace hazards and risk taking, and supports the development of a workplace free of injuries across all operations. Safety training and audits are routine.

In 2019, we have continued our progress on key performance indicators of injury rate and lost days per injury. We have also implemented a safety dialogue workshop globally, focusing on safe behavior in the workplace and our approach to risk taking, which about 30,000 employees participated in during 2019.

Digital workplace

The digital workplace is our personal productivity tool. It enables employees to organize their work and to have all the workflows and information they need at their fingertips. Its purpose is to make it easy for our people to collaborate with each other as well as with their business partners regardless of where they are in the world.

We strive to provide our employees with the best available tools, based on common standards, functionality, performance and cost, with the aim to seamlessly support their choice of communication channel, such as voice, video, chat or plain exchange of information.

The digital workplace must also safeguard the integrity of the data, data storage and the user, and that it follows applicable rules and laws on how to collaborate and store data.

ASSA ABLOY in your daily life

Our products are present in your daily life to help you feel safe, secure and experience a more open world.

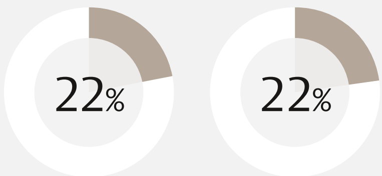
Millions of our sliding, swing and revolving doors have been installed around the world and are daily used billions of times. With our revolving and sliding doors we offer many ways to improve and secure accessibility, safety and convenience in any building. Automatic doors welcome visitors, guide traffic and preserve indoor climate zones with minimized energy loss. Sliding doors are welcoming you with a convenient entrance in many places, including retail stores, hotels, restaurants, train stations, hospitals and offices.

Divisions overview

Regional divisions
The regional divisions manufacture and sell mechanical and electromechanical locks, digital door locks, cylinders and security doors adapted to the local market's standards and security requirements.

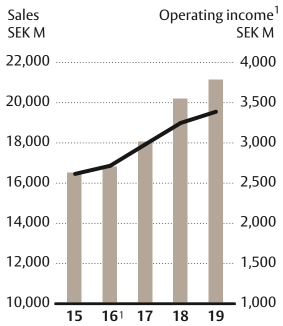
Opening Solutions EMEA

Share of sales — Share of operating income



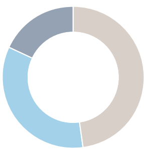
Financials in brief 2019

- Sales: SEK 21,144 M (20,201) with 2% organic growth.
- Operating income (EBIT): SEK 3,396 M (3,256).[1]
- Operating margin: 16.1% (16.1).[1]



[1] Excluding items affecting comparability.

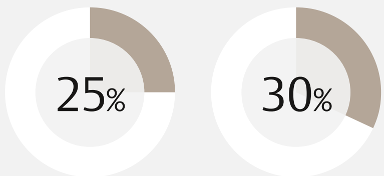
Sales by product group



- Mechanical locks, lock systems and fittings, 48%
- Electromechanical and electronic, 34%
- Security doors and hardware, 18%

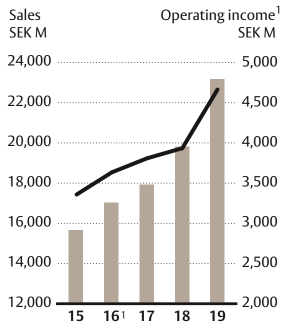
Opening Solutions Americas

Share of sales — Share of operating income



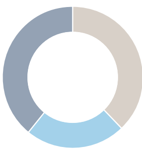
Financials in brief 2019

- Sales: SEK 23,172 M (19,817) with 7% organic growth.
- Operating income (EBIT): SEK 4,673 M (3,941).[1]
- Operating margin: 20.2% (19.9).[1]



[1] Excluding items affecting comparability.

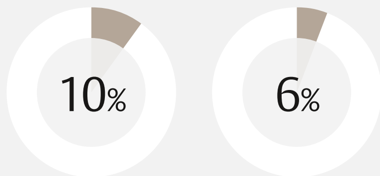
Sales by product group



- Mechanical locks, lock systems and fittings, 38%
- Electromechanical and electronic, 23%
- Security doors and hardware, 39%

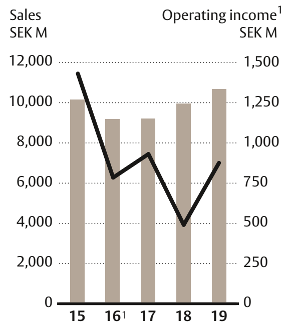
Opening Solutions Asia Pacific

Share of sales — Share of operating income



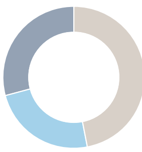
Financials in brief 2019

- Sales: SEK 10,689 M (9,949) with –1% organic growth.
- Operating income (EBIT): SEK 879 M (492).[1]
- Operating margin: 8.2% (4.9).[1]



[1] Excluding items affecting comparability.

Sales by product group

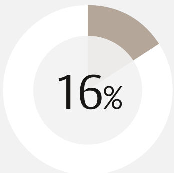


- Mechanical locks, lock systems and fittings, 47%
- Electromechanical and electronic, 24%
- Security doors and hardware, 29%

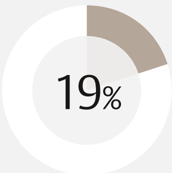
Global divisions
The global divisions manufacture and sell access solutions, identification products and entrance automation on the global market.

Global Technologies

Share of sales

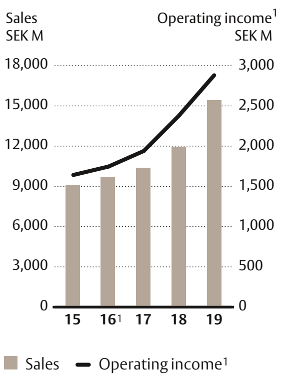


Share of operating income



Financials in brief 2019

- Sales: SEK 15,423 M (11,951) with 5% organic growth.
- Operating income (EBIT): SEK 2,890 M (2,387).[1]
- Operating margin: 18.7% (20.0).[1]

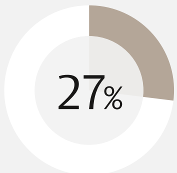


[1] Excluding items affecting comparability.

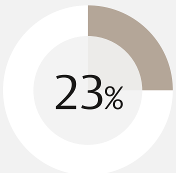
Sales by product group

Entrance Systems

Share of sales

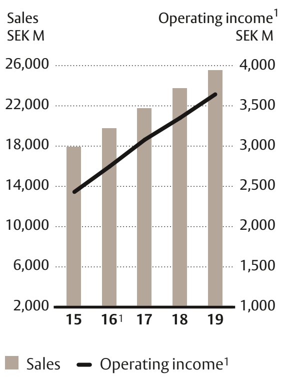


Share of operating income



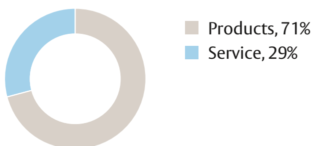
Financials in brief 2019

- Sales: SEK 25,553 M (23,762) with 2% organic growth.
- Operating income (EBIT): SEK 3,652 M (3,358).[1]
- Operating margin: 14.3% (14.1).[1]



[1] Excluding items affecting comparability.

Sales by product group



For more key figures see page 61.

Opening Solutions EMEA

Good performance in a challenging market environment

Highlights

- Electromechanical products had a continued good growth.
- Cash flow improved strongly with an increase of 25%.

Overview

EMEA is organized in 12 market regions with divisional headquarters located in Woking in the UK. The market regions are responsible for manufacturing and selling mechanical and electromechanical locks, hardware and security doors adapted to the local markets' standards and requirements. The products for the commercial market are sold under the master brand ASSA ABLOY or brands endorsed by ASSA ABLOY, while Yale is the master brand for the residential market, also with endorsed brands. EMEA has about 11,400 employees. The largest market region is Scandinavia, followed by the UK and DACH (Germany, Austria and Switzerland).

Financial development

The demand in the region was good with an organic sales growth of 2%, with mixed market conditions between the market regions. The growth was strongest in Middle East/Africa and Eastern Europe, while the UK and France were weaker due to challenging market conditions. The growth in Scandinavia leveled from a high growth level in previous years due to a slower new construction market in Sweden and Norway. Sales of electromechanical products with digital and mobile solutions continued to grow strongly. The net acquired growth was flat at 0% due to the transfer of business from EMEA to Global Solutions. Operating income grew in line with sales and increased by 4% with an operating margin of 16.1% (16.1). Efficiency activities supported the operating margin in a significant way. Cash flow improved strongly and was up 25% (–5), in line with the increased operating income. To maintain our competitive advantage in technology we continued to invest in R&D and the share of new products introduced over the past three years was 26% of total sales.

Acquisitions

All acquisitions completed during the past three years developed well with strong growth, and their integration has been the primary focus in 2019. Two businesses were transferred from EMEA to Global Solutions: Abloy's critical infrastructure solutions and Traka, a leading provider of key management systems. The businesses have developed well and the purpose of the transfers is to accelerate the growth on a global scale.

Offering: Mechanical and electromechanical locks, digital door locks, security doors and fire doors, as well as hardware.

Markets: EMEA is the leader in its product areas in Europe, the Middle East and Africa. The commercial segment accounts for around 60% of sales and the residential segment for 40%. EMEA comprises a large number of Group companies with a good knowledge of their local and in many respects diverse markets. Products are sold primarily through a number of distribution channels, but also directly to end-users.

Comment on market trends

Neil Vann
Executive Vice President and Head of EMEA division

What trends have you seen in the market in 2019?

We have witnessed a strong uptake of digital products in most markets in the commercial and residential sectors. There has been a growing interest in new services enabled by digital products, including in home delivery and services.

Digital transformation has been an important part of 2019 and will continue. This is not just the introduction of new digital products but also the way we do business through new channels and routes to markets. Over the last year, we have seen double digit growth in EMEA e-commerce sales.

Which product groups/segments grew mostly and why?

Our electromechanical products, both components and access control, have seen positive growth. Investments in resources and platform technologies will provide sustained long-term growth. There has been great success in the Nordics with our Pulse energy harvesting range and we are continuing to develop and expand the product range. Also our CLIQ®, high-security, key-based access control range continues to provide strong double digit growth.

We continue to invest in smart residential products and are introducing more innovative smart home security products that allow our customers to connect and control their homes from anywhere at any time. Our new Yale Access system has provided increased functionality and integration with smart home devices.

In 2019 we have also renewed our focus on core mechanical products and there has been good growth in our pan-European door closers, cylinder and lock case ranges.

What were your main challenges during the year?

We have seen swings in demand due to the volatility in emerging markets as well as political instability in others.

How does the increased focus on sustainability affect your business?

Sustainability is a key driver throughout our value chain and we have a continued focus on innovative products that minimize the impact on the environment. We are seeing a rise in investments in green buildings and have recognized that our customers are rapidly turning to and expecting more sustainable, innovative and resilient solutions. Sustainability has become an integral part of the product innovation process, using our Sustainability Compass development tool, which supports the development of new sustainable products and customer solutions.

Opening Solutions Americas

Strong growth and margin improvement

Highlights

- Strong organic growth continued in the US and the total sales for the division increased by 17%.
- Cash flow improved strongly by 35% due to increased earnings and working capital improvements.
- Yale launched a new Pro Series product line for professional installers with a key-free smart lock.

Overview

Americas is organized in 15 business areas and market regions with divisional headquarters located in New Haven in the US. In the US it is organized by product category, while the other regions are organized in a country structure. The business areas and market regions are responsible for manufacturing and selling mechanical and electrometrical locks, hardware, secure lockers, access control devices, security doors and perimeter systems[1] adapted to the local markets' standards and requirements. ASSA ABLOY and Yale are the master brands, with a strong portfolio of endorsed brands. The Americas division has about 9,400 employees. The largest market is the US.

Financial development

Sales growth was strong and increased by 17%, with organic growth of 7% and acquired growth of 2%. The US market grew strongly despite a more challenging situation with tariffs and a tight labour market. Latin America had a slow development with a weak Mexico and Chile, while Brazil and Colombia were stable. Electromechanical products grew by 38% and mechanical solutions grew by 14% driven by both the commercial and institutional segments, while Perimeter Security was weak. The operating income increased by 19% and the operating margin improved to 20.2% (19.9). Implemented efficiency activities offset the higher raw material costs and contributed to improved operating leverage and earnings. Cash flow was up by 35% and cash conversion was very strong at 113%, driven by working capital improvements. The ratio of new products introduced over the past three years was 27% of total sales.

[1] transferred to Entrance Systems in 2020.

Acquisitions

Two acquisitions, Stiles Custom Metal and LifeSafety Power, were completed in the US in 2019. Stiles complements the hollow metal door business and adds a stronger footprint on the US West Coast with a factory in California. Stiles makes it possible to provide the entire package of security and safety products in this region of the US. LifeSafety Power adds a critical component for access solutions and electrometrical products where power connectivity is vital to their operation.

Offering: Mechanical and electromechanical locks, digital door locks, cylinders, door fittings, security doors, door frames, access control devices, secure locker and until the end of 2019 high-security fencing and gates.

Markets: U.S. Canada, Mexico, Central America and South America. In the US and Canada, ASSA ABLOY has an extensive manufacturing and sales footprint. Institutional and commercial customers are the largest end-customer segments and account for 80% of sales, while the private residential segment accounts for 20% of sales. Sales in South America and Mexico are primarily focused on the residential segment, although several verticals in the commercial area have shown significant growth in the past years.

Comment on market trends

Lucas Boselli
Executive Vice President and Head of Americas division

What trends have you seen in the market in 2019?

Industrial design continues to be at the forefront of our industry. We continue to see more customization, and decisions driven by aesthetics of the products. Demand for higher security products remains a growth driver throughout North and South America. The migration from mechanical to electromechanical continues to be strong, in both commercial and residential markets. While we are in the early days of market penetration, we see a lot of upside as the adoption of these technologies accelerates. We continue to invest in the digitalization of our business to position us strongly in this transition.

Which product groups/segments grew the most and why?

Our core commercial in the US had a very good performance in the region along with the smart residential segment in the US. Both new construction and aftermarket in the US grew nicely, as the new construction was driven by a large construction backlog and growth in the west coast and southern part of the United States. Aftermarket growth was driven by upgrades from mechanical to electromechanical across several vertical markets.

What were your main challenges during the year?

The market volatility in the US related to tariffs, an overall slowdown in Latin America, especially in Mexico and unfavourable weather in the US during the first part of the year, which affected our Perimeter Security business. Lastly, a tight labor market in the US and increased healthcare costs impacted our personnel costs.

How does the increased focus on sustainability affect your business?

It increases the demand for more advanced and environmentally certified products and solutions. We continue to focus on innovation in energy efficient products that contribute to healthier and safer buildings, as well as products that improve the wellbeing of people at work. This has contributed to our growth and, in particular, we will continue to make such investments in providing healthier and more sustainable environments in glass applications and partitions in the US and Latin America.

Opening Solutions Asia Pacific

Implementation of new strategy in China

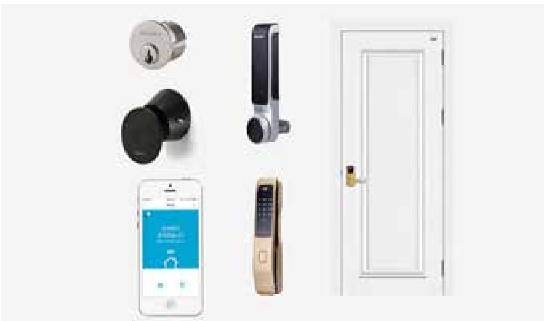
Highlights

- Strong growth for electro-mechanical products with particular strong growth for smart residential products.
- The new business plan for China was implemented during the year and the first small results from the actions initiated started to materialize.
- The world's first hydraulic floor hinge with the highest rating of dust and water resistance was launched by Samwha Precision.

Overview
Asia and Pacific is organized in 12 business areas and market regions with divisional headquarters located in Hong Kong. The organization in China is organized by market segment and the other regions in Asia and Pacific are organized in a region or country structure. The business areas and market regions are responsible for manufacturing and selling mechanical and electrometrical locks, hardware and security doors adapted to the local markets' standards and requirements. ASSA ABLOY is used as the master brand for products in commercial markets and Yale is the master brand for the residential market, also with endorsed brands. Asia and Pacific has about 10,600 employees across the region. The largest market by sales is China, followed by Australia and South Korea.

Financial development
The sales development was stable with organic growth of –1% and acquired growth of 5%. The markets in Pacific had good development despite slower demand in the residential segment. Sales in South Korea decreased due to weak market conditions, while sales in South Asia and India were stable. During the year, the new business plan in China was being implemented according to plan, but sales declined due to the closure of factories and a more selective sales approach. The division´s operating income adjusted for write downs in China 2018 was stable and operating margin decreased to 8.2% (9.0). Cash flow decreased by –23% and the cash conversion rate was at 71%. Growth continued to be strong for electromechanical products and security doors developed well, while sales development for mechanical solutions was stable. The ratio of new products introduced over the past three years was 38% of total sales.

Acquisitions
Two acquisitions, Spence Doors in Australia and Pacific Door Systems in New Zealand, were completed in 2019. Spence Doors is a leader in Australia for commercial doors with a strong presence in the institutional segment. In line with the change in the market and our strategy of providing the total solution to the market, these acquisitions complement our existing door opening solutions offering to our customers.



Offering: Mechanical and electromechanical locks, digital door locks and smart home access solutions, high-security doors, fire doors and hardware.

Markets: The Asian countries are predominately emerging markets without established security standards. New construction accounts for around three-quarters of sales. In the Chinese market the same types of lock, handle and hardware are often used in both homes and workplaces. The production units in China also produce for ASSA ABLOY's other divisions. Australia and New Zealand are mature markets with established lock standards, where renovations and upgrades account for the majority of sales.

Comment on market trends

Anders Maltesen
Executive Vice President and Head of Asia Pacific division

What trends have you seen in the market in 2019?
Firstly, digital adaptation is accelerating. The use of digital payments, social media and penetration of smart products and solutions in general is increasing. This is also leading to an increased demand for digital access solutions for us. Secondly, the replacement residential market is growing. We have noted that consumers look to the replacement market to upgrade their existing solutions by transitioning from mechanical to smart digital solutions. Thirdly, higher standards for security and sustainability are being introduced. Many of the countries in my region are not as regulated as Europe or North America. However, more standards are being introduced, leading to higher requirements both for security and safety as well as for energy efficiency and sustainability.

Which product groups/segments grew mostly and why?
Smart solutions for the replacement market grew well during the year and this is a segment that we expect to be a growth driver in the future. To get closer to our customers, we opened Yale smart shops in different Asia Pacific markets. Yale smart shops allow end-users to experience the benefits of residential smart security solutions.

In China, the establishment of a Key Account organization made progress, resulting in many new signed strategic contracts and projects to be delivered over the next 12 months. Our PANPAN residential security & fire doors and Guoqiang window hardware business also grew strongly during the year.

What were your main challenges during the year?
The global economic and political uncertainties have been challenging. The introduction of trade tariffs, political instabilities and lower construction activities in different markets affect our business, especially in the more mature markets.

As technologies change swiftly, it is vital for us to maintain speed in product development, integrate new technologies, and recruit the right talent to meet the rapidly changing demand and customer experiences.

How does the increased focus on sustainability affect your business?
It is increasing customers' expectations and demand for energy-saving security solutions such as doors and windows that can help save energy. With the green building trend, security products with Environmental Product Declarations are becoming more important in supporting a building to get accreditation. It also means that we need to work with our own operations, and we continue investing in our facilities across Asia Pacific to be more sustainable in relation to water consumption, energy and carbon footprint.

Global Technologies

HID Global grew strongly in mobile solutions

Highlights

- Strong organic growth, driven by our new digital and mobile solutions.
- Record year with five acquisitions adding SEK 1,300 M in sales.
- First project win of student IDs at Clemson University.

Overview
HID is a global organization and is organized in six business areas with the business segment headquarters located in Austin in the US. The business areas are responsible for global sales and product development in their product area. HID is powering trusted identities of the world's people, places and things. Its products are used to open doors, access digital networks, personalize badges, verify transactions, find information, track assets and connect with others – ensuring that identities are seamlessly accepted, anywhere, anytime. The products and solutions are sold under the master brand HID or by brands endorsed by HID. HID has about 3,900 employees worldwide. The largest business area is Physical Access Control.

Financial development
HID generated strong organic sales growth in 2019. The ambition to double the revenue for HID is well on track. Sales growth was strong for Secure Issuance and Physical Access Control while growth in Citizen ID and Identity & Access Management was stable. Identification Technology and Extended Access Technologies reported negative sales development.

The growth was strong in mature markets, while emerging markets were stable. The growth was strongest for our issuance solutions and was further driven by investments in digital and mobile solutions. Efficiency activities continued and the consolidation of our European shared services and the manufacturing of credentials in Europe to Ireland reached important milestones. Product innovation continued at a high level and we increased our investments in R&D. The share of new products introduced over the past three years was 20% of sales. Several new products and solutions were launched, including the first project win of student IDs at Clemson University in collaboration with Apple.

Acquisitions
Five acquisitions were completed. The largest acquisition was Placard, the largest secure card manufacturer in Australia. Another acquisition was LUX-IDent, an Eastern European manufacturer of RFID products. The ID Solutions business of De La Rue, with a factory in Malta, was acquired. In addition, two US companies were acquired, the access control company PTI Security Systems and HydrantID, a public key infrastructure service provider.

Offering: HID Global is a worldwide leader in trusted identity solutions, dedicated to powering the trusted identities of the world's people, places and things.

Markets: Millions of people around the world use HID products and services to navigate their everyday lives, and over 2 billion things are connected through HID-technology. Customers comprise companies, healthcare, education, financial, government and state institutions. Customers are mainly in the institutional and commercial sectors worldwide.

Comment on market trends

Stefan Widing
Executive Vice President and Head of Global Technologies business unit HID Global

In January 2020, Björn Lidefelt was appointed as EVP and Head of HID Global following the decision by Stefan Widing to pursue other opportunities outside the Group.

What trends have you seen in the market in 2019?
Overall the market was good in 2019. However, we saw delays and longer decision cycles for larger projects in the second half of the year. In terms of technology adoption, the trends towards more secure credentials, mobile credentials, and biometric solutions continued as in previous years. We saw the launch of Apple's Student ID with our Seos mobile technology based on NFC. We were also a founding member of the new FiRa Consortium together with Samsung, Bosch and NXP, that will drive the use of Ultra-Wideband technology for access and location solutions.

Which product groups/segments grew mostly and why?
Our highest growth area was our Secure Issuance business, which grew on the back of several significant orders last year, that were delivered in 2019. Our Physical Access Control also continued with strong growth driven by both good market growth and continued investments in new technology such as Mobile Access. In addition, the growth was good in our biometrics products, e-passports, location services, and digital certificates.

What were your main challenges during the year?
The trade barriers and uncertainties in that area have been an issue. We have managed to offset most of the tariffs, but the disruptions it caused in the supply chain, and the conversations required with customers have consumed a lot of time in the organization.

How does the increased focus on sustainability affect your business?
We see a continuous need for more green products. Since our product portfolio consists of either software or electronic products, our focus is mainly on energy savings, either in our own products, or by providing data and information that our customers can use to optimize their own operations.

Global Technologies

Global Solutions investing in new verticals

Highlights

- The new organizational setup with focused verticals contributed to strong organic sales growth.
- Keyper was acquired, which complements our Traka business.
- Vostio Location Solutions was launched, a new distress alarm system for our hospitality customers.

Overview

Global Solutions is a global organization and is organized in six verticals. The verticals are responsible for manufacturing, sales and solution developments for the specific verticals, which are Hospitality, Marine, Senior Care, Education, Critical Infrastructure and Key Management Systems. Its products include electronic locks, safes, credentials and software service. Global Solutions sells its innovative solutions under the master brand of ASSA ABLOY and the brands Traka and Abloy. Global Solutions has about 1,700 employees worldwide. The largest business area is Hospitality, offering check-in and check-out solutions at hotels worldwide.

Financial development

Global Solutions generated strong organic sales growth in 2019. Sales growth was strong for Marine, Critical Infrastructure, Senior Care and Traka, while the growth was good for Hospitality. Growth was strong in mature markets while growth was good in the emerging markets. The trend with hotels upgrading to mobile key solutions continued to be strong and the recurring revenue from the solutions increased significantly. Further investments were initiated to grow the geographical footprint as well as to develop solutions for the different verticals. Some of the verticals are in an investment phase and in the process to develop their solutions. To maintain the product leadership and the technological advantage, our investments in R&D increased significantly and will continue. New solutions were introduced and for our hotel customers, we launched a new distress alarm system to meet new requirements in several US states. The ratio of new products introduced over the past three years was at a high level with 33% of total sales.

Acquisitions

Two acquisitions were completed, KEYper Systems in the US and Secure Edge Technologies in Australia. KEYper complements the product range within intelligent key and asset management solutions offered by traka. KEYper has a strong footprint in the US with suitable offerings for the automotive, fleet and property management industries. With the acquisition of Secure Edge Technologies, we strengthened our position in the Pacific region as one of the leading providers of key management systems.

Offering: ASSA ABLOY Global Solutions is leading the development within secure access solutions for hotels, cruise ships, student accommodations, elderly care facilities, key management and critical infrastructure.

Markets: ASSA ABLOY Global Solutions' systems and products are installed in millions of hotel rooms worldwide. Customers are mainly in the institutional and hospitality sectors worldwide.

Comment on market trends

Christophe Sut
Executive Vice President and Head of Global Technologies business unit Global Solutions

What trends have you seen in the market in 2019?

The positive development continued for our different access solutions that allow our customers to create value for their businesses. In particular, the demand for our Mobile Access solutions grew very strongly, which is a trend that we expect to continue.

Which product groups/segments grew mostly and why?

The Hospitality and Marine verticals developed positively, driven by a solution that allows us to improve the guest experience. This was primarily driven by an increase in the number of rooms where the Mobile Access service is being provided.

Our focus on providing solutions has also allowed us to support our customers with new software- based solutions. In 2019, we launched a new location service solution, which received significant traction in the second half of the year.

Senior Care is in an investment phase, where we are capitalizing on the broad technology portfolio in the ASSA ABLOY Group. Managing and providing care to an aging population is a long-term need. We are, step by step, increasing our market coverage to new countries by enabling our new software to the existing lock platform.

Critical Infrastructure is gaining momentum. In 2019 we won a significant project in Australia. At the same time, we had positive interest in some emerging markets, like India, where we see strong potential as the need for reliable infrastructure is growing.

What were your main challenges during the year?

Global Solutions' responsibilities have grown significantly in 2019. During the year, we completed our new acquisitions at the same time as Traka and Abloy were moved to our global organization from the regional divisions. To integrate these great businesses into our organization while maintaining focus on the core business has been challenging. At the same time, we have accelerated our R&D investments in the existing products and new verticals in order to maintain and grow our leadership. These investments will enable us to grow our business for many years to come.

How does the increased focus on sustainability affect your business?

Sustainability is very high on the agenda of our customers, particularly our global customers. The Group's commitment and leadership in sustainability strengthens our competitiveness. To even better meet our customers' sustainability needs and demand for transparency, we are currently in the process of obtaining Environmental Product Declarations for all our products in the Hospitality, Marine and Education business areas.

Entrance Systems

Investing in service organization

Highlights

- A new organization setup was launched in the end of the year with four business segments: Pedestrian, Industrial, Residential and Perimeter Security.
- Investments in the service business generated strong organic sales growth.
- Cash flow improved significantly with an increase of 29% driven by improved working capital.

Overview

Entrance Systems is a global organization and from 2020 is organized in four business segments: Pedestrian, Industrial, Residential and Perimeter Security. The divisional headquarters will be located in Switzerland. The business segments are responsible for sales, manufacturing and product development in their specific product areas. Entrance Systems manufactures and sells entrance automation products, services and, from 2020, also perimeter security. The route to the market is both direct and indirect. We go to the market under the master brand ASSA ABLOY in the direct channel and have a number of brands for the indirect channel. Entrance Systems has about 11,300 employees worldwide. The largest business segment is Industrial followed by Pedestrian.

Financial development

Sales growth was stable with an organic sales growth of 2% and acquired growth of 1%. Equipment sales growth was strong for Pedestrian, driven by upgrades from retail customers, while equipment for Industrial was stable. Residential sales growth declined due to weak new construction activity in the US residential market. Our investments in field service started to show results and the growth was strong. Operating income increased by 9% with an improved operating margin of 14.3% (14.1). The operating leverage was strong, supported by efficiency activities. The cash flow increased by 32%, driven by the improved earnings and working capital improvements, and the cash conversion was 100%. Our share of new products introduced over the past three years was 25% of total sales.

Acquisitions

The most important event was signing an agreement to buy a majority stake in the Swiss pedestrian door company agta record. It is the largest acquisition for the ASSA ABLOY Group since 2011. The acquisition is cleared but subject to anti-trust conditions. In addition, we also acquired Door Control, a US-based distributor in Florida, which strengthened our position in this part of the US market. An acquisition of AM Group in Australia was also announced at end of the year.

Offering: Products, service and components in entrance automation. The product range includes automatic swing, sliding and revolving doors, industrial doors, garage doors, high-performance doors, docking solutions, hangar doors, gate automation, components for overhead sectional doors and sensors. From 2020 the division also includes high security fencing and gates.

Markets: Entrance Systems is a global leader with sales worldwide. It has sales companies in 35 countries and distributors in 90 countries. Service operations account for nearly one-third of sales.

Comment on market trends

Mogens Jensen
Executive Vice President and Head of Entrance Systems division

On 1 February 2020, Christopher Norbye was appointed as EVP and Head of Entrance Systems. Mogens Jensen is EVP and assumed the new position as Head of Entrance Systems Industrial and Residential Business Segments.

What trends have you seen in the market in 2019?

One of the large trends in the market is connected doors. We have intensively invested in this technology in 2019 and successfully prototyped the technology. We expect several connected products to be launched in 2020 and they will offer new end user benefits like monitoring of status, less interruption and increase the service level for our customers.

Which product groups/segments grew mostly and why?

Field service has been a major focus for us in 2019. We have invested in both field service technicians as well as in sales. As a result, we have seen strong growth in 2019 and we will continue to invest in field service in 2020.

We have also seen strong growth in large hangar doors, in particular for the airline industry. This is a trend we expect to continue in the coming years.

What were your main operational challenges during the year?

Since the foundation of Entrance Systems in 2006, we have successfully grown from SEK 3bn to above SEK 25 bn in annual revenue. To enable continued and accelerated growth, we have reviewed our organizational structure at 2019. In the beginning of the year, we merged two of our large business areas, Industrial Door and Docking Solutions with High Performance Doors Solutions to create Industrial Doors business area. As a next step, in October, we announced a new divisional structure around four business segments: Pedestrian, Industrial, Residential and Perimeter Security. The purpose of this structure is to realize further synergies between the different business areas, increased focus on the product areas and to ensure a structure facilitating future growth.

Another challenge has been the stagnation of the US residential market, which after strong growth up to 2018 flattened out in 2019. Finally, US tariff implementations and market price adjustments have been a challenge, with a lack of predictability.

How does the increased focus on sustainability affect your business?

In new product development, sustainability is one of our main focus areas. We have launched, amongst others, a high insulated sectional door with an 82mm insulated door panel, which meets the highest customer demands. We are working on several other energy saving products in R&D to launch in the coming years.

We believe the increased focus on sustainability will continue and we are committed to develop the right products to follow the market demand.

Customer solutions around the world

Hotel staff enjoy peace of mind with Vostio Location Solutions

CUSTOMER: Due to international hotel chains being faced with many new guests arriving daily, hotels and resorts can be difficult locations to monitor and ensure a safe workplace at all times. For example, housekeepers or room service attendants frequently must enter guestrooms alone and with little knowledge of what they may encounter. Due to the risk that such employees face, hospitality businesses are stepping up to find solutions that keep staff out of harm's way, with many local governments also passing laws mandating the presence of such solutions.

CHALLENGE: As the industry's leading innovator of security solutions, ASSA ABLOY Global Solutions sought to leverage its expertise in providing hotel staff with an alert device with distress button in order to request immediate help if danger arises. Working closely together with a customers was required and essential in developing a cost-effective solution that could precisely cater to hotel staff needs and adhere to local ordinances.

SOLUTION: Vostio Location Solutions, with its Staff Safety portal, utilizes the latest advancements made in cloud, IoT and Bluetooth Low Energy (BLE) technology to ensure the rapid arrival of response teams to the precise location of an emergency by providing room proximity location. Equipping each employee with their own alert device, Staff Safety functions through the presence of BLE-gateways, with the closest gateway receiving an alert signal the moment that a distress button is pressed.

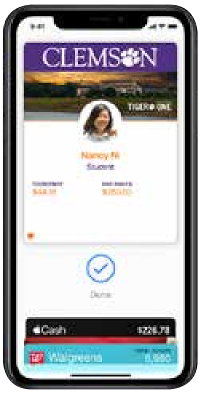
HID's Seos ID technology enables seamless access for students

CUSTOMER: Clemson University, in South Carolina, US, has around 25,000 students enrolled, studying on an extensive campus with seven colleges.

CHALLENGE: Clemson University wanted to make it possible for students, faculty and staff to add their IDs to Apple Wallet and use their iPhone and Apple Watch to access buildings on campus, purchase meals and much more.

SOLUTION: To support student IDs in Apple Wallet on iPhone and Apple Watch, HID Global provides Seos-enabled credentials, HID iCLASS SE® and HID OMNIKEY® readers, embedded HID iCLASS SE reader modules, and Corbin Russwin and SARGENT® electronic locks from ASSA ABLOY.

Through HID's support of student IDs in Apple Wallet, Clemson students can seamlessly access residence halls, libraries and fitness centers, buy lunch, make purchases at the university store, print documents and more by placing their iPhone or Apple Watch near a reader where contactless student ID cards are accepted.



Key management hugely improved with SMARTair® access control

CUSTOMER: Vejle Friskole, Denmark, was founded in 1893 and the school has over 200 students.

CHALLENGE: Part of Denmark's 'Friskole' (Free School) ethos involves both parents and students participating in activities outside school hours, which created key management problems especially during weekends. Staff spent a very long time handling keys, approximately 5 hours a week in total. They sought an upgraded access control solution, to save site managers this unnecessary manual workload.

SOLUTION: Mechanical keys have been replaced by a SMARTair® access control system. Over 80 doors and cabinets around the school are secured with SMARTair® wireless devices. Now, students, teachers and parents each carry their own key fob, programmed to open only permitted doors. With locking devices tailored to different kinds of opening, everyone at the school can open the doors and cabinets they need with a single programmable fob.

SMARTair® is easy for the school to manage. Time-consuming challenges with lost keys and general administration of physical keys have been eliminated. Today, staff spend around 5 minutes a week managing their access system. In addition to making everyday life easier and saving staff time and administration costs, SMARTair® has also increased security.

New Four Seasons Boston carries distinct ASSA ABLOY touches

CUSTOMER: The new Four Seasons Hotel and Private Residences, Boston, US, is a 61-story combined residential and guest facility, complete with 215 hotel rooms and 160 private residences.

CHALLENGE: Project designers looked for door hardware to solve a couple of challenges: how to carry the triangular exterior design throughout interior spaces and, implement a state-of-the-art access control system.

SOLUTION: Both of these objectives were solved with door hardware from ASSA ABLOY Group brands. Teams from ASSA ABLOY Opening Solutions Americas and ASSA ABLOY Global Solutions collaborated to address each project need.

The Opening Solutions team worked with the building architects to create a custom lever to be used on all doorways. A specially designed triangular lever that matched the building's exterior was completed under a program called SPAR (special application request). ASSA ABLOY design engineers worked with the architects to create an initial lever design that was rendered on a 3D printer, allowing for easy tweaks. This lever is installed on Yale hardware used on all secondary doorways and the VingCard locks found in all hotel room/residence entry doors.

Electronic access control is provided by VingCard Essence locks that house all lock components, including the reader and mobile access board, inside the door, creating a minimalistic expression. The lock is mobile access ready and connects to an online system that communicates with guest room thermostats for energy management.

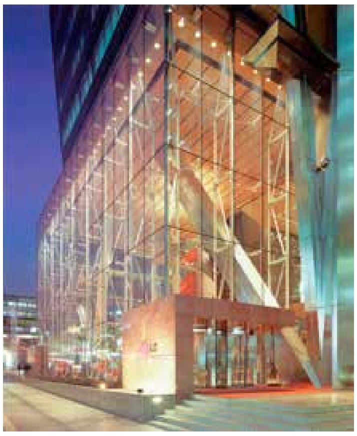
Complete dock opening solution for new Aldi distribution center

CUSTOMER: Aldi is a German-owned supermarket chain with over 10,000 stores in 20 countries.

CHALLENGE: Aldi was opening an all-new distribution center in Turnhout, Belgium. One of many innovations that the supermarket chain wanted was the application of exterior dock levelers. To that end, the client called on the services of a specialist: ASSA ABLOY Entrance Systems.

SOLUTION: Interior dock levelers are one of the major bottlenecks for distribution centers. They are very bad for thermal insulation because they cause significant loss of energy. Since Aldi considers sustainability a top priority, interior dock levelers were no longer an option, which led them to opt for the exterior version.

In addition to the exterior dock leveler assignment, Aldi also entrusted ASSA ABLOY Entrance Systems with components pertaining to the dock shelters, as well as all sectional doors and a scissor-lift table. This resulted in a significant order containing over 600 elements – including doors, shelters, load houses, buffers and wheel guides.



Total solution meets customer's need for upgrade

CUSTOMER: GS Tower, in Seoul, Korea, was completed in 1999 and its design conducted by US architect, SOM. This 38-story building has various facilities including an exhibition hall, offices and a theatre. The customer needed to upgrade its building to be more up-to-date and reduce the need for maintenance.

CHALLENGE: As a first phase to improve the 20-year-old facilities, the customer needed to upgrade the access control system. This consisted of components from different suppliers, so whenever an issue occurred, they needed to contact individual suppliers to figure out root causes, and the system always had potential maintenance risks. In this regard, the customer preferred a leading total solution provider to provide a more secure and convenient system.

SOLUTION: We began with in-depth meetings with the customer to identify their issues and requirements. Then we proposed the most appropriate solution by offering Corbin Russwin electric mortise locks, Securitron shear locks, and Trimec electric strike, dead bolt, electromagnetic locks for smooth operation in access control. Installation began in late 2019 and the solution will provide security, convenience and safety to users as well as an easy maintenance service to facility mangers.

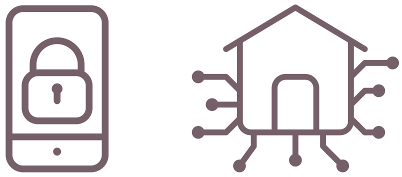
ASSA ABLOY to lead into the future

In November 2019 ASSA ABLOY celebrated its 25th anniversary since the Group was founded in 1994 through the merger of Abloy in Finland and ASSA in Sweden. We started our remarkable journey as a traditional Nordic-based lock company and have now evolved into the global leader in access solutions. This is the result of strong growth and innovation, customer focus and efficiency improvements. However, the journey has just begun and the market is constantly changing. This page provides an overview of the evolution of our industry that we expect will continue to shape us and our industry in the next 25 years.

Security

The demand for safety, security and convenient solutions for locks and doors will continue to increase. Secure digital and mobile management of identity and authentication will be broadly used in order to determine who should have access when, where and how. Flexible and modular identification technology platforms will serve the ecosystems and connect products and services – such as homes, devices, cars, robots, shipping containers, traffic systems and transport systems.

Digitalization



In the future, electromechanical solutions will be the mainstream both in the commercial as well as in the residential segments. Connected residential and industrial devices and machines – enabling the identification, communication, control and monitoring of functions and production of the things connected – will be broadly used and applied. In the retail segment, digital access solutions will enable smart-home applications, efficient home deliveries, home services, care and other services.

Mechanical locks

Mechanical locks will remain an important part of our core business. Although door opening methods are changing, in future our competence in mechanical locks will be a valid and competitive asset. Our innovation over the next ten years is expected to cover both the development of conventional mechanical locks as well as highly complex software platforms for our electromechanical solutions.

Sustainability

Sustainable innovation will enable us to reduce the embodied carbon footprint of our products, use materials with a higher recycled content, while reducing energy in use through energy efficiency and energy harvesting. We consider circular economy principles to extend the useful life and upgradeability of our products, while ensuring maximum recyclability of our products at end of life.

Connected products

Data analysis will be broadly used as a cost efficiency tool, and as a tool to analyze security and energy needs. The use of connected components including microphones, thermostats, cameras and different type of sensors will be common. In the aftermarket, remote service and selfhealing features are likely to be mainstream, partly supported by design to improve service access and by cloud-based 'as a service' solutions.

Trusted identities

The usage of trusted IDs that integrate security, privacy and convenience will be common. The level of security and privacy will be high, and the ID is likely to be identical to the person using the access solution. We will have solutions and services to manage the lifecycle of the ID of a person, all the way from the creation of the ID to the termination of it.

Report of the Board of Directors and Financial statements

Contents

Report of the Board of Directors

The Annual Report of ASSA ABLOY AB (publ.), corporate identity number 556059-3575, contains the consolidated financial statements for the fiscal year January 1 through December 31, 2019. ASSA ABLOY is the global leader in access solutions, dedicated to satisfying end-user needs for security, safety and convenience.

Significant events

Sales and income

Sales increased by 12 percent and totaled SEK 94,029 M (84,048). The increase consisted of organic growth of 3 percent (5), acquired growth of 3 percent (4) and discontinued growth of 0 percent (–2). The exchange rate impact on sales was 6 percent (3).

Operating income (EBIT) excluding items affecting comparability increased by 16 percent to SEK 14,920 M (12,909), equivalent to an operating margin of 15.9 percent (15.4). Impairment of operating assets within Asia Pacific reduced operating income in 2018 by SEK 400 M. Items affecting comparability relate to impairment of goodwill and other intangible assets in 2018 of SEK 5,595 M and costs for the new restructuring program that was launched at the end of 2018 of a total of SEK 1,530 M before taxes, of which SEK 312 M was expensed in 2019.

Net financial items were SEK –1,037 M (–799). Income before tax excluding items affecting comparability totaled SEK 13,883 M (12,110), an increase of 15 percent. Operating cash flow increased by 27 percent to SEK 14,442 M (11,357). Earnings per share after full dilution, excluding items affecting comparability, increased 14 percent to SEK 9.22 (8.09).

Restructuring

The activity level in the new restructuring program that was launched in late 2018 has been high during the year. About fifty closures of plants and offices are planned over a three-year period and some production will be outsourced, while automation will continue. The total cost of the program is estimated at SEK 1,530 M before tax and was expensed in its entirety in 2018 and 2019. The payback period is expected to be less than three years. Activities related to the previous programs continued with effective cost-cutting measures during the year.

In 2019, 1,367 employees left the Group in conjunction with restructuring of the production and office organization. Five plant closures were implemented during the year, along with a number of other restructuring activities, including conversion from production to final assembly in production units.

The Group is increasingly concentrating production to its own plants in Asia, Central Europe and Eastern Europe, as well as to outsourcing to external suppliers in low-cost countries.

Payments for the restructuring programs totaled SEK 726 M (793) for the year. At year-end 2019, the remaining provisions for restructuring measures amounted to SEK 778 M (1,190).

Organization

A new organizational structure was implemented beginning in 2020 in the Entrance Systems division aimed at facilitating continued accelerated sales growth. Four business segments have been created within the division: Pedestrian, Industrial, Residential and Perimeter Security. Perimeter Security was previously part of the Americas division and was moved to Entrance Systems with the aim of creating new growth opportunities.

Operations were transferred between divisions during the year, primarily from EMEA to the business unit Global Solutions in the Global Technologies division, with the aim of increasing long-term growth and leveraging existing synergies. Sales on an annual basis for the operations that were transferred from other divisions to Global Technologies during the year totaled about SEK 1,000 M. The transfer of operations has been recognized, from the time of the transfer, as internal acquisitions/divestments between the divisions without any retroactive financial translation.

Acquisitions and divestments

In March 2019 ASSA ABLOY announced that it has signed an agreement for the acquisition of 54 percent of the shares in agta record, a well-established manufacturer and service organization for entrance automation. The company has about 2,600 employees and its sales in 2018 totaled about SEK 3.9 billion. After the acquisition ASSA ABLOY will own about 93 percent of votes and share capital in the company and will subsequently submit an official offer for the remaining shares. The acquisition is subject to regulatory approval and is expected close in 2020. The purchase price for the acquisition of 54 percent of the shares amounts to approximately EUR 502 M.

As part of the transaction, ASSA ABLOY's existing holdings in agta record of 39 percent, a shareholding in an associated company, will be revalued at market value through profit or loss at the closing of the acquisition. The expected non-cash revenue in operating income in 2020 amounts to about SEK 2 billion.

In February 2019 ASSA ABLOY acquired KEYper Systems, a leading US supplier of electronic and mechanical authorization systems for keys. The acquisition strengthens the Group's position in the automotive segment. The company is headquartered in North Carolina, US.

In September 2019 ASSA ABLOY acquired LifeSafety Power, a leading US supplier of smart integrated power supply solutions. The acquisition strengthens ASSA ABLOY's position in access control solutions. The company is headquartered in Illinois, US.

In September 2019 ASSA ABLOY acquired Placard, Australia's largest secure card manufacturer. The acquisition strengthens ASSA ABLOY's market position in smart cards in the Pacific region thanks to its large customer base. The company is headquartered in Melbourne, Australia.

In October 2019 ASSA ABLOY acquired the international identity solutions business of De La Rue, a leading passport manufacturer based in the UK. The acquisition strengthens ASSA ABLOY's market position through an expanded offering within digital citizen ID solutions. The operation is headquartered in Basingstoke, UK.

In November 2019 ASSA ABLOY announced that it signed an agreement to acquire AM Group, an Australian manufacturer of industrial doors within entrance automation. The company, which specializes in innovative entrance automation, is a good complement to ASSA ABLOY's geographic coverage in Australia. The company is headquartered in Sydney, Australia. The acquisition is subject to regulatory approval and is expected close during the first quarter of 2020.

Other noteworthy acquisitions during the year include Spence Doors, a leading manufacturer of doors for the commercial market in Australia.

The total purchase price of acquisitions of businesses during the year, including adjustments for acquisitions from previous years, was SEK 3,813 M and the acquisition analyses indicate that goodwill and other intangible assets with an indefinite useful life amounted to SEK 3,026 M. Estimated deferred considerations totaled SEK 249 M.

Additional acquisitions of non-controlling interests occurred during the year for SEK 19 M (229).

Research and development

ASSA ABLOY's expenditure on research and development during the year totaled SEK 3,566 M (2,893), equivalent to 3.8 percent (3.4) of sales.

The pace of innovation remained high throughout the year, in areas such as digital and mobile solutions, products with increased sustainability and energy-saving products. New products launched in the past three years accounted for 27 percent of sales for the year.

Sustainable development

A number of ASSA ABLOY units outside Sweden carry on licensable activities and hold equivalent licenses under local legislation. ASSA ABLOY's units worldwide are working systematically and purposefully to reduce their environmental impact.

In accordance with the Swedish Annual Accounts Act, Chapter 6. Section 11, ASSA ABLOY opted to prepare the Sustainability Report as a separate report from the Annual Report. The Sustainability Report has been submitted to the auditor at the same time as the Annual Report.

The 2019 Sustainability Report, reporting on the Group's prioritized environmental activities and providing other information on sustainable development, is available on the company's website, assaabloy.com.

Internal control and financial reporting

ASSA ABLOY's internal audit and internal control functions have dedicated internal auditors employed in all divisions. More reviews were conducted in recent years, and work continued during the year to strengthen internal control and compliance in the business in general. Special emphasis has been placed on financial reporting and internal control compliance issues related to the internal control framework that has been in effect for some time.

Tax matters

In 2015 the Finnish Tax Administration decided not to allow tax deductions for interest expenses in the Finnish operations for the years 2008–2012. The decision was appealed to a higher court. In 2017, the earlier decision was reconsidered to ASSA ABLOY's advantage, but the decision was appealed by the Finnish tax authority. In 2019, the earlier decision was reconsidered once again and this time to ASSA ABLOY's disadvantage.

The total tax exposure is expected to amount to around SEK 920 M, of which SEK 740 M was paid in 2019. The decision was appealed to a higher court. Overall, the decision had no material effect on the Group's tax expense for 2019.

Transactions with related parties

No transactions occurred between ASSA ABLOY and related parties that significantly affected the company's financial position and performance.

Significant events after the financial year-end

No significant events occurred after the financial year-end and up to the date of adoption of the Annual Report for ASSA ABLOY AB.

Proposed distribution of earnings

The Board of Directors and the President propose that the 2020 Annual General Meeting should approve a dividend of SEK 3.85 (3.50) per share, representing an increase of 10 percent. The proposal for profit distribution can be found in its entirety on page 97 of the Annual Report.

Outlook

Long-term outlook

ASSA ABLOY anticipates an increase in demand for security solutions in the long term. A focus on customer value and innovations as well as leverage on ASSA ABLOY's strong position will accelerate growth and increase profitability.

Organic sales growth is expected to continue at a good rate. The operating margin (EBIT) and operating cash flow are expected to develop well.

Significant risks and risk management

Risk management

Uncertainty about future developments and the course of events is a natural risk for any business. Risk-taking in itself provides opportunities for continued economic growth, but naturally the risks may also have a negative impact on business operations and company goals. It is therefore essential to have a systematic and efficient risk assessment process and an effective risk management program in general. The purpose of risk management at ASSA ABLOY is not to avoid risks, but to take a controlled approach to identifying, managing and minimizing the effects of these risks. This work is based on an assessment of the probability of the risks and their potential impact on the Group.

ASSA ABLOY is an international Group with a wide geographical spread, involving exposure to various forms of strategic, operational and financial risks. Strategic risks refer to changes in the business environment with potentially significant effects on ASSA ABLOY's operations and business objectives. Operational risks comprise risks directly attributable to business operations, entailing a potential impact on the Group's financial position and performance. Financial risks mainly comprise financing risk, currency risk, interest rate risk, credit risk, and risks associated with the Group's pension obligations.

Organization

ASSA ABLOY's Board of Directors has overall responsibility for risk management within the Group and determines the Group's strategic focus based on recommendations from the Executive Team. In view of the decentralized structure of ASSA ABLOY, and to keep risk analysis and risk management as close as possible to the actual risks, a large proportion of operational risk management takes place at division and business unit levels.

Responsibility

ASSA ABLOY's Board of Directors has overall responsibility for the Group's strategic direction in close consultation with the Executive Team. Divisions and business units have overall responsibility for management of operational risks, in accordance with the ASSA ABLOY's decentralized approach to organization, responsibility and authority. In the case of financial risks, allocation of responsibilities and control of the Group's financing activities are regulated in a financial policy adopted by the Board of Directors. Treasury then has the main responsibility for financial risks within the framework established in the financial policy, with the exception of credit risks relating to operational business activities, which are managed locally at company level and monitored at division level.

Review process

Strategic risks, such as competitors, brand positioning and so on, are regularly reviewed at ASSA ABLOY AB's board meetings. The Group's operational risk management is continuously monitored by the Executive Team through divisional reporting and divisional board meetings. For further information on monitoring and management of operational risks, see page 44.

Financial operations are centralized in a Treasury function, which manages most financial transactions as well as financial risks with a Group-wide focus. ASSA ABLOY's Treasury monitors the Group's short- and long-term financing, financial cash management, currency risk and other financial risk management.

ASSA ABLOY's risks

STRATEGIC RISKS

Changes in the business environment with potentially significant effects on operations and business objectives.

- Country-specific risks
- Customer behavior
- Competitors
- Brand positioning
- Reputational risk

OPERATIONAL RISKS

Risks directly attributable to business operations with a potential impact on financial position and performance.

- Legal risks
- Environmental risks
- Tax risks
- Acquisition of new businesses
- Restructuring measures
- Price fluctuations and availability of raw materials
- Credit losses
- Insurance risks
- Risks relating to internal control

FINANCIAL RISKS

Financial risks with a potential impact on financial position and performance.

- Financing risk
- Currency risk
- Interest rate risk
- Credit risk
- Risks associated with pension obligations

Strategic risks

The risks of this nature encountered by ASSA ABLOY include various forms of business environment risks with an impact on the security market in general, mainly changes in customer behavior, competitors and brand positioning. In addition, there are country-specific risks.

Country-specific risks

ASSA ABLOY has global market penetration, with sales and production in a large number of countries. The emphasis is on western Europe and North America, but the proportion of sales in Asia and in central and eastern Europe has increased in recent years. Consequently, the Group has increased exposure to the emerging markets, which may entail a higher risk profile for country-specific risks in the form of inadequate compliance, policy decisions, overall changes in regulations and more.

Customer behavior

Changes in customer behavior in general and the actions of competitors affect demand for different products and their profitability. Customers and suppliers, including the Group's relationships with them, are subject to continuous local review.

Competitors

As regards competitors, risk analyses are carried out both centrally and locally.

Brand positioning

The Group owns a number of the strongest brands in the industry, including several global brands that complement the ASSA ABLOY master brand. Local product brands are gradually being linked increasingly to the master brand.

Reputational risk

Activities to maintain and further strengthen ASSA ABLOY's good reputation are constantly ongoing. These include ensuring compliance with ASSA ABLOY's Code of Conduct for employees and the Code of Conduct for business partners. These codes express the Group's values with regard to matters such as business ethics, human rights and working conditions, as well as the environment, health and safety.

Operational risks

Operational risks comprise risks directly attributable to business operations, with a potential impact on the Group's financial position and performance. They include legal and environmental risks, tax risks, acquisition of new businesses, restructuring measures, availability and price fluctuations of raw materials, and credit losses. Risks relating to compliance with laws and regulations and to internal control and financial reporting are also included in this category.

See page 44 for a more detailed description of the management of these risks.

Significant risks and risk management

ASSA ABLOY's operational risks and risk management

Operational risks	Risk management	Comments
Legal risks	The Group continuously monitors anticipated and implemented changes in legislation in the countries in which it operates. Ongoing and potential disputes and other legal matters are reported regularly to the Group's central legal function. Policies and guidelines on compliance with applicable competition, export control, anti-corruption and data protection legislation have been implemented.	At year-end 2019, there are considered to be no outstanding legal disputes that may lead to significant costs for the Group.
Environmental risks	Ongoing and potential environmental risks are regularly monitored in the operations. External expertise is brought in for environmental assessments when necessary.	Prioritized environmental activities and other information on sustainable development are reported in the Group's Sustainability Report.
Tax risks	Ongoing and potential tax cases are regularly reported to the Group's central tax function.	At year-end 2019, there are considered to be no ongoing tax cases with a significant impact on the Group's earnings. The outcome of a tax case decision in Finland during the year was to ASSA ABLOY's disadvantage. For further information see the Report of the Board of Directors.
Acquisition of new businesses	Acquisitions are carried out by a number of people with considerable acquisition experience and with the support of, for example, legal and financial consultants. Acquisitions are carried out according to a uniform and predefined Group-wide process. This consists of four documented phases: strategy, evaluation, implementation and integration.	During the year, acquisition activity continued to be high at ASSA ABLOY, with acquisitions of several businesses. The Group's acquisitions in 2019 are reported in greater detail in the Report of the Board of Directors and in Note 33, Business combinations.
Restructuring measures The restructuring programs mainly entail some production units changing direction principally to final assembly, while certain units are closed.	The restructuring programs are carried on as a series of projects with stipulated activities and schedules. The various projects in the respective restructuring program are systematically monitored on a regular basis.	A new restructuring program was launched at the end of 2018 involving the closure of about fifty factories and offices. The program was expensed in 2018 and 2019. The scope, costs and savings of the restructuring programs are presented in more detail in the Report of the Board of Directors.
Price fluctuations and availability of raw materials	Raw materials are purchased and handled primarily at division and business unit level. Regional committees coordinate these activities with the help of senior coordinators for selected material components.	For further information about procurement of materials, see Note 7, Expenses by nature.
Credit losses	Trade receivables are spread across a large number of customers in many markets. No individual customer in the Group accounts for more than 1 percent of sales. Commercial credit risks are managed locally at company level and monitored at division level.	Receivables from each customer are relatively small in relation to total trade receivables. The risk of significant credit losses for the Group is considered to be limited, but has increased in pace with the Group's expansion in recent years in emerging markets.
Insurance risks	A Group-wide insurance program is in place, mainly relating to property, business interruption and liability risks. This program covers all business units. The Group's exposure to the risk areas listed above is regulated by means of its own captive insurance company.	The Group's insurance cover is considered to be generally adequate, providing a reasonable balance between assessed risk exposure and insurance costs.
Risks relating to internal control	The organization is considered to be relatively transparent, with a clear allocation of responsibilities. A well-established Controller organization at both division and Group level monitors financial reporting quality. Instructions about the allocation of responsibilities, authorization and procedures for ordering, sourcing and plant management are laid down in an internal control manual. Compliance is evaluated annually for all operating companies, combined with an action plan for concrete improvements. An annual internal audit of financial reporting is performed for selected Group companies on a rotating basis.	ASSA ABLOY's internal audit and internal control functions have dedicated internal auditors employed in all divisions. More reviews were conducted in recent years. Internal control and other related issues are reported in more detail in the Report of the Board of Directors, section on Corporate governance. Further information on risk management relating to financial reporting can be found in the Report of the Board of Directors, section on Corporate governance. See also the section 'Basis of preparation' in Note 1.

Financial risks

The Group's financial risks mainly comprise financing risk, currency risk, interest rate risk, credit risk, and risks associated with the Group's pension obligations. A large number of financial instruments are used to manage these risks. Accounting principles, risk management and risk exposure are described in more detail in Notes 1 and 35, as well as Note 25, Post-employment employee benefits.

Financing risk

Financing risk refers to the risk that financing the Group's capital requirements and refinancing outstanding loans become more difficult or more expensive. It can be reduced by maintaining an even maturity profile for borrowing and a solid credit rating. The risk is further reduced by substantial unutilized confirmed credit facilities.

Currency risk

Since ASSA ABLOY sells its products in countries worldwide and has companies in a large number of countries, the Group is exposed to the effects of exchange rate fluctuations. These fluctuations affect Group earnings when the income statements of foreign subsidiaries are translated to Swedish kronor (translation exposure), and when products are exported and sold in countries outside the country of production (transaction exposure). Translation exposure is primarily related to earnings in USD and EUR. This type of exposure is not hedged. Currency risk in the form of transaction exposure, i.e. the relative values of exports and imports of goods, is expected to increase over time due to rationalization of production and sourcing. In accordance with financial policy, the Group only hedged a very limited part of current currency flows in 2019. As a result, exchange rate fluctuations had a direct impact on business operations.

Exchange rate fluctuations also affect the Group's debt-equity ratio and equity. The difference between the assets and liabilities of foreign subsidiaries in the respective foreign currency is affected by exchange rate fluctuations and causes a translation difference, which affects the Group's comprehensive income. A general weakening of the Swedish krona leads to an increase in net debt, but at the same time increases the Group's equity. At year-end, the largest foreign net assets were denominated in USD and EUR.

Interest rate risk

With respect to interest rate risks, interest rate changes have a direct impact on ASSA ABLOY's net interest expense. The net interest expense is also impacted by the size of the Group's net debt and its currency composition. Net debt was SEK 33,050 M (29,246) at year-end 2019. Debt was mainly denominated in USD and EUR. Group Treasury analyzes the Group's interest rate exposure and calculates the impact on income of interest rate changes on a rolling 12-month basis. In addition to raising variable-rate and fixed-rate loans, various interest rate swaps are used to adjust interest rate sensitivity.

Credit risk

Credit risk arises in ordinary business activities and as a result of financial transactions. Trade receivables are spread across a large number of customers, which reduces credit risk. Credit risks relating to operational business activities are managed locally at company level and monitored at division level.

Financial risk management exposes ASSA ABLOY to certain counterparty risks. Such exposure may arise, for example, as a result of the placement of surplus cash, borrowings and derivative financial instruments. Counterparty limits are set for each financial counterparty and are continuously monitored.

Pension obligations

At year-end 2019, ASSA ABLOY had obligations for pensions and other post-employment benefits of SEK 9,530 M (8,107). The Group manages pension assets valued at SEK 6,184 M (5,227). Provisions in the balance sheet for defined benefit and defined contribution plans and post-employment medical benefits totaled SEK 3,346 M (2,880). Changes in the value of assets and liabilities from year to year are due partly to the development of equity and interest rate markets and partly to the actuarial assumptions made. Significant remeasurement of obligations and plan assets is recognized on a current basis in the balance sheet and in other comprehensive income. The assumptions made include discount rates and anticipated inflation and salary increases.

Corporate governance

ASSA ABLOY AB is a Swedish public limited liability company with registered office in Stockholm, Sweden, whose Series B share is listed on Nasdaq Stockholm.

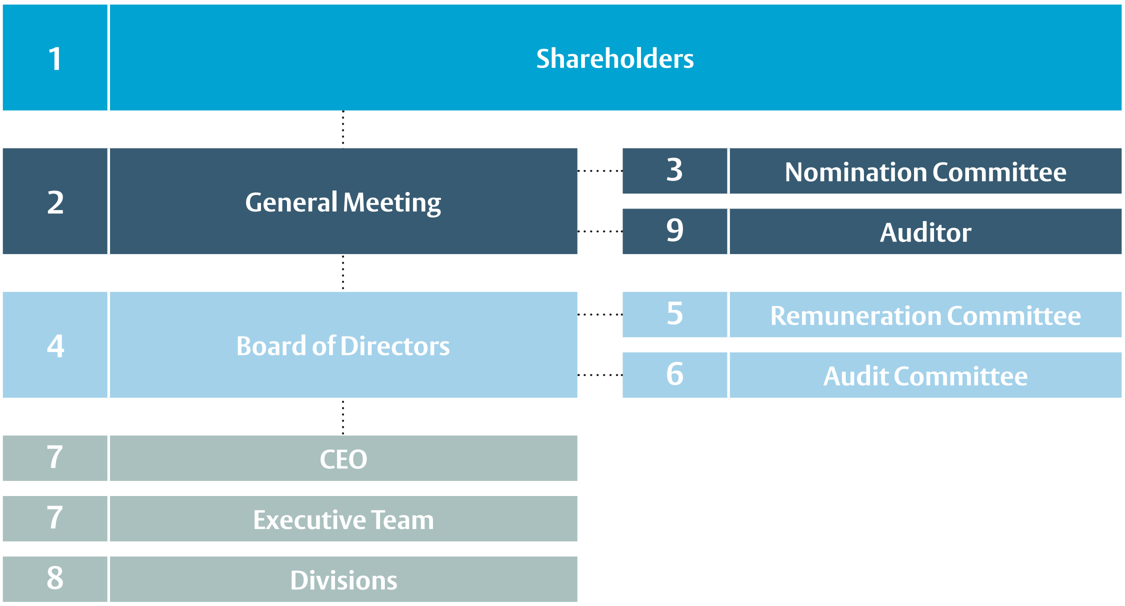
ASSA ABLOY's corporate governance is based on the Swedish Companies Act, the Annual Accounts Act, Nasdaq Stockholm's Rule Book for Issuers and the Swedish Corporate Governance Code (the Code), as well as other applicable external laws, rules and regulations, and internal rules and regulations.

This Corporate Governance Report has been prepared as part of ASSA ABLOY's application of the Code. ASSA ABLOY follows the Code's principle to "comply or explain" and in 2019 ASSA ABLOY has one deviation to explain. The Nomination Committee deviates from Rule 2.4 of the Code in that the Vice Chairman of the Board of Directors, Carl Douglas (Investment AB Latour), is also the Chairman of the Nomination Committee. The reason for this deviation is that the major shareholders consider it to be important to have the representative from the largest shareholder as Chairman of the Nomination Committee.

The Corporate Governance Report is examined by ASSA ABLOY's auditor.

ASSA ABLOY's objective is that its activities should generate good long-term returns for its shareholders and other stakeholders. An effective scheme of corporate governance for ASSA ABLOY can be summarized in a number of interacting components, which are described below.

Corporate governance structure



Important external rules and regulations
- Swedish Companies Act
- Annual Accounts Act
- Nasdaq Stockholm's Rule Book for Issuers
- Swedish Corporate Governance Code (www.bolagsstyrning.se)

Important internal rules and regulations
- Articles of Association
- Board of Directors' rules of procedure
- Financial Policy
- Accounting Manual
- Communication Policy
- Insider Policy
- Internal control procedures
- Code of Conduct and Anti-Bribery Policy

1 Shareholders

At year-end 2019, ASSA ABLOY had 29,784 shareholders (31,143). ASSA ABLOY's principal shareholders are Investment AB Latour (9.5 percent of the share capital and 29.4 percent of the votes) and Melker Schörling AB (3.1 percent of the share capital and 10.9 percent of the votes). Foreign shareholders accounted for 69.5 percent (70.5) of the share capital and 47.5 percent (48.1) of the votes. The ten largest shareholders accounted for 36.5 percent (36.9) of the share capital and 56.7 percent (56.9) of the votes. For further information on shareholders, see page 103.

ASSA ABLOY's Articles of Association contains a pre-emption clause for owners of Series A shares regarding shares of Series A. A shareholders' agreement exists between the Douglas and the Schörling families and their related companies that includes an agreement on right of first refusal if any party disposes of Series A shares. The Board of Directors of ASSA ABLOY is not aware of any other shareholders' agreements or other agreements between shareholders in ASSA ABLOY.

Share capital and voting rights

ASSA ABLOY's share capital at the end of 2019 amounted to SEK 370,858,778 distributed among a total of 1,112,576,334 shares, comprising 57,525,969 Series A shares and 1,055,050,365 Series B shares. The total number of votes amounted to 1,630,310,055. Each Series A share carries ten votes and each Series B share one vote. All shares have a par value of around SEK 0.33 and give shareholders equal rights to the company's assets and earnings.

Repurchase of own shares

Since 2010, the Board of Directors has requested and received a mandate from the Annual General Meeting to repurchase and transfer ASSA ABLOY Series B shares. The aim has been, among other things, to secure the company's undertakings in connection with its long-term incentive programs (LTI). The 2019 Annual General Meeting authorized the Board of Directors to acquire, during the period until the next Annual General Meeting, a maximum number of Series B shares so that after each repurchase ASSA ABLOY holds a maximum 10 percent of the total number of shares in the company.

ASSA ABLOY holds a total of 1,800,000 (1,800,000) Series B shares after repurchases. These shares account for around 0.2 percent (0.2) of the share capital and each share has a par value of around SEK 0.33. The purchase consideration amounted to SEK 103 M (103). No shares were repurchased in 2019.

Share and dividend policy

ASSA ABLOY's Series B share is listed on the Nasdaq Stockholm Large Cap. At the end of 2019, ASSA ABLOY's market capitalization amounted to SEK 243,654 M, calculated on both Series A and Series B shares. The Board of Directors' objective is that, in the long term, the dividend should be equivalent to 33–50 percent of income after standard tax, but always taking into account ASSA ABLOY's long-term financing requirements.

2 General Meeting

Shareholders' rights to decide on the affairs of ASSA ABLOY are exercised at the General Meeting. Shareholders who are registered in the share register on the record date and have duly notified their intent to attend are entitled to take part in the General Meeting, either in person or by proxy. Resolutions at the General Meeting are normally passed by simple majority. For certain matters, however, the Swedish Companies Act prescribes that a proposal should be supported by a higher majority. Individual shareholders who wish to submit a matter for consideration at the General Meeting can send such request to ASSA ABLOY's Board of Directors at a special address published on the company's website well before the Meeting.

The Annual General Meeting should be held within six months of the end of the company's financial year. Matters considered at the Annual General Meeting include: dividend; adoption of the income statement and balance sheet; discharge of the members of the Board of Directors and the CEO from liability; election of members of the Board of Directors, Chairman of the Board of Directors and auditor; and determination of remuneration guidelines for senior executives and fees for the Board of Directors and auditor. An Extraordinary General Meeting may be held if the Board of Directors considers this necessary or if ASSA ABLOY's auditor or shareholders holding at least 10 percent of the shares so request.

2019 Annual General Meeting

The Annual General Meeting was held in April 2019 at Moderna Museet (Museum of Modern Art), Skeppsholmen, Stockholm, and was attended by shareholders representing 47.6 percent of the share capital and 64.3 percent of the votes. The Annual General Meeting's resolutions included the following.

- Dividend of SEK 3.50 per share.
- Lars Renström, Carl Douglas, Eva Karlsson, Birgitta Klasén, Lena Olving, Sofia Schörling Högberg and Jan Svensson were re-elected as members of the Board of Directors. Further, Lars Renström was re-elected as Chairman of the Board of Directors, and Carl Douglas was re-elected as Vice Chairman.
- PricewaterhouseCoopers AB was re-appointed as the company's auditor.
- Remuneration of the Board of Directors.
- Remuneration guidelines for senior executives.
- Authorization to the Board of Directors regarding repurchase and transfers of own Series B shares.
- A long-term incentive program for senior executives and other key employees in the Group (LTI 2019).

For more information about the Annual General Meeting, including the minutes, please see ASSA ABLOY's website assaabloy.com.

2020 Annual General Meeting

ASSA ABLOY's next Annual General Meeting will be held at Moderna Museet (Museum of Modern Art), Skeppsholmen, Stockholm at 3:30 p.m. on 29 April 2020.

3 Nomination Committee

According to the instructions for the Nomination Committee adopted at the 2018 Annual General Meeting, the Nomination Committee shall be composed of representatives of the five largest shareholders in terms of voting rights registered in the shareholders register maintained by Euroclear Sweden AB as of 31 August the year before the Annual General Meeting who wish to participate on the Nomination Committee.

The Nomination Committee prior to the 2020 Annual General Meeting comprises Carl Douglas (Investment AB Latour), Mikael Ekdahl (Melker Schörling AB), Shireesh Vasupalli (GIC Pte Ltd), Marianne Nilsson (Swedbank Robur funds) and Liselott Ledin (Alecta). Carl Douglas is Chairman of the Nomination Committee. Should the ownership structure change, the composition of the Nomination Committee may change to reflect such changes.

The Nomination Committee has the task of preparing, on behalf of the shareholders, proposals regarding the election of Chairman of the General Meeting; members of the Board of Directors, Chairman of the Board, Vice Chairman of the Board; auditor; fees for the board members including division between the Chairman, Vice Chairman and the otherboard members, as well as fees for committee work; fees to the company's auditor, and any changes of the instructions for the Nomination Committee. The Audit Committee assists the Nomination Committee in work associated with the proposal regarding appointment of the external auditor.

Prior to the 2020 Annual General Meeting, the Nomination Committee makes an assessment of whether the current Board of Directors is appropriately composed and fulfills the requirements imposed on the Board of Directors by the company's present situation and future direction. The annual evaluation of the Board of Directors and its work is part of the basis for this assessment. Moreover, the Nomination Committee applies ASSA ABLOY's diversity policy for the Board of Directors, which is based on Rule 4.1 of the Code, when preparing its proposal for election of members of the Board of Directors. The search for suitable board members is carried on throughout the year and proposals for new board members are based in each individual case on a profile of requirements established by the Nomination Committee.

Shareholders wishing to submit proposals to the Nomination Committee can do so by e-mailing: nominationcommittee@assaabloy.com.

The Nomination Committee's proposals for the 2020 Annual General Meeting are published, at the latest, in conjunction with the formal notification of the Annual General Meeting, which is expected to be issued around 30 March 2020.

4 Board of Directors

In accordance with the Swedish Companies Act, the Board of Directors is responsible for the organization and administration of the Group and for ensuring satisfactory control of bookkeeping, asset management and other financial circumstances. The Board of Directors decides on the Group's overall objectives, strategies, significant policies, acquisitions and divestments as well as investments of major importance. Acquisitions and divestments with a value (on a debt-free basis) exceeding SEK 200 M are decided by the

Board of Directors. The threshold amount presumes that the matter relates to acquisitions or divestments in accordance with the strategy agreed by the Board of Directors. The Board of Directors approves the Annual Report and Interim Reports, proposes a dividend and remuneration guidelines for senior executives to the Annual General Meeting, and makes decisions concerning the Group's financial structure.

The Board of Directors' other ongoing duties include:

- appointing, evaluating and if necessary, dismissing the CEO,
- approving the CEO's significant assignments outside the company,
- establishing appropriate guidelines to govern the company's conduct in society with the aim of ensuring long-term value-creating capability,
- ensuring that appropriate systems are in place for monitoring and controlling the company's operations and the risks for the company associated with its operations,
- ensuring that there is satisfactory control of the company's compliance with laws and other regulations relevant to the company's operations, and its compliance with internal guidelines, and
- ensuring that external information provided by the company is transparent, accurate, relevant and reliable.

Each year, the Board of Directors reviews and adopts the Board of Directors' rules of procedure, which is the document that governs the work of the Board and the distribution of duties between the Board of Directors and the CEO. The rules of procedure include instructions for the CEO, instructions relating to financial reporting and internal control, and instructions to the Remuneration Committee and the Audit Committee.

Included in the rules of procedure is a description of the role of Chairman of the Board. In addition to organizing and leading the work of the Board of Directors, the Chairman's duties include maintaining contact with the CEO to continuously monitor the Group's operations and development, consulting with the CEO on strategic issues, representing the company in matters concerning the ownership structure, ensuring that the Board receives satisfactory information and data on which to base decisions and ensuring that Board decisions are implemented. In addition, the Chairman should ensure that the work of the Board of Directors is evaluated annually.

The Board of Directors has at least four ordinary meetings and one statutory meeting per year. An ordinary meeting is always held in connection with the company's publication of its Year-end Report and Interim Reports. At least once a year the Board of Directors visits one of the Group's operations, combined with a board meeting. In addition, extraordinary board meetings are held when necessary. All meetings follow an approved agenda. Prior to each meeting, a draft agenda, including documentation, is provided to all members of the Board of Directors.

The Board of Directors has a Remuneration Committee and an Audit Committee. The purpose of these Committees is to deepen and streamline the work of the Board of Directors and to prepare matters in these areas. The members of the Committees are appointed annually by the Board of Directors at the statutory board meeting.

Board of Directors' composition

The Board of Directors, including the Chairman and Vice Chairman of the Board, is elected annually at the Annual General Meeting for the period until the end of the next Annual General Meeting and shall, according to the Articles of Association, comprise a minimum of six and a maximum of ten members elected by the Meeting. Two of the members are appointed by the employee organizations in accordance with Swedish law. The employee organizations also appoint two deputies. The Board of Directors has consisted of seven elected members and two employee representatives since the 2019 Annual General Meeting. No board members are included in the Executive Team.

The diversity policy that ASSA ABLOY applies with respect to the company's Board of Directors is based on Rule 4.1 of the Code. The objective is that the composition of the Board of Directors, taking into account the company's operations, stage of development and other circumstances, shall be appropriate, characterized by versatility and breadth regarding qualifications, experience and background of the elected members, and strive to achieve gender equality. In 2019 the Nomination Committee has taken the diversity policy into account when preparing its proposal for election of members of the Board of Directors prior to the Annual General Meeting. After the election at the 2019 Annual General Meeting, the Board of Directors consists of four women and three men elected by the Meeting, which is in line with the Swedish Corporate Governance Board's aspiration for each gender to represent a share of at least 40 percent of the Board of Directors. In addition, in-depth reviews of operations were conducted during the year at selected divisions in order to broaden the expertise of the Board of Directors within ASSA ABLOY.

Board of Directors' work in 2019

The Board of Directors held nine meetings during the year. At the ordinary board meetings the CEO reported on the Group's performance and financial position, including the outlook for the coming quarters. Acquisitions and divestments were also discussed to the extent they arose.

More important matters dealt with by the Board of Directors during the year comprised a number of acquisitions, including agta record, LifeSafety Power, Placard, De La Rue's international identity solutions business, the AM Group and

Summary of Board of Directors' work and committee meetings in 2019

	January	February	March	April	May	June
Above timeline		**Ordinary board meeting** Year-end results Dividend Annual Report Final Audit Report Sustainability report Proposals to Annual General Meeting Evaluation Executive Team Acquisitions		**Ordinary board meeting** Interim Report Q1 Acquisitions		
Below timeline		**Remuneration Committee meeting** **Audit Committee meeting**	**Extraordinary board meeting** Notice Annual General Meeting	**Audit Committee meeting** **Statutory board meeting** Appointment committee members Adoption Board of Directors' rules of procedure and significant policies Signatory powers		

At the ordinary board meetings the CEO also reported on the Group's performance and financial position, including the outlook for the coming quarters.

Spence Doors. During the year, the Board of Directors also conducted in-depth reviews of the Group's operations in the Global Technologies division's business unit Global Solutions and the EMEA division, and visited the Asia Pacific division's operations in Guangzhou, China. The Board of Directors' work is summarized in the timeline on pages 48–49.

An evaluation of the Board of Directors' work is conducted annually in the form of a web-based survey, which each board member responds to individually. A summary of the results is presented to the Board of Directors. Board members who wish can access the complete results of the evaluation. The Secretary to the Board of Directors presents the complete results of the evaluation to the Nomination Committee.

5 *Remuneration Committee*

In 2019 the Remuneration Committee comprised Lars Renström (Chairman) and Jan Svensson.

The Remuneration Committee has the task of drawing up remuneration guidelines for senior executives, which the Board of Directors proposes to the Annual General Meeting for resolution. The Board of Directors' proposal for guidelines prior to the 2020 Annual General Meeting is set out on pages 56–57.

The Remuneration Committee also prepares, monitors and evaluates matters regarding salaries, bonus, pension, severance pay and incentive programs for the CEO and other senior executives. The Committee has no decision-making powers.

The Committee held two meetings in 2019. Its work included preparing a proposal for the remuneration to the Executive Team, evaluating existing incentive programs, and preparing a proposal for a new long-term incentive program. Remuneration Committee meetings are minuted; a copy of the minutes is enclosed with the materials provided to the Board and a verbal report is given at board meetings.

6 *Audit Committee*

In 2019 the Audit Committee comprised Jan Svensson (Chairman), Birgitta Klasén and Sofia Schörling Högberg.

The duties of the Audit Committee include continuous monitoring and quality assurance of ASSA ABLOY's financial reporting. Regular communication is maintained with the company's external auditor, including on the focus and scope of the audit. The Audit Committee is also responsible for evaluating the audit assignment and obtaining the results of the Swedish Inspectorate of Auditors' quality control of the auditor, as well as informing the Board of Directors of the results of the evaluation. The Audit Committee also has the task of supporting the Nomination Committee in providing a proposal for the appointment of external auditor. Furthermore, the Audit Committee shall review and monitor the impartiality and independence of the auditor, paying particular attention to whether the auditor provides the company with services other than auditing services. The Audit Committee establishes guidelines for procurement of services other than audit services from the company's auditor, but otherwise, the Committee has no decision-making powers.

The Committee held four ordinary meetings in 2019. The company's external auditor and representatives from senior management also participated at these meetings. In 2019 the Committee also held one extra meeting due to the procurement and proposal for appointing an external auditor. More important matters dealt with by the Audit Committee during the year included internal control, financial statements and valuation matters, procurement and proposals for choosing an external auditor, tax matters, insurance and risk management matters and legal risk areas. Audit Committee meetings are minuted; a copy of the minutes is enclosed with the materials provided to the Board and a verbal report is given at board meetings.

Remuneration of the Board of Directors

The General Meeting passes a resolution on the remuneration to be paid to board members. The 2019 Annual General Meeting passed a resolution on board fees totaling SEK 6,675,000 (excluding remuneration for committee work) to be allocated between the members as follows: SEK 2,350,000 to the Chairman, SEK 900,000 to the Vice Chairman, and SEK 685,000 to each of the other members elected by the Annual General Meeting. As remuneration for committee work, the Chairman of the Audit Committee is to receive SEK 275,000, the Chairman of the Remuneration Committee SEK 150,000, members of the Audit Committee (except the Chairman) SEK 200,000 each, and member of the Remuneration Committee (except the Chairman) SEK 75,000.

The Chairman and other board members have no pension benefits or severance pay agreements. The employee representatives do not receive board fees. For further information on the remuneration of board members in 2019, see Note 34.

Attendance 2019, Board of Directors and Committees

Board members	Board of Directors	Audit Committee	Remuneration Committee
Lars Renström	9/9		2/2
Carl Douglas	9/9		
Ulf Ewaldsson	2/3		
Eva Karlsson	9/9		
Birgitta Klasén	9/9	5/5	
Lena Olving	9/9		
Sofia Schörling Högberg	9/9	5/5	
Jan Svensson	9/9	5/5	2/2
Rune Hjälm	9/9		
Mats Persson	9/9		

The maximum number of meetings varies due to resignation in 2019.

July	August	September	October	November	December
Ordinary board meeting Interim Report Q2 Acquisitions	**Ordinary board meeting** Acquisitions Presentation Global Solutions		**Ordinary board meeting and visit to operations** Visit Asia Pacific **Ordinary board meeting** Interim Report Q3 **Ordinary board meeting** Presentation EMEA Acquisitions		
Audit Committee meeting	**Extra Audit Committee meeting**		**Audit Committee meeting**	**Remuneration Committee meeting**	

Board of Directors

Board members elected by the 2019 Annual General Meeting


Lars Renström


Carl Douglas


Eva Karlsson


Birgitta Klasén


Lena Olving


Sofia Schörling Högberg


Jan Svensson

Lars Renström
Chairman.
Board member since 2008.
Born 1951.
Master of Science in Engineering and Master of Science in Business and Economics.
President and CEO of Alfa Laval AB 2004–2016. President and CEO of Seco Tools AB 2000–2004. President and Head of Division of Atlas Copco Rock Drilling Tools 1997–2000. Previously a number of senior positions at ABB and Ericsson.
Other appointments: Chairman of Tetra Laval Group.
Shareholdings (including through companies and related natural parties): 30,000 Series B shares.

Carl Douglas
Vice Chairman.
Board member since 2004.
Born 1965.
BA (Bachelor of Arts) and D. Litt (h.c.) (Doctor of Letters).
Self-employed.
Other appointments: Vice Chairman of Securitas AB. Board member of Investment AB Latour.
Shareholdings (including through companies and related natural parties): 41,595,729 Series A shares and 63,900,000 Series B shares through Investment AB Latour.

Eva Karlsson
Board member since 2015.
Born 1966.
Master of Science in Engineering.
Vice President Supply Arcam EBM since 2020. President and CEO of Armatec AB 2014–2019, CEO of SKF Sverige AB and Global Manufacturing Manager 2011–2013, Director of Industrial Marketing & Product Development Industrial Market AB SKF 2005–2010, various positions in the SKF Group primarily within Manufacturing Management.
Other appointments: Board member of Bräcke diakoni, Valcon A/S and Ratos AB.
Shareholdings (including through companies and related natural parties): –

Birgitta Klasén
Board member since 2008.
Born 1949.
Master of Science in Engineering and degree in Business and Economics.
Independent IT consultant (Senior IT Advisor). CIO and Head of Information Management at EADS (European Aeronautics Defence and Space Company) 2004–2005. CIO and Senior Vice President at Pharmacia 1996–2001 and previously CIO at Telia. Various positions at IBM 1976–1994.
Other appointments: Board member of Avanza and Benefie Ltd.
Shareholdings (including through companies and related natural parties): 21,000 Series B shares.

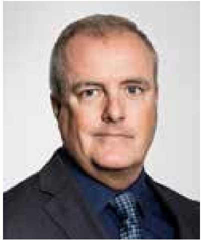
Lena Olving
Board member since 2018.
Born 1956.
Master of Science in Mechanical Engineering.
President and CEO of Mycronic AB (publ) 2013–2019. COO and Deputy CEO of Saab AB (publ) 2008–2013. Various positions within Volvo Car Corporation 1980–1991 and 1995–2008, including five years as Senior Vice President of Volvo Cars Asia Pacific and seven years in the Executive Management Team. CEO of Samhall Högland AB 1991–1994.
Other appointments: Chairman of the Royal Swedish Opera and Academic Work. Board member of Investment AB Latour, Munters Group AB, NXP, ScandiNova Systems AB and Stena Metall AB. Fellow of the Royal Swedish Academy of Engineering Sciences (IVA) and board member of IVA's Business Executives Council (IVA:s Näringslivsråd).
Shareholdings (including through companies and related natural parties): –

Sofia Schörling Högberg
Board member since 2017.
Born 1978.
BSc (Bachelor of Science) in Business Administration.
Other appointments: Board member of Melker Schörling AB, Securitas AB and Hexagon AB.
Shareholdings (including through companies and related natural parties): 15,930,240 Series A shares and 18,027,992 Series B shares through Melker Schörling AB and 418,800 Series B shares through Edeby-Ripsa Skogsförvaltning AB.

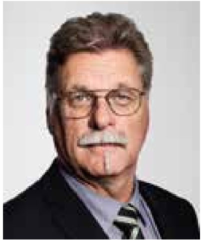
Jan Svensson
Board member since 2012.
Born 1956.
Degree in Mechanical Engineering and Master of Science in Business and Economics.
President and CEO of Investment AB Latour 2003–2019. Previously CEO of AB Sigfrid Stenberg 1986–2002.
Other appointments: Chairman of AB Fagerhult, Troax Group AB (publ), Alimak Group AB (publ) and Tomra Systems ASA. Board member of Loomis AB, Stena Metall AB, Herenco Holding AB and Climeon AB (publ).
Shareholdings (including through companies and related natural parties): 6,000 Series B shares.

Appointments and shareholdings as at 31 December 2019 unless stated otherwise.

Board members appointed by employee organizations



Rune Hjälm



Mats Persson

Bjarne Johansson

Nadja Wikström

Rune Hjälm
Board member since 2017.
Born 1964.
Employee representative, IF Metall. Chairman of European Works Council (EWC) in the ASSA ABLOY Group.
Shareholdings (including through companies and related natural parties): –

Mats Persson
Board member since 1994.
Born 1955.
Employee representative, IF Metall.
Shareholdings (including through companies and related natural parties): –

Bjarne Johansson
Deputy board member since 2015.
Born 1966.
Employee representative, IF Metall.
Shareholdings (including through companies and related natural parties): –

Nadja Wikström
Deputy board member since 2017.
Born 1959.
Employee representative, Unionen.
Shareholdings (including through companies and related natural parties): –

ASSA ABLOY's Board of Directors fulfills the requirements for independence in accordance with the Swedish Corporate Governance Code.

Independence of the Board of Directors

Name	Position	Independent of the company and its management	Independent of the company's major shareholders
Lars Renström	Chairman	Yes	Yes
Carl Douglas	Vice Chairman	Yes	No
Eva Karlsson	Board member	Yes	Yes
Birgitta Klasén	Board member	Yes	Yes
Lena Olving	Board member	Yes	No
Sofia Schörling Högberg	Board member	Yes	No
Jan Svensson	Board member	Yes	No

The Board of Directors' composition and shareholdings

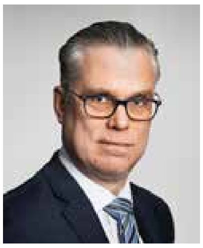
Name	Position	Elected	Born	Remuneration Committee	Audit Committee	Series A shares[1]	Series B shares[1]
Lars Renström	Chairman	2008	1951	Chairman	–	–	30,000
Carl Douglas	Vice Chairman	2004	1965	–	–	41,595,729	63,900,000
Eva Karlsson	Board member	2015	1966	–	–	–	–
Birgitta Klasén	Board member	2008	1949	–	Member	–	21,000
Lena Olving	Board member	2018	1956	–	–	–	–
Sofia Schörling Högberg	Board member	2017	1978	–	Member	15,930,240	18,446,792
Jan Svensson	Board member	2012	1956	Member	Chairman	–	6,000
Rune Hjälm	Board member, employee representative	2017	1964	–	–	–	–
Mats Persson	Board member, employee representative	1994	1955	–	–	–	–
Bjarne Johansson	Deputy, employee representative	2015	1966	–	–	–	–
Nadja Wikström	Deputy, employee representative	2017	1959	–	–	–	–

[1] Shareholdings through companies and related natural parties.

Appointments and shareholdings as at 31 December 2019 unless stated otherwise.

Executive Team


Nico Delvaux


Erik Pieder


Lucas Boselli


Mogens Jensen


Anders Maltesen

Nico Delvaux
President and CEO and Head of Global Technologies division since 2018.
Born 1966.
Master of Engineering in Electromechanics and executive MBA.
Previous positions: President and CEO of Metso Corporation August 2017–February 2018. Previously various positions in the Atlas Copco Group, including Business Area President Compressor Technique 2014–2017, Business Area President Construction Technique 2011–2014, and various positions in sales, marketing, service, acquisition-integration management and General Manager in markets including Benelux, Italy, China, Canada, and the United States 1991–2011.
Shareholdings (including through companies and related natural parties): 40,298 Series B shares and 94,787 call options.

Erik Pieder
Executive Vice President and Chief Financial Officer (CFO) since 2019.
Born 1968.
MBA and Master of Laws.
Previous positions: Various positions in the Atlas Copco Group 1996–2019, including Vice President Business Control Compressor Technique.
Shareholdings: 1,266 Series B shares.

Lucas Boselli
Executive Vice President and Head of Americas division since 2018.
Born 1976.
Bachelor of Science in Industrial Engineering.
Previous positions: Various positions in the ASSA ABLOY Group, including President of ASSA ABLOY Central and South America 2014–2018 and President of Yale Latin America 2012–2014. Previously various positions in Ingersoll Rand 2000–2010.
Shareholdings: 19,952 Series B shares.

Mogens Jensen
Executive Vice President and Head of Entrance Systems division since 2018.
Born 1958.
Master of Science in Mechanical Engineering and MBA.
Previous positions: Various positions in the ASSA ABLOY Group, including BA President Industrial Door and Docking Solutions, Entrance Systems division 2016–2017, Market Region Manager Scandinavia, EMEA division 2006–2016 and Managing Director Ruko A/S Denmark. Previously various Managing Director positions.
Shareholdings: 20,232 Series B shares.

Anders Maltesen
Executive Vice President and Head of Asia Pacific division since 2017.
Born 1965.
Bachelor's degree in Marketing and Bachelor's degree in Financial and Management Accounting.
Previous positions: Regional General Manager and President, Asia Pacific, GE Energy, Power Services 2015–2017, Managing Director, Asia Pacific, Alstom Thermal Services 2014–2015, Vice President, East Asia, Alstom Thermal Services 2011–2014, General Manager, board member, Tianjin Alstom Hydro Co. Ltd 2003–2011. Previously various positions within Alstom.
Shareholdings: 8,182 Series B shares.

Changes in the Executive Team
Chris Bone left the Executive Team and the position of Executive Vice President and Chief Technology Officer (CTO) on 30 November 2019.

Björn Lidefelt assumed the position of Executive Vice President and Head of Global Technologies business unit HID Global beginning on 13 January 2020. He succeeded Stefan Widing who left the Group in January 2020.

Christopher Norbye assumed the position of Executive Vice President and Head of the Entrance Systems division beginning on 1 February 2020. He succeeded Mogens Jensen, who is continuing on the Executive Team and also assuming the new position as Head of business segments Industrial and Residential. within the Entrance Systems division.


Christopher Norbye

Christopher Norbye
Executive Vice President and Head of Entrance Systems division since 2020.
Born 1973.
Master of Business Administration and Bachelor of Science.
Previous positions: President of Industrial Door Solutions within Entrance Systems division 2017–2020, Executive Vice President Orchid Orthopedics 2013–2016, President Sandvik Medical Solutions 2011–2013, COO Sandvik Medical Solutions 2009–2011, Manager for Sandvik M&A and business development 2005–2008, Andersen Consulting 2001–2004, American Express 1999–2001.
Shareholdings: 2,489 Series B shares.

Appointments and shareholdings as at 31 December 2019 unless stated otherwise.


Maria Romberg Ewerth


Christophe Sut


Neil Vann


Stefan Widing

Maria Romberg Ewerth
Executive Vice President and Chief Human Resources Officer (CHRO) since 2019.
Born 1978.
Bachelor's degree in Human Resources and MBA.
Previous positions: Senior Vice President Human Resources ASSA ABLOY AB 2013–2019, Vice President Human Resources ASSA ABLOY Entrance Systems 2011–2013. HR-manager and HR-director ASSA ABLOY Entrance Systems 2008–2011. Previously HR-positions in various companies: JELD-WEN Sverige AB, VALEO Engine Cooling AB and Swedish Meats 2003–2008.
Shareholdings: 13,282 Series B shares.

Christophe Sut
Executive Vice President and Head of Global Technologies business unit Global Solutions since 2016.
Born 1973.
Master of Science in Business and Marketing, Bachelor of Science in Language and Mathematics.
Previous positions: Various positions in the ASSA ABLOY Group 2001–2010 and 2012–2014, including CTO and Vice President Business Development ASSA ABLOY Hospitality and Platform Director for ASSA ABLOY AB. Niscayah Group 2010–2012. SPIT France (ITW group) 1999–2001 and SAM Outillage 1997–1999.
Shareholdings: 5,922 Series B shares.

Neil Vann
Executive Vice President and Head of EMEA division since 2018.
Born 1971.
Degree in Manufacturing Engineering.
Previous positions: Various positions in the ASSA ABLOY Group, including Market Region Manager ASSA ABLOY UK 2014–2018, Market Region Manager Italy and Greece 2012–2014 and Vice President Operations EMEA 2011–2012. Previously various positions within ASSA ABLOY, Yale and Chubb 1987–2001.
Shareholdings: 12,461 Series B shares.

Stefan Widing
Executive Vice President and Head of Global Technologies business unit HID Global since 2015.
Born 1977.
Master of Science in Applied Physics and Electrical Engineering and Bachelor of Social Science in Business Administration.
Previous positions: Various positions in the ASSA ABLOY Group, including Director of Product Management and General Manager of Shared Technologies Unit 2006–2015. Previously various positions in the Saab Group 2001–2006.
Shareholdings: –


Björn Lidefelt

Björn Lidefelt
Executive Vice President and Head of Global Technologies business unit HID Global since 2020.
Born 1981.
Master of Science in Industrial Engineering and Management.
Previous positions: Various positions in the ASSA ABLOY Group, including Chief Commercial Officer 2017–2020, and General Manager ASSA ABLOY China (security products) 2013–2016.
Shareholdings: 2,191 Series B shares.

Appointments and shareholdings as at 31 December 2019 unless stated otherwise.

7 **Organization**

CEO and Executive Team

The Executive Team consists of the CEO, the Heads of the Group's divisions, as well as HID Global and Global Solutions, the Chief Financial Officer and the Chief Human Resources Officer. As of February 2020, the Head of business segments Industrial and Residential within the Entrance Systems division is also part of the Executive Team. For a presentation of the CEO and the other members of the Executive Team, see pages 52–53.

8 ***Divisions – decentralized organization***

ASSA ABLOY's operations are decentralized. Operations are organizationally divided into five divisions: EMEA, Americas, Asia Pacific, Global Technologies and Entrance Systems. The fundamental principle is that the divisions should be responsible, as far as possible, for business operations, while various functions at ASSA ABLOY's Group Centre are responsible for coordination, monitoring, policies and guidelines at an overall level. Decentralization is a deliberate strategic choice based on the industry's local nature and a conviction of the benefits of a divisional control model. The Group's structure results in a geographical and strategic spread of responsibility ensuring short decision-making paths.

ASSA ABLOY's operating structure is designed to create maximum transparency, to facilitate financial and operational monitoring, and to promote the flow of information and communication across the Group. The five divisions are divided into around 50 business units. These consist in turn of a large number of sales and production units, depending on the structure of the business unit concerned. Apart from monitoring by unit, monitoring of products and markets is also carried out.

Policies and guidelines

Significant policies and guidelines in the Group include financial control, communication issues, insider issues, the Group's brands, sustainability issues, business ethics, data protection and export control. ASSA ABLOY's financial policy and accounting manual provide the framework for financial control and monitoring. ASSA ABLOY's communication policy aims to ensure that information is provided at the right time and in compliance with applicable rules and regulations. ASSA ABLOY has adopted an insider policy to complement applicable insider legislation. This policy applies to individuals in managerial positions at ASSA ABLOY AB (including subsidiaries) as well as certain other categories of employees. Brand guidelines aim to protect and develop the major assets that the Group's brands represent.

ASSA ABLOY had adopted a Code of Conduct for employees and a separate ASSA ABLOY Code of Conduct for business partners. The Codes, which are based on a set of internationally accepted conventions, define the values and guidelines that should apply both within the Group and for ASSA ABLOY's business partners with regard to matters such as business ethics, human rights and working conditions, as well as the environment, health and safety.

Moreover, ASSA ABLOY has adopted policies and guidelines on compliance with competition, export control, anti-corruption and data protection legislation applicable to the Group.

9 **Auditor**

At the 2019 Annual General Meeting, PricewaterhouseCoopers (PwC) was re-appointed as the company's external auditor up to the end of the 2020 Annual General Meeting. In connection with the 2019 Annual General Meeting, PwC notified that the authorized public accountant Bo Karlsson would remain the auditor in charge. In addition to ASSA ABLOY, Bo Karlsson, born 1966, is responsible for auditing SKF, Scania and Investment AB Latour.

PwC has been the Group's auditor since its formation in 1994. PwC submits the audit report for ASSA ABLOY AB, the Group and a large majority of the subsidiaries worldwide. The audit of ASSA ABLOY AB also includes the administration by the Board of Directors and the CEO. The auditor in charge attends Audit Committee meetings as well as the February board meeting, at which he reports his observations and recommendations concerning the Group audit for the year.

The external audit is conducted in accordance with International Standards in Auditing (ISA), and generally accepted auditing standards in Sweden. The audit of the financial statements for legal entities outside Sweden is conducted in accordance with statutory requirements and other applicable rules in each country. In 2019 ASSA ABLOY decided to initiate procurement of audit services to prepare for the appointment of an external auditor at the 2020 Annual General Meeting. For information about the fees paid to auditors and other assignments carried out in the Group in the past three financial years, see Note 3 and the Annual Report for 2018, Note 3.

Internal control – financial reporting

ASSA ABLOY's internal control process for financial reporting is designed to provide reasonable assurance of reliable financial reporting, which is in compliance with generally accepted accounting principles, applicable laws and regulations, and other requirements for listed companies.

Control environment

The Board of Directors is responsible for effective internal control and has therefore established fundamental documents of significance for financial reporting. These documents include the Board of Directors' rules of procedure and instructions to the CEO, the Code of Conduct, financial policy, and an annual financial evaluation plan. Regular meetings are held with the Audit Committee. The Group has an internal audit function whose primary objective is to ensure reliable financial reporting and good internal control.

All units in the Group apply uniform accounting and reporting instructions. Internal control guidelines have been established and are reviewed annually for all operating companies. These Group-wide guidelines have a relatively broad scope and concern various processes such as ordering, sourcing, financial statements, plant management, compliance with various policies, legal matters, and HR matters.

The Code of Conduct has been regularly reviewed and updated, and compliance is monitored systematically in operations.

Risk assessment

Risk assessment includes identifying and evaluating the risk of material errors in accounting and financial reporting at Group, division and local levels. A number of previously established documents govern the procedures to be used for accounting, finalizing accounts, financial reporting and review. A major focus has been on auditing the reconciliation between local accounts and consolidated reporting in recent years. The entire Group uses a financial reporting system with pre-defined report templates.

Control activities

The Group's controller and accounting organization at both central and division levels plays a significant role in ensuring reliable financial information. It is responsible for complete, accurate and timely financial reporting. A global financial internal audit function has been established and carries out annual financial evaluations in accordance with the plan annually adopted by the Audit Committee. The results of the financial evaluations are submitted to the Audit Committee and the auditors. Further, in 2019, compliance with the Group's anti-corruption policy was reviewed in Asia, South America and Europe.

In 2019 ASSA ABLOY further strengthened the internal audit and internal control functions in terms of staffing and expanded the number of audits. Each division has employed full-time internal auditors who audit the companies and monitor internal control.

Information and communication

Reporting and accounting manuals as well as other financial reporting guidelines are available to all employees concerned on the Group's intranet. A regular review and analysis of financial outcomes is carried out at both business unit and division levels and as part of the Board of Directors' established operating structure. The Group also has established procedures for external communication of financial information, in accordance with the rules and regulations for listed companies.

Review process

The Board of Directors and the Audit Committee evaluate and review the Annual Report and Interim Reports prior to publication. The Audit Committee monitors the financial reporting and other related issues, and regularly discusses these issues with the external auditors. All business units report their financial results monthly in accordance with the Group's accounting principles. This reporting serves as the basis for quarterly reports and a monthly legal and operating review. Operating reviews conform to a structure in which sales, earnings, cash flow, capital employed and other important key figures and trends for the Group are compiled, and form the basis for analysis and actions by management and controllers at different levels.

Financial reviews take place quarterly at divisional board meetings, monthly in the form of performance reviews and through more informal analysis. Other important Group-wide components of internal control are the annual business planning process and regular forecasts.

The Group-wide internal control guidelines are reviewed during the year in all operating companies through self-assessment. An action plan focused on concrete measures was implemented several years ago to further improve basic processes with an impact on the company's financial position.

Remuneration guidelines for senior executives

The Board of Directors' proposal of guidelines for remuneration to senior executives

Scope

The Board of Directors proposes that the Annual General Meeting adopts the following guidelines for the remuneration and other employment conditions of the President and CEO and other members of the ASSA ABLOY Executive Team (the "Executive Team").

These guidelines are applicable to remuneration agreed, and amendments to remuneration already agreed, after adoption of the guidelines by the Annual General Meeting 2020. These guidelines do not apply to any remuneration decided or approved by the General Meeting.

Employment conditions of a member of the Executive Team that is employed or resident outside Sweden or that is not a Swedish citizen, may be duly adjusted for compliance with mandatory rules or established local practice, taking into account, to the extent possible, the overall purpose of these guidelines.

Promotion of ASSA ABLOY's business strategy, long-term interests and sustainability

One of the strategies for value creation followed by ASSA ABLOY is *Evolution through people*. With the objective that ASSA ABLOY shall continue to be able to recruit and retain competent employees, the basic principle being that remuneration and other employment conditions shall be offered on market conditions and be competitive, taking into account both global remuneration practice and practice in the home country of each member of the Executive Team. These guidelines enable ASSA ABLOY to offer the Executive Team a total remuneration that is on market conditions and competitive. Prerequisites are thereby established for successful implementation of the Group's business strategy, which on overall level is to lead the trend towards the world's most innovative and well-designed access solutions, as well as safeguarding ASSA ABLOY's long-term interests, including its sustainability. More information about ASSA ABLOY's business strategy and ASSA ABLOY's sustainability report is available on ASSA ABLOY's website assaabloy.com.

ASSA ABLOY has on-going share-based long-term incentive programs in place that have been resolved by the General Meeting and which are therefore excluded from these guidelines. Future share-based long-term incentive programs proposed by the Board of Directors and submitted to the General Meeting for approval will be excluded for the same reason. The purpose of the share-based long-term incentive program is to strengthen ASSA ABLOY's ability to recruit and retain competent employees, to contribute to ASSA ABLOY providing a total remuneration that is on market conditions and competitive, and to align the interests of the shareholders with the interests of the employees concerned. Through a share-based long-term incentive program, the employees' remuneration is tied to ASSA ABLOY's future earnings and value growth. At present the performance criteria used is linked to earnings per share. The programs are further conditional upon the participant's own investment and holding period of several years. More information about these programs is available on ASSA ABLOY's website assaabloy.com.

Types of remuneration

The total yearly remuneration to the members of the Executive Team shall be on market conditions and be competitive and also reflect each member of the Executive Team's responsibility and performance. The total yearly remuneration shall consist of fixed base salary, variable cash remuneration, pension benefits and other benefits (which are specified below excluding social security costs). Additionally, the General Meeting may – and irrespective of these guidelines – resolve on, among other things, share-related or share price-related remuneration.

The variable cash remuneration shall be linked to predetermined and measurable targets, which are further described below, and may amount to not more than 75 percent of the yearly base salary.

The members of the Executive Team shall be covered by defined contribution pension plans, for which pension premiums are based on each member's yearly base salary and is paid by ASSA ABLOY during the period of employment. The pension premiums shall amount to not more than 35 percent of the yearly base salary.

Other benefits, such as company car, life insurance, extra health insurance or occupational healthcare, should be payable to the extent this is considered to be in line with market conditions in the market concerned for each member of the Executive Team. Premiums and other costs relating to such benefits may totally amount to not more than 10 percent of the yearly base salary. Furthermore, housing allowance benefit may be added in line with ASSA ABLOY's policies and costs relating to such benefit may totally amount to not more than 25 percent of the yearly base salary. Premiums and other costs relating to other benefits and housing allowance benefit may, however, totally amount to not more than 30 percent of the yearly base salary.

Criteria for awarding variable cash remuneration

The variable cash remuneration shall be linked to predetermined and measurable financial targets, such as earnings per share (EPS), earnings before interest and taxes (EBIT), cash flow and organic growth and can also be linked to strategical and/or functional targets individually adjusted on the basis of responsibility and function. These targets shall be designed so as to contribute to ASSA ABLOY's business strategy and long-term interests, including its sustainability, by for example being linked to the business strategy or promote the senior executive's long-term development within ASSA ABLOY.

The Remuneration Committee shall for the Board of Directors prepare, monitor and evaluate matters regarding variable cash remuneration to the Executive Team. Ahead of each yearly measurement period for the criteria for awarding variable cash remuneration the Board of Directors shall, based on the work of the Remuneration Committee, establish which criteria that are deemed to be relevant for the upcoming measurement period. To which extent the criteria for awarding variable cash remuneration has been satisfied shall be determined when the measurement period has ended. Evaluations regarding fulfilment of financial targets shall be based on determined financial basis for the relevant period.

Variable cash remuneration can be paid after the measurement period has ended or be subject to deferred payment. Paid variable cash remuneration can be claimed back when such right follows from general principles of law.

Duration of employment and termination of employment

The members of the Executive Team shall be employed until further notice. If notice of termination is made by ASSA ABLOY, the notice period may not exceed 12 months for the CEO and 6 months for the other members of the Executive Team. If the CEO is given notice, ASSA ABLOY is liable to pay, including severance pay and remuneration under the notice period, the equivalent of maximum 24 months' base salary and other employment benefits. If any other member of the Executive Team is given notice, ASSA ABLOY is liable to pay a maximum of 6 months' base salary and other employment benefits plus severance pay amounting to a maximum of an additional 12 months' base salary. If notice of termination is made by a member of the Executive Team, the notice period may not exceed 6 months, with no right to severance pay.

A member of the Executive Team may, for such time when the member is not entitled to severance pay, be compensated for non-compete undertakings. Such compensation shall amount to not more than 60 percent of the monthly base salary at the time of the termination and shall only be paid as long as the non-compete undertaking is applicable, at longest a period of 12 months.

Remuneration and employment conditions for employees

In the preparation of the Board of Directors' proposal for these remuneration guidelines, remuneration and employment conditions for employees of ASSA ABLOY have been taken into account by including information on the employees' total remuneration, 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 decision-making process to determine, review and implement the guidelines

The Remuneration Committee's tasks include preparing the Board of Directors' decision to propose guidelines for remuneration to the Executive Team. The Board of Directors shall prepare a proposal for new guidelines at least every fourth year and submit it to the Annual 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 to the Executive Team, the application of the guidelines for remuneration to the Executive Team as well as the applicable remuneration structures and remuneration levels in ASSA ABLOY. The members of the Remuneration Committee are independent of the company and its management. The CEO and other members of the Executive Team 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.

Deviation from the guidelines

The Board of Directors may temporarily resolve to deviate from the guidelines, in whole or in part, if in a specific case there is special cause for the deviation and a deviation is necessary to serve ASSA ABLOY's long-term interests, including its sustainability, or to ensure ASSA ABLOY'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 deviate from the guidelines.

Transitional provisions applicable for the Annual General Meeting 2020

The total expensed remuneration of the Executive Team, including previous commitments not yet due for payment is reported in the Annual Report 2019 in Note 34.

Consolidated financial statements

Sales and income

- **Net sales increased by 12 percent to SEK 94,029 M (84,048). Organic growth was 3 percent (5). Growth from acquisitions and divestments amounted to 3 percent (2).**
- **Operating income (EBIT) excluding items affecting comparability increased by 16 percent to SEK 14,920 M (12,909), equivalent to an operating margin of 15.9 percent (15.4).**
- **Earnings per share after full dilution and excluding items affecting comparability increased by 14 percent till SEK 9.22 (8.09).**

Sales

The Group's sales for 2019 totaled SEK 94,029 M (84,048), representing a 12-percent increase.

Change in sales

%	2018	2019
Organic growth	5	3
Acquisitions and divestments	2	3
Exchange rate effects	3	6
Total	**10**	**12**

The total change in sales for 2019 was 12 percent (10). Organic growth was 3 percent (5) and acquired growth and divestments contributed 3 percent (4) and 0 percent (–2). The exchange rate impact on sales was 6 percent (3).

Sales by product group

Mechanical locks, lock systems and fittings accounted for 25 percent (26) of total sales. Electromechanical and electronic locks rose to 31 percent (30) of sales and entrance automation accounted for 27 percent (28). Security doors and hardware accounted for 17 percent (16) of sales.

Cost structure

Total wage costs, including social security expenses and pension expenses, amounted to SEK 27,001 M (24,485), equivalent to 29 percent (29) of sales. The average number of employees was 48,992 (48,353).

The Group's material costs amounted to SEK 33,885 M (30,461), equivalent to 36 percent (36) of sales and other purchasing costs totaled SEK 15,345 M (15,319), equivalent to 16 percent (18) of sales.

Depreciation and amortization of non-current assets amounted to SEK 3,387 M (1,963), equivalent to 4 percent (2) of sales.

Operating income

Operating income (EBIT) for 2019 amounted to SEK 14,608 M (6,096). Operating income excluding items affecting comparability increased by 16 percent to SEK 14,920 M (12,909), primarily due to continued growth in operations, efficiency improvements, acquisitions and exchange rate effects. The equivalent operating margin was 15.9 percent (15.4). Impairment of operating assets in the Asia Pacific division of SEK 400 M had a negative impact on the operating margin for 2018.

Items affecting comparability

The Group launched a new restructuring program in 2018 with a total estimated cost before taxes of SEK 1,530 M, of which SEK 1,218 M was expensed in conjunction with the launch in 2018 and SEK 312 M in 2019. The program involves the closure of about fifty plants and offices over a three-year period. No impairment loss was reported for goodwill and other intangible assets during the year. In 2018, impairment losses totaling SEK 5,595 M were reported for equivalent items in Asia Pacific.

Income before tax

Income before tax excluding items affecting comparability totaled SEK 13,883 M (12,110). The positive exchange rate effect before taxes amounted to SEK 627 M (315). Net financial items were SEK –1,037 M (–799). The profit margin was 14.8 percent (14.4).

The Parent company's operating income for 2019 continued to be at a high level, totaling SEK 1,523 M (1,801).

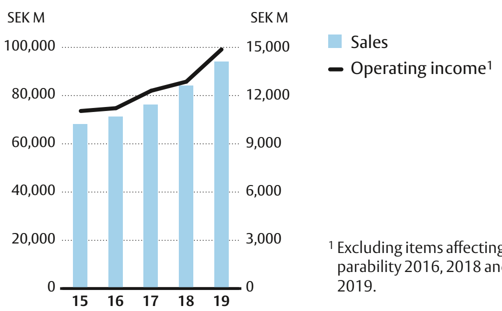
Taxes

The Group's tax expense totaled SEK 3,574 M (2,542), equivalent to an effective tax rate excluding items affecting comparability of 26.2 percent (25.8). The most recent restructuring program, launched in 2018, increased the effective tax rate for 2019 with the equivalent of 0.1 (0.5) percentage points. Impairment of goodwill and other intangible assets in 2018 further increased the effective 2018 tax rate to a total of 48 percent.

Earnings per share

Earnings per share before and after full dilution and excluding items affecting comparability amounted to SEK 9.22 (8.09), an increase of 14 percent.

Sales and operating income



[1] Excluding items affecting comparability 2016, 2018 and 2019.

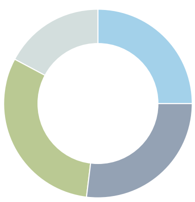
Consolidated income statement

SEK M	Note	2018	2019
Sales	2	84,048	94,029
Cost of goods sold		–51,345	–56,499
Gross income		**32,703**	**37,530**
Selling expenses		–13,594	–14,768
Administrative expenses	3	–4,395	–4,786
Research and development costs		–2,893	–3,566
Other operating income and expenses	4	–296	51
Impairment of goodwill and other intangible assets	14	–5,595	–
Share of earnings in associates	5	167	147
Operating income	6–9, 25, 34	**6,096**	**14,608**
Financial income	10	20	15
Financial expenses	9, 11, 25	–819	–1,052
Income before tax		**5,297**	**13,571**
Tax on income	12	–2,542	–3,574
Net income		**2,755**	**9,997**
Net income attributable to:			
Parent company's shareholders		2,753	9,993
Non-controlling interests		2	4
Earnings per share			
Before and after dilution, SEK	13	2.48	9.00
Before and after dilution and excluding items affecting comparability, SEK	13	8.09	9.22

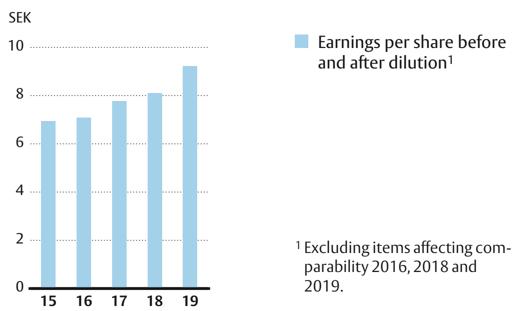
Consolidated statement of comprehensive income

SEK M	Note	2018	2019
Net income		**2,755**	**9,997**
Other comprehensive income:			
Items that will not be reclassified to profit or loss			
Actuarial gain/loss on post-employment benefit obligations	25	39	–362
Deferred tax from actuarial gain/loss on post-employment benefit obligations		–34	81
Total		**6**	**–281**
Items that may be reclassified subsequently to profit or loss			
Share of other comprehensive income of associates		87	86
Cash flow hedges		2	–
Net investment hedges		–8	–5
Exchange rate difference		2,089	1,556
Tax attributable to items that may be reclassified subsequently to profit or loss		–8	–4
Total		**2,163**	**1,632**
Total comprehensive income		**4,923**	**11,348**
Total comprehensive income attributable to:			
Parent company's shareholders		4,923	11,343
Non-controlling interests		1	5

Sales by product group, 2019



Earnings per share before and after dilution



[1] Excluding items affecting comparability 2016, 2018 and 2019.

Comments by division

ASSA ABLOY is organized into five divisions. EMEA (Europe, Middle East and Africa), Americas (North and South America) division and Asia Pacific (Asia and Oceania) division manufacture and sell mechanical and electromechanical locks, security doors and hardware in their respective geographical markets. Global Technologies operates worldwide in the product areas of access control systems, secure card issuance, identification technology and hotel locks. Entrance Systems is a global supplier of entrance automation products and service.

EMEA

Sales totaled SEK 21,144 M (20,201), with organic growth of 2 percent (2). Acquired units contributed 0 percent (5) net to sales. Operating income excluding items affecting comparability amounted to SEK 3,396 M (3,256), with an operating margin (EBIT) of 16.1 percent (16.1). Return on capital employed was 18.4 percent (20.1). Operating cash flow before interest paid was SEK 3,515 M (2,819).

Strongest growth within EMEA was demonstrated by the Middle East, Central and eastern Europe and Scandinavia, while the sales trend in the UK and France was weaker. Sales of electromechanical locks with digital and mobile solutions continued to increase sharply during the year. Initiatives focused on innovation and new products continued during the year, at the same time that continued efficiency initiatives retained a high operating margin for EMEA.

Americas

Sales totaled SEK 23,172 M (19,817), with organic growth of 7 percent (9). Acquired units contributed 2 percent (1) net to sales. Operating income excluding items affecting comparability amounted to SEK 4,673 M (3,941), with an operating margin (EBIT) of 20.2 percent (19.9). Return on capital employed was 23.6 percent (22.5). Operating cash flow before interest paid was SEK 5,263 M (3,903).

Demand continued to be strong in North America and stable in Latin America for most markets. Growth was extremely strong in the US for the commercial customer segment, as well as for the smart lock product area in the private residential market. Profitability continued to be very good and cash flow was strong.

Asia Pacific

Sales totaled SEK 10,689 M (9,949), with organic growth of –1 percent (4). Acquired units contributed 5 percent (1) to sales. Operating income excluding items affecting comparability amounted to SEK 879 M (492), with an operating margin (EBIT) of 8.2 percent (4.9). Impairment of operating assets reduced operating income in 2018 by a total of SEK 400 M. Return on capital employed was 10.3 percent (4.8). Operating cash flow before interest paid was SEK 622 M (811).

Growth was robust in Oceania and stable in India and Southeast Asia. However, demand remained weak in China, at the same time that market conditions deteriorated in South Korea. Implementation of a new business strategy and organization in China continued during the year. The acquisition in Oceania strengthened the market position in the region. The division's operating margin excluding items affecting comparability declined, but the effect was mitigated by continued streamlining initiatives and staff cuts.

Global Technologies

Sales totaled SEK 15,423 M (11,951), with organic growth of 5 percent (8). Acquired units contributed 16 percent (4) net to sales. Operating income excluding items affecting comparability amounted to SEK 2,890 M (2,387), with an operating margin (EBIT) of 18.7 percent (20.0). Return on capital employed was 14.0 percent (14.0). Operating cash flow before interest paid was SEK 3,183 M (2,463).

Strong growth was seen in the HID Global business unit during the year, especially in mature markets. A number of acquisitions in HID also further strengthened the market position. Global Solutions showed strong organic growth and good profitability. Investments in R&D continued in 2019.

Entrance Systems

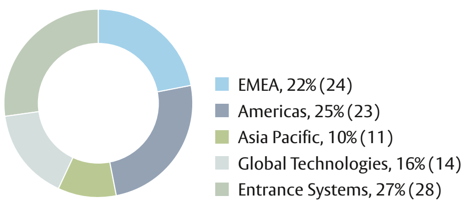
Sales totaled SEK 25,553 M (23,762), with organic growth of 2 percent (4). Acquired units contributed 1 percent (1) to sales. Operating income excluding items affecting comparability amounted to SEK 3,652 M (3,358), with an operating margin (EBIT) of 14.3 percent (14.1). Return on capital employed was 16.2 percent (16.9). Operating cash flow before interest paid was SEK 3,655 M (2,772).

Service reported strong growth, while demand for equipment was generally weaker. Previously strong growth in the US slowed down during the year. A new business organization was announced during the year to begin in 2020, with the purpose of boosting organic growth. An agreement for the acquisition of agta record was signed during the year. The operating margin increased compared with the previous year and cash flow was strong.

Other

The costs of Group-wide functions, such as corporate management, accounting and finance, supply management and Group-wide product development, totaled SEK 570 M (525). Elimination of sales between the Group's segments is included in "Other".

External sales, 2019



Results by division

SEK M	EMEA		Americas		Asia Pacific		Global Technologies		Entrance Systems		Other		Total	
	2018	2019	2018	2019	2018	2019	2018	2019	2018	2019	2018	2019	2018	2019
Sales, external	19,908	20,707	19,737	23,082	8,875	9,477	11,864	15,321	23,665	25,442	0	–	84,048	94,029
Sales, internal	293	438	79	90	1,074	1,213	87	102	97	110	–1,631[2]	–1,953[2]	–	–
Sales	**20,201**	**21,144**	**19,817**	**23,172**	**9,949**	**10,689**	**11,951**	**15,423**	**23,762**	**25,553**	**–1,630**	**–1,953**	**84,048**	**94,029**
Organic growth	2%	2%	9%	7%	4%	–1%	8%	5%	4%	2%	–	–	5%	3%
Acquisitions and divestments	5%	0%	1%	2%	1%	5%	4%	16%	1%	1%	–	–	2%	3%
Exchange rate differences	5%	3%	0%	8%	3%	3%	3%	8%	4%	5%	–	–	3%	6%
Share of earnings in associates	–	–	–	–	17	17	3	5	147	124	–	–	167	147
Operating income (EBIT) excluding items affecting comparability[1]	**3,256**	**3,396**	**3,941**	**4,673**	**492**	**879**	**2,387**	**2,890**	**3,358**	**3,652**	**–525**	**–570**	**12,909**	**14,920**
Operating margin (EBIT) excluding items affecting comparability[1]	16.1%	16.1%	19.9%	20.2%	4.9%	8.2%	20.0%	18.7%	14.1%	14.3%	–	–	15.4%	15.9%
Restructuring costs	–438	–185	–225	–	–130	–6	–218	–4	–108	–116	–100	–	–1,218	–312
Impairment goodwill and other intangible assets	–	–	–	–	–5,595	–	–	–	–	–	–	–	–5,595	–
Operating income (EBIT)	**2,818**	**3,211**	**3,716**	**4,673**	**–5,233**	**873**	**2,170**	**2,885**	**3,250**	**3,535**	**–625**	**–570**	**6,096**	**14,608**
Operating margin (EBIT)	13.9%	15.2%	18.8%	20.2%	–52.6%	8.2%	18.2%	18.7%	13.7%	13.8%	–	–	7.3%	15.5%
Net financial items													–799	–1,037
Tax on income													–2,542	–3,574
Net income													**2,755**	**9,997**
Capital employed	16,883	18,659	18,506	19,678	7,455	9,053	18,511	22,329	20,742	23,024	–951	–539	81,146	92,204
– of which goodwill	10,709	11,121	13,327	14,105	3,892	4,168	13,245	15,459	12,240	12,809	–	–	53,413	57,662
– of which other intangible assets and property, plant and equipment	3,971	4,092	3,813	4,423	2,340	2,469	4,866	5,632	4,378	4,451	151	124	19,518	21,191
– of which right-of-use assets	70	990	–	499	5	260	–	463	44	1,499	–	19	119	3,731
– of which investments in associates	9	1	–	–	587	637	19	23	1,819	1,935	–	–	2,434	2,595
Return on capital employed excluding items affecting comparability[1]	20.1%	18.4%	22.5%	23.6%	4.8%	10.3%	14.0%	14.0%	16.9%	16.2%	–	–	16.2%	17.0%
Operating income (EBIT)	2,818	3,211	3,716	4,673	–5,233	873	2,170	2,885	3,250	3,535	–625	–570	6,096	14,608
Restructuring costs	438	185	225	–	130	6	218	4	108	116	100	–	1,218	312
Impairment of goodwill, etc.	–	–	–	–	5,595	–	–	–	–	–	–	–	5,595	–
Depreciation and amortization	464	813	367	569	292	381	522	793	294	794	24	36	1,963	3,387
Net capital expenditure	–500	–454	–327	–348	–6	–220	–281	–366	–170	–276	–36	3	–1,319	–1,662
Amortization of lease liabilities	–	–295	–	–149	–	–100	–	–129	–	–477	–	–9	–	–1,159
Change in working capital	–401	53	–78	517	33	–319	–165	–5	–709	–38	244	–61	–1,076	148
Operating cash flow, by division	**2,819**	**3,515**	**3,903**	**5,263**	**811**	**622**	**2,463**	**3,183**	**2,772**	**3,655**	**–293**	**–602**	**12,477**	**15,635**
Non-cash items											–458	–324	–458	–324
Interest paid and received											–662	–869	–662	–869
Operating cash flow													**11,357**	**14,442**
Average number of employees	11,717	11,373	8,768	9,360	11,492	11,016	4,624	5,594	11,463	11,313	288	336	48,353	48,992

[1] Items affecting comparability relate to restructuring costs as well as impairment of goodwill and other intangible assets in 2018.
[2] Of which eliminations SEK –1,953 M (–1,631).

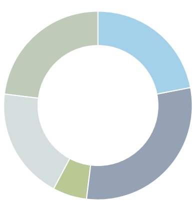
The segments have been determined on the basis of reporting to the CEO, who monitors the overall performance and makes decisions on resource allocation.

The different segments generate their revenue from the manufacture and the sale of mechanical, electromechanical and electronic locks, lock systems and fittings, and security doors and hardware.

The breakdown of sales is based on customer sales in the respective country. Sales between segments are carried out at arm's length.

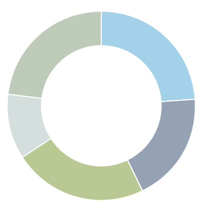
For further information on sales, see Note 2.

Operating income, 2019[1,2]



[1] "Other" is not included in the calculation. See section Comments by division for what is included in "Other".
[2] Excluding items affecting comparability.

Average number of employees, 2019



Financial position

- **Capital employed amounted to SEK 92,204 M (81,146).**
- **Return on capital employed remained high at 17.0 percent (16.2).**
- **The net debt/equity ratio was 0.56 (0.56).**

SEK M	2018	2019
Capital employed	81,146	92,204
– of which goodwill	53,413	57,662
Net debt	29,246	33,050
Equity	51,900	59,154
– of which non-controlling interests	10	11

Capital employed

Capital employed in the Group, defined as total assets less interest-bearing assets and non-interest-bearing liabilities including deferred tax liabilities, amounted to SEK 92,204 M (81,146). The return on capital employed excluding items affecting comparability was 17.0 percent (16.2).

Intangible assets amounted to SEK 70,355 M (64,861). The increase is mainly due to the effects of completed acquisitions. During the year, goodwill and other intangible assets with an indefinite useful life have arisen to a preliminary value of SEK 3,026 M as a result of completed acquisitions and adjustments of acquisitions made in previous years. A valuation model, based on discounted future cash flows, is used for impairment testing of goodwill and other intangible assets with an indefinite useful life.

Property, plant and equipment amounted to SEK 8,498 M (8,070). Capital expenditure on property, plant and equipment and intangible assets, less sales of property, plant and equipment and intangible assets, totaled SEK 1,662 M (1,319). Total depreciation and amortization amounted to SEK 3,387 M (1,963).

Trade receivables amounted to SEK 15,701 M (14,496) and inventories totaled SEK 11,276 M (11,316). The average collection period for trade receivables was 52 days (52). Material throughput time was 90 days (96). The Group is making systematic efforts to increase capital efficiency.

Net debt

Net debt amounted to SEK 33,050 M (29,246), of which pension commitments and other post-employment benefits accounted for SEK 3,346 M (2,880).

Net debt was increased by acquisitions, the dividend to shareholders and exchange rate effects during the year, while it was reduced by a continued strong positive operating cash flow. Over the whole period net debt changed marginally although it fluctuated during the year. Net debt was also affected by the implementation of IFRS 16, according to which future lease commitments of SEK 3,739 M are included in the calculation of net debt.

External financing

The Group's long-term loan financing mainly consists of a GMTN Program of SEK 17,886 M (14,229), of which SEK 15,814 M (12,996) is long-term, Private Placement Program in the US totaling USD 295 M, of which USD 225M (295) is long-term, and a loan from financial institutions such as the European Investment Bank (EIB) of EUR 37 M (37) and USD 120 M (121), and a loan from the Nordic Investment Bank of EUR 55 M (55). During the year, eleven new issues were made under the GMTN program for a total amount of SEK 4,615 M. Other changes in long-term loans are mainly due to some of the originally long-term loans now having less than 1 year to maturity. The size of the loans increased due to currency fluctuations, especially regarding the USD. A total of SEK 4,615 M was raised in new long-term loans, while SEK 2,903 M in originally long-term loans matured during the year.

The Group's short-term loan financing mainly consists of two Commercial Paper Programs for a maximum USD 1,000 M (1,000) and SEK 5,000 M (5,000) respectively. At year-end, however, the outstanding balance under the Commercial Paper programs was SEK 0 M (2,752). In addition, substantial credit facilities are available, mainly in the form of a Multi-Currency Revolving Credit Facility of EUR 1,200 M (900). During the year, a new financing commitment of EUR 230 M was also received from the EIB, which had not yet been used at year-end.

The interest coverage ratio, defined as income before tax excluding items affecting comparability plus net interest, divided by net interest, was 15.2 (17.1). Fixed interest terms increased during the year, with an average term of 34 months (26) at year-end.

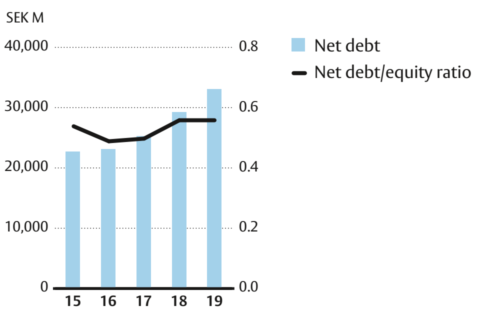
Cash and cash equivalents amounted to SEK 442 M (538) and are invested in banks with high credit ratings.

Some of the Group's main financing agreements contain a customary Change of Control clause. This clause means that lenders have the right in certain circumstances to demand the renegotiation of conditions or to terminate the agreements should control of the company change.

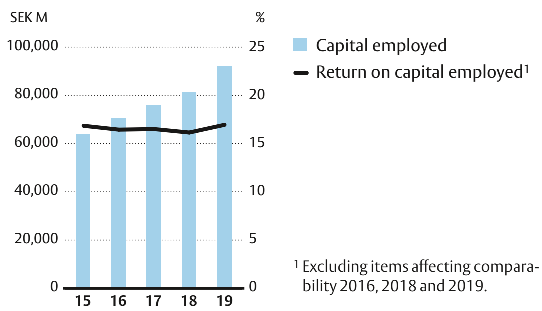
Equity

Consolidated equity was SEK 59,154 M (51,900) at year-end. The return on equity was 18.0 percent (5.4). The equity ratio was 50.1 percent (48.7). The debt/equity ratio, defined as net debt divided by equity, was 0.56 (0.56).

Net debt



Capital employed and return on capital employed



[1] Excluding items affecting comparability 2016, 2018 and 2019.

Consolidated balance sheet

SEK M	Note	2018	2019
ASSETS			
Non-current assets			
Intangible assets	14	64,861	70,355
Property, plant and equipment	15	8,070	8,498
Right-of-use assets	16	119	3,731
Investments in associates	18	2,434	2,595
Other financial assets	20	152	104
Deferred tax assets	19	1,354	1,205
Total non-current assets		**76,991**	**86,487**
Current assets			
Inventories	21	11,316	11,276
Trade receivables	22	14,496	15,701
Current tax receivables		457	704
Other current receivables		1,327	1,510
Prepaid expenses and accrued income		1,256	1,673
Derivative financial instruments	35	117	202
Short-term investments	35	71	55
Cash and cash equivalents	35	538	442
Total current assets		**29,577**	**31,563**
TOTAL ASSETS		**106,568**	**118,050**
EQUITY AND LIABILITIES			
Equity			
Parent company's shareholders			
Share capital	24	371	371
Other contributed capital		9,675	9,675
Reserves	32	5,096	6,728
Retained earnings		36,748	42,369
Equity attributable to the Parent company's shareholders		**51,890**	**59,143**
Non-controlling interests		10	11
Total equity		**51,900**	**59,154**
Non-current liabilities			
Long-term loans	35	19,398	21,100
Non-current lease liabilities	35	91	2,588
Deferred tax liabilities	19	1,764	2,368
Pension provisions	25	2,880	3,346
Other non-current provisions	26	745	722
Other non-current liabilities		1,406	1,002
Total non-current liabilities		**26,283**	**31,127**
Current liabilities			
Short-term loans	35	7,594	5,460
Current lease liabilities	35	–	1,151
Derivative financial instruments	35	116	150
Trade payables		7,893	7,908
Current tax liabilities		1,943	1,536
Current provisions	26	891	630
Other current liabilities	27	3,551	3,765
Accrued expenses and deferred income	28	6,396	7,170
Total current liabilities		**28,385**	**27,769**
TOTAL EQUITY AND LIABILITIES		**106,568**	**118,050**

Cash flow

- **Operating cash flow remained strong and amounted to SEK 14,442 M (11,357).**
- **The total purchase price of investments in subsidiaries was SEK 3,813 M (6,752).**

Operating cash flow

SEK M	2018	2019
Operating income (EBIT)	6,096	14,608
Restructuring costs	1,218	312
Goodwill impairment	5,595	–
Depreciation and amortization	1,963	3,387
Net capital expenditure	–1,319	–1,662
Change in working capital	–1,076	148
Amortization of lease liabilities	–	–1,159
Interest paid and received	–662	–869
Non-cash items	–458	–324
Operating cash flow	**11,357**	**14,442**
Operating cash flow/Income before tax	0.94[1]	1.04[1]

[1] Excluding items affecting comparability.

The Group's operating cash flow amounted to SEK 14,442 M (11,357), equivalent to 104 percent (94) of income before tax excluding items affecting comparability.

Net capital expenditure

Net capital expenditure on intangible assets and property, plant and equipment totaled SEK 1,662 M (1,319), equivalent to 76 percent (67) of depreciation and amortization on intangible assets and property, plant and equipment. The low net investments during the comparison period are attributable to property divestments in Sweden and South Korea.

Change in working capital

SEK M	2018	2019
Inventories	–983	572
Trade receivables	–340	–229
Trade payables	–439	–443
Other working capital	686	248
Change in working capital	**–1,076**	**148**

The material throughput time was 90 days (96) at year-end. Capital tied up in working capital decreased somewhat during the year, which had an impact on cash flow of SEK 148 M (–1,076) overall. The change is mainly attributable to decreased capital tied up in inventories.

Relationship between cash flow from operating activities and operating cash flow

SEK M	2018	2019
Cash flow from operating activities	9,225	12,665
Restructuring payments	793	726
Net capital expenditure	–1,319	–1,662
Amortization of lease liabilites	–	–1,159
Reversal of tax paid	2,658	3,872
Operating cash flow	**11,357**	**14,442**

Investments in subsidiaries

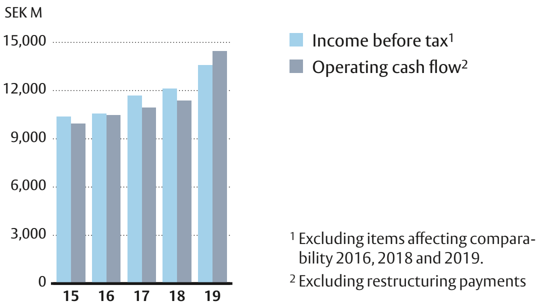
The total purchase price of investments in subsidiaries amounted to SEK 3,813 M (6,752), of which the cash flow effect was SEK 3,903 M (5,503). Acquired cash and cash equivalents totaled SEK 120 M (437).

Change in net debt

Net debt was mainly affected by the strong positive operating cash flow, the dividend to shareholders, acquisitions and exchange rate differences. In addition, net debt was also affected by implementation of IFRS 16, which increased net debt at the beginning of the year by SEK 3,711 M.

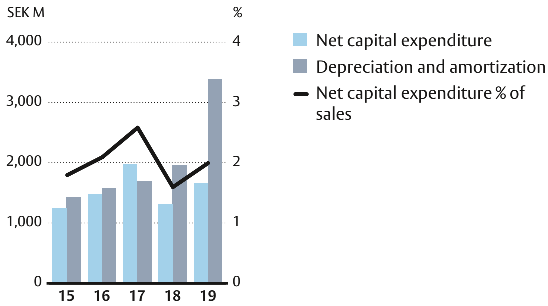
SEK M	2018	2019
Net debt at 1 January	25,275	29,246
Effects of the transition to IFRS 16	–	3,711
Operating cash flow	–11,357	–14,442
Restructuring payments	793	726
Tax paid on income	2,658	3,872
Acquisitions and divestments	6,390	4,764
Dividend	3,666	3,888
Actuarial gain/loss on post-employment benefit obligation	–39	362
Change in lease liabilities	–	–242
Exchange rate differences, etc.	1,862	1,165
Net debt at 31 December	**29,246**	**33,050**

Income before tax and operating cash flow



[1] Excluding items affecting comparability 2016, 2018 and 2019.
[2] Excluding restructuring payments

Capital expenditure



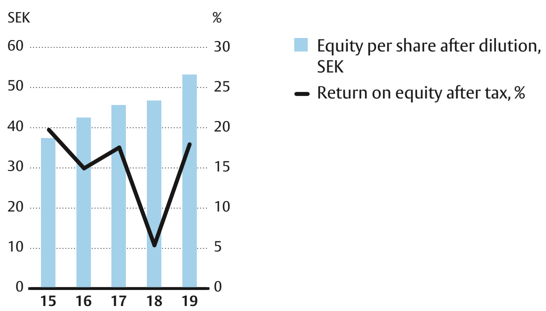
Consolidated statement of cash flows

SEK M	Note	2018	2019
OPERATING ACTIVITIES			
Operating income		6,096	14,608
Depreciation and amortization	8	1,963	3,387
Impairment of goodwill and other intangible assets	14	5,595	–
Reversal of restructuring costs		1,218	312
Restructuring payments		–793	–726
Other non-cash items	31	–458	–324
Cash flow before interest and tax		**13,621**	**17,257**
Interest paid		–675	–885
Interest received		14	16
Tax paid on income		–2,658	–3,872
Cash flow before changes in working capital		**10,302**	**12,516**
Change in working capital	31	–1,076	148
Cash flow from operating activities		**9,225**	**12,665**
INVESTING ACTIVITIES			
Investments in property, plant and equipment and intangible assets	14, 15	–1,793	–1,842
Sales of property, plant and equipment and intangible assets	14, 15	474	181
Investments in subsidiaries	33	–5,503	–3,903
Divestments of subsidiaries	31	395	84
Divestments of associates		0	16
Other investments and divestments		0	0
Cash flow from investing activities		**–6,427**	**–5,464**
FINANCING ACTIVITES			
Dividend		–3,666	–3,888
Long-term loans raised	35	4,483	4,615
Long-term loans repaid	35	–2,849	–2,903
Amortization of lease liabilities		–18	–1,159
Purchase of shares in subsidiaries from non-controlling interest		–229	–19
Stock purchase plans		–60	–21
Change in short-term loans, etc.		–390	–3,926
Cash flow from financing activities		**–2,728**	**–7,301**
CASH FLOW		**70**	**–100**
CASH AND CASH EQUIVALENTS			
Cash and cash equivalents at 1 January		**459**	**538**
Cash flow		70	–100
Effect of exchange rate differences in cash and cash equivalents		9	4
Cash and cash equivalents at 31 December	35	**538**	**442**

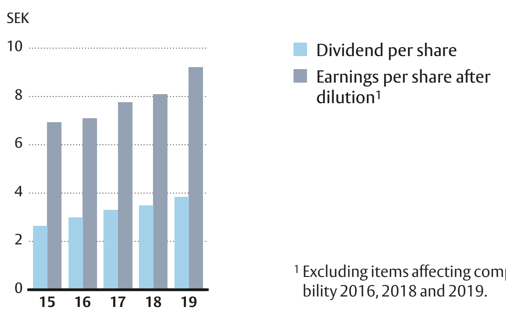
Changes in consolidated equity

SEK M	Note	Parent company's shareholders: Share capital	Other contributed capital	Reserves	Retained earnings	Non-controlling interests	Total
Opening balance 1 January 2018		**371**	**9,675**	**2,932**	**37,670**	**9**	**50,657**
Net income					2,753	2	2,755
Other comprehensive income				2,164	6	–1	2,168
Total comprehensive income				**2,164**	**2,759**	**1**	**4,923**
Dividend	24				–3,666	–	–3,666
Stock purchase plans					–15	–	–15
Total contributions by and distributions to Parent company's shareholders					**–3,681**	**–**	**–3,681**
Change in non-controlling interest					–	–	–
Total transactions with shareholders					**–3,681**	**–**	**–3,681**
Closing balance 31 December 2018	24	**371**	**9,675**	**5,096**	**36,748**	**10**	**51,900**
Opening balance 1 January 2019 according to adopted Annual Report		**371**	**9,675**	**5,096**	**36,748**	**10**	**51,900**
Changed accounting principle	1				–234	–	–234
New opening balance 1 January 2019		**371**	**9,675**	**5,096**	**36,514**	**10**	**51,666**
Net income					9,993	4	9,997
Other comprehensive income				1,631	–281	1	1,351
Total comprehensive income				**1,631**	**9,713**	**5**	**11,348**
Dividend	24				–3,888	–	–3,888
Stock purchase plans					27	–	27
Total contributions by and distributions to Parent company's shareholders					**–3,861**	**–**	**–3,861**
Change in non-controlling interest					5	–4	1
Total transactions with shareholders					**–3,856**	**–4**	**–3,860**
Closing balance 31 December 2019	24	**371**	**9,675**	**6,728**	**42,369**	**11**	**59,154**

Equity per share after dilution and return on equity after tax



Dividend and earnings per share



[1] Excluding items affecting comparability 2016, 2018 and 2019.

Parent company financial statements

Income statement – Parent company

SEK M	Note	2018	2019
Administrative expenses	3, 6, 8, 9	–1,911	–2,188
Research and development costs	6, 8, 9	–1,119	–1,480
Capitalized work for own account		81	19
Other operating income and expenses	4	4,750	5,172
Operating income	9, 34	**1,801**	**1,523**
Financial income	10	2,805	4,910
Financial expenses	9, 11	–654	–1,471
Income before appropriations and tax		**3,951**	**4,962**
Group contributions		1,608	851
Change in excess depreciation and amortization		–113	–233
Tax on income	12	–650	–446
Net income		**4,796**	**5,134**

Statement of comprehensive income – Parent company

SEK M	2018	2019
Net income	**4,796**	**5,134**
Other comprehensive income	–	–
Total comprehensive income	**4,796**	**5,134**

Balance sheet – Parent company

SEK M	Note	2018	2019
ASSETS			
Non-current assets			
Intangible assets	14	2,997	3,108
Property, plant and equipment	15	37	20
Shares in subsidiaries	17	34,738	34,541
Other financial assets	20	1,782	1,774
Total non-current assets		**39,554**	**39,443**
Current assets			
Receivables from subsidiaries		17,169	19,475
Other current receivables		17	224
Prepaid expenses and accrued income		9	23
Cash and cash equivalents	35	0	0
Total current assets		**17,195**	**19,722**
TOTAL ASSETS		**56,749**	**59,165**
EQUITY AND LIABILITIES			
Equity	23		
Restricted equity			
Share capital	24	371	371
Revaluation reserve		275	275
Statutory reserve		8,905	8,905
Fund for development expenses		219	219
Non-restricted equity			
Share premium reserve		787	787
Retained earnings including net income for the year		13,053	14,326
Total equity		**23,610**	**24,883**
Untaxed reserves		**678**	**911**
Non-current liabilities			
Long-term loans	35	13,771	16,877
Other non-current liabilities		50	–
Total non-current liabilities		**13,821**	**16,877**
Current liabilities			
Short-term loans	35	1,697	1,696
Trade payables		198	190
Current liabilities to subsidiaries		16,228	14,098
Current tax liabilities		94	–
Other current liabilities		5	8
Accrued expenses and deferred income	28	419	502
Total current liabilities		**18,641**	**16,494**
TOTAL EQUITY AND LIABILITIES		**56,749**	**59,165**

Cash flow statement – Parent company

SEK M	Note	2018	2019
OPERATING ACTIVITIES			
Operating income		1,801	1,523
Depreciation and amortization	8	609	643
Cash flow before interest and tax		**2,410**	**2,166**
Interest paid and received		–287	–278
Dividends received		2,479	4,623
Tax paid and received		–556	–701
Cash flow before changes in working capital		**4,046**	**5,810**
Change in working capital		1,326	1,724
Cash flow from operating activities		**5,372**	**7,534**
INVESTING ACTIVITIES			
Investments in property, plant and equipment and intangible assets		–115	–740
Investments in subsidiaries		–526	–728
Other investments		0	–
Cash flow from investing activities		**–641**	**–1,468**
FINANCING ACTIVITES			
Dividend		–3,666	–3,888
Loans raised		5,249	4,615
Loans repaid		–6,314	–6,793
Cash flow from financing activities		**–4,731**	**–6,066**
CASH FLOW		**0**	**0**
CASH AND CASH EQUIVALENTS			
Cash and cash equivalents at 1 January		0	0
Cash flow		0	0
Cash and cash equivalents at 31 December		**0**	**0**

Change in equity – Parent company

	Restricted equity				Non-restricted equity		
SEK M	Share capital	Revaluation reserve	Statutory reserve	Fund for development expenses	Share premium reserve	Retained earnings	Total
Opening balance 1 January 2018	**371**	**275**	**8,905**	**139**	**787**	**12,017**	**22,494**
Net income						4,796	4,796
Total comprehensive income						**4,796**	**4,796**
Dividend						–3,666	–3,666
Stock purchase plans						–15	–15
Reclassifications				80		–80	–
Total transactions with shareholders				**80**		**–3,761**	**–3,681**
Closing balance 31 December 2018	**371**	**275**	**8,905**	**219**	**787**	**13,053**	**23,610**
Opening balance 1 January 2019	**371**	**275**	**8,905**	**219**	**787**	**13,053**	**23,610**
Net income						5,134	5,134
Total comprehensive income						**5,134**	**5,134**
Dividend						–3,888	–3,888
Stock purchase plans						27	27
Total transactions with shareholders						**–3,861**	**–3,861**
Closing balance 31 December 2019	**371**	**275**	**8,905**	**219**	**787**	**14,326**	**24,883**

Note 1 Significant accounting and valuation principles

Group

ASSA ABLOY applies International Financial Reporting Standards (IFRS) as adopted by the European Union (EU), the Swedish Annual Accounts Act and the Swedish Financial Reporting Board's RFR 1 Supplementary Accounting Rules for Corporate Groups. The accounting principles are based on IFRS as endorsed by 31 December 2019 and have been applied to all years presented, unless stated otherwise. This Note describes the most significant accounting principles that have been applied in the preparation of the financial statements, which comprise the information provided on pages 40–97.

Basis of preparation

ASSA ABLOY's consolidated financial statements have been prepared in accordance with IFRS as endorsed by the EU. The consolidated financial statements have been prepared in accordance with the cost method, except for financial assets and liabilities (including derivatives) measured at fair value through profit or loss.

The total amount in tables and statements might not always summarize as there are rounding differences. The aim is to have each line item corresponding to the source and it might therefore be rounding differences in the total.

Key estimates and assessments for accounting purposes

The preparation of financial statements requires estimates and assessments to be made for accounting purposes. The management also makes assessments when applying the Group's accounting principles. Estimates and assessments may affect the income statement and balance sheet as well as the supplementary information provided in the financial statements. Consequently, changes in estimates and assessments may lead to changes in the financial statements.

Estimates and assessments play an important part in the measurement of items such as identifiable assets and liabilities in acquisitions, in impairment testing of goodwill and other assets, as well as in determining actuarial assumptions for calculating employee benefits. Estimates and assessments also affect valuation of deferred taxes, other provisions and deferred considerations, as well as valuation of right-of-use assets and lease liabilities where the Group, when estimating the term of a lease, assesses the likelihood that any extension options will be exercised. Estimates and assessments are continually evaluated and are based on both historical experience and reasonable expectations about the future.

The Group considers that estimates and assessments relating to impairment testing of goodwill and other intangible assets with indefinite useful life are of material importance to the consolidated financial statements. The Group tests carrying amounts for impairment on an annual basis. The recoverable amounts of cash generating units are determined by calculating their values in use. The calculations are based on certain assumptions about the future which, for the Group, are associated with the risk of material adjustments in carrying amounts during the next financial year. Material assumptions and the effects of reasonable changes in them are described in Note 14.

The actuarial assumptions made when calculating post-employment employee benefits also have material importance for the consolidated financial statements. For information on these actuarial assumptions, see Note 25.

New and revised standards applied by the Group

The Group has applied the following standards for the first time for the financial year beginning 1 January 2019:

- IFRS 16 Leases
- IFRIC 23 Uncertainty over income tax treatments

The Group has applied IFRS 16 from 1 January 2019. During the transition, all leases, with the exception of short-term leases and leases for low-value assets, are recognized in the consolidated balance sheet. Under the standard, an asset (the right to use the leased item) and a financial liability to make lease payments are recognized. For leases previously classified as finance leases according to IAS17, the carrying amount for the right-of-use and lease liability correspond to the value of the finance lease as at 31 December 2018. The Group's lease liability as of 1 January 2019 is SEK 3,802 M. Additional information about the financial effects of the transition to IFRS 16 can be found in Note 6. The Group applies the simplified approach to the transition and therefore does not restate comparative figures. In addition, the Group has chosen not to recognize right of use and lease liability regarding obligations for short-term leases and low-value leases.

IFRIC 23 explains how an entity should determine the method with which a transaction should be measured and recognized when there is uncertainty over income tax treatments. The Group applies the new guidance commencing on 1 January 2019. In conjunction with the application, the Group reassessed its uncertain tax positions based on the new guidance, which resulted in an increased provision for uncertain income taxes of SEK 234 M. The Group has chosen a modified retrospective approach for initial application of the interpretation, in which comparative figures is not restated. The effect of initial application is recognized as an adjustment to equity in 2019.

New and revised IFRS not yet effective

The Group has chosen to early adopt the "Amendments to IFRS 9, IAS 39 and IFRS 7 Interest Rate Benchmark Reform", as published in September 2019. In accordance with the transition provisions, the amendments have been applied retroactively to hedging relationships that existed at the beginning of the reporting period or were subsequently identified.

The amendments provide temporary relief from applying specific hedge accounting requirements for hedging relationships directly affected by IBOR reform. The reliefs have the effect that IBOR reform should not generally cause hedge accounting to terminate. However, any hedge ineffectiveness should continue to be recorded in the income statement.

No other new standards or interpretations that have been published but have not come into force as of the closing date are expected to have a material impact on future financial reports.

Consolidated financial statements

The consolidated financial statements include ASSA ABLOY AB (the Parent company) and all companies over which the Group has control. The Group controls an entity when the Group is exposed to, or has the rights to, variable returns from its involvement with the entity and has the ability to affect those returns through its power over the entity. Companies acquired during the year are included in the consolidated financial statements with effect from the date when a controlling interest arose. Companies divested during the year are included in the consolidated financial statements up to the date when a controlling interest ceased.

The consolidated financial statements have been prepared in accordance with the purchase method, which means that the cost of shares in subsidiaries was eliminated against their equity at the acquisition date. In this context, equity in subsidiaries is determined on the basis of the fair value of assets, liabilities and contingent liabilities at the acquisition date. Consequently, only that part of the equity in subsidiaries that has arisen after the acquisition date is included in consolidated equity. The Group determines on an individual basis for each acquisition whether a non-controlling interest in the acquired company shall be recognized at fair value or at the interest's proportional share of the acquired company's net assets. Any negative difference, negative goodwill, is recognized as revenue immediately after determination.

Deferred considerations are classified as financial liabilities and revalued through profit or loss in operating income. Significant deferred considerations are discounted to present value. Acquisition-related transaction costs are expensed as incurred.

Intra-Group transactions and balance sheet items, and unrealized profits on transactions between Group companies are eliminated in the consolidated financial statements.

Non-controlling interests

Non-controlling interests are based on the subsidiaries' accounts with application of fair value adjustments resulting from a completed acquisition analysis. Non-controlling interests' share in subsidiaries' earnings is recognized in the income statement, in which net income is attributed to the Parent company's shareholders and to non-controlling interests.

Note 1 cont.

Non-controlling interests' share in subsidiaries' equity is recognized separately in consolidated equity. Transactions with non-controlling interests are recognized as transactions with the Group's shareholders in equity.

Associates

Associates are defined as companies which are not subsidiaries but in which the Group has a significant (but not a controlling) interest. This generally refers to companies in which the Group's shareholding represents between 20 and 50 percent of the voting rights.

Investments in associates are accounted for in accordance with the equity method. In the consolidated balance sheet, shareholdings in associates are recognized at cost, and the carrying amount is adjusted for the share of associates' earnings after the acquisition date. Dividends from associates are recognized as a reduction in the carrying amount of the holdings. The share of associates' earnings is recognized in the consolidated income statement in operating income as the holdings are related to business operations.

Segment reporting

Operating segments are reported in accordance with internal reporting to the chief operating decision maker. Chief operating decision maker is the function that is responsible for allocation of resources and assessing performance of the operating segments. The divisions form the operational structure for internal control and reporting and also constitute the Group's segments for external financial reporting. The Group's business is divided into five divisions. Three divisions are based on products sold in local markets in the respective division: EMEA, Americas and Asia Pacific. Global Technologies and Entrance Systems consist of products sold worldwide.

Foreign currency translation

Functional currency corresponds to local currency in each country where Group companies operate. Transactions in foreign currencies are translated to functional currency by application of the exchange rates prevailing on the transaction date. Foreign exchange gains and losses arising from the settlement of such transactions are normally recognized in the income statement, as are those arising from translation of monetary balance sheet items in foreign currencies at the year-end rate. Exceptions are transactions relating to qualifying cash flow hedges, which are recognized in other comprehensive income. Receivables and liabilities are measured at the year-end rate.

In translating the accounts of foreign subsidiaries prepared in functional currencies other than the Group's presentation currency, all balance sheet items except net income are translated at the year-end rate and net income is translated at the average rate. The income statement is translated at the average rate for the period. Exchange differences arising from the translation of foreign subsidiaries are recognized as translation differences in other comprehensive income.

The table below shows the weighted average rate and the closing rate for important currencies used in the Group, relative to the Group's presentation currency (SEK).

		Average rate		Closing rate	
Country	Currency	2018	2019	2018	2019
United Arab Emirates	AED	2.37	2.57	2.45	2.54
Argentina	ARS	0.33	0.20	0.23	0.16
Australia	AUD	6.49	6.56	6.34	6.51
Brazil	BRL	2.39	2.39	2.32	2.30
Canada	CAD	6.71	7.10	6.60	7.13
Switzerland	CHF	8.91	9.50	9.12	9.58
Chile	CLP	0.014	0.013	0.013	0.012
China	CNY	1.31	1.37	1.31	1.33
Czech Republic	CZK	0.40	0.41	0.40	0.41
Denmark	DKK	1.38	1.42	1.38	1.40
Euro zone	EUR	10.27	10.57	10.29	10.44
United Kingdom	GBP	11.57	12.02	11.37	12.23
Hong Kong	HKD	1.11	1.20	1.15	1.20
Hungary	HUF	0.032	0.032	0.032	0.032
Israel	ILS	2.42	2.64	2.38	2.69
India	INR	0.128	0.134	0.128	0.131
Kenya	KES	0.086	0.092	0.088	0.092
South Korea	KRW	0.0079	0.0081	0.0081	0.0081
Mexico	MXN	0.4522	0.4872	0.4561	0.4954
Malaysia	MYR	2.15	2.27	2.16	2.27
Norway	NOK	1.06	1.07	1.03	1.06
New Zealand	NZD	6.01	6.22	6.03	6.26
Poland	PLN	2.41	2.46	2.40	2.45
Romania	RON	2.21	2.23	2.21	2.18
Thailand	THB	0.27	0.30	0.28	0.31
Turkey	TRY	1.88	1.67	1.71	1.57
US	USD	8.70	9.43	8.98	9.32
South Africa	ZAR	0.66	0.65	0.62	0.67

Revenue

The Group recognizes revenue from contracts with customers based on the five-step model described in IFRS 15. Revenue is recognized when the entity satisfies a performance obligation by transferring a promised good or service to a customer. The good or service is transferred when the customer acquires control over the asset, which may happen either over time or at a particular point in time.

Under the five-step model an entity must complete the following steps before revenue can be recognized: Identify contracts with customers, identify performance obligations, determine the transaction price, allocate the transaction price to each of the separate performance obligations, and finally recognize the revenue attributable to each performance obligation.

At the beginning of the customer contract ASSA ABLOY determines whether the goods and/or services that are promised in the agreement comprise one performance obligation or several separate performance obligations.

A performance obligation is defined as a distinct promise to transfer a good or a service to the customer. A promised good or service is distinct if both of the following criteria are met:

a) the customer can benefit from the good or service separately or together with other resources that are readily available to the customer and
b) the Group's promise to transfer the good or service to the customer is separately identifiable from other promises in the contract.

When determining the transaction price, which is the amount of consideration promised in the contract, the Group takes into account any variable considerations, such as cash discounts, volume-based discounts, and right of returns. The transaction price includes variable consideration only if it is highly probable that a significant reversal of the revenue is not expected to occur in a future period.

ASSA ABLOY receives payment in advance from customers to a limited extent. No customer contracts within the Group relating to the sale of goods or services are assessed to contain a significant financing component. The Group does not recognize any contract costs since the Group applies the practical expedient permitted by the standard, under which incremental costs of obtaining a contract are recognized as an expense when incurred if the amortization period of the asset that the Group otherwise would have recognized is one year or less.

ASSA ABLOY allocates the transaction price for each performance obligation on the basis of a stand-alone selling price. The stand-alone selling price is the price for which the Group would sell the good or service separately to a customer. In cases where a stand-alone selling price is not directly observable, it is usually calculated based on the adjusted market assessment approach or the expected cost plus a margin approach.

Any discounts are allocated proportionately to all performance obligations in the contract, provided there is not observable evidence that the discount does not relate to all performance obligations.

ASSA ABLOY recognizes revenue when the Group satisfies a performance obligation by transferring a good or service to a customer, i.e. as the customer gains control over the asset. A performance obligation is met either over time or at a particular point in time. ASSA ABLOY recognizes revenue over time if any of the following criteria are met:

Note 1 cont.

a) the customer simultaneously receives and consumes the benefits provided by the Group's performance as the Group performs an obligation
b) the Group's performance creates or enhances an asset that the customer controls as the asset is created or enhanced
c) the Group's performance does not create an asset with an alternative use to the Group and the Group has an enforceable right to payment for performance completed to date.

Revenue that is not recognized over time is recognized at a given point in time, i.e. the point in time when the customer gains control over the asset.

The Group's revenue mainly consists of product sales. Service related to products sold represents a limited share of revenue. Revenue for the sale of the Group's products is recognized at a given point in time when the customer gains control over the product, usually at the time of delivery. ASSA ABLOY also carries out installation services, which are recognized over time. For shorter installation jobs, revenue is recognized in practice upon completion of installation. Revenue from service contracts is recognized over time.

For product sales, a receivable is recognized when the goods have been delivered, since this is usually the point in time when the consideration becomes unconditional. Payment terms for trade receivables differ among geographic markets. The average collection period for trade receivables in 2019 was 52 days.

Intra-Group sales

Transactions between Group companies are carried out at arm's length and thus at market prices. Intra-Group sales are eliminated from the consolidated income statement, and profits on such transactions have been eliminated in their entirety.

Government grants

Grants and support from governments, public authorities and the like are recognized when there is reasonable assurance that the company will comply with the conditions attaching to the grant and that the grant will be received. Grants relating to assets are recognized after reducing the carrying amount of the asset by the amount of the grant.

Research and development

Research expenditure is expensed as incurred. Development expenditure is recognized in the balance sheet to the extent that it is expected to generate future economic benefits for the Group and provided such benefits can be reliably measured.

Capitalized development expenditure is amortized over the expected useful life. Such intangible assets, which are not yet in use, are tested annually for impairment. Expenditure on the further development of existing products is expensed as incurred.

Borrowing costs

Borrowing costs are interest expenses and other expenses directly related to borrowing. Borrowing costs directly attributable to the acquisition, construction or production of a qualifying asset (an asset that necessarily takes a substantial period of time to get ready for its intended use or sale) are included in the cost of the asset. Other borrowing costs are recognized as an expense in the period in which they are incurred.

Tax on income

The income statement includes all tax that is to be paid or received for the current year, adjustments relating to tax due for previous years, and changes in deferred tax. These taxes have been calculated at nominal amounts, in accordance with the tax regulations in each country, and in accordance with tax rates that have either been decided or have been notified and can confidently be expected to be confirmed. For items recognized in the income statement, associated tax effects are also recognized in the income statement. The tax effects of items recognized directly against equity or in other comprehensive income are themselves recognized against equity or in other comprehensive income. The liability method is used in accounting for deferred tax. This means that deferred tax is recognized on all temporary differences between the carrying amounts of assets and liabilities and their respective tax bases. Deferred tax assets relating to tax losses carried forward or other future tax allowances are recognized to the extent that it is probable that the allowance can be offset against taxable income in future taxation. Deferred tax liabilities for temporary differences relating to investments in subsidiaries are not recognized in the consolidated financial statements, since the Parent company can control the time at which the temporary differences are reversed, and it is not considered likely that such reversal will occur in the foreseeable future. Deferred tax assets and deferred tax liabilities are offset when there is a legal right to do so and when deferred taxes relate to the same tax authority.

The Group applies IFRIC 23 from 1 January 2019 and measures each uncertain tax position using either the most likely amount or the expected value, based on the method expected to reflect the outcome in the best way. Assessments are reconsidered when there is new information that affects earlier judgments.

Cash flow statement

The cash flow statement has been prepared according to the indirect method. The recognized cash flow includes only transactions involving cash payments.

Cash and cash equivalents

Cash and cash equivalents include cash and bank balances, and short-term financial investments that mature within three months of the acquisition date.

Goodwill and acquisition-related intangible assets

Goodwill represents the positive difference between the acquisition cost and the fair value of the Group's share of the acquired company's identifiable net assets at the acquisition date, and is recognized at cost less accumulated impairment losses. Goodwill is allocated to cash generating units and is tested annually to identify any impairment loss. Cash generating units are subject to systematic annual impairment testing using a valuation model based on discounted future cash flows. Deferred tax assets based on local tax rates are recognized in terms of tax-deductible goodwill (with corresponding reduction of the goodwill value). Such deferred tax assets are expensed as the tax deduction is utilized. Other acquisition-related intangible assets consist chiefly of various types of intellectual property rights, such as brands, technology and customer relationships. Identifiable acquisition-related intellectual property rights are initially recognized at fair value at the acquisition date and subsequently at cost less accumulated amortization and impairment losses. Amortization is on a straight-line basis over the estimated useful life and amounts to 5–12 years for technology and 8–15 years for customer relationships. Acquisition-related intangible assets with an indefinite useful life are tested for impairment annually in the same way as goodwill.

Other intangible assets

An intangible asset that is not acquisition-related is recognized only if it is likely that the future economic benefits associated with the asset will flow to the Group, and if the cost of the asset can be reliably measured. Such an asset is initially recognized at cost and is amortized over its estimated useful life, usually between three and five years. The carrying amount is the cost less accumulated amortization and impairment losses.

Property, plant and equipment

Property, plant and equipment are recognized at cost less accumulated depreciation and impairment losses. Cost includes expenditure directly attributable to acquisition of the asset. Subsequent expenditure is capitalized if it is probable that economic benefits associated with the asset will flow to the Group, and if the cost can be reliably measured. Expenditure on repairs and maintenance is expensed as incurred. Depreciable amount is the cost of an asset less its estimated residual value. Land is not depreciated. For other assets, cost is depreciated over the estimated useful life, which for the Group results in the following average depreciation periods:

- Buildings 25–50 years
- Land improvements 10–25 years.
- Machinery 7–10 years
- Equipment 3–6 years

Note 1 cont.

The residual value and useful life of assets are reviewed at each reporting date and adjusted when necessary. Gain or loss on the disposal of property, plant and equipment is recognized in the income statement as 'Other operating income' or 'Other operating expenses', and consists of the difference between the selling price and the carrying amount.

Leases
Within the Group there are a large number of current leases, mostly relating to offices, premises and vehicles. From 1 January 2019 the Group applies IFRS 16 Leases and recognizes a right-of-use asset and a lease liability corresponding to the present value of future lease payments in the balance sheet on the day the leased asset is made available for use. In calculating the present value, the Group's incremental borrowing rate by currency is used.

The right-of-use asset is depreciated on a straight-line basis over the lease term, or over the period of use of the underlying asset if the lease transfers ownership of the underlying asset to the Group by the end of the lease term. Depreciation is recognized as an expense in profit or loss, while interest expense attributable to the lease liability is recognized in net financial items.

The Group has chosen not to recognize any right of use or lease liability regarding obligations for short-term leases and low-value leases. Lease payments relating to such leases are reported as operating expenses over the lease term.

For periods before 2019 the Group recognizes leases in accordance with IAS 17 which means that lease payments are expensed on a straight-line basis over the term of the lease and are recognized as operating expenses.

Impairment
Assets with an indefinite useful life are not amortized but are tested for impairment on an annual basis. For impairment testing purposes, assets are grouped at the lowest organizational level where there are separate identifiable cash flows, so-called cash generating units (CGU).

For assets that are depreciated/amortized, impairment testing is carried out when events or circumstances indicate that the carrying amount may not be recoverable.

Impairment losses are recognized in the amount by which the carrying amount of the asset exceeds the recoverable amount. The recoverable amount is the higher of an asset's fair value less selling expenses and its value in use.

Inventories
Inventories are valued in accordance with the 'first in, first out' principle at the lower of cost and net realizable value at the reporting date. Deductions are made for internal profits arising from deliveries between Group companies. Work in progress and finished goods include both direct costs incurred and a fair allocation of indirect production costs.

Trade receivables
Trade receivables are recognized initially at fair value and subsequently measured at amortized cost using the effective interest method.

Regarding provisions for expected credit losses on trade receivables, see the section Impairment of financial assets. The year's change in expected credit losses is recognized in the income statement as selling expenses.

Financial assets
Financial assets include cash and cash equivalents, trade receivables, short-term investments, derivatives and other financial assets.

Under IFRS 9, the Group classifies financial assets in the categories financial assets at amortized cost, financial assets at fair value through profit or loss, or financial assets at fair value through other comprehensive income.

Financial liabilities at amortized cost
Financial assets at amortized cost mainly comprise trade receivables and cash and cash equivalents. A financial asset is measured at amortized cost if the asset is held within a business model whose objective is to hold financial assets to collect their contractual cash flows, and the contractual terms of the financial asset give rise, on specified dates, to cash flows that are solely payments of principal and interest on the principal amount outstanding.

Financial assets in this category are initially recognized at fair value plus transaction costs that are directly related to the purchase and then at amortized cost.

Financial assets at fair value through other comprehensive income
A financial asset is measured at fair value through other comprehensive income if the asset is held within a business model whose objective is achieved by both collecting contractual cash flows and selling financial assets, and also the contractual terms of the financial asset give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.

Financial assets in this category are initially recognized at fair value plus transaction costs that are directly related to the purchase and then at fair value through other comprehensive income. As of the reporting date the Group has no financial assets in this category.

Financial assets at fair value through profit or loss
Financial assets that are not recognized in any of the other categories are measured at fair value through profit or loss. Financial assets in this category are initially recognized at fair value. Transaction costs related to financial assets recognized in this category are expensed directly in the income statement. As of the reporting date, this category comprises shares and participations.

Impairment of financial assets
The Group applies the IFRS 9 simplified approach to measuring expected credit losses for trade receivables. Under this approach, a provision is made for lifetime expected credit losses for the trade receivable. For calculation of expected credit losses, the trade receivables are grouped based on the number of days past due. Expected credit losses on trade receivables that are not past due are primarily based on actual credit losses from recent years.

Impairment that would be considered for other financial assets that are within the scope of expected credit losses have been assessed to be immaterial.

Financial liabilities
Financial liabilities include deferred considerations, loan liabilities, trade payables and derivative instruments. Recognition depends on how the liability is classified. The Group classifies financial liabilities in the categories: financial liabilities at amortized cost and financial liabilities at fair value through profit or loss.

Financial liabilities are initially measured at fair value less, for a financial liability that is not measured at fair value through profit or loss, transaction costs that are directly related to the acquisition or issue of the financial liability. After initial recognition, financial liabilities are recognized either at amortized cost or at fair value through profit or loss, depending on the classification of the financial liability.

Financial liabilities at fair value through profit or loss
This category includes derivatives with a negative fair value that are not used for hedge accounting and deferred considerations. Liabilities are measured at fair value on a continuous basis and changes in value are recognized in the income statement.

Loan liabilities
Loan liabilities are initially valued at fair value, net of transaction costs, and subsequently at amortized cost. Amortized cost is determined based on the effective interest rate calculated when the loan was raised. Accordingly, surplus values and negative surplus values as well as direct issue expenses are allocated over the term of the loan. Non-current loan liabilities have an anticipated term of more than one year, while current loan liabilities have a term of less than one year.

Trade payables
Trade payables are initially valued at fair value, and subsequently at amortized cost using the effective interest method.

Note 1 cont.

Recognition and measurement of financial assets and liabilities
Acquisitions and sales of financial assets are recognized on the trade date, the date on which the Group commits to purchase or sell the asset. Transaction costs are initially included in fair value for all financial instruments, except for those recognized at fair value through profit or loss where the transaction cost is recognized through profit or loss. The fair value of quoted investments is based on current bid prices. In the absence of an active market for an investment, the Group applies various measurement techniques to determine fair value. These include use of available information on current arm's length transactions, comparison with equivalent assets and analysis of discounted cash flows. A financial asset is derecognized from the balance sheet when the right to receive cash flows from the asset expires or is transferred to another party through the transfer of all the risks and benefits associated with the asset to the other party. A financial liability is derecognized from the balance sheet when the obligation is fulfilled, cancelled or expires, see above.

Financial assets and liabilities are offset against each other and the net amount is recognized in the balance sheet when there is a legal right of set-off and there is an intention to settle the items by a net amount. See note 35 for disclosures about offsetting of financial assets and liabilities.

Derivative instruments and hedging
Derivative instruments are recognized in the balance sheet at the transaction date and are measured at fair value, both initially and in subsequent revaluations. The method for recognizing profit or loss depends on whether the derivative instrument is designated as a hedging instrument, and if so, the nature of the hedged item. For derivatives not designated as hedging instruments, changes in value are recognized on a continuous basis through profit or loss under financial items, either as income or expense.

The Group designates derivatives as follows:

i) Fair value hedge: a hedge of the fair value of an identified liability;
ii) Cash flow hedge: a hedge of a certain risk associated with a forecast cash flow for a certain transaction; or
iii) Net investment hedge: a hedge of a net investment in a foreign subsidiary.

When entering into the hedge transaction, the Group documents the relationship between the hedging instrument and hedged items, as well as its risk management strategy for the hedge. The Group also documents its assessment, both on inception and on a regular basis, of whether the derivative instruments used in hedge transactions are effective in offsetting changes in fair value attributable to the hedged items.

The fair value of forward exchange contracts is calculated at net present value based on prevailing forward rates on the reporting date, while interest rate swaps are measured by estimating future discounted cash flows.

For information on the fair value of derivative instruments, see Note 35, 'Financial risk management and financial instruments'. Derivatives at fair value, with a maturity of more than 12 months, are classified as non-current interest-bearing liabilities or receivables. Other derivatives are classified as current interest-bearing liabilities and investments respectively.

Fair value hedges
For derivatives that are designated and qualify as fair value hedges, changes in value of both the hedged item and the hedging instrument are recognized on a continuous basis in the income statement (under financial items). Fair value hedges are used to hedge interest rate risk in borrowing linked to fixed interest terms. If the hedge would no longer qualify for hedge accounting, the fair value adjustment of the carrying amount is dissolved through profit or loss over the remaining term using the effective interest method.

Cash flow hedges
For derivatives that are designated and qualify as cash flow hedges, changes in value of the hedging instrument are recognized on a continuous basis in other comprehensive income for the part relating to the effective portion of the hedges. Gain or loss arising from ineffective portions of derivatives is recognized directly in the income statement under financial items. When a hedging instrument expires, is sold or no longer qualifies for hedge accounting, and accumulated gains or losses relating to the hedge are recognized in equity, these gains/losses remain in equity and are taken to income, while the forecast transaction is finally recognized in the income statement. When a forecast transaction is no longer expected to occur, the accumulated gain or loss recognized in equity is immediately transferred to Other comprehensive income in the income statement. When a forecast transaction is no longer expected to occur, the gain or loss recognized in Other comprehensive income is recognized directly under financial items.

Net investment hedges
For derivatives that are designated and qualify as net investment hedges, the portion of value changes in fair value designated as effective is recognized in other comprehensive income. The ineffective portion of the gain or loss is recognized directly in profit or loss for the period under financial items. Accumulated gain or loss in other comprehensive income is recognized in the income statement when the foreign operation, or part thereof, is sold.

Provisions
A provision is recognized when the Group has a legal or constructive obligation resulting from a past event and it is probable that an outflow of resources will be required to settle the obligation, and that a reliable estimate of the amount can be made. Provisions are recognized at a value equivalent to the outflow of resources that will probably be required to settle the obligation. The amount of a provision is discounted to present value where the effect of time value is considered material.

Assets and liabilities of disposal group classified as held for sale
Assets and liabilities are classified as held for sale when their carrying amounts will principally be recovered through a sale and when such a sale is considered highly probable. They are recognized at the lower of carrying amount and fair value less selling expenses. As of the reporting date the Group had no assets or liabilities classified as held for sale.

Remuneration of employees
The Group operates both defined contribution and defined benefit pension plans. Comprehensive defined benefit plans are found chiefly in the US, the UK and Germany. Post-employment medical benefits are also provided, mainly in the US, and are reported in the same way as defined benefit pension plans. Calculations relating to the Group's defined benefit plans are performed by independent actuaries and are based on a number of actuarial assumptions such as discount rate, future inflation and salary increases. Obligations are valued on the reporting date at their discounted value. For funded plans, obligations are reduced by the fair value of the plan assets. Actuarial gains and losses resulting from experience-based adjustments and changes in actuarial assumptions are recognized in other comprehensive income during the period they arise. The pension expense for defined benefit plans is spread over the employee's service period. The Group's payments relating to defined contribution pension plans are recognized as an expense in the period to which they relate, based on the services performed by the employee. Swedish Group companies calculate tax on pension costs based on the difference between pension expense determined in accordance with IAS 19 and pension expense determined in accordance with the regulations applicable in the legal entity.

Equity-based incentive programs
The Group has equity-based remuneration plans in the form of ASSA ABLOY's long-term incentive program presented for the first time at the 2010 Annual General Meeting. Detailed information about the structure of the various programs can be found in Note 34 Employees. For the long-term incentive program, personnel costs during the vesting period are recognized based on the shares' fair value on the allotment date, that is, when the company and the employees entered into an agreement on the terms and conditions for the program. The long-term incentive program through 2017 comprised two parts: a matching part where the employee receives one share for every share the latter invests during the term of the program, and a performance-based part where the outcome is based on the company's financial results (EPS target) during the period. The program requires that the employee continues to invest in the long-term incentive program and that the latter remains employed in the ASSA ABLOY Group. Beginning in 2018, no matching portion is included in the long-term incentive programs.

Note 1 cont.

Fair value is based on the share price on the allotment date; a reduction in fair value relating to the anticipated dividend has not been made as the participants are compensated for this. The employees pay a price equivalent to the share price on the investment date. The vesting terms are not stock market based and affect the number of shares that ASSA ABLOY will give to the employee when matching. If an employee stops investing in the program, all remaining personnel costs are immediately recognized in the income statement. Personnel costs for shares relating to the performance-based program are calculated on each accounting date based on an assessment of the probability of the performance targets being achieved. The costs are calculated based on the number of shares that ASSA ABLOY expects to need to settle at the end of the vesting period. When allocating shares, social security contributions must be paid in some countries to the value of the employee's benefit. This value is based on fair value on each accounting date and recognized as a provision for social security contributions.

The long-term incentive programs are essentially equity settled and an amount equivalent to the personnel cost is recognized against retained earnings in equity. In the income statement, the personnel cost is allocated to the respective function.

Earnings per share

Earnings per share before dilution is calculated by dividing the net income attributable to the Parent company's shareholders by the weighted average number of outstanding shares (less treasury shares). Earnings per share after dilution is calculated by dividing the net income attributable to the Parent company's shareholders by the sum of the weighted average number of ordinary shares and potential ordinary shares that may give rise to a dilutive effect. The dilutive effect of potential ordinary shares is only recognized if their conversion to ordinary shares would lead to a reduction in earnings per share after dilution.

Dividend

Dividend is recognized as a liability after the Annual General Meeting has approved the dividend.

Parent company

The Group's Parent company, ASSA ABLOY AB, is responsible for Group management and provides Group-wide functions. The Parent company's revenue consists of intra-Group franchise and royalty revenues. The significant balance sheet items consist of shares in subsidiaries, intra-Group receivables and liabilities, and external borrowing. The Parent company has prepared its annual accounts in accordance with the Swedish Annual Accounts Act (1995:1554) and the Swedish Financial Reporting Board's RFR 2 Accounting for Legal Entities. RFR 2 requires the Parent company, in its annual accounts, to apply all the International Financial Reporting Standards (IFRS) adopted by the EU in so far as this is possible within the framework of the Annual Accounts Act and with regard to the relationship between accounting and taxation. The recommendation states which exceptions from and additions to IFRS should be made.

Revenue

The Parent company's revenue consists of intra-Group franchise and royalty revenues. These are recognized in the income statement as 'Other operating income' to make clear that the Parent company has no product sales like other Group companies with external operations.

Dividend

Dividend revenue is recognized when the right to receive payment is considered certain.

Research and development costs

Research and development costs are expensed as incurred.

Intangible assets

Intangible assets comprise patented technology and other intangible assets. They are amortized over 4–5 years.

Property, plant and equipment

Property, plant and equipment owned by the Parent company are recognized at cost less accumulated depreciation and any impairment losses in the same way as for the Group. They are depreciated over their estimated useful life, which is 5–10 years for equipment and 4 years for IT equipment.

Trade receivables

Trade receivables are recognized initially at fair value and subsequently measured at amortized cost using the effective interest method. From 1 January 2018 the Parent company has applied the IFRS 9 simplified approach to measuring the expected credit loss allowance for trade receivables. However, the expected credit losses attributable to the Parent company's trade receivables have been assessed to be immaterial.

Pension obligations

The Parent company's pension obligations are accounted for in accordance with FAR RedR 4 and are covered by taking out insurance with an insurance company.

Leases

The Parent company recognizes all lease agreements in accordance with RFR2 and has chosen to recognize all leases as operating leases.

Shares in subsidiaries

Shares in subsidiaries are recognized at cost less impairment losses. When there is an indication that the value of shares and interests in subsidiaries or associates has fallen, the recoverable amount is calculated. If this is lower than the carrying amount, an impairment loss is recognized. Impairment losses are recognized in Financial expenses in the income statement.

Financial instruments

Derivative instruments are recognized at fair value. Changes in the value of derivatives are recognized in profit or loss.

Group contributions

The Parent company recognizes Group contributions in accordance with RFR 2. Group contributions received and paid are recognized under appropriations in the income statement. The tax effect of Group contributions is recognized in accordance with IAS 12 in the income statement.

Contingent liabilities

The Parent company has guarantees on behalf of its subsidiaries. Such an obligation is classified as a financial guarantee in accordance with IFRS. For these guarantees, the Parent company applies the alternative rule in RFR 2, reporting these guarantees as a contingent liability.

Note 2 Sales revenue

Distribution of revenue from contracts with customers

Sales by product group

	EMEA		Americas		Asia Pacific		Global Technologies		Entrance Systems		Other		Group	
SEK M	**2018**	**2019**	**2018**	**2019**	**2018**	**2019**	**2018**	**2019**	**2018**	**2019**	**2018**	**2019**	**2018**	**2019**
Mechanical locks, lock systems and fittings	10,076	10,232	7,650	8,734	4,978	5,035	11	186	9	8	–678	–710	22,046	23,486
Electromechanical and electronic locks	6,605	6,727	3,876	5,339	2,332	2,492	11,938	15,089	891	747	–779	–1,018	24,863	29,376
Security doors and hardware	3,155	3,678	8,220	8,985	2,627	3,143	2	147	–	–	–70	–104	13,933	15,849
Entrance automation	365	508	70	114	12	18	–	–	22,862	24,798	–103	–121	23,205	25,318
Total	**20,201**	**21,144**	**19,817**	**23,172**	**9,949**	**10,689**	**11,951**	**15,423**	**23,762**	**25,553**	**–1,630**	**–1,953**	**84,048**	**94,029**

Sales by continent

	EMEA		Americas		Asia Pacific		Global Technologies		Entrance Systems		Other		Group	
SEK M	**2018**	**2019**	**2018**	**2019**	**2018**	**2019**	**2018**	**2019**	**2018**	**2019**	**2018**	**2019**	**2018**	**2019**
Europe	17,597	18,435	43	43	551	552	3,016	3,863	11,397	11,937	–663	–733	31,941	34,097
North America	606	593	18,071	21,358	923	1,082	5,718	7,657	10,405	11,650	–688	–850	35,036	41,490
Central and South America	100	102	1,582	1,629	48	52	493	562	89	83	–35	–37	2,278	2,392
Africa	840	827	14	26	15	15	441	410	60	54	–28	–24	1,342	1,308
Asia	951	1,053	99	110	6,610	6,633	2,008	2,471	1,302	1,333	–126	–177	10,843	11,422
Oceania	106	134	8	7	1,802	2,355	275	459	508	495	–91	–132	2,608	3,319
Total	**20,201**	**21,144**	**19,817**	**23,172**	**9,949**	**10,689**	**11,951**	**15,423**	**23,762**	**25,553**	**–1,630**	**–1,953**	**84,048**	**94,029**

Customer sales by country

	Group	
SEK M	**2018**	**2019**
US	30,970	36,972
China	4,768	4,919
Sweden	4,551	4,739
United Kingdom	3,728	4,135
France	3,960	4,087
Germany	3,310	3,678
Canada	2,659	2,882
Australia	2,100	2,625
Netherlands	2,090	2,279
Finland	1,964	2,045
Norway	1,657	1,776
Mexico	1,407	1,636
South Korea	1,736	1,616
Belgium	1,550	1,597
Denmark	1,449	1,450
Spain	1,223	1,294
Poland	1,014	1,056

	Group	
SEK M	**2018**	**2019**
Brazil	945	1,018
Italy	889	986
Switzerland	902	971
India	624	711
Austria	609	673
New Zealand	490	672
South Africa	592	612
United Arab Emirates	609	553
Ireland	427	530
Czech Republic	451	494
Saudi Arabia	374	457
Singapore	311	387
Hong Kong	298	374
Chile	373	357
Philippines	247	315
Israel	294	300
Japan	220	294

	Group	
SEK M	**2018**	**2019**
Thailand	239	278
Colombia	238	262
Portugal	208	240
Hungary	219	231
Turkey	277	230
Russia	212	219
Malaysia	237	217
Romania	206	196
Estonia	182	191
Kazakhstan	126	183
Indonesia	172	163
Egypt	69	155
Slovakia	158	155
Croatia	126	134
Vietnam	121	127
Other countries	2,469	2,556
Total	**84,048**	**94,029**

Contract assets and contract liabilities

The Group recognizes the following revenue-related contract assets and contract liabilities:

Contract assets

	Group	
SEK M	**2018**	**2019**
Accrued revenue	272	607
Total	**272**	**607**

Contract liabilities

	Group	
SEK M	**2018**	**2019**
Non-current advances from customers and deferred revenue	31	52
Current advances from customers and deferred revenue	1,722	1,836
Total	**1,753**	**1,888**

Contract assets during the year have increased by SEK 335 M, primarily as a result of more and larger ongoing projects as of the reporting date than the previous year. Contract liabilities have increased by SEK 135 M. Acquired companies account for SEK 158 M of this increase. Divested companies have not had any effect on this item. The total contract liability as at 31 December 2018 of SEK 1,753 M has in all important respects been recognized in 2019.

Remaining performance obligations

The total transaction price allocated to unsatisfied performance obligations at the reporting date amounts to SEK 12,760 M. Of this amount, SEK 12,151 M is expected to be recognized as revenue in 2020, while an estimated SEK 609 M will be recognized as revenue in 2021 or later.

As of 31 December 2018 the total transaction price allocated to unsatisfied performance obligations was SEK 12,282 M.

Note 3 Auditors' fees

SEK M	Group 2018	Group 2019	Parent company 2018	Parent company 2019
Audit assignment				
PwC	56	64	5	4
Others	16	18	–	–
Audit-related services in addition to audit assignment				
PwC	1	1	1	1
Tax advice				
PwC	8	10	0	1
Others	9	12	1	1
Other services				
PwC	17	25	1	0
Others	14	11	0	0
Total	**122**	**141**	**7**	**7**

The auditors' fee for PwC in Sweden during the year was SEK 8 M (8) and the fee for extra services was SEK 4 M (2).

Note 4 Other operating income and expenses

SEK M	Group 2018	Group 2019
Rental income	14	12
Business-related taxes	–54	–52
Profit on sales of non-current assets	265	63
Profit/loss on sales of subsidiaries	11	–
Transaction expenses from acquisitions	–107	–169
Exchange rate differences	–51	–58
Impairment operating assets, etc., in China	–400	–
Restructuring costs	–142	–47
Remeasurement of deferred considerations	296	358
Other, net	–128	–56
Total	**–296**	**51**

Parent company

Other operating income in the Parent company consists mainly of franchise and royalty revenues from subsidiaries.

Note 5 Share of earnings in associates

SEK M	Group 2018	Group 2019
Agta record AG	146	121
Goal Co., Ltd	17	17
PT Jasuindo Arjo Wiggins Security	3	5
SARA Loading Bay Ltd	–1	–1
Saudi Crawford Doors Ltd	2	4
Others	–	0
Total	**167**	**147**

The share of earnings in agta record AG has been estimated on the basis of the associated company's latest available financial report, which is the published Interim Report for the first half of 2019.

Note 6 Leases

Accounting of leases for the Group

From 1 January 2019 the Group applies IFRS 16 Leases and recognizes a right-of-use asset and a lease liability corresponding to the present value of future lease payments in the balance sheet. For previous years, leases are recognized in accordance with IAS 17 and lease payments are expensed on a straight-line basis over the term of the lease.

For the Group, lease payments totaled SEK 1,084 M in 2018. As at 31 December 2018 the nominal value of agreed future lease payments was SEK 4,144 M of which SEK 1,144 M falls due for payment in 2019, SEK 2,483 M falls due for payment in 2020–2023 and SEK 517 M falls due for payment in 2024 or later. Lease payments mainly relate to rented premises and vehicles The Group has no single substantial leases since the agreements are spread over a large number of subsidiaries.

Effects of the transition to IFRS 16

For the transition to IFRS 16, the Group's liability arising from obligations for operating leases is SEK 3,718 M. Adjusted for advance lease payments, the liability was SEK 3,711 M. The Group's total lease liability at the beginning of 2019, including financial lease liability recognized in accordance with IAS 17, was SEK 3,802 M.

The lease liability based on the Group's operating lease obligations as at 31 December 2018 is derived as shown in the table below.

SEK M	Group 2019
Obligations, operating leases, as at 31 December 2018	4,144
Less: Obligations, short-term leases and low-value leases	–187
Less: Reclassifications, new assessments, etc.	–8
Adjusted lease obligations as at 31 December 2018.	**3,950**
Effect of discount at incremental borrowing rate	–231
Less: Advance lease payments	–7
Plus: Liabilities, finance leases, as at 31 December 2018	91
Lease liability as at 1 January 2019	**3,802**

The carrying amount for right-of-use assets attributable to operating leases measured according to IFRS 16 as at 1 January 2019 was SEK 3,718 M. This amount included SEK 3,043 M for buildings and land, while the remainder was primarily attributable to cars and other vehicles. The Group has chosen to measure right-of-use for an amount equal to the lease liability as at the reporting date, adjusted for accrued and advance lease payments. The value of finance leases recognized in accordance with IAS 17 as at 31 December 2018 was SEK 119 M. The total value of the Group's right-of-use assets as at 1 January 2019 was therefore SEK 3,837 M.

When measuring right-of-use and lease liability, the Group made estimates and assumptions such as whether any options to extend or terminate a lease agreement will be exercised. The discount rate was determined based on the Group's incremental borrowing rate in different currencies. The average incremental borrowing rate as at 1 January 2019 was 2.4 percent.

The new standard increases capital employed in the Group, with a corresponding increase in net debt. The new standard will therefore have a slightly positive impact on operating income since part of the leasing expense is recognized as an interest expense in net financial items. The new standard had no significant effect on net income in 2019, nor is it expected to have any significant effect going forward.

In the statement of cash flows the lease payments are split between interest paid in cash flow from operating activities and amortization of lease liabilities in financing activities. This means that the standard has a positive effect on the Group's cash flow from operating activities. In operating cash flow, the Group has chosen to include amortization of lease liabilities as an operating component from 1 January 2019. The Group's operating cash flow will therefore continue to be comparable with earlier periods.

In the transition to IFRS 16, the Group has applied the cumulative catch-up approach as transition method and therefore does not restate any comparative information. However, the Group has chosen to report right-of-use assets and lease liabilities on separate lines in the balance sheet from 2019. As a result, assets and liabilities relating to finance leases accounted for in accordance with IAS 17 are being reclassified to new balance sheet lines in the comparison periods.

Note 6 cont.

For more information about right-of-use assets and lease liabilities, see note 16 and note 35, as well as the Group's accounting principles.

Accounting of leases for the Parent company

The Parent company recognizes all lease agreements in accordance with RFR2 and has chosen to recognize all leases as operating leases. Operating leases in the Parent company mainly relate to rented premises and cars.

	Parent company	
SEK M	**2018**	**2019**
Lease payments during the year	11	13
Total	**11**	**13**
Nominal value of agreed future lease payments:		
Due for payment in:		
(2019) 2020	13	13
(2020) 2021	11	5
(2021) 2022	4	1
(2022) 2023	0	0
(2023) 2024	0	0
Total	**28**	**19**

Note 7 Expenses by nature

In the income statement costs are broken down by function. Below, these same costs are broken down by nature:

	Group	
SEK M	**2018**	**2019**
Remuneration of employees (note 34)	24,485	27,001
Direct material costs	30,461	33,885
Depreciation and amortization (notes 8, 14, 15)	1,963	3,387
Other purchase expenses	15,319	15,345
Total	**72,228**	**79,619**

Note 8 Depreciation and amortization

	Group		Parent company	
SEK M	**2018**	**2019**	**2018**	**2019**
Intangible assets	802	956	593	625
Machinery	549	605	–	–
Equipment	364	392	16	18
Buildings	220	224	–	–
Land improvements	10	9	–	–
Right-of-use assets	18	1,201	–	–
Total	**1,963**	**3,387**	**609**	**643**

Note 9 Exchange differences in the income statement

	Group		Parent company	
SEK M	**2018**	**2019**	**2018**	**2019**
Exchange differences recognized in operating income	–51	–58	–41	–15
Exchange differences recognized in financial expenses	7	–4	–18	–5
Total	**–44**	**–63**	**–59**	**–20**

Note 10 Financial income

	Group		Parent company	
SEK M	**2018**	**2019**	**2018**	**2019**
Earnings from investments in subsidiaries	–	–	2,551	4,564
Earnings from investments in associates	–	–	64	59
Intra-Group interest income	–	–	190	287
Other financial income	3	1	0	0
External interest income and similar items	17	14	–	–
Total	**20**	**15**	**2,805**	**4,910**

Note 11 Financial expenses

	Group		Parent company	
SEK M	**2018**	**2019**	**2018**	**2019**
Intra-Group interest expenses	–	–	–284	–276
Interest expenses, other liabilities[1]	–633	–785	–194	–288
Interest expenses, interest rate swaps	30	34	–	–
Interest expenses, currency-derivatives	–169	–239	–	–
Exchange rate differences on financial instruments	7	–4	–18	–5
Fair value adjustments shares and interests	–	–	–136	–876
Other financial expenses	–54	–58	–22	–26
Total	**–819**	**–1,052**	**–654**	**–1,471**

[1] Of which 18 (–23) is fair value adjustments on derivatives, non-hedge accounting, for the Group.

Note 12 Tax on income

	Group		Parent company	
SEK M	**2018**	**2019**	**2018**	**2019**
Current tax	–3,069	–2,175	–640	–405
Tax attributable to prior years	82	–701	18	–19
Withholding tax	–34	–59	–2	–8
Deferred tax	479	–638	–26	–14
Total	**–2,542**	**–3,574**	**–650**	**–446**

Explanation for the difference between nominal Swedish tax rate and effective tax rate based on income before tax:

	Group		Parent company	
Percent	**2018**	**2019**	**2018**	**2019**
Swedish income tax rate	22	21	22	21
Effect of foreign tax rates	3	4	–	–
Non-taxable income/ non-deductible expenses	2	1	–8	–13
Exercised/new, not yet measured tax loss carryforwards	2	1	–	–
Effect of impairment of intangible assets	22	–	–	–
Other	–3	–1	–	–
Effective tax rate in income statement	**48**	**26**	**14**	**8**

Note 13 Earnings per share

Earnings per share before and after dilution

	Group	
SEK M	**2018**	**2019**
Earnings attributable to the Parent company's shareholders	2,753	9,993
Net profit	2,753	9,993
Weighted average number of shares issued (thousands)	1,110,776	1,110,776
Earnings per share (SEK)	**2.48**	**9.00**

None of the Group's outstanding long-term incentive programs are expected to result in significant dilution in the future.

Earnings per share before and after dilution and excluding items affecting comparability

	Group	
SEK M	**2018**	**2019**
Earnings attributable to the Parent company's shareholders	2,753	9,993
Items affecting comparability after tax[1]	6,229	246
Net profit	8,982	10,240
Weighted average number of shares issued (thousands)	1,110,776	1,110,776
Earnings per share excluding items affecting comparability (SEK)	**8.09**	**9.22**

[1] Items affecting comparability relate to restructuring costs as well as impairment of goodwill and other intangible assets.

Note 14 Intangible assets

2019, SEK M	Group: Goodwill	Group: Brands	Group: Other intangible assets	Group: Total	Parent company: Intangible assets
Opening accumulated acquisition cost	**57,646**	**6,924**	**10,942**	**75,512**	**6,868**
Purchases	–	0	623	624	736
Acquisitions of subsidiaries	2,685	341	955	3,981	–
Sales, disposals and adjustments	–	–	6	6	–
Reclassifications	4	–4	20	20	–
Exchange rate difference	1,635	149	271	2,054	–
Closing accumulated acquisition cost	**61,970**	**7,410**	**12,817**	**82,197**	**7,604**
Opening accumulated amortization and impairment	**–4,233**	**–1,239**	**–5,179**	**–10,651**	**–3,871**
Sales, disposals and adjustments	–	–	–10	–10	–
Reclassifications	–	–	–2	–2	–
Amortization	–	–2	–954	–956	–625
Impairment	–	–	–5	–5	–
Exchange rate difference	–76	–23	–120	–218	–
Closing accumulated amortization and impairment	**–4,309**	**–1,263**	**–6,270**	**–11,842**	**–4,496**
Carrying amount	**57,662**	**6,146**	**6,547**	**70,355**	**3,108**

2018, SEK M	Group: Goodwill	Group: Brands	Group: Other intangible assets	Group: Total	Parent company: Intangible assets
Opening accumulated acquisition cost	**50,394**	**6,344**	**8,833**	**65,571**	**6,775**
Purchases	–	1	599	600	93
Acquisitions of subsidiaries	5,455	300	1,128	6,883	–
Divestments of subsidiaries	–100	–	0	–100	–
Sales, disposals and adjustments	–	–	–170	–170	–
Reclassifications	–	–2	114	112	–
Exchange rate difference	1,897	281	438	2,616	–
Closing accumulated acquisition cost	**57,646**	**6,924**	**10,942**	**75,512**	**6,868**
Opening accumulated amortization and impairment	**–64**	**–101**	**–3,998**	**–4,163**	**–3,278**
Sales, disposals and adjustments	–	–	144	144	–
Reclassifications	–	0	–8	–8	–
Amortization	–	–2	–800	–802	–593
Impairment	–4,199	–1,142	–286	–5,627	–
Exchange rate difference	30	6	–231	–195	–
Closing accumulated amortization and impairment	**–4,233**	**–1,239**	**–5,179**	**–10,651**	**–3,871**
Carrying amount	**53,413**	**5,685**	**5,763**	**64,861**	**2,997**

Other intangible assets consist mainly of customer relations and technology. The carrying amount of intangible assets with an indefinite useful life, excluding goodwill, amounts to SEK 6,105 M (5,640) and relates to brands.

Useful life has been defined as indefinite where the time period, during which an asset is deemed to contribute economic benefits, cannot be determined.

In 2018 the Group took an impairment charge of SEK 5,595 M on goodwill and other intangible assets related to China. The impairment charge was attributable in its entirety to the Asia Pacific cash-generating unit. Of the total impairment charge, SEK 4,199 M relates to goodwill impairment, while the remaining SEK 1,396 was primarily attributable to brands. The impairment charge was recognized as a separate line item in the income statement, while other amortization and impairment of intangible assets are mainly recognized as cost of goods sold in the income statement. Impairment losses for the year totaled SEK 5 M (5,627), of which SEK 0 M (25) related to restructuring programs.

Impairment testing of goodwill and intangible assets with indefinite useful life

Goodwill and intangible assets with an indefinite useful life are allocated to the Group's Cash Generating Units (CGUs), which consist of the Group's five divisions.

For each cash-generating unit, the Group annually tests goodwill and intangible assets with an indefinite useful life for impairment, in accordance with the accounting principle described in Note 1. Recoverable amounts for Cash Generating Units have been determined by calculating value in use.

These calculations are based on estimated future cash flows, which in turn are based on financial budgets for a three-year period approved by management. Cash flows beyond the three-year period are extrapolated using estimated growth rates according to the information below.

Material assumptions used to calculate values in use:

- Budgeted operating margin.
- Growth rate for extrapolating cash flows beyond the budget period.
- Discount rate after tax used for estimated future cash flows.

Management has determined the budgeted operating margin based on previous results and expectations of future market development. A growth rate of 3 percent (3) has been used for all CGUs to extrapolate cash flows beyond the budget period. This growth rate is considered to be a conservative estimate. Further, an average discount rate in local currency after tax has been used in the calculations. The difference in value compared with using a discount rate before tax is not deemed to be material. The discount rate has been determined by calculating the weighted average cost of capital (WACC) for each division.

Note 14 cont.

2019

Overall, the discount rate after tax used varied between 8.0 and 9.0 percent (EMEA 8.0 percent, Americas 8.0 percent, Asia Pacific 9.0 percent, Global Technologies 8.0 percent and Entrance Systems 8.0 percent).

Goodwill and intangible assets with an indefinite useful life were allocated to the Cash Generating Units as summarized in the following table:

2019, SEK M	EMEA	Americas	Asia Pacific	Global Technologies	Entrance Systems	Total
Goodwill	11,121	14,105	4,168	15,459	12,809	57,662
Intangible assets with indefinite useful life	237	1,342	744	902	2,880	6,105
Total	**11,358**	**15,447**	**4,912**	**16,361**	**15,688**	**63,766**

2018

Overall, the discount rate after tax used varied between 8.0 and 9.0 percent (EMEA 8.0 percent, Americas 8.0 percent, Asia Pacific 9.0 percent, Global Technologies 8.0 percent and Entrance Systems 8.0 percent).

Goodwill and intangible assets with an indefinite useful life were allocated to the Cash Generating Units as summarized in the following table:

2018, SEK M	EMEA	Americas	Asia Pacific	Global Technologies	Entrance Systems	Total
Goodwill	10,709	13,327	3,892	13,245	12,240	53,413
Intangible assets with indefinite useful life	232	1,012	736	815	2,846	5,640
Total	**10,941**	**14,339**	**4,628**	**14,060**	**15,086**	**59,053**

Sensitivity analysis

A sensitivity analysis has been carried out for each cash-generating unit. The results of this analysis are summarized below.

2019

If the estimated operating margin after the end of the budget period had been one percentage point lower than the management's estimate, the total recoverable amount would be 6 percent lower (EMEA 6 percent, Americas 5 percent, Asia Pacific 11 percent, Global Technologies 5 percent, and Entrance Systems 7 percent).

If the estimated growth rate used to extrapolate cash flows beyond the budget period had been one percentage point lower than the basic assumption of 3 percent, the total recoverable amount would be 15 percent lower (EMEA 15 percent, Americas 15 percent, Asia Pacific 13 percent, Global Technologies 15 percent, and Entrance Systems 15 percent).

If the estimated weighted capital cost used for the Group's discounted cash flows had been one percentage point higher than the basic assumption of 8.0 to 9.0 percent, the total recoverable amount would be 17 percent lower (EMEA 17 percent, Americas 17 percent, Asia Pacific 14 percent, Global Technologies 17 percent, and Entrance Systems 17 percent).

These calculations are hypothetical and should not be viewed as an indication that these factors are any more or less likely to change. The sensitivity analysis should therefore be interpreted with caution.

None of the hypothetical cases above would lead to an impairment of goodwill in an individual Cash Generating Unit.

2018

If the estimated operating margin after the end of the budget period had been one percentage point lower than the management's estimate, the total recoverable amount would be 6 percent lower (EMEA 6 percent, Americas 5 percent, Asia Pacific 10 percent, Global Technologies 5 percent, and Entrance Systems 7 percent).

If the estimated growth rate used to extrapolate cash flows beyond the budget period had been one percentage point lower than the basic assumption of 3 percent, the total recoverable amount would be 15 percent lower (EMEA 15 percent, Americas 15 percent, Asia Pacific 13 percent, Global Technologies 15 percent, and Entrance Systems 15 percent).

If the estimated weighted capital cost used for the Group's discounted cash flows had been one percentage point higher than the basic assumption of 8.0 to 9.0 percent, the total recoverable amount would be 17 percent lower (EMEA 17 percent, Americas 17 percent, Asia Pacific 14 percent, Global Technologies 17 percent, and Entrance Systems 17 percent).

These calculations are hypothetical and should not be viewed as an indication that these factors are any more or less likely to change. The sensitivity analysis should therefore be interpreted with caution.

None of the hypothetical cases above would lead to an impairment of goodwill in an individual Cash Generating Unit.

Note 15 Property, plant and equipment

2019, SEK M	Group							Parent company
	Buildings	Land and land improvements	Machinery	Equipment	Construction in progress	Finance leases	Total	Equipment
Opening accumulated acquisition cost	**5,958**	**1,142**	**10,026**	**3,805**	**684**	**–**	**21,614**	**85**
Purchases	39	1	249	228	701	–	1,218	4
Acquisitions of subsidiaries	54	87	157	33	25	–	356	–
Sales and disposals	–103	–28	–22	–145	–28	–	–326	–4
Reclassifications	167	–12	406	127	–709	–	–20	–
Exchange rate difference	186	25	409	155	19	–	793	–
Closing accumulated acquisition cost	**6,301**	**1,215**	**11,226**	**4,203**	**692**	**–**	**23,635**	**85**
Opening accumulated depreciation and impairment	**–3,053**	**–145**	**–7,458**	**–2,889**	**–**	**–**	**–13,544**	**–47**
Sales and disposals	60	8	17	132	–	–	217	0
Impairment incl. reversals	–1	–	–16	–2	–	–	–19	–
Depreciation and amortization	–224	–9	–616	–381	–	–	–1,230	–18
Reclassifications	–2	–	6	–2	–	–	2	–
Exchange rate difference	–100	–4	–328	–130	–	–	–563	–
Closing accumulated depreciation and impairment	**–3,321**	**–150**	**–8,395**	**–3,272**	**–**	**–**	**–15,137**	**–65**
Carrying amount	**2,980**	**1,064**	**2,831**	**931**	**692**	**–**	**8,498**	**20**

2018, SEK M	Group							Parent company
	Buildings	Land and land improvements	Machinery	Equipment	Construction in progress	Finance leases	Total	Equipment
Opening accumulated acquisition cost	**5,811**	**1,191**	**9,503**	**3,763**	**849**	**194**	**21,311**	**63**
Purchases	32	10	277	249	625	15	1,208	22
Acquisitions of subsidiaries	61	7	81	47	2	15	214	–
Divestments of subsidiaries	–82	–10	–281	–19	–3	–	–395	–
Sales and disposals	–357	–106	–791	–498	–2	–2	–1,756	–
Reclassification to right-of-use assets	–	–	–	–	–	–203	–203	–
Reclassifications	139	2	583	36	–844	–31	–115	–
Exchange rate difference	354	48	654	227	57	11	1,351	–
Closing accumulated acquisition cost	**5,958**	**1,142**	**10,026**	**3,805**	**684**	–	**21,614**	**85**
Opening accumulated depreciation and impairment	**–2,909**	**–151**	**–7,241**	**–2,890**	**–**	**–55**	**–13,246**	**–31**
Sales and disposals	289	18	771	485	–	0	1,563	–
Divestments of subsidiaries	28	2	232	15	–	–	278	–
Impairment incl. reversals	–46	0	–72	–33	–	–	–151	–
Depreciation and amortization	–220	–10	–549	–364	–	–18	–1,160	–16
Reclassification to right-of-use assets	–	–	–	–	–	84	84	–
Reclassifications	–4	1	–80	98	–	–5	11	–
Exchange rate difference	–191	–6	–519	–200	–	–6	–923	–
Closing accumulated depreciation and impairment	**–3,053**	**–145**	**–7,458**	**–2,889**	**–**	**–**	**–13,544**	**–47**
Carrying amount	**2,905**	**997**	**2,568**	**916**	**684**	–	**8,070**	**37**

Impairment losses for the year totaled SEK 19 M (151), of which SEK 3 M (89) related to restructuring programs. As a result of the transition to IFRS 16 previously recognized finance leases have been reclassified to right-of-use assets.

Note 16 Right-of-use assets

The following amounts regarding right-of-use assets are recognized in the balance sheet.

SEK M	Group 2018	Group 2019
Buildings	119	2,943
Machinery	–	20
Vehicles	–	705
Other equipment	–	63
Total	**119**	**3,731**

Additions to right-of-use assets for 2019 amounted to SEK 1,016 M.

Additional information about the financial effects of the transition to IFRS 16 can be found in Note 6 and in the accounting principles, note 1.

The following amounts related to leases are recognized in the income statement:

SEK M	Group 2018	Group 2019
Amortization attributable to right-of-use assets:		
Buildings	–18	–860
Machinery	–	–8
Vehicles	–	–305
Other equipment	–	–29
Operating expenses relating to:		
Short-term leases	–	–78
Leases of low-value assets	–	–12
Variable lease payments not included in lease liabilities	–	–16
Interest expenses relating to:		
Lease liabilities	–3	–96
Total	**–21**	**–1,404**

The total cash flow attributable to leases in 2019 was SEK 1,255 M.

Note 17 Shares in subsidiaries

Company name	Corporate identity number, Registered office	Parent company Number of shares	Share of equity, %	Carrying amount, SEK M
ASSA Sverige AB	556061-8455, Eskilstuna	70	100	197
ASSA ABLOY Entrance Systems AB	556204-8511, Landskrona	1,000	100	192
ASSA ABLOY Global Solutions AB	556666-0618, Stockholm	1,306,891	100	475
ASSA ABLOY Kredit AB	556047-9148, Stockholm	400	100	6,036
ASSA ABLOY Holding AB	559180-8646, Stockholm	6,500	100	679
ASSA ABLOY Försäkrings AB	516406-0740, Stockholm	60,000	100	145
ASSA ABLOY Asia Holding AB	556602-4500, Stockholm	1,000	100	189
ASSA ABLOY OY	1094741-7, Joensuu	800,000	100	4,257
ASSA ABLOY Norge A/S	979207476, Moss	150,000	100	538
ASSA ABLOY Danmark A/S	CVR 10050316, Herlev	60,500	100	376
ASSA ABLOY Deutschland GmbH	HR B 66227, Berlin	1	100	1,086
ASSA ABLOY Nederland Holding B.V.	52153924, Raamsdonksveer	180	100	771
Pan Pan DOOR Co LTD	210800004058002, Dashiqiao	–	66[1]	1,352
ASSA ABLOY France SAS	412140907, R.C.S. Versailles	15,184,271	100	1,964
HID Global Switzerland S.A.	CH-232-0730018-2, Granges	2,500	100	47
ASSA ABLOY Entrance Systems Austria GmbH	A-2320 Schwechat	1	100	109
ASSA ABLOY Ltd	2096505, Willenhall	1,330,000	100	3,091
HID Global Ireland Teoranta	364896, Galway	501,000	100	293
Mul-T-Lock Ltd	520036583, Yavne	13,787,856	100	901
ASSA ABLOY Holdings (SA) Ltd	1948/030356/06, Roodepoort	100,220	100	217
ASSA ABLOY Inc	039347-83, Oregon	100	100	2,410
ABLOY Canada Inc.	1148165260, Montreal	1	100	0
ASSA ABLOY of Canada Ltd	104722749 RC0003, Ontario	9,621	100	138
ASSA ABLOY Australia Pacific Pty Ltd	ACN 095354582, Oakleigh, Victoria	48,190,000	100	242
Cerramex, S.A de C.V	CER8805099Y6, Mexico	4	0[1]	0
ASSA ABLOY Mexico, S.A de CV	AAM961204CI1, Mexico	50,108,549	100	762
Cerraduras y Candados Phillips S.A de C.V	CCP910506LK2, Mexico	112	0[1]	0
ASSA ABLOY Colombia S.A.S	860009826-8, Bogota	3,115,080	100	203
WHAIG Limited	EC21330, Bermuda	100,100	100	303
ASSA ABLOY Asia Pacific Ltd	53451, Hong Kong	1,000,000	100	72
ASSA ABLOY Entrance Systems IDDS AB	556071-8149, Landskrona	25,000,000	100	5,093
ASSA ABLOY Portugal, Unipessoal, Lda (Portugal)	PT500243700, Alfragide	1	100	0
ASSA ABLOY Mobile Services AB	556909-5929, Stockholm	50,000	100	25
ASSA ABLOY Holding Italia S.p.A.	IT01254420597, Rome	650,000	100	974
HID SA (Argentina)	CUIT 30-61783980-2, Buenos Aires	2,400	2[1]	0
HID Global SAS	FR21341213411, Nanterre	1,000,000	100	679
CEDES AG	CHE-101.321-677, Landquart	300,000	100	635
ASSA ABLOY East Africa Ltd	C.20402, Nairobi	13,500	100	90
ASSA ABLOY Brasil Indústria e Comércio Ltda.	02.214.604/0001-66, Salvador	170	0[1]	0
Assa Abloy Brasil Sistemas de Segurança Ltda.	01.211.626/0001-00, Sao Paulo	68,964	0[1]	0
Assa Abloy Chile SpA	96671320-8, Santiago	10	0[1]	0
Total				**34,541**

[1] The Group's holdings amount to 100 percent.

Note 18 Investments in associates

Company name	Country of registration	Number of shares	Share of equity 2018, %	Group Share of equity 2019, %	Carrying amount 2018, SEK M	Carrying amount 2019, SEK M
Agta record AG	Switzerland	5,166,945	39	39	1,800	1,916
Goal Co., Ltd	Japan	2,778,790	46	46	587	637
PT Jasuindo Arjo Wiggins Security	Indonesia	1,533,412	49	49	19	23
SARA Loading Bay Ltd	United Kingdom	4,990	50	50	14	13
Saudi Crawford Doors Ltd	Saudi Arabia	800	40	40	5	5
Talleres Agui S.A.	Spain	–	40	–	9	–
Others					1	1
Total					**2,434**	**2,595**

The share of equity in agta record AG has been estimated on the basis of the associated company's latest available financial report, which is the published Interim Report for the first half of 2019. For the period January to June, the company's revenue totaled SEK 2,015 M (1,817) and income after tax was SEK 198 M (136). The company's assets totaled SEK 4,166 M (3,622) and total liabilities amounted to SEK 1,406 M (1,095).

In March 2019 the Group announced that it signed an agreement for the acquisition of 54 percent of the shares in agta record AG. The acquisition is subject to regulatory approval and is expected close in 2020. After the acquisition the Group will hold a 93 percent stake in the company. Further information on the transaction can be found in the Report of the Board of Directors.

Note 19 Deferred tax

SEK M	Group 2018	Group 2019
Deferred tax assets		
Non-current assets	104	84
Pension provisions	330	430
Tax loss carryforwards and other tax credits	149	321
Other deferred tax assets	770	370
Deferred tax assets	**1,354**	**1,205**
Deferred tax liabilities		
Non-current assets	1,523	1,848
Other deferred tax liabilities	242	520
Deferred tax liabilities	**1,764**	**2,368**
Deferred tax assets, net	**–410**	**–1,163**

Change in deferred tax

SEK M	Group 2018	Group 2019
Opening balance	**–862**	**–410**
Acquisitions and divestments	52	–183
Recognized in income statement	529	–678
Actuarial gain/loss on post-employment benefit obligations	–34	81
Exchange rate differences	–95	27
Closing balance	**–410**	**–1,163**

The Group has tax loss carryforwards and other tax credits of SEK 3,375 M (3,234) for which deferred tax assets have not been recognized, as it is uncertain whether they can be offset against taxable income in future taxation.

Note 20 Other financial assets

SEK M	Group 2018	Group 2019	Parent company 2018	Parent company 2019
Investments in associates	–	–	1,621	1,621
Other shares and interests	8	6	–	–
Non-current interest-bearing receivables	106	45	–	–
Other non-current receivables	37	52	161	153
Total	**152**	**104**	**1,782**	**1,774**

Note 21 Inventories

SEK M	Group 2018	Group 2019
Materials and supplies	3,057	3,102
Work in progress	2,291	2,402
Finished goods	5,640	5,701
Advances paid	328	71
Total	**11,316**	**11,276**

Impairment of inventories during the year amounted to SEK 487 M (230).

Note 22 Trade receivables

SEK M	Group 2018	Group 2019
Trade receivables	15,674	16,598
Loss allowance	–1,178	–898
Total	**14,496**	**15,701**

Trade receivables by currency

SEK M	Group 2018	Group 2019
USD	5,083	5,376
EUR	3,478	3,521
CNY	1,216	1,388
GBP	762	848
SEK	659	643
KRW	448	509
AUD	269	432
CAD	325	376
Other currencies	2,256	2,608
Total	**14,496**	**15,701**

Maturity analysis

SEK M	Group 2018	Group 2019
Current trade receivables	10,615	11,201
Trade receivables due:		
<3 months	3,221	3,554
3–12 months	930	1,206
>12 months	908	637
	5,059	**5,397**
Impaired trade receivables:		
Current	–65	–57
Trade receivables due:		
<3 months	–110	–120
3–12 months	–133	–146
>12 months	–870	–575
	–1,178	**–898**
Total	**14,496**	**15,701**

Change in loss allowance for trade receivables

SEK M	Group 2018	Group 2019
Opening balance	**1,160**	**1,178**
Acquisitions and divestments of subsidiaries	15	26
Receivables written off	–262	–477
Reversal of unused amounts	–85	–125
Provision for bad debts	306	257
Exchange rate differences	45	39
Closing balance	**1,178**	**898**

Note 23 Parent company's equity

The Parent company's equity is split between restricted and non-restricted equity. Restricted equity consists of share capital, revaluation reserve, statutory reserve and the fund for development expenses. The statutory reserve contains premiums (amounts received from share issues that exceed the nominal value of the shares) relating to shares issued up to 2005.

Non-restricted equity consists of share premium reserves, retained earnings and net income for the year.

Note 24 Share capital, number of shares and dividend per share

	Number of shares, thousands: Series A shares	Series B shares	Total	Share capital, SEK K
Opening balance at 1 January 2018	57,525	1,055,052	1,112,576	370,859
Closing balance at 31 December 2018	**57,525**	**1,055,052**	**1,112,576**	**370,859**
Number of votes, thousands	575,259	1,055,052	1,630,311	
Opening balance at 1 January 2019	57,525	1,055,052	1,112,576	370,859
Closing balance at 31 December 2019	**57,525**	**1,055,052**	**1,112,576**	**370,859**
Number of votes, thousands	575,259	1,055,052	1,630,311	

All shares have a par value of around SEK 0.33 (0.33) and give shareholders equal rights to the company's assets and earnings. All shares are entitled to dividends subsequently determined. Each Series A share carries ten votes and each Series B share one vote. All issued shares are fully paid.

The weighted average number of shares was 1,110,776 (1,110,776) during the year. None of the Group's outstanding long-term incentive programs are expected to result in significant dilution in the future.

The total number of treasury shares as at 31 December 2019 amounted to 1,800,000. No shares have been repurchased during the year.

Dividend per share

The dividend paid during the financial year totaled SEK 3,888 M (3,666), equivalent to SEK 3.50 (3.30) per share. A dividend for 2019 of SEK 3.85 per share, a total of SEK 4,276 M, will be proposed at the Annual General Meeting on Wednesday, 29 April 2020.

Note 25 Post-employment employee benefits

Post-employment employee benefits include pensions and medical benefits. Pension plans are classified as either defined benefit plans or defined contribution plans. Pension obligations in the balance sheet mainly relate to defined benefit plans. ASSA ABLOY has defined benefit pension plans in a number of countries. The most comprehensive defined benefit plans are found in the US, the UK and Germany.

The defined benefit plans in the US and the UK are secured by assets in pension funds, while the plans in Germany are chiefly unfunded. In the US, there are also unfunded plans for post-employment medical benefits.

The operations of pension funds are regulated by national regulations and practice. The responsibility for monitoring the pension plans and their assets rests mainly with the boards of the pension funds, but can also rest more directly with the company. The Group has an overall policy for the limits within which asset allocation should be made. Each pension fund adjusts its local asset allocation according to the nature of the local pension obligation, particularly the remaining term and the breakdown between active members and pensioners. The Group has not changed the processes used for managing these risks compared with previous periods.

The investments are well diversified so that depreciation of an individual investment should not have any material impact on the plan assets. The majority of assets are invested in shares as the Group considers that shares produce the best long-term return at an acceptable risk level. The total allocation to shares should not, however, exceed 60 percent of total assets. Fixed income assets are invested in a combination of ordinary government bonds and corporate bonds but also in inflation-indexed bonds. The average term of these is normally somewhat shorter than the term of the underlying liability. Bonds should not account for less than 30 percent of assets. A small proportion of assets is also invested in real estate and alternative investments, mainly hedge funds.

As at 31 December 2019, shares accounted for 45 percent (43) and fixed income securities for 32 percent (35) of plan assets, while other assets accounted for 23 percent (23). The actual return on plan assets in 2019 was SEK 817 M (–230).

Amounts recognized in the income statement

Pension costs, SEK M	2018	2019
Defined contribution pension plans	647	692
Defined benefit pension plans	175	186
Post-employment medical benefit plans	28	31
Total	**849**	**910**
of which, included in:		
Operating income	771	824
Net financial items	79	86

Amounts recognized in the balance sheet

Pension provisions, SEK M	2018	2019
Provisions for defined benefit pension plans	2,296	2,717
Provisions for post-employment medical benefit plans	571	615
Provisions for defined contribution pension plans	12	14
Total	**2,880**	**3,346**

Pensions with Alecta

Commitments for old-age pensions and family pensions for salaried employees in Sweden are secured in part through insurance with Alecta. According to UFR 10, this is a defined benefit plan that covers many employers. For the 2019 financial year, the company has not had access to information making it possible to report this plan as a defined benefit plan. Pension plans in accordance with ITP secured through insurance with Alecta are therefore reported as defined contribution plans. The year's pension contributions that are contracted to Alecta total SEK 29 M (30), of which SEK 13 M (13) relates to the Parent company. Pension contributions are expected to remain largely unchanged in 2020.

Alecta's surplus can be distributed to policyholders and/or the insured. As at 30 September 2019, Alecta's surplus expressed as the collective consolidation level amounted preliminarily to 142 percent (142 percent as at 31 December 2018). The collective consolidation level consists of the market value of Alecta's assets as a percentage of its insurance commitments calculated according to Alecta's actuarial calculation assumptions, which do not comply with IAS 19. The collective consolidation level is normally allowed to vary between 125 and 155 percent. If the consolidation level deviates from this range, measures in the form of an adjustment of the premium level should be taken to return to the normal range.

Specification of defined benefit pension plans, post-employment medical benefits and plan assets by country

	United Kingdom		Germany		US		Other countries		Total	
Specification of defined benefits, SEK M	**2018**	**2019**	**2018**	**2019**	**2018**	**2019**	**2018**	**2019**	**2018**	**2019**
Present value of funded obligations	2,790	3,246	99	109	1,968	2,224	1,352	1,817	6,209	7,396
Fair value of plan assets	–2,514	–2,983	–21	–23	–1,735	–1,972	–958	–1,206	–5,227	–6,184
Net value of funded plans	**276**	**263**	**79**	**86**	**234**	**252**	**394**	**611**	**982**	**1,213**
Present value of unfunded obligations	–	–	735	780	–	–	580	724	1,314	1,504
Present value of unfunded medical benefits	–	–	–	–	567	610	5	5	571	615
Net value of defined benefit pension plans	**276**	**263**	**813**	**866**	**800**	**862**	**978**	**1,341**	**2,868**	**3,332**
Provisions for defined contribution pension plans	–	–	–	–	–	–	12	14	12	14
Total	**276**	**263**	**813**	**866**	**800**	**862**	**990**	**1,356**	**2,880**	**3,346**

Key actuarial assumptions

	United Kingdom		Germany		US	
Key actuarial assumptions (weighted average), %	**2018**	**2019**	**2018**	**2019**	**2018**	**2019**
Discount rate	2.8	2.0	1.8	1.2	4.3	3.2
Expected annual salary increases	n/a	n/a	2.8	2.8	n/a	n/a
Expected annual pension increases	2.0	1.9	1.5	1.5	2.0	n/a
Expected annual medical benefit increases	n/a	n/a	n/a	n/a	6.4	5.9
Expected annual inflation	2.4	2.1	1.5	1.5	3.0	3.0

Note 25 cont.

Movement in obligations

2019, SEK M	Post-employment medical benefits	Defined benefit pension plans	Plan assets	Total
Opening balance 1 January 2019	**571**	**7,523**	**–5,227**	**2,868**
Recognized in the income statement:				
Current service cost	6	123	–	129
Past service cost	–	8	–	8
Gains and losses arising from settlements	–	–5	–	–5
Interest expense/income	26	222	–161	86
Total recognized in the income statement	**31**	**348**	**–161**	**218**
Recognized in other comprehensive income:				
Return on plan assets, excluding amounts included above	–	–	–655	–655
Gain/loss from change in demographic assumptions	24	210	–	234
Gain/loss from change in financial assumptions	–	797	–	797
Experience-based gains/losses	–	–14	–	–14
Remeasurement of net pension obligations	**24**	**994**	**–655**	**362**
Exchange rate differences	22	358	–306	74
Total recognized in other comprehensive income	**45**	**1,352**	**–961**	**436**
Contributions and payments:				
Employer contributions	–	–	–89	–89
Employee contributions	0	22	–22	0
Payments	–33	–344	277	–101
Total payments	**–33**	**–322**	**166**	**–189**
Closing balance 31 December 2019	**615**	**8,901**	**–6,184**	**3,332**

Movement in obligations

2018, SEK M	Post-employment medical benefits	Defined benefit pension plans	Plan assets	Total
Opening balance 1 January 2018	**573**	**7,431**	**–5,081**	**2,923**
Acquisitions and divestments	–	120	–91	29
Reclassifications	64	–64	–	–
Recognized in the income statement:				
Current service cost	6	118	–	124
Past service cost	–	15	–	15
Gains and losses arising from settlements	–	–15	–	–15
Interest expense/income	21	197	–140	79
Total recognized in the income statement	**28**	**315**	**–140**	**202**
Recognized in other comprehensive income:				
Return on plan assets, excluding amounts included above	–	–	369	369
Gain/loss from change in demographic assumptions	–112	–163	–	–275
Gain/loss from change in financial assumptions	–	–125	–	–125
Experience-based gains/losses	–	–8	–	–8
Remeasurement of net pension obligations	**–112**	**–296**	**369**	**–39**
Exchange rate differences	48	356	–262	142
Total recognized in other comprehensive income	**–63**	**59**	**107**	**378**
Contributions and payments:				
Employer contributions	–	–	–296	–296
Employee contributions	0	19	–19	0
Payments	–30	–320	257	–94
Settlements	–	–37	37	–
Total payments	**–30**	**–338**	**–22**	**–390**
Closing balance 31 December 2018	**571**	**7,523**	**–5,227**	**2,868**

Plan assets allocation

Plan assets	2018	2019
Publicly traded shares	2,244	2,772
Government bonds	651	829
Corporate bonds	842	946
Inflation-linked bonds	312	205
Property	345	427
Cash and cash equivalents	41	36
Alternative investments	65	50
Other assets	727	919
Total	**5,227**	**6,184**

Sensitivity analysis of defined benefit obligations and post-employment medical benefits

The effect on defined benefit obligations and post-employment medical benefits of a 1.0 percentage change in some actuarial assumptions, change in percent	+1.0%	–1.0%
Discount rate	–15.8%	14.7%
Expected annual medical benefit increases	8.6%	–7.2%

Note 26 Other provisions

SEK M	Group Restructuring reserve	Other	Total
Opening balance at 1 January 2019	**1,190**	**445**	**1,635**
Provisions for the year	312	400	711
Acquisitions of subsidiaries	–	4	4
Reversal of non-utilized amounts	–	–237	–237
Payments	–726	–38	–764
Utilized during the year, without cash flow impact	–29	–	–29
Exchange rate differences	31	0	31
Closing balance at 31 December 2019	**778**	**573**	**1,351**

SEK M	Group Restructuring reserve	Other	Total
Opening balance at 1 January 2018	**944**	**1,202**	**2,146**
Provisions for the year	1,218	106	1,324
Acquisitions of subsidiaries	–	7	7
Reversal of non-utilized amounts	–	–14	–14
Payments	–793	–53	–845
Utilized during the year, without cash flow impact	–209	–	–209
Reclassifications	–	–807	–807
Exchange rate differences	30	2	32
Closing balance at 31 December 2018	**1,190**	**445**	**1,635**

Balance sheet breakdown:	Group 2018	2019
Other non-current provisions	745	722
Other current provisions	891	630
Total	**1,635**	**1,351**

The restructuring reserve at year-end relates mainly to the ongoing restructuring program launched during the year and the previous year. The restructuring reserve is expected to be used over the next two years. The non-current part of the reserve totaled SEK 215 M . For further information on the restructuring programs, see the Report of the Board of Directors.

Other provisions mainly relate to legal obligations including future environment-related measures.

Note 27 Other current liabilities

SEK M	Group 2018	2019
VAT and excise duties	651	618
Employee withholding tax	145	159
Advances received	1,170	1,267
Social security contributions and other taxes	111	128
Deferred considerations	1,021	883
Other current liabilities	454	710
Total	**3,551**	**3,765**

Note 28 Accrued expenses and deferred income

SEK M	Group 2018	Group 2019	Parent company 2018	Parent company 2019
Personnel-related expenses	3,227	3,486	285	354
Customer-related expenses	1,022	1,170	–	–
Deferred income	553	569	–	–
Accrued interest expenses	138	158	82	93
Other	1,457	1,786	52	55
Total	**6,396**	**7,170**	**419**	**502**

Note 29 Assets pledged against liabilities to credit institutions

SEK M	Group 2018	Group 2019	Parent company 2018	Parent company 2019
Real estate mortgages	97	35	–	–
Other mortgages	65	88	–	–
Total	**162**	**123**	**–**	**–**

Note 30 Contingent liabilities

SEK M	Group 2018	Group 2019	Parent company 2018	Parent company 2019
Guarantees	121	123	–	–
Guarantees on behalf of subsidiaries	–	–	11,522	7,652
Total	**121**	**123**	**11,522**	**7,652**

In addition to the guarantees shown in the table above, the Group has a large number of minor bank guarantees for performance of obligations in operating activities. No material liabilities are expected as a result of these guarantees.

Maturity profile – guarantees, SEK M	Group 2018	2019
<1 year	69	61
>1 <2 years	23	22
>2 <5 years	13	22
>5 years	16	18
Total	**121**	**123**

Note 31 Cash flow items

SEK M	Group 2018	2019
Adjustments for non-cash items		
Profit on sales of non-current assets	–265	–63
Profit/loss on sales of subsidiaries	–11	–
Change in pension provisions	124	132
Share of earnings in associates	–167	–147
Dividend from associates	66	59
Remeasurement of deferred considerations	–296	–358
Other	92	54
Adjustments for non-cash items	**–458**	**–324**
Change in working capital		
Inventories increase/decrease (–/+)	–983	572
Trade receivables increase/decrease (–/+)	–340	–229
Trade payables increase/decrease (+/–)	–439	–443
Other working capital increase/decrease (–/+)	686	248
Change in working capital	**–1,076**	**148**
Divestments of subsidiaries		
Purchase prices received, net	406	84
Cash and cash equivalents in divested subsidiaries	–11	–
Change in consolidated cash and cash equivalents due to divestments	**395**	**84**

Note 32 Reserves

SEK M	Hedging reserve Net investment hedges	Hedging reserve Cash flow hedges	Exchange rate difference	Total
Opening balance 1 January 2018	**–236**	**–2**	**3,170**	**2,932**
Other comprehensive income in associates	–	–	87	87
Cash flow hedges	–	2	–	2
Net investment hedges	–8	–	–	–8
Exchange rate differences	–	–	2,090	2,090
Deferred tax	1	0	–9	–8
Closing balance 31 December 2018	**–243**	**–**	**5,339**	**5,096**
Opening balance 1 January 2019	**–243**	**–**	**5,339**	**5,096**
Other comprehensive income in associates	–	–	86	86
Net investment hedges	–5	–	–	–5
Exchange rate differences	–	–	1,556	1,556
Deferred tax	1	–	–6	–4
Closing balance 31 December 2019	**–247**	**–**	**6,975**	**6,728**

Of the item hedging of net investment, SEK –53 M (–28) relates to current hedge relationships, while the remainder, SEK –194 M (–215), relates to closed hedge relationships for which hedged objects remain.

Note 33 Business combinations

SEK M	2018	2019
Purchase prices		
Cash paid for acquisitions during the year	5,602	3,564
Holdbacks and deferred consideration for acquisitions during the year	1,152	255
Adjustment of purchase prices for acquisitions in prior years	–2	–7
Total	**6,752**	**3,813**
Acquired assets and liabilities at fair value		
Intangible assets	1,428	1,296
Property, plant and equipment	214	356
Right-of-use assets	–	61
Deferred tax assets	221	95
Other financial assets	1	–
Inventories	555	208
Current receivables and investments	643	681
Cash and cash equivalents	437	120
Deferred tax liabilities	–169	–278
Pension provisions	–29	–
Other non-current liabilities	–60	–225
Current liabilities	–1,521	–1,186
Total	**1,720**	**1,128**
Goodwill	**5,032**	**2,685**
Cash paid for acquisitions during the year	5,602	3,564
Cash and cash equivalents in acquired subsidiaries	–437	–120
Paid deferred considerations for acquisitions in previous years	339	459
Change in cash and cash equivalents due to acquisitions	**5,503**	**3,903**
Net sales from acquisition date	1,450	1,078
EBIT from acquisition date	96	117
Net income from acquisition date	76	86

The table above includes fair value adjustments of acquired net assets from acquisitions made in previous years.

Acquisition analyses have been prepared for all acquisitions in 2019. The net sales of acquired units for 2019 totaled SEK 2,509 M (3,623) and net income amounted to SEK 230 M (331). Acquisition-related costs for 2019 totaled SEK 169 M (107) and have been reported as other operating expenses in the income statement.

See below for an account of some acquisitions completed in 2019 and 2018. No single acquisition is significant in terms of size and separate acquisition details are therefore not provided.

2019

KEYper

On 31 January 2019 ASSA ABLOY acquired 100 percent of the share capital of KEYper, a leading supplier of electronic and mechanical key management systems in the US with a strong presence in the automotive segment.

The acquisition of KEYper complements the products within intelligent key and asset management solutions offered by Traka. KEYper is headquartered in Harrisburg, North Carolina.

Intangible assets in the form of technology and customer relationships have been disclosed in the purchase price allocation. Residual goodwill mainly relates to synergies and other intangible assets that do not meet the criteria for separate reporting.

LifeSafety Power

On 30 August 2019, ASSA ABLOY acquired 100 percent of the share capital of LifeSafety Power Inc., a leading US supplier of smart integrated access control power solutions for OEMs, integrators and end-users.

The acquisition complements the Group´s access control portfolio. LifeSafety Power is headquartered in Libertyville, Illinois.

Intangible assets in the form of technology, brands and customer relationships have been disclosed in the purchase price allocation. Residual goodwill mainly relates to synergies and other intangible assets that do not meet the criteria for separate reporting.

Placard

On 27 September 2019 ASSA ABLOY acquired 100 percent of the share capital in Placard, Australia's largest secure card manufacturer.

The acquisition of Placard expands the Group's offering of secure identities, while offering customers a broad range of secure card and digital ID solutions. Placard is headquartered in Melbourne, Australia.

Intangible assets in the form of brands and customer relationships have been disclosed in the purchase price allocation. Residual goodwill mainly relates to synergies and other intangible assets that do not meet the criteria for separate reporting.

De La Rue's national identity solutions business

On 14 October 2019 ASSA ABLOY acquired the international identity solutions business from De La Rue.

The acquisition strengthens the Group's market position through an expanded offering within digital citizen ID solutions. The operation is headquartered in Basingstoke, UK.

On the reporting date the acquisition analysis is preliminary with respect to valuation of intangible assets.

Other acquisitions

Other noteworthy acquisitions that closed during the year mainly consist of Spence Doors (Australia). Please see the Report of the Board of Directors for further information about this acquisition.

2018

Crossmatch

On 21 September 2018 ASSA ABLOY acquired 100 percent of the share capital in the US company Crossmatch Inc., a leader in biometric identity management and secure authentication solutions.

The acquisition of Crossmatch strengthens the ability to offer innovative biometric solutions to hundreds of millions of users worldwide and expands HID's market leadership in secure identity solutions. Crossmatch is headquartered in Palm Beach Gardens, Florida.

Intangible assets in the form of technology, brands and customer relationships have been disclosed in the purchase price allocation. Residual goodwill mainly relates to synergies and other intangible assets that do not meet the criteria for separate reporting.

Luxer One

On 12 December 2018, ASSA ABLOY acquired 100 percent of the share capital of Luxer Holdings Corporation, a leading provider of advanced package locker solutions in the US.

The acquisition further strengthens ASSA ABLOY's market position in home delivery solutions and provides excellent opportunities for synergies in vertical segments, such as education and commercial properties. The company is headquartered in Sacramento, California.

Intangible assets in the form of technology, brands and customer relationships have been disclosed in the purchase price allocation. Residual goodwill mainly relates to synergies and other intangible assets that do not meet the criteria for separate reporting.

Other acquisitions

Other noteworthy acquisitions during the year included Phoniro (Sweden), Brüken (Mexico), HKC (Ireland) and Planet (Switzerland).

Note 34 Employees

Salaries, wages, other remuneration and social security costs

	Group		Parent company	
SEK M	2018	2019	2018	2019
Salaries, wages and other remuneration	19,200	21,109	278	295
Social security costs	5,284	5,892	132	193
– of which pensions	771	824	49	52
Total	**24,485**	**27,001**	**410**	**488**

Remuneration and other benefits of the Executive Team in 2019, SEK thousands

Name	Fixed salary	Variable salary	Stock-related benefits	Other benefits	Pension costs
Nico Delvaux, President and CEO	17,363	12,750	6,131	215	6,099
Other members of the Executive Team (9 positions)	40,960	16,989	7,993	3,224	11,076
Total remuneration and benefits	**58,323**	**29,739**	**14,125**	**3,438**	**17,175**

Total remuneration and other benefits of the Executive Team amounted to SEK 111.9 M in 2018.

Fees to Board members in 2019 (including committee work), SEK thousand

Name and post	Board of Directors	Remuneration Committee	Audit Committee	Total
Lars Renström, Chairman	2,350	150	–	2,500
Carl Douglas, Vice Chairman	900	–	–	900
Eva Karlsson, Member	685	–	–	685
Birgitta Klasén, Member	685	–	200	885
Lena Olving, Member	685	–	–	685
Sofia Schörling Högberg, Member	685	–	200	885
Jan Svensson, Member	685	75	275	1,035
Employee representatives (4)	–	–	–	–
Total	**6,675**	**225**	**675**	**7,575**

Total fees to Board members amounted to SEK 7.7 M in 2018.

Salaries and remuneration for the Board of Directors and the Parent company's Executive Team

Salaries and other remuneration for the Board of Directors and the Parent company's Executive Team for 2019 totaled SEK 64 million (57), excluding pension costs and social security costs. Pension costs amounted to SEK 10 M (11). Pension obligations for several senior executives are secured through pledged endowment insurances.

Long-term incentive programs

At the 2010 Annual General Meeting, it was decided to launch a long-term incentive program (LTI 2010) for senior executives and other key employees in the Group. The purpose was to create the prerequisites for retaining and recruiting competent employees for the Group, providing competitive remuneration and aligning the interests of the shareholders with the interests of the employees concerned.

At the 2011 to 2019 Annual General Meetings, it was decided to implement further long-term incentive programs for senior executives and other key employees in the Group. The new long-term incentive programs were named LTI 2011 to LTI 2019. LTI 2011 to LTI 2017 are based on similar terms to LTI 2010. LTI 2018 and LTI 2019 are based on similar principles, but with an extended measurement period of three years for the performance-based condition and removal of matching shares.

For each Series B share acquired by the CEO within the framework of LTI 2017, the company has awarded one matching share award and four performance-based share awards. For each Series B share acquired by other members of the Executive Team, the company has awarded one matching share award and three performance-based share awards. For other participants, the company has awarded one matching share award and one performance-based share award. For each Series B share acquired by the CEO within the framework of LTI 2018 and LTI 2019, the company has awarded six performance-based share awards. For each Series B share acquired by other members of the Executive Team, the company has awarded five performance-based share awards. For other participants, the company has awarded four performance-based share awards.

In accordance with the terms of the three incentive programs, employees have acquired a total of 371,312 Series B shares in ASSA ABLOY AB, of which 117,758 Series B shares were acquired in 2019 within the framework of LTI 2019.

Each matching share award for LTI 2017 entitles the holder to receive one Series B share in the company free of charge three years after allotment, provided that the holder, with certain exceptions, at the time of the release of the interim report for the first quarter 2020 still is employed by the Group and has maintained the shares acquired within the framework of the long-term incentive program. Each performance-based share award for LTI 2017 entitles the holder to receive one Series B share in the company free of charge three years after allotment, provided that the above conditions have been fulfilled. In addition, the maximum level in a range determined by the Board of Directors for the performance of the company's earnings per share must have been fulfilled during the first year of the program in order to receive full outcome.

Each performance-based share award for LTI 2018 and LTI 2019 entitles the holder to receive one Series B share in the company free of charge three years after allotment, provided that the holder, with certain exceptions, at the time of the release of the interim report for the first quarter 2021 (LTI 2018) and first quarter 2022 (LTI 2019) still is employed by the Group and has maintained the shares acquired within the framework of the long-term incentive programs. The number of performance-based share awards that entitle the holder to Series B shares in the company depends on the annual develoment of ASSA ABLOY's earnings per share based on the target levels, as defined by the Board of Directors, during the measurement period 1 January 2018 – 31 December 2020 (LTI 2018) and the measurement period 1 January 2019 – 31 December 2021 (LTI 2019), where each year during the measurement period is compared to the previous year. The outcomes are calculated yearly, whereby one third of the performance-based share awards is measured against the outcome for the first year in the measurement period, one third is measured against the outcome for the second year in the measurement period and one third is measured against the outcome for the third year in the measurement period. The outcome for each year is measured linearly. Unless the minimum level in the target level is achieved for the year, none of the relevant performance-based share awards will give the right to any Series B shares. If the maximum level in the target level is achieved, each performance-based share award linked to the relevant year entitles the holder to one Series B share.

The performance-based condition was 100 percent fulfilled for LTI 2017. Fulfilment of the performance-based condition for LTI 2018 and LTI 2019, respectively, is intended be presented in the Annual Report for the financial year 2020 and the financial year 2021, respectively.

Outstanding performance-based share awards for LTI 2019 total 490,724. The total number of outstanding matching and performance-based share awards for LTI 2017, LTI 2018 and LTI 2019 amounted to 1,035,659 on the reporting date of 31 December 2019.

Fair value is based on the share price on the respective allotment date. The present value calculation is based on data from an external party. Fair value is adjusted for participants who do not maintain their holding of shares for the duration of the respective program. In the case of performance-based shares, the company assesses the probability of the performance targets being met when calculating the compensation expense.

The fair value of ASSA ABLOY's Series B share on the allotment date for LTI 2019, 24 May 2019, was SEK 194.23. The fair value of ASSA ABLOY's Series B share on the allotment date for LTI 2018, 25 May 2018, was SEK 191.63. The fair value of ASSA ABLOY's Series B share on the allotment date for LTI 2017, 26 May 2017, was SEK 192.10.

The total cost of the Group's long-term incentive programs (LTI 2016–LTI 2019) excluding social security costs amounted to SEK 49 million (45) in

Note 34 cont.

2019. In April 2019 vesting of remaing parts of LTI 2016 took place equivalent to 108,193 shares (313,744) at a total market value at the time of vesting of SEK 21 M (60). The payment referred to above for the transferred shares in LT1 2016 was recognized in equity.

Notice and severance pay

If the CEO is given notice, the company is liable to pay the equivalent of a maximum of 24 months' base salary and other employment benefits. If one of the other members of the Executive Team is given notice, the company is liable to pay a maximum six months' base salary and other employment benefits plus an additional twelve months' base salary.

Average number of employees per country, broken down by gender

	Group					
	2018			2019		
	Total	of which women	of which men	Total	of which women	of which men
US	10,339	2,742	7,597	10,914	3,012	7,902
China	9,483	3,970	5,514	8,731	3,565	5,166
Sweden	2,252	580	1,672	2,344	613	1,731
United Kingdom	1,851	552	1,299	2,034	672	1,362
France	1,934	603	1,331	1,917	585	1,333
Mexico	1,660	504	1,156	1,740	527	1,213
India	1,655	148	1,508	1,690	142	1,547
Brazil	1,392	419	973	1,465	450	1,015
Germany	1,452	455	997	1,461	450	1,011
Poland	1,182	315	867	1,269	349	920
Finland	1,173	329	844	1,208	338	870
Czech Republic	1,203	375	828	1,204	389	816
Netherlands	1,050	171	879	1,054	189	865
Australia	674	195	479	953	249	704
Canada	814	192	622	822	250	573
Malaysia	870	437	433	814	425	389
Romania	878	347	531	762	322	440
Belgium	698	142	556	729	152	577
South Africa	650	306	344	716	302	414
South Korea	681	191	491	703	212	491
Norway	690	145	545	664	130	534
Switzerland	584	181	402	609	164	446
Spain	535	133	402	580	150	430
Denmark	601	165	436	559	113	446
Italy	453	121	332	435	111	324
United Arab Emirates	399	33	365	373	36	337
New Zealand	293	99	194	356	105	251
Hungary	315	52	264	311	71	241
Chile	307	89	218	271	80	191
Israel	292	99	193	253	81	172
Austria	190	35	155	201	33	168
Hong Kong	210	85	125	198	78	121
Colombia	199	56	143	192	56	136
Others	1,393	480	913	1,462	386	1,075
Total	**48,353**	**14,746**	**33,606**	**48,992**	**14,785**	**34,207**

	Parent company					
	2018			2019		
	Total	of which women	of which men	Total	of which women	of which men
Sweden	231	56	175	269	71	198
Total	**231**	**56**	**175**	**269**	**71**	**198**

Gender distribution of Board of Directors and Executive Team

	2018			2019		
	Total	of which women	of which men	Total	of which women	of which men
Board of Directors[1]	9	4	5	7	4	3
Executive Team	9	1	8	9	1	8
– of which Parent company's Executive Team	4	1	3	4	1	3
Total	**18**	**5**	**13**	**16**	**5**	**11**

[1] Excluding employee representatives.

Note 35 Financial risk management and financial instruments

Financial risk management

ASSA ABLOY is exposed to a variety of financial risks due to its international business operations. Financial risk management for ASSA ABLOY's units has been implemented in accordance with the ASSA ABLOY Group's financial policy. The principles for financial risk management are described below.

Organization and activities

ASSA ABLOY's financial policy, which is determined by the Board of Directors, provides a framework of guidelines and regulations for the management of financial risks and financial activities.

ASSA ABLOY's financial activities are coordinated centrally and the majority of financial transactions are conducted by the subsidiary ASSA ABLOY Financial Services AB, which is the Group's internal bank. External financial transactions are conducted by Treasury. Treasury achieves significant economies of scale when negotiating borrowing agreements, using interest rate derivatives and managing currency flows.

Capital structure

The objective of the Group's capital structure is to safeguard its ability to continue as a going concern, and to generate good returns for shareholders and benefits for other stakeholders. Maintaining an optimal capital structure enables the Group to keep capital costs at a low level. The Group can adjust the capital structure based on the requirements that arise by varying the dividend paid to shareholders, returning capital to shareholders, issuing new shares or selling assets to reduce debt. The capital requirement is assessed on the basis of factors such as the net debt/equity ratio.

Net debt is defined as interest-bearing liabilities, including negative market values of derivatives, plus pension provisions and lease obligations, less cash and cash equivalents, and other interest-bearing investments including positive market values of derivatives. The table 'Net debt and equity' shows the position as at December 31.

Net debt and equity

	Group	
SEK M	**2018**	**2019**
Non-current interest-bearing receivables	–106	–45
Current interest-bearing investments incl. positive market values of derivatives	–188	–257
Cash and cash equivalents	–538	–442
Pension provisions	2,880	3,346
Lease liabilities	91	3,739
Other non-current interest-bearing liabilities	19,398	21,100
Current interest-bearing liabilities incl. negative market values of derivatives	7,710	5,610
Total	**29,246**	**33,050**
Equity	**51,900**	**59,154**
Net debt/equity ratio	**0.56**	**0.56**

Rating

Another important variable in the assessment of the Group's capital structure is the credit rating assigned by credit rating agencies to the Group's debt. It is essential to maintain a solid credit rating in order to have access to both long-term and short-term financing from the capital markets when needed. ASSA ABLOY maintains both long-term and short-term credit ratings from Standard & Poor's and a short-term rating from Moody's. The Group's credit rating remained unchanged during the year.

Agency	Short-term	Outlook	Long-term	Outlook
Standard & Poor's	A2	Stable	A–	Stable
Moody's	P2	Stable	n/a	

Note 35 cont.

Maturity profile – financial instruments[1]

	December 31, 2018				December 31, 2019			
SEK M[2]	**<1 year**	**>1 <2 years**	**>2 <5 years**	**>5 years**	**<1 year**	**>1 <2 years**	**>2 <5 years**	**>5 years**
Long-term bank loans	–1,437	–654	–2,738	–489	–570	–1,444	–1,507	–329
Long-term capital market loans	–1,844	–3,000	–6,621	–7,523	–3,113	–1,567	–9,357	–8,575
Short-term bank loans	–2,199				–2,409			
Commercial papers and short-term capital market loans	–2,752							
Derivatives (outflow)	–13,656	–53	–152	–68	–15,947	–51	–146	–136
Total by period	**–21,888**	**–3,707**	**–9,511**	**–8,080**	**–22,039**	**–3,062**	**–11,010**	**–9,040**
Cash and cash equivalents incl. interest-bearing receivables	610				609			
Non-current interest-bearing receivables		108				106		
Derivatives (inflow)	13,609	77	189	110	15,893	66	190	165
Deferred considerations	–1,021	–507	–371		–883	–451	–32	
Trade receivables	14,496				15,701			
Trade payables	–7,893				–7,908			
Lease liabilities		–91			–1,183	–961	–1,336	–463
Net total	**–2,087**	**–4,120**	**–9,693**	**–7,970**	**190**	**–4,302**	**–12,188**	**–9,338**
Confirmed credit facilities	9,265	–9,265			14,925		–12,525	–2,401
Adjusted maturity profile[1]	**7,178**	**–13,385**	**–9,693**	**–7,970**	**15,116**	**–4,302**	**–24,713**	**–11,739**

[1] For maturity structure of guarantees, see Note 30.
[2] The amounts in the table are undiscounted and include future known interest payments. The exact amounts are therefore not found in the balance sheet.

Financing risk and maturity profile

Financing risk is defined as the risk of being unable to meet payment obligations as a result of inadequate liquidity or difficulties in obtaining external financing. ASSA ABLOY manages financing risk at Group level. Treasury is responsible for external borrowings and external investments. ASSA ABLOY strives to have access on every occasion to both short-term and long-term loan facilities. In accordance with financial policy, the available loan facilities, including available cash and cash equivalents, should include a reserve (facilities available but not utilized) equivalent to at least 10 percent of the Group's total annual sales.

Maturity profile

The table 'Maturity profile' above shows the maturities for ASSA ABLOY's financial instruments, including confirmed credit facilities. The maturities are not concentrated to a particular date in the immediate future. An important component of liquidity planning is the Group's Multi-Currency Revolving Credit Facility, which was renewed in 2019. This facility now matures in April 2024. During the year ASSA ABLOY also negotiated a new credit facility with the EIB for EUR 230 M. At year-end both of these credit facilities were completely unutilized. Moreover, existing financial assets are also taken into account. The table shows undiscounted cash flows relating to the Group's financial instruments at the reporting date, and these amounts are therefore not found in the balance sheet.

Cash and cash equivalents and other interest-bearing receivables

Current interest-bearing investments totaled SEK 55 M (71) at year-end. In addition, ASSA ABLOY has long-term interest-bearing receivables of SEK 45 M (106) and financial derivatives with a positive market value of SEK 202 M (117) which, in addition to cash and cash equivalents, are included in the definition of net financial debt. Cash and cash equivalents are mainly invested in bank accounts or interest-bearing instruments with high liquidity from issuers with a credit rating of at least A–, according to Standard & Poor's or similar rating agency. The average term for cash and cash equivalents was 18 days (22) at year-end 2019.

The Parent company's cash and cash equivalents are held in a sub-account to the Group account.

	Group		Parent company	
SEK M	**2018**	**2019**	**2018**	**2019**
Cash and bank balances	456	418	0	0
Short-term investments with maturity less than 3 months	81	24	–	–
Cash and cash equivalents	**538**	**442**	**0**	**0**
Short-term investments with maturity more than 3 months	71	55	–	–
Non-current interest-bearing receivables	106	45	–	–
Positive market value of derivatives	117	202	–	–
Total	**832**	**745**	**0**	**0**

Interest rate risks in interest-bearing assets

Treasury manages interest rate risk in interest-bearing assets. Derivative instruments such as interest rate swaps and FRAs (Forward Rate Agreements) may be used to manage interest rate risk. These interest-bearing assets are mostly short-term. The term for the majority of these investments is three months or less, although the share with a longer maturity rose during the year. The fixed interest term for such short-term investments was 144 days (210) at year-end 2019. A downward change in the yield curve of one percentage point would reduce the Group's interest income by around SEK 1 M (1) and consolidated equity by SEK 0 M (0).

Interest-bearing liabilities

The Group's long-term loan financing mainly consists of a GMTN Program of SEK 17,886 M (14,229), of which SEK 15,814 M (12,996) is long-term, Private Placement Program in the US totaling USD 295 M, of which USD 225 M (295) is long-term, and a loan from financial institutions such as the European Investment Bank (EIB) of EUR 37 M (37) and USD 120 M (121), and a loan from the Nordic Investment Bank of EUR 55 M (55). During the year, eleven new issues were made under the GMTN program for a total amount of SEK 4,615 M. Other changes in long-term loans are mainly due to some of the originally long-term loans now having less than 1 year to maturity. The size of the loans increased due to currency fluctuations, especially regarding the USD. A total of SEK 4,615 M was raised in new long-term loans, while SEK 2,903 M in originally long-term loans matured during the year.

The Group's short-term loan financing mainly consists of two Commercial Paper Programs for a maximum USD 1,000 M (1,000) and SEK 5,000 M (5,000) respectively. At year-end, however, the outstanding balance under the Commercial Paper programs was SEK 0 M (2,752). In addition, substantial credit facilities are available, mainly in the form of a Multi-Currency Revolving Credit Facility of EUR 1,200 M (900). During the year, a new financing commitment of EUR 230 million was also received from the EIB, which had not yet been used at year-end. At year-end the average time to maturity for the Group's interest-bearing liabilities, excluding the pension provision and lease obligations, was 51 months (42).

Some of the Group's main financing agreements contain a customary Change of Control clause. This clause means that lenders have the right in certain circumstances to demand the renegotiation of conditions or to terminate the agreements should control of the company change.

Note 35 cont.

External financing/net debt

Credit lines/facilities	Amount, SEK M	Maturity	Carrying amount, SEK M	Currency	Amount 2018	Amount 2019	Of which Parent company, SEK M
US Private Placement Program	1,415	Aug 2022	1,415	USD	150	150	
US Private Placement Program	699	Aug 2024	699	USD	75	75	
Multi-Currency RCF	12,525	Apr 2024	–	EUR	900	1,200	
Credit facility EIB	2,401	Jan 2027	–	EUR	–	230	
Bank loan EIB	191	Nov 2021	191	EUR	37	18	
Bank loan EIB	960	Apr 2023[2]	960	USD	120	103	
Bank loan NIB	574	Dec 2021	574	EUR	55	55	
Global MTN Program	24,022	Feb 2021	466	USD	50	50	466
		Jul 2021	499	SEK	500	499	499
		Aug 2021	93	USD	10	10	93
		Oct 2021	157	EUR	15	15	157
		Feb 2022	186	USD	20	20	186
		Mar 2022	522	EUR	50	50	522
		Apr 2022	93	USD	10	10	93
		Jun 2022	104	EUR	10	10	104
		Jul 2022	47	USD	5	5	47
		Feb 2023	499	SEK	–	500	499
		Mar 2023	157	EUR	15	15	157
		Oct 2023	208	EUR	20	20	208
		Nov 2023	244	USD	25	25	
		Nov 2023	947[1]	USD	100	100	932
		Dec 2023	932	USD	100	100	932
		Jan 2024	312	EUR	–	30	312
		Apr 2024	549	SEK	–	550	549
		May 2024	186	USD	20	20	186
		Jul 2024	280	USD	30	30	280
		Sep 2024	1,040	EUR	100	100	1,040
		Oct 2024	186	USD	–	20	186
		Feb 2025	521	EUR	50	50	521
		Mar 2025	350[1]	EUR	30	30	313
		Jun 2025	521	EUR	50	50	521
		Jun 2025	280	USD	30	30	280
		Dec 2025	477[1]	USD	50	50	466
		Mar 2026	209	EUR	–	20	209
		Nov 2026	479[1]	CHF	–	50	479
		Feb 2027	313	EUR	30	30	313
		Feb 2027	519	EUR	50	50	519
		Jun 2027	315[1]	NOK	300	300	316
		Oct 2027	211[1]	NOK	200	200	211
		May 2029	155	EUR	–	15	155
		Jun 2029	93	USD	–	10	93
		Aug 2029	104	EUR	–	10	104
		Oct 2029	314[1]	EUR	28	28	290
		Oct 2029	269	EUR	26	26	269
		Dec 2029	916[1]	USD	–	100	920
		Mar 2030	311	EUR	30	30	311
		Apr 2030	726	EUR	70	70	726
		Aug 2034	1,028	EUR	–	100	1,028
Other long-term loans	1,447		1,447				1,389
Total long-term loans/facilities	**44,234**		**21,100**				**16,877**
Global MTN Program	2,072		2,072			2,071	1,696
US Private Placement Program	653	May 2020	653	USD	70	70	
Global CP Program	9,324		–	SEK	2,243	–	
Swedish CP Program	5,000		–	SEK	500	–	
Other bank loans	1,599		1,599				
Overdraft facility	2,334		1,136				
Total short-term loans/facilities	**20,982**		**5,460**				**1,696**
Total loans/facilities	**65,215**		**26,560**				**18,573**
Cash and cash equivalents			–442				
Current and Non-current interest-bearing investments			–100				
Derivative financial instruments			–53				
Pension provisions			3,346				
Lease liabilities			3,739				
Net debt			**33,050**				

[1] The loans are subject to hedge accounting, in whole or in part.
[2] The loans are amortizing. In the table the average dates of maturity of the loans have been stated.

Note 35 cont.

Change in loans

SEK M	Long-term loans	Short-term loans	Total
Opening balance 1 January 2019	**19,398**	**7,594**	**26,992**
Cash flow from financing activities			
Long-term loans raised	4,615	–	4,615
Long-term loans repaid	–	–2,903	–2,903
Other changes in cash flow short-term loans	–	–3,413	–3,413
Total	**4,615**	**–6,316**	**–1,701**
Changes without cash flow impact			
Acquisitions of subsidiaries	164	632	796
Reclassifications	–3,461	3,461	–
Unrealized exchange rate differences	394	67	461
Other changes in non-cash items	–10	23	13
Total	**–2,913**	**4,182**	**1,269**
Closing balance 31 December 2019	**21,100**	**5,460**	**26,560**

SEK M	Long-term loans	Short-term loans	Total
Opening balance 1 January 2018	**16,859**	**6,151**	**23,010**
Cash flow from financing activities			
Long-term loans raised	4,483	–	4,483
Long-term loans repaid	–	–2,849	–2,849
Other changes in cash flow short-term loans	–	553	553
Total	**4,483**	**–2,296**	**2,187**
Changes without cash flow impact			
Acquisitions of subsidiaries	23	933	957
Reclassifications	–2,660	2,660	–
Unrealized exchange rate differences	806	155	960
Other changes in non-cash items	–22	–9	–31
Reclassification of finance leases	–91	–	–91
Total	**–1,944**	**3,739**	**1,795**
Closing balance 31 December 2018	**19,398**	**7,594**	**26,992**

Interest rate risks in borrowing

Changes in interest rates have a direct impact on ASSA ABLOY's net interest expense. Treasury is responsible for identifying and managing the Group's interest rate exposure. Treasury analyzes the Group's interest rate exposure and calculates the impact on income of changes in interest rates on a rolling 12-month basis. The Group strives for a mix of fixed rate and variable rate borrowings in the loan portfolio, and uses interest rate swaps to adjust the fixed interest term. The financial policy stipulates that the average fixed interest term should normally be within the interval of 12 to 36 months. At year-end, the average fixed interest term on gross debt, excluding pension liabilities and lease commitments, was around 34 months (28). An upward change in the yield curve of one percentage point would increase the Group's interest expense by around SEK 102 M (126) and reduce consolidated equity by SEK 75 M (93).

Change in lease liabilities

	Group	
SEK M	2018	2019
Opening balance	**–**	**91**
Effects of transition to IFRS 16	–	3,711
Acquisitions of subsidiaries	–	61
New and terminated leases	–	917
Amortization of lease liabilities	–	–1,159
Exchange rate differences	–	118
Reclassification of finance leases	91	–
Closing balance	**91**	**3,739**

	Group	
Balance sheet breakdown:	2018	2019
Non-current lease liabilities	91	2,588
Current lease liabilities	–	1,151
Total	**91**	**3,739**

Currency composition

The currency composition of ASSA ABLOY's borrowing depends on the currency composition of the Group's assets and other liabilities. Currency swaps are used to achieve the desired currency composition. See the table 'Net debt by currency' below.

Net debt by currency

	December 31, 2018		December 31, 2019	
SEK M	Net debt excl. derivatives	Net debt incl. derivatives	Net debt excl. derivatives	Net debt incl. derivatives
USD	10,875	14,442	11,843	15,603
EUR	14,150	7,575	14,389	8,183
CNY	635	1,609	606	1,880
GBP	288	874	403	1,688
AUD	135	336	232	1,218
CHF	190	653	922	977
NOK	563	688	789	798
CZK	27	592	146	784
KRW	216	216	335	614
PLN	49	472	56	465
SEK	1,466	416	2,283	–1,263
Other	651	1,374	1,048	2,103
Total	**29,246**	**29,246**	**33,050**	**33,050**

Currency risk

Currency risk affects ASSA ABLOY mainly through translation of capital employed and net debt, translation of the income of foreign subsidiaries, and the impact on income of flows of goods between countries with different currencies.

Transaction exposure

Currency risk in the form of transaction exposure, or exports and imports of goods respectively, is relatively limited in the Group, even though it can be significant for individual business units. The main principle is to allow currency fluctuations to have an impact on the business as quickly as possible. As a result of this strategy, current currency flows are not normally hedged.

Transaction flows relating to major currencies (import + and export –)

	Currency exposure	
Currency, SEK M	2018	2019
AUD	557	574
CAD	944	921
CNY	–1,825	–1,908
DKK	244	236
EUR	2,400	1,954
GBP	571	615
RON	–445	–387
SEK	–3,518	–2,236
USD	1,410	1,375

Translation exposure in income

The table below shows the impact on the Group's income before tax of a 10 percent weakening of the Swedish krona (SEK) in relation to the major currencies, with all other variables constant.

Impact on income before tax of a 10 percent weakening of SEK

Currency, SEK M	2018	2019
AUD	41	44
CHF	33	37
CNY	27	26
DKK	9	15
EUR	191	227
GBP	20	15
HKD	95	95
KRW	33	19
USD	611	792

Note 35 cont.

Translation exposure in the balance sheet

The impact of translation of equity is limited by the fact that a large part of financing is in local currency.

The capital structure in each country is optimized based on local legislation. Whenever possible, according to local conditions, gearing per currency should generally aim to be the same as for the Group as a whole to limit the impact of fluctuations in individual currencies. Treasury uses currency derivatives and loans to achieve appropriate financing and to eliminate undesirable currency exposure.

The table 'Net debt by currency' on page 91 shows the use of forward exchange contracts in relation to financing in major currencies. Forward exchange contracts are used to neutralize the exposure arising between external debt and internal requirements.

Financial credit risk

Financial risk management exposes ASSA ABLOY to certain counterparty risks. Such exposure may arise from the investment of surplus cash as well as from investment in debt instruments and derivative instruments.

ASSA ABLOY's policy is to minimize the potential credit risk relating to surplus cash by using cash flow from subsidiaries to repay the Group's loans. This is primarily achieved through cash pools put in place by Treasury. Around 97 percent (96) of the Group's sales were settled through cash pools in 2019. Smaller amounts may be held in other local banks for shorter time periods depending on how customers choose to pay. The Group can also invest surplus cash in the short term in banks to match borrowing and cash flow. The banks in which surplus cash is deposited have a high credit rating. In light of this and the short terms of the investments the effect of the calculated credit risk is assessed to be negligible.

Derivative instruments are allocated between banks based on risk levels defined in the financial policy, in order to limit counterparty risk. Treasury only enters into derivative contracts with banks that have a high credit rating.

ISDA agreements (full netting of transactions in case of counterparty default) have been entered into with respect to interest rate and currency derivatives. The table on page 93 shows the impact of this netting.

Commercial credit risk

The Group's trade receivables are distributed across a large number of customers who are spread globally. No single customer accounts for more than 1 percent of the Group's sales. The concentration of credit risk associated with trade receivables is considered limited, but credit risks have increased in pace with increased activity in emerging markets. The fair value of trade receivables is equivalent to the carrying amount. Credit risks relating to operating activities are managed locally at company level and monitored at division level. For more information see Note 22 and the section "Impairment of financial assets" in the information on accounting principles.

Commodity risk

The Group is exposed to price risks relating to purchases of certain commodities (primarily metals) used in production. Forward contracts are not used to hedge commodity purchases.

Fair value of financial instruments

Derivative financial instruments such as forward exchange contracts and forward rate agreements are used to the extent necessary. The use of derivative instruments is limited to reducing exposure to financial risks.

The positive and negative fair values in the table 'Outstanding derivative financial instruments' on page 93 show the fair values of outstanding instruments at year-end, based on available fair values, and are the same as the carrying amounts in the balance sheet. The nominal value is equivalent to the gross value of the contracts.

For accounting purposes, financial instruments are classified into measurement categories in accordance with IFRS 9. The table 'Financial instruments' on page 93 provides an overview of financial assets and liabilities, measurement category, and carrying amount and fair value per item.

Risk management through hedge accounting

During the year the Group used hedge accounting in its financial risk management. Hedges can be divided into cash flow hedges, fair value hedges and net investment hedges. Changes in these hedges can be seen in the table below. For information regarding the effects of net investment hedges in other comprehensive income, see Note 32. Net investment hedges are used to manage currency risk that arise through investments in foreign subsidiaries. Fair value hedges are used to manage interest rate risk that arises when the Group takes out loans at a fixed interest rate. Cash flow hedges for interest rate risk in loans with variable interest rates have not been used during the year.

Interest rate risk related to the long-term loans are hedged through hedge accounting using interest rate swaps. In cases where the loans are denominated in a currency other than SEK, currency risk is not included in the applied hedge accounting. For risks related to net investments in foreign subsidiaries, hedge accounting is only applied to manage currency risk; no other related risks are managed by the hedges that are applied. ASSA ABLOY does not hedge 100% of its long-term loans or its net investments. Instead, the decision on when hedge accounting is appropriate is taken on a case-by-case basis, in accordance with the risk levels described in the financial policy.

For fair value hedges the Group uses interest rate swaps with critical terms that are equivalent to the hedged object, such as reference rate, settlement days, maturity date and nominal amounts. This approach ensures an economic relationship between the hedging objects and the hedging instruments. Hedging relationship effectiveness is tested through periodic forward-looking evaluation to ensure that an economic relationship still exists. Examples of identified sources of ineffectiveness in the hedging relationship include if a credit risk adjustment in the interest rate swap is not matched by an equivalent adjustment to the loan, or if for some reason differences in the critical terms between the interest rate swap and the loan should arise. All critical terms matched during the year. For this reason, the economic relationship has been 100% effective. One possible source of future inefficiency is the reforms under discussion for the IBOR markets, where proposed changes include how LIBOR for USD and CHF are determined. Most likely, the methods will be reviewed for the majority of currencies, for which reason any outstanding interest rate derivatives may be affected at some point in the future. All outstanding interest rate derivatives have exposure to interest periods after the end of 2022, at which time many of these changes are expected to take effect.

Hedging instruments

SEK M	Fair value 2018	Fair value 2019	Net investments 2018	Net investments 2019
Carrying amount of hedged item	2,749	3,532	392	373
Nominal amount of hedging instrument	2,749	3,532	392	373
Maturity	2020 to 2029	2020 to 2022	2020 to 2029	2020 to 2022
Hedge ratio	1:1	1:1	1:1	1:1
Total effect of hedging on hedged item	50	–88	–28	–53
Accrued remaining amount for terminated hedges	–24	–34	–215	–194
Change in value, hedging instruments since 1 January	–11	38	–8	–5
Change in value, hedge item	11	–38	8	5
Ineffectiveness recognized in profit and loss	0	0	0	0

Changes in the value of fair value hedged items are recognized against long-term loans, changes in value of hedging instruments are recognized against accrued revenue or expenses, respectively; ineffectiveness, if any, is recognized against interest income or expenses, respectively. Changes in value of hedge instruments in net investment hedges are recognized in the hedging reserve in equity.

Note 35 cont.

Disclosures of offsetting of financial assets and liabilities

SEK M	2018 Gross amount	2018 Amounts netted in the balance sheet	2018 Net amounts in the balance sheet	2018 Amount covered by netting agreement but not offset	2018 Net amount	2019 Gross amount	2019 Amounts netted in the balance sheet	2019 Net amounts in the balance sheet	2019 Amount covered by netting agreement but not offset	2019 Net amount
Financial assets	117	–	117	53	64	202	–	202	46	157
Financial liabilities	116	–	116	53	63	150	–	150	46	104

Netted financial assets and financial liabilities only consist of derivative instruments.

Outstanding derivative financial instruments at December 31

Instrument, SEK M	December 31, 2018 Positive fair value[2]	December 31, 2018 Negative fair value[2]	December 31, 2018 Nominal value	December 31, 2019 Positive fair value[2]	December 31, 2019 Negative fair value[2]	December 31, 2019 Nominal value
Foreign exchange forwards, funding	49	–99	8,105	108	–143	10,375
Interest rate swaps[1], fair value hedges	68	–18	2,749	94	–6	3,532
Total	**117**	**–116**	**10,854**	**202**	**–150**	**13,907**

[1] For interest rate swaps, only one leg is included in nominal value.
[2] Assets are recognized against accrued revenue and liabilities against accrued expenses.

Financial instruments: carrying amounts and fair values by measurement category

SEK M	2018 Carrying amount	2018 Fair value	2019 Carrying amount	2019 Fair value
Financial liabilities at amortized cost				
Trade receivables	14,496	14,496	15,701	15,701
Other financial assets at amortized cost	214	214	153	153
Cash and cash equivalents	538	538	442	442
Financial assets at fair value through profit or loss				
Shares and interests	8	8	6	6
Derivative financial instruments				
Hedge accounting	68	68	94	94
Held for trading	49	49	108	108
Total financial assets	**15,374**	**15,374**	**16,504**	**16,504**
Financial liabilities at amortized cost				
Trade payables	7,893	7,893	7,908	7,908
Lease liabilities	91	91	3,739	3,739
Long-term loans – hedge accounting	2,790	2,790	2,933	2,933
Long-term loans – non-hedge accounting	16,608	16,638	18,167	18,422
Short-term loans – hedge accounting	–	–	688	688
Short-term loans – non-hedge accounting	7,594	7,594	4,772	4,772
Financial liabilities at fair value through profit or loss				
Deferred considerations	1,899	1,899	1,366	1,366
Derivative financial instruments				
Hedge accounting	18	18	6	6
Held for trading	99	99	143	143
Total financial liabilities	**36,991**	**37,021**	**39,722**	**39,977**

The fair value of long-term borrowing is based on observable data by discounting cash flows to market rate, while the fair value of current receivables and current liabilities is considered to correspond to the carrying amount.

Financial instruments: measured at fair value

SEK M	2018 Carrying amounts	2018 Quoted prices	2018 Observable data	2018 Non-observable data	2019 Carrying amounts	2019 Quoted prices	2019 Observable data	2019 Non-observable data
Financial assets								
Derivative financial instruments	117	–	117	–	202	–	202	–
Financial liabilities								
Derivative financial instruments	116	–	116	–	150	–	150	–
Deferred considerations	1,899	–	–	1,899	1,366	–	–	1,366

Deferred considerations relate to additional payments for acquired companies. The size of a deferred consideration is usually linked to the earnings and sales trend in an acquired company during a specific period of time. Deferred consideration is measured on the day of acquisition based on the best judgment of management regarding future outcomes. Discounting takes place in the case of significant amounts.

For derivatives, the present value of future cash flows is calculated based on observable yield curves and exchange rates on the balance sheet date.

Comments on five years in summary

2015

ASSA ABLOY's good performance continued during the year despite challenging market conditions and relatively weak underlying growth worldwide. The Group's growth remained strong during the year, with total sales growth of 7 percent excluding exchange rate effects. The global market showed a divided picture with strong demand in the USA and much of Asia, while growth in Europe was more unevenly distributed. Emerging markets showed a slowdown, particularly China.

The focus in recent years on product development, innovation and sustainability yielded positive results during the year. ASSA ABLOY has established leadership in the ongoing industry shift from mechanical solutions to electronics, digitization and mobile. Growth remained strong for electromechanical products and entrance automation, whose share of sales exceeded 50 percent.

Operating income increased by 20 percent compared with 2014, and cash flow remained very strong. Earnings per share after full dilution increased by 20 percent.

A total of 16 acquisitions were consolidated during the year, which strengthened the market position in important emerging markets such as Brazil, and complemented the customer offering in key areas for the Group such as entrance automation and secure identity solutions.

2016

The Group's growth remained strong during the year, with total sales growth of 5 percent excluding exchange rate effects. The mature markets, primarily in Europe and the US, showed robust growth, while the trend in the emerging markets in Asia, Africa, the Middle East and parts of South America was more subdued in general, affected by factors such as the low prices for oil and other commodities. For ASSA ABLOY, the weak demand in these markets was most pronounced in China.

A new restructuring program was launched during the year. About fifty production plants and offices are set to close over a three-year period, with an estimated payback period of less than three years.

The focus in recent years on product development, innovation and sustainability continued at a high level during 2016. The technology shift toward an increased share of electromechanics with more digital and mobile solutions is expected to benefit ASSA ABLOY in the long term, and the proportion of sales of electromechanical products exceeded 50 percent.

Operating income for the year, excluding items affecting comparability, increased by 2 percent and cash flow continued to be strong. Earnings per share after full dilution, excluding items affecting comparability, increased 2 percent.

A total of 13 acquisitions were consolidated during the year, which strengthened the market position for the Group in key areas such as entrance automation and secure identity solutions. ASSA ABLOY's car locks operation was sold.

2017

Sales growth continued to be robust during the year. Organic growth was 4 percent, driven by growing demand for electromechanical and digital door opening solutions. For ASSA ABLOY, the mature markets primarily in Europe and the US demonstrated continued robust growth, while the trend in the emerging markets was weaker, especially in China, Brazil and the Middle East. Growth in Asia outside China continued to be robust.

Product development continues to focus on areas such as digital and mobile technologies, which are believed to provide substantial potential for robust profitable growth for some time to come. ASSA ABLOY also has a growing selection of products with environmental product declarations as part of its sustainable solutions initiative.

Operating income for the year, excluding items affecting comparability, increased by 10 percent compared with 2016, and cash flow remained strong. Earnings per share after full dilution, excluding items affecting comparability, increased 10 percent.

A total of 16 acquisitions were consolidated during the year, which strengthened the market position in areas such as smart door locks, physical access management and identity solutions. ASSA ABLOY divested its project operation within HID Global, AdvanIDe, in its entirety.

2018

Growth was strong during the year, with organic growth of 5 percent driven by continued successes for electromechanical and digital solutions, as well as strong growth in North and South America. The mature markets continued to demonstrate a favorable trend, with the US and Europe demonstrating strong and robust growth, respectively, during the year. The trend in the emerging markets was weaker, especially in Asia and the Middle East.

A new restructuring program was launched during the year. About fifty production plants and offices are set to close over a three-year period, with an estimated payback period of less than three years.

Product development continued at a high level with large investments in R&D, as reflected by 27 percent of sales for the year which relate to products that are less than three years old.

Operating income for the year, excluding items affecting comparability, increased by 5 percent and cash flow remained strong. Earnings per share after full dilution, excluding items affecting comparability, increased 4 percent. An impairment charge of SEK 6 billion was taken during the year for goodwill, other intangible assets and operating assets.

A total of 19 acquisitions were consolidated during the year, which strengthened the market position for HID in secure identity solutions. ASSA ABLOY sold its wood door business within the Americas division during the year.

2019

Organic growth was 3 percent, driven by good growth in the Americas and Global Technologies divisions. Growth was particularly strong in the US on robust demand for smart locks in the private residential market, as well as the commercial business segments. Growth in Europe and Asia was generally mixed. The trend for the emerging markets continued to be relatively weak.

The product development initiative accelerated during the year with large investments in R&D, as reflected by the 27 percent of sales which relate to products that are less than three years old.

Operating income for the year, excluding items affecting comparability, increased by 12 percent and cash flow remained strong. Earnings per share after full dilution, excluding items affecting comparability, increased 14 percent.

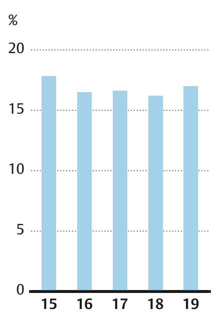
Acquisition activity continued to be high during the year; at the same time, an agreement was also signed for the acquisition of agta record, the largest acquisition since 2011.

Five years in summary

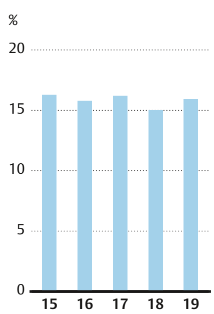
Amounts in SEK M unless stated otherwise	2015	2016	2017	2018	2019
Sales and income					
Sales	68,099	71,293	76,137	84,048	94,029
Organic growth, %	4	2	4	5	3
Acquisitions and divestments, %	3	3	2	2	3
Operating income (EBIT) excluding items affecting comparability[1]	11,079	11,254	12,341	12,909	14,920
Operating income (EBIT)	11,079	9,657	12,341	6,096	14,608
Income before tax (EBT)	10,382	8,952	11,673	5,297	13,571
Net income	7,693	6,653	8,635	2,755	9,997
Cash flow					
Cash flow from operating activities	8,572	8,575	9,248	9,225	12,665
Cash flow from investing activities	–4,412	–4,063	–8,661	–6,427	–5,464
Cash flow from financing activities	–4,335	–4,271	–861	–2,728	–7,301
Cash flow	–175	240	–274	70	–100
Operating cash flow	9,952	10,467	10,929	11,357	14,442
Capital employed and financing					
Capital employed	63,848	70,351	75,932	81,146	92,204
– of which goodwill	42,777	47,544	50,330	53,413	57,662
– of which other intangible assets and property, plant and equipment	16,649	17,618	19,144	19,518	21,191
– of which right-of-use assets	–	–	–	119	3,731
– of which shares and interests in associates	1,910	2,109	2,243	2,434	2,595
Net debt	22,269	23,127	25,275	29,246	33,050
Non-controlling interests	4	5	9	10	11
Shareholders' equity, excluding non-controlling interest	41,575	47,220	50,648	51,890	59,143
Data per share, SEK					
Earnings per share before and after dilution	6.93	5.99	7.77	2.48	9.00
Earnings per share before and after dilution and excluding items affecting comparability[1]	6.93	7.09	7.77	8.09	9.22
Shareholders' equity per share after dilution	37.43	42.51	45.60	46.71	53.25
Dividend per share	2.65	3.00	3.30	3.50	3.85[2]
Price of Series B share at year-end	178.00	169.10	170.40	158.15	219.00
Key figures					
Operating margin (EBIT), % excluding items affecting comparability[1]	16.3	15.8	16.2	15.4	15.9
Operating margin (EBIT), %	16.3	13.5	16.2	7.3	15.5
Profit margin (EBT), %	15.2	12.6	15.3	6.3	14.4
Return on capital employed, %	17.8	14.1	16.6	7.6	16.6
Return on capital employed excluding items affecting comparability, %	17.8	16.5	16.6	16.2	17.0
Return on shareholders' equity, %	19.8	15.0	17.6	5.4	18.0
Equity ratio, %	48.2	49.6	50.9	48.7	50.1
Net debt/equity ratio	0.54	0.49	0.50	0.56	0.56
Interest coverage ratio, times	16.7	14.1	19.1	8.0	14.9
Total number of shares, thousands	1,112,576	1,112,576	1,112,576	1,112,576	1,112,576
Number of outstanding shares, thousands	1,110,776	1,110,776	1,110,776	1,110,776	1,110,776
Weighted average number of shares issued, before and after dilution, thousands	1,110,776	1,110,776	1,110,776	1,110,776	1,110,776
Average number of employees	45,994	46,928	47,426	48,353	48,992

[1] Excluding items affecting comparability 2016, 2018 and 2019.
[2] Dividend proposed by the Board of Directors.

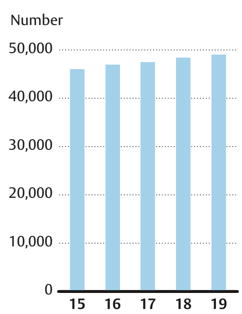
Return on capital employed[1]



Operating margin (EBIT)[1]



Average number of employees



[1] Excluding items affecting comparability 2016, 2018 and 2019.

Definitions of key ratios

Organic growth
Change in sales for comparable units after adjustments for acquisitions and exchange rate effects.

Operating margin (EBITDA)
Operating income before depreciation and amortization as a percentage of sales.

Operating margin (EBITA)
Operating income before amortization of intangible assets recognized in business combinations, as a percentage of sales.

Operating margin (EBIT)
Operating income as a percentage of sales.

Profit margin (EBT)
Income before tax as a percentage of sales.

Operating cash flow
Cash flow from operating activities excluding restructuring payments and tax paid on income minus net capital expenditure and amortization of lease liabilities. See the table on operating cash flow for detailed information.

Net capital expenditure
Investments in, less sales of, intangible assets and property, plant and equipment.

Depreciation and amortization
Depreciation and amortization of intangible assets, property, plant and equipment and right-of-use assets.

Net debt
Interest-bearing liabilities less interest-bearing assets. See the table on net debt for detailed information.

Capital employed
Total assets less interest-bearing assets and non-interest-bearing liabilities including deferred tax liability.

Equity ratio
Shareholders' equity as a percentage of total assets.

Interest coverage ratio
Income before tax plus net interest divided by net interest.

Return on shareholders' equity
Net income attributable to Parent company's shareholders as a percentage of average parent company's shareholders equity.

Return on capital employed
Income before tax plus net interest as a percentage of average capital employed, excluding restructuring reserves.

Earnings per share after tax and before dilution
Net income excluding non-controlling interests divided by weighted average number of outstanding shares before dilution.

Earnings per share after tax and dilution
Net income excluding non-controlling interests divided by weighted average number of outstanding shares after any potential dilution.

Shareholders' equity per share after dilution
Equity excluding non-controlling interests in relation to number of outstanding shares after any potential dilution.

Proposed distribution of earnings

The following earnings are at the disposal of the general meeting of shareholders:

Share premium reserve: SEK 787 M
Retained earnings brought forward: SEK 9,192 M
Net income for the year: SEK 5,134 M
TOTAL: SEK 15,113 M

The Board of Directors and the President and CEO propose that a dividend of SEK 3.85 per share, a total of SEK 4,276 M, be distributed to shareholders and that the remainder, SEK 10,837 M, be carried forward to the new financial year. The dividend amount is calculated on the number of outstanding shares as per 6 February 2020.

No dividend is payable on ASSA ABLOY AB's holding of treasury shares, the exact number of which is determined on the record date for payment of dividend. ASSA ABLOY AB held 1,800,000 treasury shares as at 6 February 2020.

Monday, 4 May 2020 has been proposed as the record date for dividends. If the Annual General Meeting approves this proposal, dividends are expected to be distributed by Euroclear Sweden AB on Thursday, 7 May 2020.

The Board of Directors and the President and CEO declare that the consolidated accounts have been prepared in accordance with International Financial Reporting Standards, IFRS, as adopted by the EU and give a true and fair view of the Group's financial position and results. The Parent company's annual accounts have been prepared in accordance with generally accepted accounting principles in Sweden and give a true and fair view of the Parent company's financial position and results.

The Report of the Board of Directors for the Group and the Parent company gives a true and fair view of the development of the Group's and the Parent company's business operations, financial position and results, and describes material risks and uncertainties to which the Parent company and the other companies in the Group are exposed.

Stockholm, 6 February 2020

Lars Renström
Chairman

Carl Douglas
Vice Chairman

Nico Delvaux
President and CEO

Eva Karlsson
Board member

Birgitta Klasén
Board member

Lena Olving
Board member

Sofia Schörling Högberg
Board member

Jan Svensson
Board member

Rune Hjälm
Board member
Employee representative

Mats Persson
Board member
Employee representative

Our audit report was issued on 6 February 2020

PricewaterhouseCoopers AB

Bo Karlsson
Authorized Public Accountant
Auditor in charge

Linda Corneliusson
Authorized Public Accountant

Auditor's report

To the general meeting of the shareholders of ASSA ABLOY AB (publ), corporate identity number 556059-3575

Report on the annual accounts and consolidated accounts

Opinions

We have audited the annual accounts and consolidated accounts of ASSA ABLOY AB (publ) for the year 2019 except for the corporate governance statement on pages 46–55. The annual accounts and consolidated accounts of the company are included on pages 39–93 and 97 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 as of 31 December 2019 and its financial performance and cash flow for the year then ended in accordance with the Annual Accounts Act. The consolidated accounts have been prepared in accordance with the Annual Accounts Act and present fairly, in all material respects, the financial position of the group as of 31 December 2019 and their financial performance and cash flow for the year then ended in accordance with International Financial Reporting Standards (IFRS), as adopted by the EU, and the Annual Accounts Act. Our opinions do not cover the corporate governance statement on pages 46–55. 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 statement of comprehensive income 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 Board of Directors in accordance with the Audit Regulation (537/2014) Article 11.

Basis for Opinions

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

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

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 judgements; 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 ASSA ABLOY group is comprised of a large number of companies. None of these companies have, individually, been deemed to be of major significance in the audit of the group. For the group audit, we have selected the parent company and the treasury company and some 80 companies spread across the group's five divisions, which are audited according to a group-wide audit program. The audit program includes the assessment of the design and operating effectiveness of selected controls in processes significant to the financial reporting and also includes audit procedures in the form of test of details supplemented with analytical procedures applied to the group's significant income statement and balance sheet items. The majority of the subsidiaries in the group are also subject to statutory audits according to local requirements. During 2019, we visited the audit teams in China and the US to participate, on site, in the audit, and to take part in the meetings with representatives from ASSA ABLOY's local companies and ASSA ABLOY's head office. We selected the operations in China and the US per our professional judgement of various factors including external sales volume.

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 judgement, we determined certain quantitative thresholds for materiality. 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 matters

Key audit matters of the audit are those matters that, in our professional judgment, were of most significance in our audit of the annual accounts and consolidated accounts of the current period. These matters were addressed in the context of our audit of, and in forming our opinion thereon, the annual accounts and consolidated accounts as a whole, but we do not provide a separate opinion on these matters.

Key audit matter	How our audit addressed the Key audit matter
Goodwill and other intangible assets with indefinite useful lives *Goodwill and other intangible assets with indefinite useful lives are described in the annual report in Note 14 and in the accounting principles in Note 1.* ASSA ABLOY is an acquisition-intensive company that has an established and structured acquisition process. During the 2019 financial year, a total of 13 acquisitions were consolidated. ASSA ABLOY's goodwill of SEK 57 billion and its Intangible assets with indefinite useful lives of SEK 6 billion are allocated to the Group's five cash-generating units which are equivalent to the Group's five divisions. ASSA ABLOY's annual test of goodwill and other intangible assets with indefinite useful lives can be traced to observable market data and to the company's own business plans and forecasts on future development. In our audit, we have focused on the valuation of goodwill and intangible assets with indefinite useful lives as these items involve a large degree of judgement on behalf of management in assessing future cash flows and discount rates.	Through test of details we have examined whether ASSA ABLOY's impairment test is based on the divisions' financial budgets approved by management. We have compared forecasts to the actual business performance for the current year and also assessed the terminal growth rate that the company has used to forecast cash flows beyond the first three-year period. In conjunction with this, we have compared management's assumptions regarding the sustainable growth rate and the operating margin against actual growth and the actual operating margin during recent years. Our assessment of the discount rates applied in management's calculations reflects the specific and general risks found in the cash generating units. We have reconciled the data in the calculations and checked it against external. In this part of the audit, we have utilized PwC's valuation specialists. We have evaluated the company's sensitivity analysis of the valuation to changes in significant parameters, which, individually or on a collective basis, could imply the existence of an impairment requirement.

Key audit matter	How our audit addressed the Key audit matter
Provisions – restructuring program *The restructuring program is described in the Report of the Board of Directors in the annual report and in Note 26.* Restructuring programs were launched during the previous financial years and the closing provision balance amounts to SEK 778 million as of 31 December 2019. In our audit we have focused on the recognition in the proper period and the valuation of the restructuring provisions as they require judgement and are dependent on management estimates.	We have examined the company's process for identifying restructuring projects and the estimated costs of these projects. Our audit measures include an evaluation of whether the restructuring programs comply, in all significant aspects, with the Group's accounting principles for reporting provisions. We have assessed whether a present obligation exists, and we have assessed the valuation of that obligation representing future expenditures. We have challenged management's assumptions that are the basis for the restructuring provisions with the aim of assessing the reasonability of the provisions. Based on risk and materiality, we have reconciled the parameters in the calculations against supporting documentation. This includes, amongst other things, the examination of minutes, agreements, calculations and communication with employees. We have evaluated management's assessments of remaining cash flows by reviewing their quarterly project updates.

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 in sections Report on Operations, ASSA ABLOY's Divisions, ASSA ABLOY in the future, Shareholder Information and the sections Comments on five years in summary, Five years in summary and Definitions of key ratios. The Board of Directors and the Managing Director are responsible for this other information.

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

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

If we, based on the work performed concerning this information, conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

Responsibilities of the Board of Directors and the Managing Director

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

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

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 Directors and the Managing Director of ASSA ABLOY AB (publ) for the year 2019 and the proposed appropriations of the company's profit or loss.

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

Basis for Opinions

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

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

Responsibilities of the Board of Directors and the Managing Director

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

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

Auditor's responsibility

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

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

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

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

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 corporate governance statement

The Board of Directors is responsible for that the corporate governance statement on pages 46–55 has been prepared in accordance with the Annual Accounts Act.

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

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

PricewaterhouseCoopers AB, 113 97 Stockholm, was appointed auditor of ASSA ABLOY AB (publ) by the general meeting of the shareholders on the 25 April 2019 and has been the company's auditor since 1994.

Stockholm 6 February 2020

PricewaterhouseCoopers AB

Bo Karlsson
Authorized Public Accountant
Auditor in charge

Linda Corneliusson
Authorized Public Accountant

The ASSA ABLOY share

Share price trend

After a volatile 2018, with sharp declines during the fourth quarter, shares bounced back during the first half of 2019, posting robust gains. The OMX Stockholm index increased by 16.9 percent during the first six months and ASSA ABLOY Series B outperformed this with gains of 32.7 percent. For the full year 2019, the OMX Stockholm Index increased by 29.6 percent and ASSA ABLOY Series B again outperformed the overall index with gains of 38.5 percent.

The highest closing price for ASSA ABLOY Series B during the year was SEK 231.40 recorded on 4 November and the lowest of SEK 154.45 was recorded on 3 January.

At year-end, market capitalization amounted to SEK 243,654 M (175,954), calculated on both Series A and Series B shares.

Listing and trading[1]

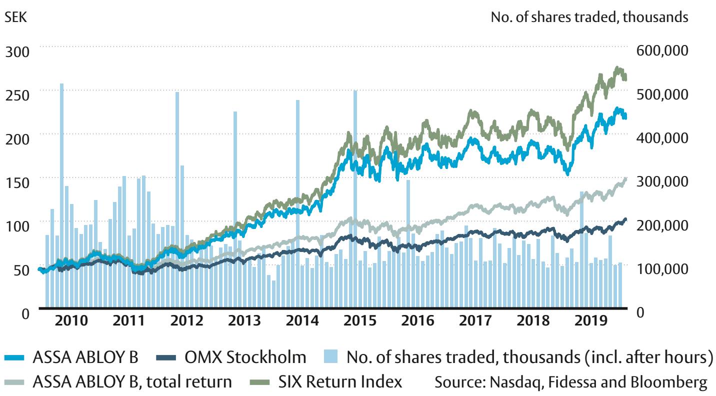
ASSA ABLOY's Series B share has been listed on Nasdaq Stockholm, Large Cap since 8 November 1994 under the code ASSA-B.ST. Total turnover of the Series B share on all markets amounted to 1.611 million shares (1.588) in 2019, equivalent to a turnover rate of 153 percent (151). Turnover of the Series B share on Nasdaq Stockholm amounted to 468 million shares (578), equivalent to a turnover rate of 44 percent (55).

Turnover velocity on Nasdaq Stockholm declined slightly during 2019, with an average turnover velocity of 62 percent (67) but was on a par with 2017 (average velocity 63 percent). Though lower than ten years ago, average turnover velocity on Nasdaq Stockholm has held relatively steady over the past five years. Even among the most frequently traded shares the trend is the same, the average turnover rate was 63 percent (70) on the Large Cap list in 2019.

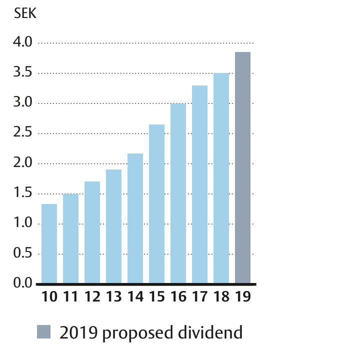
The implementation of the EU's Markets in Financial Instruments Directive (MiFID) in late 2007 changed the structure of equity trading in Europe and trading now takes place on both regulated markets and other trading platforms. Thus, trading became more fragmented with an increasing proportion of trading in shares in Swedish companies on markets other than Nasdaq Stockholm. However, a series of mergers and acquisitions over the past couple of years has concentrated trading venues to fewer and bigger places.

In 2019 the ASSA ABLOY share was traded on more than 15 different markets, with trading on Nasdaq Stockholm accounting for 44 percent of share turnover, compared with 65 percent in 2009. The diagram below shows the trend and distribution of trading in ASSA ABLOY's Series B share on various markets over the past five years.

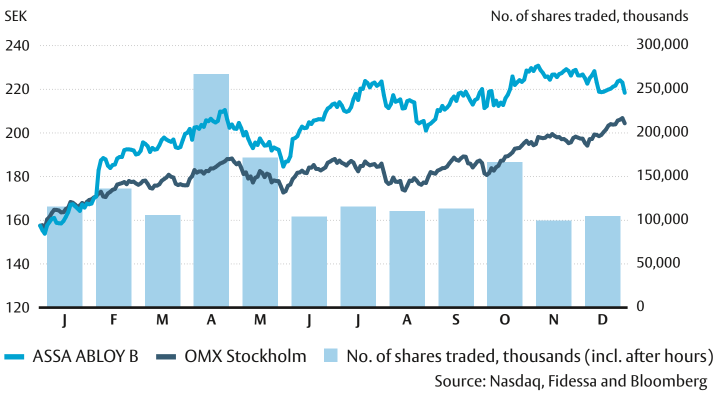
Share price trend and turnover 2010–2019[1]



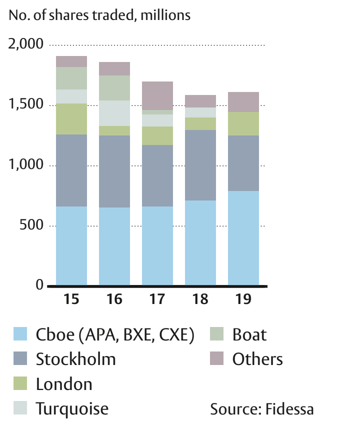
Dividend per share 2010–2019



Share price and turnover 2019



Markets for the share[1]



[1] Comparatives have been recalculated for all historical periods prior to 2015 reflecting the stock split (3:1) in 2015.

Data per share

SEK/share[1]	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Earnings after tax and dilution	3.63	4,10[2]	4.66	4,95[2]	5.79	6.93	7.09[2]	7.77	8.09[2]	9.22[2]
Dividend	1.33	1.50	1.70	1.90	2.17	2.65	3.00	3.30	3.50	3.85[3]
Dividend yield, %[4]	2.1	2.6	2.1	1.7	1.6	1.5	1.8	1.9	2.2	1.8
Dividend, %[5]	37.0	36.6	36.8	38.4	37.4	38.2	42.3	42.5	43.3	41.8
Share price at year-end	63.17	57.53	80.97	113.27	138.27	178.00	169.10	170.40	158.15	219.00
Highest share price	66.40	64.97	81.60	114.07	139.17	189.00	190.10	197.10	193.90	231.40
Lowest share price	42.20	44.50	57.23	79.33	105.63	135.00	148.40	163.80	155.85	154.45
Equity	19.55	21.85	23.29	25.94	32.50	37.43	42.51	45.60	46.71	53.25
Number of shares, millions[6]	1,118.2	1,113.6	1,112.6	1,112.6	1,112.6	1,112.6	1,112.6	1,112.6	1,112.6	1,112.6

[1] Adjustments made for new issues and stock split (3:1) in 2015 for all historical periods prior to 2015.
[2] Excluding items affecting comparability 2011, 2013, 2016, 2018 and 2019.
[3] Dividend proposed by the Board of Directors.
[4] Dividend as percentage of share price at year-end.
[5] Dividend as percentage of earnings per share after tax and dilution, excluding items affecting comparability.
[6] After full dilution.

Ownership structure

The number of shareholders at the end of 2019 was 29,784 (31,143) and the ten largest shareholders accounted for 36.5 percent (36.9) of the share capital and 56.7 percent (56.9) of the votes. Shareholders with more than 50,000 shares, a total of 490 shareholders, accounted for 98 percent (97) of the share capital and 98 percent (98) of the votes.

Investors outside Sweden owned 69.5 percent (70.5) of the share capital and accounted for 47.5 percent (48.1) of the votes, and were mainly in the US and the UK.

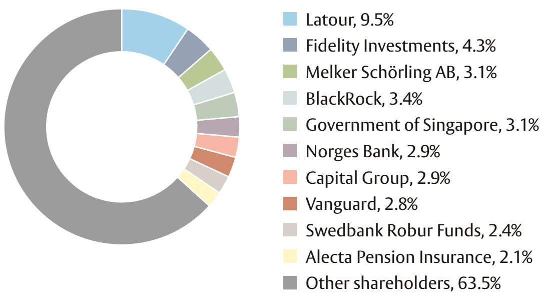
ASSA ABLOY's ten largest shareholders

Based on the share register at 31 December 2019.

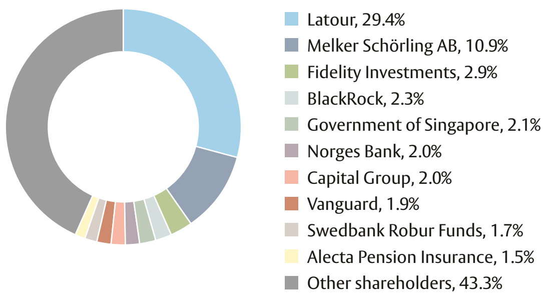
Shareholders	Series A shares	Series B shares	Total number of shares	Share capital[1], %	Votes[1], %
Investment AB Latour	41,595,729	63,900,000	105,495,729	9.5	29.4
Melker Schörling AB	15,930,240	18,027,992	33,958,232	3.1	10.9
Fidelity Investments		47,500,087	47,500,087	4.3	2.9
BlackRock		37,810,120	37,810,120	3.4	2.3
Government of Singapore		34,794,412	34,794,412	3.1	2.1
Norges Bank		32,582,298	32,582,298	2.9	2.0
Capital Group		32,462,001	32,462,001	2.9	2.0
Vanguard		31,413,490	31,413,490	2.8	1.9
Swedbank Robur Funds		26,946,864	26,946,864	2.4	1.7
Alecta Pension Insurance		23,895,000	23,895,000	2.1	1.5
Other shareholders		705,718,101	705,718,101	63.5	43.3
Total number	**57,525,969**	**1,055,050,365**	**1,112,576,334**	**100.0**	**100.0**

[1] Based on the number of outstanding shares and votes of 1,110,776,334 and 1,628,510,055 respectively, excluding shares held by ASSA ABLOY.
Source: Modular Finance AB and Euroclear Sweden AB.

Ownership structure (share capital)



Ownership structure (votes)



Share capital and voting rights
The share capital amounted to SEK 370,858,778 at year-end 2019, distributed among a total of 1,112,576,334 shares, comprising 57,525,969 Series A shares and 1,055,050,365 Series B shares. All shares have a par value of around SEK 0.33 and give shareholders equal rights to the company's assets and earnings. The total number of votes amounted to 1,630,310,055. Each Series A share carries ten votes and each Series B share one vote.

Repurchase of own shares
Since 2010, the Board of Directors has requested and received a mandate from the Annual General Meeting to repurchase and transfer ASSA ABLOY Series B shares. The aim has been, among other things, to secure the company's undertakings in connection with its long-term incentive programs (LTI).

The 2019 Annual General Meeting authorized the Board of Directors to acquire, during the period until the next Annual General Meeting, a maximum number of Series B shares so that after each repurchase ASSA ABLOY holds a maximum 10 percent of the total number of shares in the company. ASSA ABLOY holds a total of 1,800,000 (1,800,000) Series B shares after repurchase. These shares account for around 0.2 percent (0.2) of the share capital and each share has a par value of around SEK 0.33. The purchase consideration amounted to SEK 103 M.

No shares were repurchased in 2019.

Dividend and dividend policy
The objective of the dividend policy is that, in the long term, the dividend should be equivalent to 33–50 percent of income after standard tax, but always taking into account ASSA ABLOY's long-term financing requirements.

The Board of Directors and the President and CEO propose that the dividend to shareholders be raised by 10 percent to SEK 3.85 per share (3.50) for the 2019 financial year, equivalent to a dividend yield on the Series B share of 1.8 percent (2.2).

In 2019 the total return on the ASSA ABLOY share, defined as market price movement plus reinvested dividends, was 40.8 percent, compared with the reinvested SIX Return Index in Stockholm, which was up 35.0 percent. Over the ten-year period 2010–2019, the total return on ASSA ABLOY's Series B share was 474 percent, compared with the reinvested SIX Return Index in Stockholm which increased 223 percent.

Changes in share capital

Year	Transaction	Series A shares	Series C shares	Series B shares	Share capital, SEK[1]
1989			20,000		2,000,000
1994	Split 100:1			2,000,000	2,000,000
1994	Bonus issue				
1994	Non-cash issue	1,746,005	1,428,550	50,417,555	53,592,110
1996	New share issue	2,095,206	1,714,260	60,501,066	64,310,532
1996	Conversion of Series C shares into Series A shares	3,809,466		60,501,066	64,310,532
1997	New share issue	4,190,412		66,541,706	70,732,118
1998	Converted debentures	4,190,412		66,885,571	71,075,983
1999	Converted debentures before split	4,190,412		67,179,562	71,369,974
1999	Bonus issue				
1999	Split 4:1	16,761,648		268,718,248	285,479,896
1999	New share issue	18,437,812		295,564,487	314,002,299
1999	Converted debentures after split and new share issues	18,437,812		295,970,830	314,408,642
2000	Converted debentures	18,437,812		301,598,383	320,036,195
2000	New share issue	19,175,323		313,512,880	332,688,203
2000	Non-cash issue	19,175,323		333,277,912	352,453,235
2001	Converted debentures	19,175,323		334,576,089	353,751,412
2002	New share issue	19,175,323		344,576,089	363,751,412
2002	Converted debentures	19,175,323		346,742,711	365,918,034
2010	Converted debentures	19,175,323		347,001,871	366,177,194
2011	Converted debentures	19,175,323		349,075,055	368,250,378
2012	Converted debentures	19,175,323		351,683,455	370,858,778
2015	Split 3:1	57,525,969		1,055,050,365	370,858,778

[1] SEK 1 per share before split in 2015 – number of shares at the end of the period and around SEK 0.33 per share after split in 2015. Number of shares at the end of the period 1,112,576,334 (including repurchase of own shares).

Information for shareholders

Annual General Meeting
The Annual General Meeting of ASSA ABLOY AB will be held on Wednesday 29 April, 2020, 3.30 p.m. at Moderna Museet (Museum of Modern Art), Skeppsholmen, in Stockholm, Sweden. Shareholders who wish to attend the Annual General Meeting must:
- Be recorded in the share register kept by Euroclear Sweden AB on Thursday 23 April 2020.
- Notify ASSA ABLOY AB of their intent to attend no later than Thursday 23 April 2020.

Notice of attendance
- Website assaabloy.com
- Telephone +46 (0)8 506 485 14
- Address ASSA ABLOY AB,
  "Annual General Meeting 2020",
  c/o Euroclear Sweden AB
  Box 191, 101 23 Stockholm, Sweden

The notice of attendance should state:
- Name
- Personal or corporate identification number
- Address and telephone number (daytime)
- Any assistants attending

If participation is by proxy, the proxy should be submitted in connection with the notice of attendance and the proxy must be presented in original at the latest at the Annual General Meeting. Proxy forms are available on ASSA ABLOY's website assaabloy.com.

Nominee registered shares
Shareholders whose shares are nominee registered must, in addition to giving notice of attendance, request that their shares be temporarily registered in their own name in the share register (so-called voting right registration) in order to have the right to attend the Annual General Meeting. In order for such registration to be effected by Thursday 23 April 2020, shareholders should contact their bank or nominee well in advance of this date.

Nomination Committee
The Nomination Committee has the task of preparing, on behalf of the shareholders, proposals regarding the election of Chairman of the General Meeting, members of the Board of Directors, Chairman of the Board, Vice Chairman of the Board, auditor, fees for the board members including division between the Chairman, the Vice Chairman, and the other board members, as well as fees for committee work, fees to the company's auditor and any changes of the instructions for the Nomination Committee.

The Nomination Committee prior to the 2020 Annual General Meeting comprises Carl Douglas (Investment AB Latour), Mikael Ekdahl (Melker Schörling AB), Shireesh Vasupalli (GIC Pte Ltd), Marianne Nilsson (Swedbank Robur funds) and Liselott Ledin (Alecta). Carl Douglas is Chairman of the Nomination Committee.

Dividend
Monday 4 May 2020 has been proposed as the record date for dividends. If the Annual General Meeting approves the proposal, dividend is expected to be distributed by Euroclear Sweden AB on Thursday 7 May 2020.

Further information
Hedvig Wennerholm
Telephone +46 (0)8 506 485 51
hedvig.wennerholm@assaabloy.com

Reports can be ordered from ASSA ABLOY AB
- Website assaabloy.com
- Telephone +46 (0)8 506 485 00
- Email info@assaabloy.com
- Mail ASSA ABLOY AB
  Box 70340
  SE-107 23 Stockholm

Financial reporting
First quarter: 29 April 2020
Second quarter: 17 July 2020
Third quarter: 21 October 2020
Fourth quarter and Year-end report: February 2021
Annual Report 2020: March 2021

Production: ASSA ABLOY in cooperation with Hallvarsson & Halvarsson.
Photo: Felix Gerlach, Magnus Glans, Korey Howell, Billy Lindberg, Getty Images and ASSA ABLOY's image bank, etc.
Printing: Göteborgstryckeriet in March 2020.


The ASSA ABLOY Group is the global leader in access solutions. Every day we help people feel safe, secure and experience a more open world.
ASSA ABLOY
ASSA ABLOY
ASSA ABLOY in your daily life
Maintaining a safe and controlled flow of goods at the loading bay is critical for many different businesses.
We provide a complete range of docking bay solutions to many types of buildings like logistics centers, manufacturing facilities and warehouses. From docking control systems, doors and levelers, to lights, loadhouses and restraint systems, our solutions help mitigate risks and potential hazards. With the right equipment, as well as regular maintenance, risk assessments and training, we do everything we can to help our customers establish a strong safety culture that makes loading bays around the world safer for everyone.
ASSA ABLOY AB
Box 70340
SE-107 23 Stockholm
Sweden
Visiting address:
Klarabergsviadukten 90
Tel +46 (0)8 506 485 00
Fax +46 (0)8 506 485 85
Reg. No. 556059-3575
assaabloy.com