



# MSAB

MSAB Annual Report 2018

# ANNUAL REPORT 2018

# MSAB

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### Financial calendar 2019

The AGM will be held at Konferens Spårvagnshallarna, Birger Jarlsgatan 57 A, Stockholm on Wednesday, 15 May, 2019 at 18.00.

Interim report January–March	24 April
Interim report January–June	19 July
Interim report January–September	23 October
Year–end report	29 January, 2020

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# Mobile technology changes the world

There are billions of mobile devices such as phones, tablets, GPS units and watches. Even where there are no computers, people use mobiles: in the cities, in the countryside, in deserts and mountains. Wherever we go, whatever we do, we bring our mobile devices.

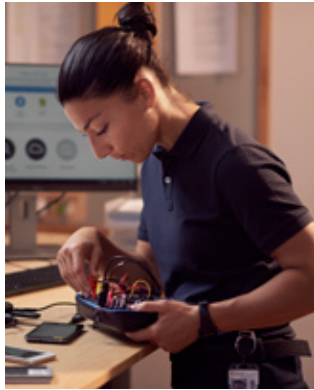
This is also true for people who break the rules of society. They use mobile devices and that can be a good thing. Mobile technology leaves traces, like digital footprints. These can reveal a hidden world – a fragmented world at times, but a world that points to the truth. It is our task to help our customers search for that truth, in order to make the world a safer place.

Our customers are passionate about their jobs. They truly believe in justice and peace. However, when it comes to mobile technology they meet tough challenges. There is a constant flow of new devices, new operating systems and new apps. Staying ahead of these challenges is absolutely critical for our customers. MSAB takes responsibility for supporting our customers with the best possible solutions for mobile forensics. This means that we also need to stay ahead of the game; with our products and services, with our vision and energy, with our people and how we do things. We are the pioneers of our industry. Our promise is simple:

MSAB – When you want to stay ahead

# 2018 in brief

Net sales for the year increased 0.7 percent to SEK 303.9 (301.8) million. In local currencies, net sales decreased 2.7 percent. EBIT amounted to SEK 32.7 (68.9) million, corresponding to an EBIT margin of 10.8 (22.8) percent.



## Q1

Net sales increase 18 percent and the EBIT margin reaches 6 percent.

XRY 7.6.2 is launched with increased support for almost 500 additional mobile phone profiles and app versions.

## Q2

Net sales increase 6 percent and the EBIT margin reaches 0.2 percent.

The 2018 AGM decides to distribute a dividend of SEK 2.20 per share to shareholders.

## Q3

Net sales decrease 12 percent and the EBIT margin reaches 23 percent.

In July, the Company reports a new order from the French Gendarmerie Nationale for a decentralised solution worth approx. SEK 12 million.

## Q4

Net sales increase 2 percent and the EBIT margin reaches 10 percent.

During the quarter, Access Services is launched as a complement to XRY. With Access Services, MSAB experts utilise advanced, secure techniques to extract and decrypt data.

NET SALES

+17.9%

NET SALES

+5.9%

NET SALES

-12.4%

NET SALES

+1.6%

## 2016

MSAB launches a whole new concept within mobile forensics - The MSAB Eco-system. The AGM decides to distribute dividends of SEK 40.4 million to shareholders. A new subsidiary is established in Singapore. A new version of XRY is launched. A single, large order worth SEK 11 million is received from Asia. MSAB and Berla, a leading global actor within automotive-related criminal technology, enter into a strategic collaboration.

## 2017

XEC Director and XAMN Elements are launched. MSAB announces a partnership with Nuix, a manufacturer of a market-leading digital criminal investigative platform. XAMN Spotlight 2.0 is launched, which allows users to analyse extracted data more quickly and with greater precision. New updates expand XRY support for additional mobile devices including drones.

## 2018

The number of mobile devices and apps supported by XRY grows steadily to 26,000+. XRY Drone is introduced and XAMN 4.0 and XAMN Horizon are launched, with time-saving functions for presenting and analysing mobile data. A new subsidiary is established in Japan

## 2015

The Company launches a new graphic profile and is henceforth known as MSAB. An updated version of XRY Kiosk is launched, followed by a major order from Metropolitan Police Services i London. The AGM decides to distribute dividends of SEK 17.9 million to shareholders

## 2014

A subsidiary is registered in China, which makes possible local sales through distributors. XRY Tablet is launched – as a complement to staff working in the field. The AGM decides to distribute dividends of SEK 1.7 million to shareholders

## 2013

XRY Kiosk, a stationary solution that allows for fast, simple data extraction, is launched. New offices are established in Canada and Australia. The Company wins several significant contracts in Russia during the year. The AGM decides to distribute dividends of SEK 10.6 million to shareholders.

## 2012

MSAB presents XAMN, an entirely new product which significantly improves customers' ability to analyse large quantities of data from several sources. The Company sets up in Russia, Brazil and China. The AGM decides to distribute dividends of SEK 17.7 million to shareholders

## 2011

MSAB announces its intention to start preparing to list the Company on Nasdaq Stockholm, with completion in December. During the year, the Company receives a couple of additional orders from a major governmental organisation in the USA and from the French Ministry of the Interior. In June, the Company receives a strategically critical order from the FBI. The AGM decides to distribute dividends of SEK 14.2 million to shareholders.

## 2010

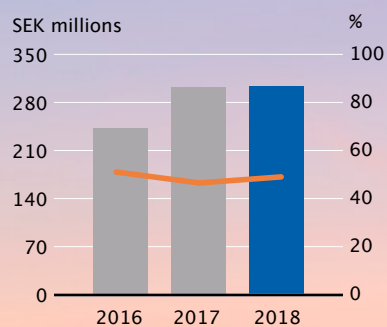
During the second half of the year, an American authority orders Field Version II valued at SEK 50 million. Financial goals are presented: 25 percent growth and an operating margin of 25 percent over a three-year period. The AGM decides to distribute dividends of SEK 17.7 million to shareholders.



# PROPOSED DIVIDEND/SHARE

# 2.2 SEK

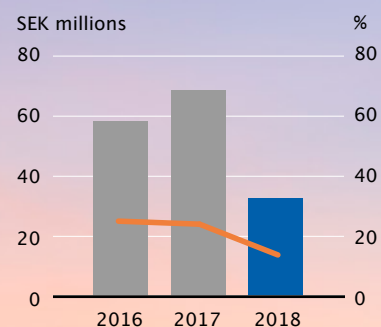
## NET SALES AND RECURRING REVENUES\*



● Net sales  
● Percentage recurring revenues

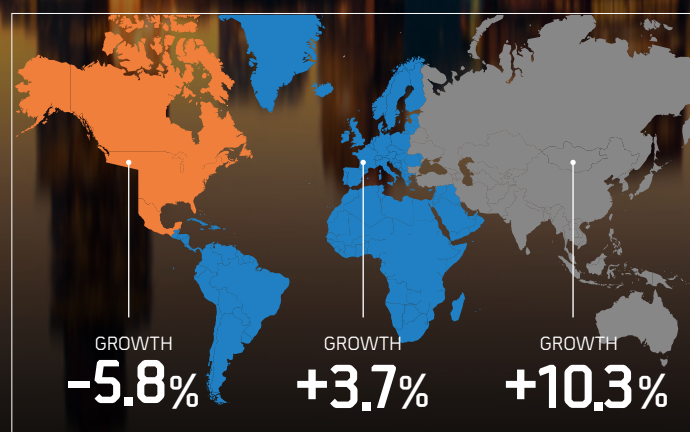
\*) See definitions page 21

## EBIT AND EBIT MARGIN

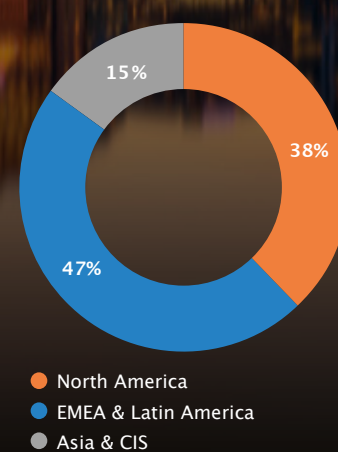


● EBIT  
● EBIT-margin

## GROWTH BY REGION



## SALES BY REGION



● North America  
● EMEA & Latin America  
● Asia & CIS



I am proud of the contribution that MSAB and our products provide to law enforcement agencies around the world.





# MSAB continues to invest in future growth

**During 2018, MSAB significantly strengthened and developed its organisation, primarily within development and sales. We do this because we are convinced it will lead to future growth.**

Turnover for the year was SEK 303.9 (301.8) million, and EBIT was SEK 32.7 (68.9) million, corresponding to an EBIT margin of 10.8 (22.8) percent. In summing up 2018, I can say that new sales were not on par with the record year of 2017. It is also important to stress that the increased expense base was planned, and long-term investments aim to create an organisation with the best possible pre-requisites to maximise the enormous potential for growth we see in our market.

MSAB's activities help create a safer society. Our solutions are crucial for law enforcement authorities to access the increasingly important evidence to be found in mobile phones. Accessing digital evidence is of critical interest in all types of crimes. MSAB possesses unique knowledge about mobile phones and apps which we are confident will be crucial for successful law enforcement.

MSAB's core competence is the capacity to unlock, extract and decrypt information in digital devices. Maintaining and developing the world-leading position we have in this area is a must for the Company's continued success.

It is our experience that having our own staff on site is key for achieving sales success in a specific market. In 2018, we expanded and established our own staff in the countries where we see the greatest potential in the years ahead.

Over the past year and especially during the last two quarters, MSAB launched several market-unique solutions involving two of the most important aspects of our industry. One is an innovative way to get past the hard encryption on some of the best-selling mobile phones. The other is to access information in the world's most widely-used applications.

At the end of 2018, we launched MSAB Access services. We have developed unique ways to overcome security barriers in several of the world's most popular mobile phones. The response from our users has been very positive. XRY Photon, launched at the end of the year, is an entirely new, cutting edge feature for securing evidence from different apps on mobile phones. Thanks to our unique code, we can let the app "play" all its content which is then recorded and stored by XRY. These two examples demonstrate how we continue to deliver new and innovative solutions and why we continuously invest in innovation and our development department.

I see a number of growth areas for MSAB, mainly from

an increased need for our solutions from several of our identified customer segments and through continued geographic expansion. Traditional police forces are currently our primary customer segment. Ninety-nine percent of these customers report they do not have time to read and examine so many mobile phones as quickly as they would like. MSAB's solution is to help police in their efforts to decentralise to take advantage of digital evidence. This is also necessary to increase efficiency for dealing with less serious crimes. We call our decentralised solutions Front-line, and this includes XRY Kiosk, Tablet and Express.

The need to secure evidence in digital devices can be found in many more societal functions than just the police. The military, intelligence services, corrections agencies, border control, customs and immigration authorities are just a few examples of customer segments where we already do business, but where we see great potential to grow and develop further.

In 2018, our recurring license revenues continued to grow. That we have a license-based business model, where the vast majority of customers renew their licenses, gives us a high degree of recurring revenues. In essence, we sell software, which means that our business model is scalable. All in all, this allows us to maintain a long-term perspective on our investments from a secure position.

MSAB's average growth over the past five years amounts to about 17 percent. Our reinforced organisation, in combination with our view that the market for our solutions is only at the beginning of its development journey, gives me confidence in continuing growth in the future. Historically, our growth has varied greatly, always between quarters but sometimes also between years. MSAB is one of the leading pioneers in a young, promising market where we are confident in the growth potential. But we know from experience that growth is unlikely to be linear. I am proud of the contribution that MSAB and our products provide to law enforcement agencies around the world. This, combined with the fact that we exited 2018 with an organisation that is clearly stronger, makes me look to the future with confidence.

Stockholm, February 2019

**Joel Bollö**

Chief Executive Officer

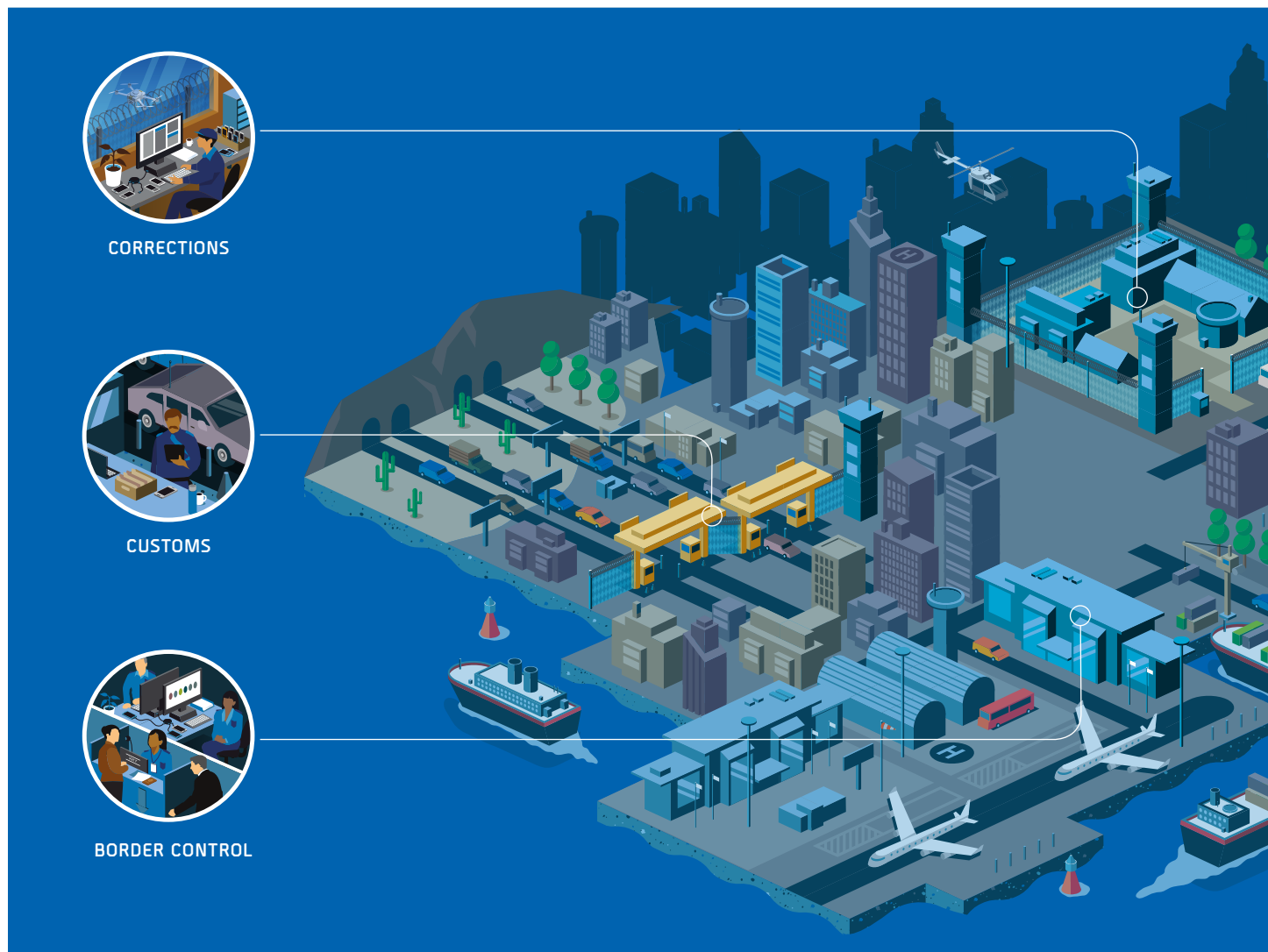
# Digital evidence in other vital societal functions

Digital evidence is often the most critical factor in criminal investigations and intelligence operations. But all too often, the power and potential inherent in effective mobile forensic tools is not exploited. MSAB is all about new approaches that make securing evidence faster, simpler and more efficient – for the benefit of an increasing number of societal functions.

## An increasingly digitalised world creates market conditions

When society was less digitalised than today, evidence was gleaned from a number of different sources, such

as letters, day planners, tickets, calendars, cameras, etc. Today, this evidence is almost exclusively digital, and mobile phones are without doubt the greatest and most important source of evidence. MSAB's technology makes





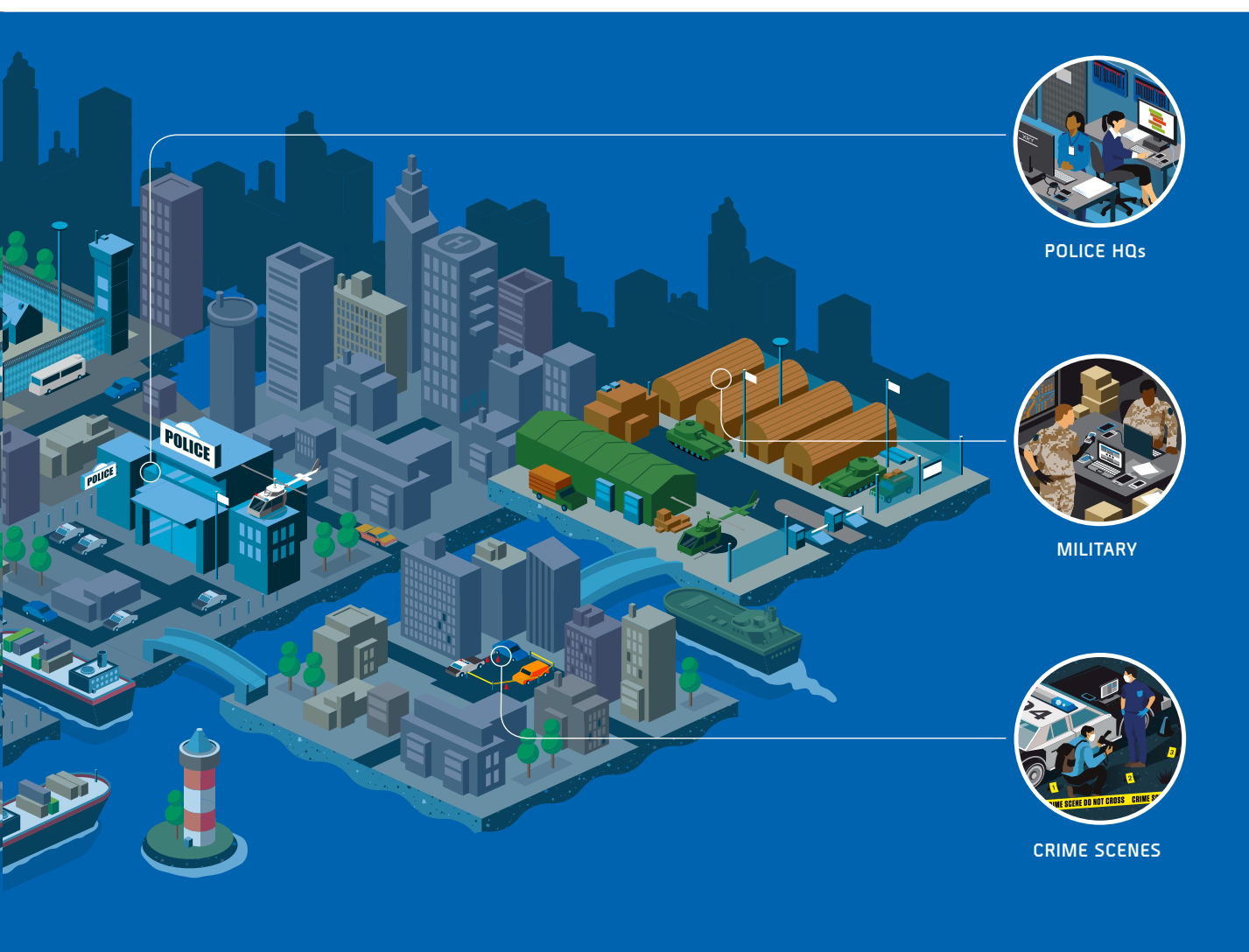
it possible for organisations, which are often drowning in seized mobile phones, to streamline their work processes. Furthermore, the technology provides a qualitatively better investigative documentation than other applied methods, which strengthens the principle of law and order. The trend is toward finding digital evidence in an increasing number of places, for example, cars, drones, smart refrigerators, etc. Thus, the need for legal authorities to take advantage of evidence from digital devices will only increase. The number of connected devices and the amount of data that these contain are increasing at an undiminished pace. This presents a major challenge for legal authorities to process the digital information that proliferates in a crime investigation. Tools for extracting and analysing data are critical for finding the exact piece of evidence and clues that will lead to a crime being solved. In addition to the growing number of mobile devices, the storage capacity of every smart phone is also increasing. Together, this means that the amount of data that a phone contains is also continuously increasing. For MSAB's customers, this presents a challenge as an increasing amount of resources are needed

to extract and secure evidence from mobile devices in a legally secure and effective manner. The rapid development of mobile phones is central for MSAB.

However, in criminal investigations the simpler and often older phones are most common. This is due to these phones being cheaper for criminals to discard to get rid of evidence. MSAB has built up comprehensive support for these older phones over the years and is continually adding support for new devices. This competence covering widely different operating systems makes it extremely demanding for new actors to enter the market.

### **An increasing number of societal functions require mobile forensic tools**

Historically, MSAB has defined three main customer segments: the police and judiciary system, the military, and intelligence operations. These three segments comprise the majority of MSAB's business. However, the need to access tools and methods for handling mobile forensics is spreading to other stakeholders such as customs, migration authorities and corrections.



### Police and judiciary system

Different types of police operations represent MSAB's largest and most important customer segment and the majority of the Company's products and services have been developed to solve their challenges. In a survey conducted by MSAB in 2018, an overwhelming majority of law enforcement officers said described mobile forensics capacity as a bottleneck in achieving effective law enforcement. They said that the need for more tools, more trained specialists, faster data recovery and analysis, and access to the latest mobile devices and apps is still rising. "The cell phone is probably the single most important piece of evidence you will find at a crime scene today." This quote is from former FBI Director James Comey in 2016. This statement was confirmed by an overwhelming majority in MSAB's survey.

### Military and intelligence services

In conflict zones around the globe, military and intelligence services require equipment to quickly read and analyse information from mobile devices found or seized from suspects. An increase in global terrorism is a significant driving force. Often, the need is for so-called "actionable data," i.e. information that must be extracted quickly to prevent additional crimes. Restored mobile devices are critical sources of intelligence and the fastest possible extraction and analysis of data is important for saving lives and completing assignments. MSAB offers various platforms for forensic tools adapted to demanding physical conditions in the field.

### Migration authorities

The volume of international migration flows has increased steadily over the last 20 years, and according to the UN the number reached 258 million in 2017, an increase from 173 million in 2000. This increase has presented major challenges for migration and border control authorities world-wide. In many cases, access to data on mobile phones is one of the surest methods for confirming identity and origin, for obtaining fundamental data to ensure compliance with laws and regulations, and to prevent entry of criminals and extremists.

### Customs authorities

Few authorities have a mandate as challenging as customs organisations. With an ever-increasing global trade flow via air, sea, rail and road systems, customs authorities face great difficulties in finding and blocking illegal goods and in identifying criminals without impacting the important flow of goods and people. Data in mobiles is an important source of information and evidence for customs investigators, and many depend on MSAB tools to fulfil their mission.

### Corrections

Prohibited use of mobile phones presents a challenge for corrections operations. Phones are used to help commit additional crimes, coordinate gang activities, facilitate attempted escapes, and in some cases even to attack

personnel. Drones are often used to smuggle information and material into correction facilities. All these mobile devices hold critical evidence and information needed to protect lives and maintain order. Today, many correction facilities use external forensic labs that are often geographically distant from the facilities which creates delays in accessing critical information. MSAB's products and solutions on site in correction facilities entails a significant improvement in efficiency and security.

### The need for decentralised solutions on the rise

The market for mobile forensics is evolving rapidly. One major growth area is targeted by what MSAB calls Frontline, i.e. solutions intended to decentralise police efforts to take advantage of digital evidence – work which should take place as close to the crime scene as possible in both space and time. A popular expression within law enforcement is the "critical 48 hours," i.e. if relevant evidence is secured within this time frame, the chances of solving the crime increase by as much as 50 percent. Today, more or less all suspects have a mobile phone or some other digital device. These hold most of the crucial evidence. Hence, decentralisation of competence to take advantage of digital evidence is a must for the police to obtain good results.

MSAB has looked at cities the size of Stockholm or larger globally and only a fraction of these have implemented some form of decentralised solution for securing digital evidence. Our firm view is that MSAB could help the police be far more effective in their law enforcement through Frontline solutions. A good example is the London Metropolitan Police who invested early in a Kiosk solution from MSAB, successfully making London a safer place over the last few years. They are in the process of abandoning the model where a few lab specialists examine all phones. Instead, they are driving development towards responsibility for the first examination of the phone taking place at the local level. MSAB sees this model as the future of mobile forensics, and customers on most mature markets are expressing a desire to implement similar ways of working.

### Geographic overview

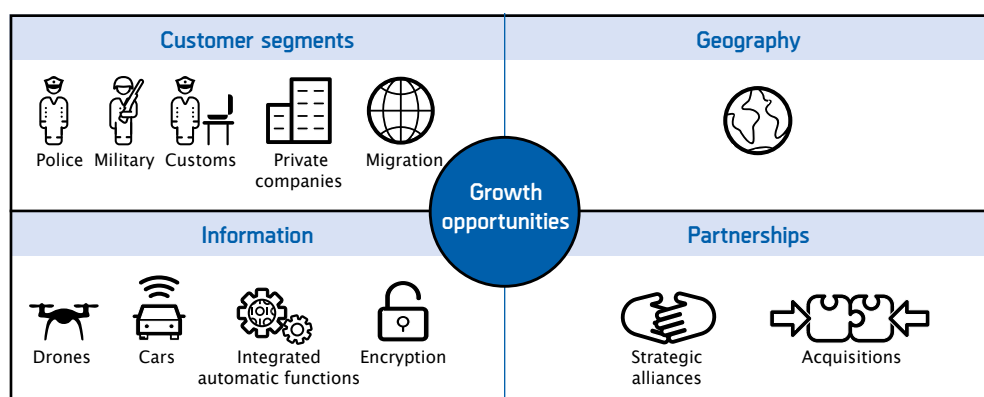
The insight and ability to handle digitisation of evidence differs depending on where you are in the world. A simplified picture is that the West is most advanced in this regard. The challenge is, however, global in character as use of primarily mobile phones does not differ notably between different parts of the world, and crime is an element in the societies of all countries. Thus, MSAB's market is global, a fact backed up by its customer base with products sold to more than 120 countries world-wide. The various geographic markets are worked primarily by our own sales representatives, and in some cases through distributors. Today, MSAB has a local presence with its own staff in 17 countries.

### Competitors

MSAB has been a pioneer in the market for securing digital evidence on mobile devices since 2003. At the end of 2018, XRY was compatible with more than 26,000 different



## GROWTH OPPORTUNITIES



mobile phone profiles. The large variety of mobile phones, and not least the many different apps, means that the entry barrier for this market is high. One consequence of this is that MSAB has only a few direct competitors who offer comparable technology and products when it comes to extraction of digital information. There is currently only one company with a corresponding product offering and geographic presence – Cellebrite with its product UFED. MSAB's product family XAMN for analysis of extracted data meets the competition from other companies whose products only analyse data.

### Opportunities for growth – summary

Access to evidence and information is often crucial for law enforcement authorities and other important societal functions to meet their mandate. Evidence and important information in today's society is found primarily on digital devices which are often difficult to unlock and heavily encrypted.

This technological trend and our customers' challenge in handling it is the single most important factor behind MSAB's opportunities for growth. MSAB, with its technology, long history on the market, and its knowledge of methodologies and ways of working, is well-positioned to be the obvious partner for managing our customers' challenges. To summarise, MSAB classifies its future growth opportunities into four categories: customer segments, geographic segments, the increasing number of sources of information requiring additional forensic tools, and various partnerships.

### Customer growth

A variety of police authorities are MSAB's largest customer segment today, but with great opportunities for growth. Police authorities world-wide are facing major challenges in handling the vast quantities of digital evidence, as well as in being able to quickly present important evidence and information. Continuing decentralisation of police efforts to take advantage of digital evidence is critical for MSAB's

future growth. In addition to traditional police operations, MSAB delivers products and solutions to other important societal functions such as the military, intelligence agencies, customs and border control authorities. All of these functions require information and evidence to perform their assignments. Their challenge is the same as for the police, i.e. the information they seek is to a great extent digital and difficult to access, and thus there is a need for the products and solutions that MSAB provides.

### Geographic growth

The challenges that MSAB's products and solutions address are to a high degree global. This is because crime is present in all societies world-wide and the use of mobile phones for the most part does not differ between countries. At the end of 2018, MSAB had a physical presence with their own personnel in 17 different countries and was doing business in more than 120 countries. MSAB intends to continue its geographic expansion, where the latest example from 2018 is another establishment in Asia of a subsidiary, this time in Japan.

### Number of important information sources rising

Today, MSAB has the competence to extract data from most mobile devices and most recently also from cars and drones. This development will mean additional growth opportunities for MSAB in the form of adapting and offering customers solutions that handle multiple information sources.

### Partnerships

Today, MSAB's partnerships include American companies Berla and Kovar, partnerships which enable MSAB to offer customers the ability to extract data from cars and drones. MSAB sees good opportunities for developing new and existing partnerships, and to evaluate possible acquisitions, all with a view to improving our customer offering and thereby creating further growth.



# A pioneer and leading actor in a growing market

MSAB has globally unique experience within mobile forensics and was in many ways involved and active in creating the industry. MSAB will continue to drive industry development to create value for our law enforcement clients and thus also for our shareholders. To achieve this, we have clear strategies combined with a business model that entails scalability and a high degree of recurring revenues.

## Business concept

MSAB shall deliver solutions world-wide that empower law enforcement authorities to effectively secure evidence recovered from digital devices.

## Strategies

MSAB has identified several basic prerequisites that the Company sees as crucial for successful operations and thus for value creation for shareholders.

### Product and service quality assurance

MSAB shall be the best provider of quality systems for recovery and analysis of data from digital devices. The ability to unlock digital devices, extract information, and then decrypt it is central for MSAB's success. A strong R&D department is necessary to achieve this. It is not just about building advanced systems with a high degree of functionality. Adapting the systems to end users and situations is just as important. Quality also entails a high degree of delivery assurance and first-class support.

### Market presence

To be the best provider within a geographical market, MSAB must understand users' needs and conditions at the local level. Since 2018, MSAB is represented in 17

countries with its own staff, and in many more through various partnerships. In this way, proximity to existing and potential customers is created.

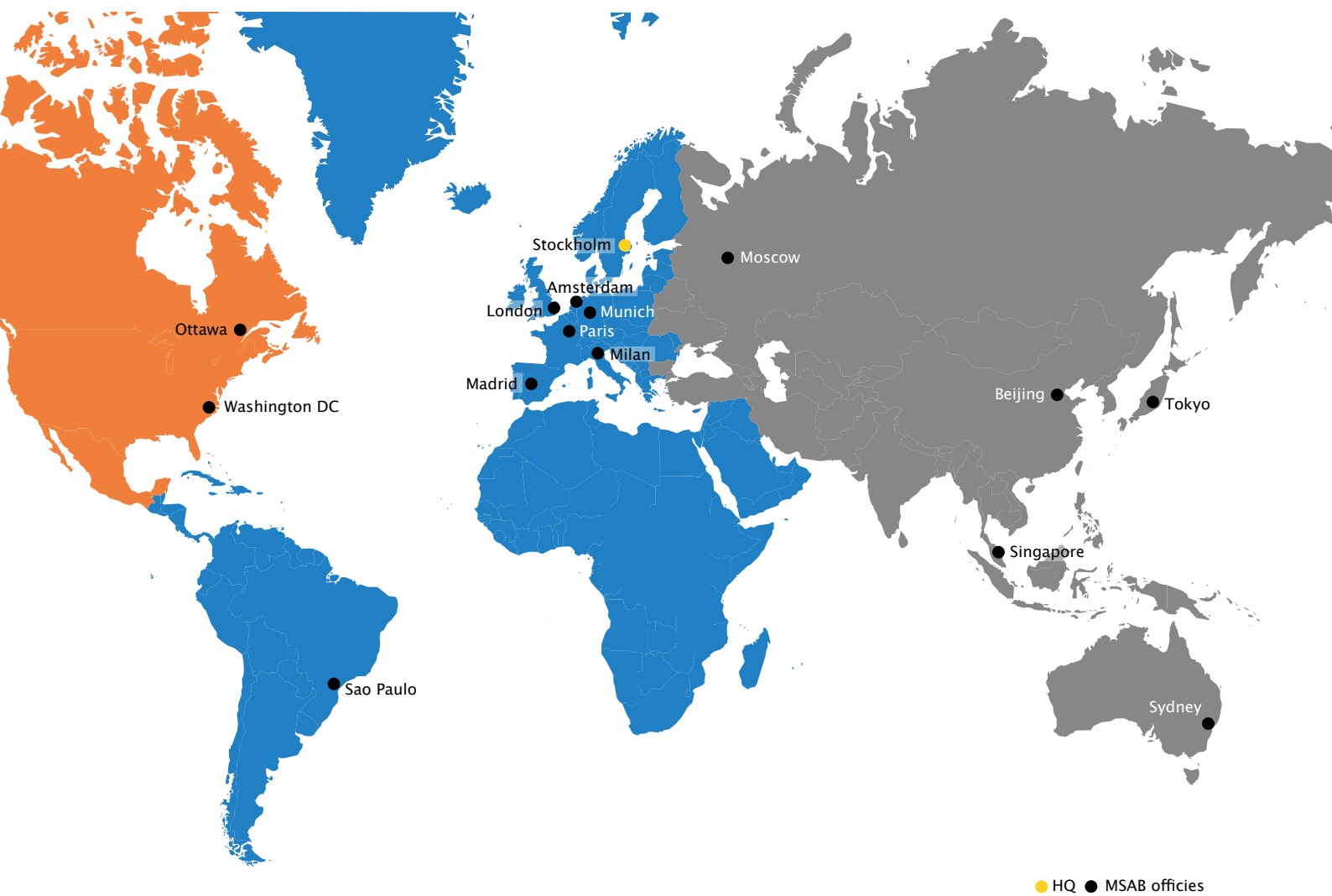
### License renewal

Through annual product license renewals, MSAB shall create the prerequisites for continuous investment in expanded support for new models of digital devices and new functions, thereby successively refining products for the customer. The continuous development of phones and applications drives both MSAB and our customers to continuously update software. This is a strong driving force behind the high degree of license renewal.

### Growth

MSAB operates in a market with a high level of underlying growth. By investing long-term in product development, Market presence and organisational strength, MSAB consolidates its market position. The Company is convinced that the need for professional tools for recovery and analysis of data from digital devices will continue to rise. MSAB is mainly focussed on organic growth, but in some cases also evaluates acquisitions.





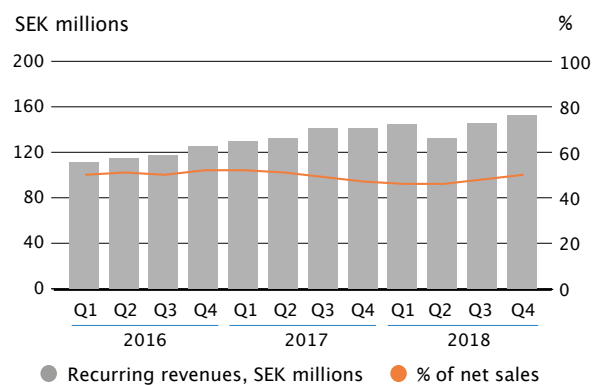
### Business and revenue model

- MSAB's core business consists of software where users purchase a license to use the software they have selected.
- A start-up package contains a license and a small amount of different types of hardware depending on the product.
- Products such as Kiosk, Tablet, XRY Express and Field, include a physical platform (hardware) with pre-installed software.
- The length of a license varies from one to three years depending on what the customer wants, and where one year is the most common.
- A license includes the software updates which are continuously being released.
- When a license expires, the customer must renew the license to ensure access to the latest product updates.
- Invoicing usually occurs in advance or at the time of delivery.

Since MSAB's core business consists essentially of software, an increase in sales generates relatively low levels of direct costs. Thus, MSAB has a scalable business model where an increase in sales to a large extent increases revenue. MSAB continuously releases software updates for extraction of data. This is necessary as phones and

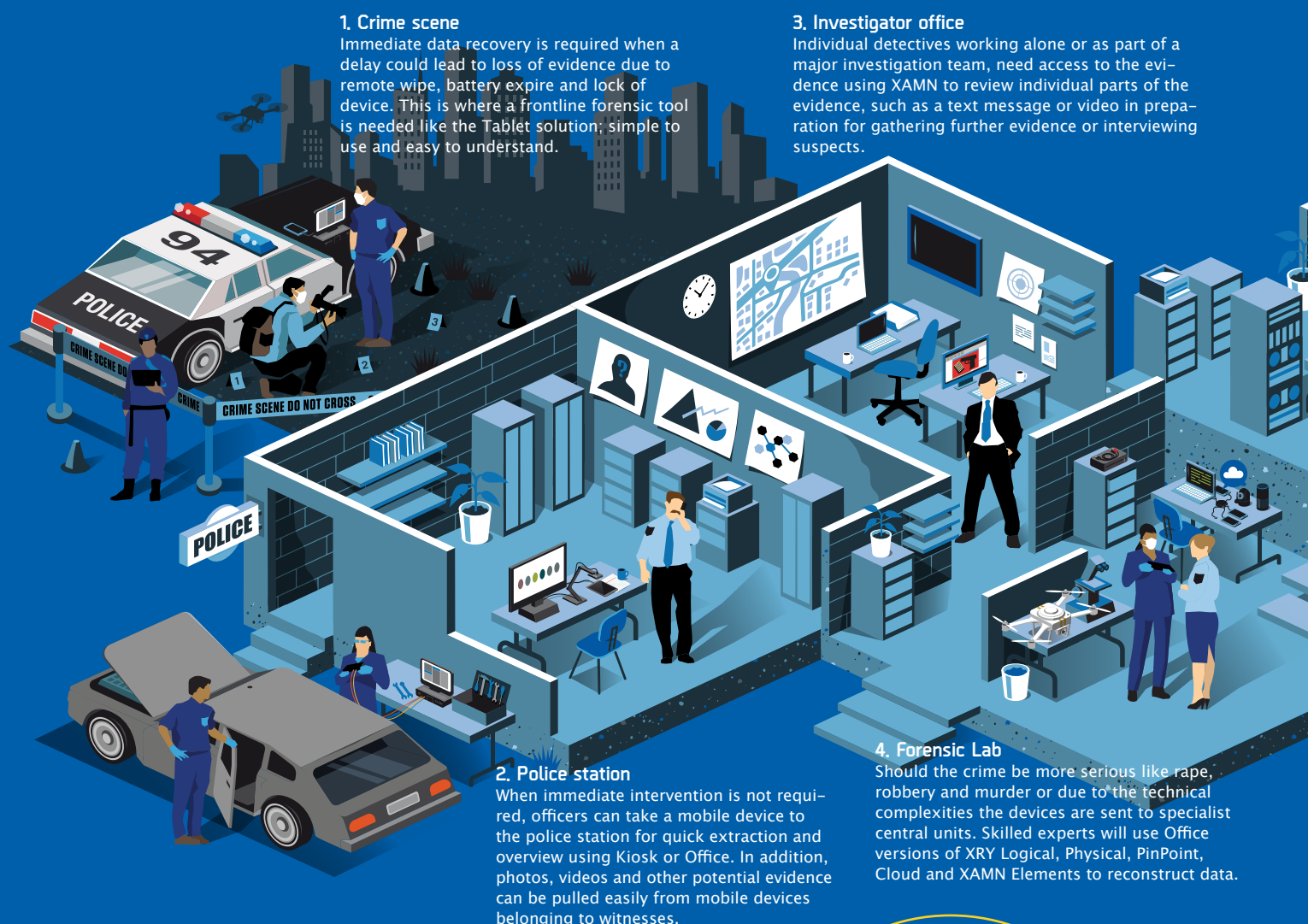
applications are constantly being updated and developed, which affects software functionality. To guarantee our customers the best possible functionality, they must always have the latest version, and for that they need a valid license. This is a powerful driving force for our customers to renew their licenses, which gives MSAB a high percentage of recurring revenues.

### RECURRING REVENUES<sup>1</sup> ROLLING 12 MONTHS



1) For definitions of key ratios, see Five-year overview on page 20.

# The forensic ecosystem maximises benefit and handling of digital evidence



## XRY Extract

Extract and recover forensic data

### The .xry file format

The XRY-file holds evidence securely throughout the investigation process, from the initial acquisition through analysis to the final presentation.

.xry

## XAMN Analyse

Visualise and analyse data for examination



Together, our products, platforms and services constitute a complete ecosystem for mobile forensics that supports our customers through the whole chain of custody. Regardless of the type of user, location, mobile device or environment, we have a tool to meet the special need. These solutions work to ensure the best work flows for all stakeholders, from the field to the lab, and all the way to court.

### 5. Analyst Office

If the device is part of a bigger case with several examined devices, the evidence may need specialist analysis to review. XAMN Horizon creates an overview of how each device fits into the investigation using advanced data visualization.



### 7. Administration

Supervisors and IT staff want flexible, easy-to-manage mobile forensic systems, especially now that MSAB tools can be linked into networks. XEC director gives supervisors control from one central location, so they can send watch lists as well as software and security updates, generate reports and monitor processes and users.

### 6. Court room

Evidence is often presented in court through printed reports. XAMN meets that need and can also be used to securely present evidence in its original digital form.

## XEC Manage

Efficient tools for management, administration and process

### Sources of mobile data

MSAB Ecosystem supports the most important sources of mobile data.



Mobile devices



Drones



Motor vehicles



Cloud



Internet of things

# A complete, forensic ecosystem

**MSAB's product portfolio is developed to give law enforcement authorities and other important societal functions the best possible prerequisites for securing digital evidence. Three main product families – XRY, XAMN and XEC – stand alone, but together they constitute a complete forensic ecosystem that significantly increases our customers' efficiency.**

In principle, one or more seized mobile phones are a component in every criminal investigation, and these can contain important evidence and information for solving crimes. For example, there could be data on who a suspect has been in contact with, when this happened, and what was said or written. Geodata stored in mobile phones is also critical for tying a person to a specific location.

## **XRY – fast extraction and decryption of information**

XRY performs legally-secure data recovery from a broad selection of mobile devices, such as different types of mobile phones, tablets, smart watches, music players, and GPS devices. In practical terms, this means as much user-specific information as possible on a mobile phone or other digital device can be transferred to a computer for further analysis. Different operating systems and unique configurations complicate extraction of data from seized devices. XRY simplifies this process with support for thousands of different mobile devices and app versions. MSAB's intuitive software guides the user through the entire process.

XRY Logical is the fastest extraction method as it enables access to and restoration of live data and file system data from a device immediately at the crime scene. It does this by communicating with the operating system on the device. With the proprietary XRY file format, information and the integrity of evidence is kept safe from extraction all the way to court. XRY Physical enables technicians to bypass operating systems to extract all raw data from the device. This data provides access to systems, protected and deleted data, and can also overcome encryption and get past security codes on locked devices. XRY Cloud recovers data beyond the mobile device itself from connected, cloud-based storage by using mobile device tokens so apps function without entering login details. This is especially useful when searching for online social media data and app-based information for services like Facebook, Google, iCloud, Twitter, Snapchat, WhatsApp, Instagram, etc.

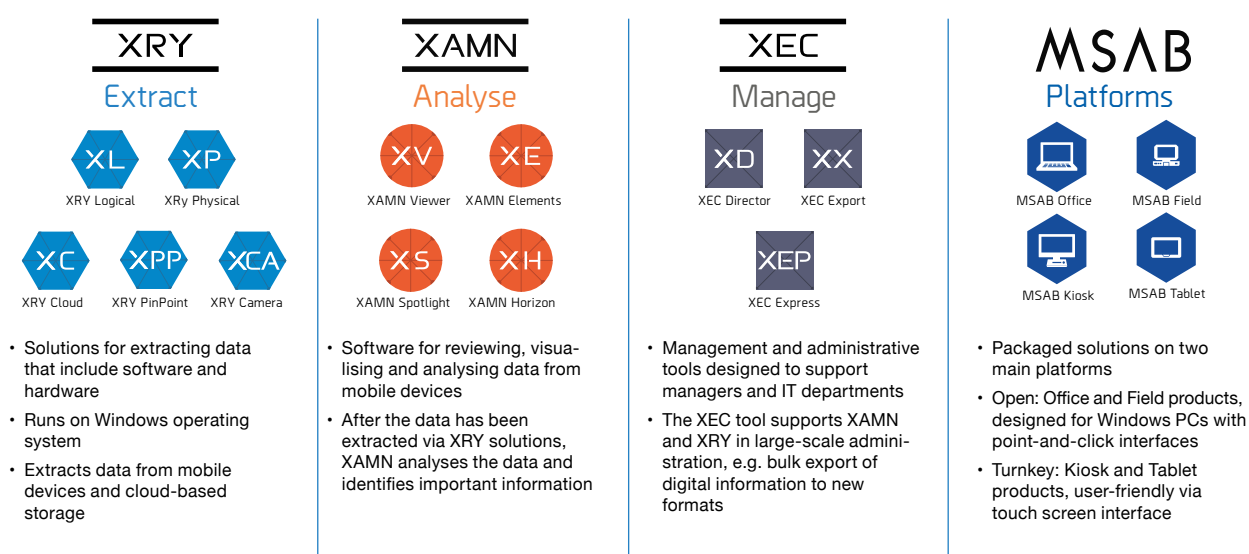
MSAB is constantly looking for new methods and approaches to extract and decrypt hard-to-access data. One example of this is XRY Photon, a technique best described as an automated version of manual app investigation with the advantage that stored images and text data become searchable, which allows for text searches, filtering and other types of analyses. This is a highly efficient method for handling heavily encrypted data.

## **XAMN – locates and analyses information**

XAMN product family is a suite of analysis tools designed to make the work of finding and analysing data more efficient. Once data has been recovered through XRY, the next step in the process is to find and further analyse the information. XAMN Spotlight helps users to quickly search through vast quantities of data to find relevant information and present an overview of this data. For example, one function for image identification automatically sorts pictures into certain categories, for example, drugs and weapons. With the steadily increasing number of mobile devices being seized for examination by investigators, the challenge of interpreting all the data is becoming ever greater. As a part of the ecosystem, XAMN Horizon allows users to view content from several XRY files in one place to compare data from different devices simultaneously and search for common links. Via the map function, it is even possible to establish time and location for every seized device in an investigation. XAMN Elements enables in-depth investigation of so-called hex-data, for example, to reconstruct data deleted from a mobile device. XAMN is also compatible with XRY Drone, which recovers data from seized drones. It is also possible to import and analyse data from the product iVE, which extracts information from the data systems of various motor vehicles.

## **XEC – monitoring and follow-up of installed systems**

XEC is an administrative product family that enables monitoring of the entire forensic ecosystem. In part, it enables



different types of network solutions that include products throughout the entire ecosystem. Secondly, it enables greater export of data to other analysis tools that customers might have.

### MSAB's solutions work on different platforms – depending on customers' specific needs

MSAB provides software products for open and turnkey platforms. The open platform, MSAB Office, is designed for use on a standardised Windows environment on the customer's own equipment. The turnkey platforms, Kiosk, Tablet and XRY Express are designed to simplify operation and have touch screen interfaces. MSAB Field version is designed for mobile units working in demanding physical environments.

### Services

MSAB also provides customers with different types of services called Professional Services and Training.

#### Professional Services

To assist customers determine which equipment is most suitable based on the nature and structure of their organisation, MSAB has further developed its service offering to include strategy services. These are precisely aimed at working with customers to provide support for equipment, implementation and training. In connection with implementation of more complex solutions, customers are offered implementation services.

#### Training

When our customers invest in technology for mobile forensics, it is important they get the best possible return on their investment. Extracting data is just the first step. Understanding what has been recovered and why it is important ensures maximum benefit. MSAB has a complete suite of courses with dedicated teams of trainers located all over the world. In 2018, MSAB launched a number of courses in an online and on-demand format. This allows for a greater number of individuals to receive training on

our products. At the same time and from MSAB's perspective, it entails a scalability in sales for this type of training.

### Access Services

In 2018, Access Services was launched as a complement to XRY. With Access Services, MSAB experts use advanced and secure techniques to extract and decrypt data – evidence that could not be recovered otherwise, and which can be the difference between whether or not a case is solved. In most cases, MSAB Access Services are utilised on Company premises. In selected cases, after evaluation and approval, these services can be delivered at a customer site.

### MSAB's product development

At the end of 2018, the development department, together with the testing and support department, consisted of a total of 71 persons. For the most part, our development department is organised by our main product families: XRY, XAMN and XEC. The market for mobile phones and applications changes rapidly. The development department puts most of its effort into maintaining and adding support for new and updated mobile devices and applications. That's why it is critical that the Company's products are continually updated accordingly so our customers can experience reliable functionality during the license period. As a rule, new functionality is included in the software. Some functionality can, however, be packaged as a service (see Access Services above). The Company typically releases four major updates to products annually. However, between these larger releases, there are so-called micro-releases, so that the software is compatible with as many mobile phones and applications as possible. At the end of 2018, XRY was compatible with more than 26,000 different mobile phone profiles.



# MSAB's vision for a safer world

With its cutting-edge technology for securing digital evidence, MSAB plays a vital role in making the world a safer place. In a nutshell, MSAB's business is entirely dedicated to benefitting society by contributing to a safer and more secure world. This is an important driving force for MSAB and its employees. Hence, our ability to run efficient business operations rests in large part on our credibility.

This includes ensuring that our procurement procedures are orchestrated fairly, that employees are treated equally, and that we have as much knowledge as possible about the working conditions and production methods of our sub-contractors. MSAB's product offering is developed and designed in close cooperation with law enforcement authorities. Hence, the Company has a natural tradition of efficient, profitable business operations combined with good ethics, accountability and environmental protection.

## Good business ethics

MSAB is a global company with sales on all continents. This presents opportunities as well as challenges and sometimes requires that the Company take a stance. To ensure good business ethics, MSAB applies its own framework in addition to applicable laws and regulations. This framework is formulated in the Company's Code of Ethics and covers such issues as bribes, conflict of interest and personal behaviour. The Code aims to stress the basic principles according to which MSAB runs its operations and manages relations with employees, partners and other stakeholders.

## Equal treatment

MSAB strives to recruit the best employees regardless of background, which has led to a high level of diversity within the Company today. The Company has guidelines for equal treatment of employees to counter discrimination for positions or tasks on the basis of gender, religion, age, sexual orientation, or other non-relevant distinguishing characteristics.

## Environmental accountability and sustainable development

MSAB shall be a positive, contributing actor in areas which can impact the environment. The Company's operations consist primarily of software development with limited

environmental impact. However, our solutions contain some material in the form of cables, hubs and bags. Most of these are purchased in Asia, where we ensure that all products are certified under RoHS Directive 2002/95/EG. This directive ensures, amongst other things, that production of components meets EU environmental requirements. MSAB has customers in over 100 countries world-wide. To manage this global customer base, we have local representation in 17 countries and cooperate with local distributors. Some meetings require a physical presence from various MSAB representatives, which can entail travel. As much as possible, the Company strives to use alternative forms of communication, for example, phone and video conferencing. None of the Company's operations are subject to notifications or permits as described in the Swedish Environmental Code. Other important environmental aspects within the Group are resource and energy questions, and handling of some waste products. Aspects that we consider in our daily work include:

- avoiding unnecessary waste of resources
- taking care of waste responsibly and recycling materials
- considering environmental issues when choosing or designing office space
- complying with environmental legislation in each market where the Company is active.

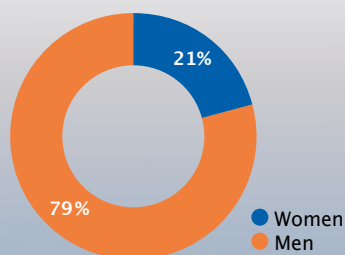
## Employees and organisation

MSAB's organisational structure is based on the Company's various functions, which differs to some extent from its legal structure. The functional structure is based on management's assessment of how the business can be most efficiently run as regards innovation, decisionmaking, implementation and monitoring. The Company is organised into the following functions within the Group:

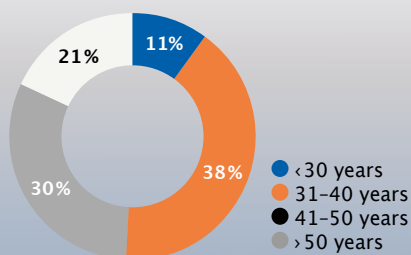
- Marketing & sales
- Development & support

1) The RoHS-directive (2002/95/EG)

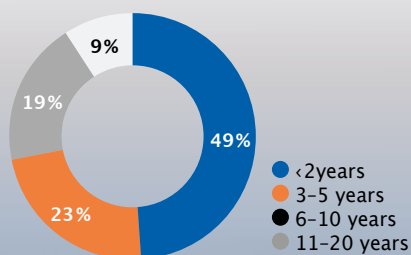
PERCENTAGE WOMEN/MEN



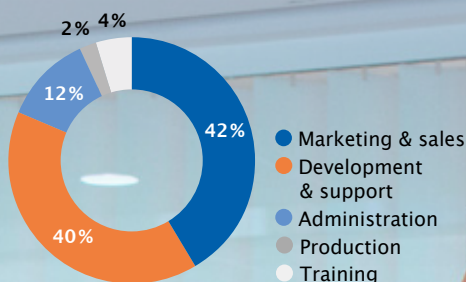
AGE DISTRIBUTION, YEARS



LENGTH OF EMPLOYMENT, YEARS



EMPLOYEES PER FUNCTION



- Training
- Administration
- Production

In addition to the Swedish Parent Company, MSAB has wholly-owned subsidiaries in the United Kingdom, USA, Canada, Australia, Hong Kong, China, Singapore, and Japan and one representational office in Russia. Adaptation of the legal structure is reviewed as needed. Common issues

can be employment conditions in specific countries where MSAB deems it necessary to hire local staff and establish permanent premises. At the beginning of 2018, there were 145 employees in the Group. At year-end, the number of employees had grown to 178. The average number of persons employed during the period was 157 compared to 134 in 2017.

# Methods consistent with democracy and rule of law

During the 1970s, Cederroth ran an ad campaign for the skincare product HTH, where a stinging sensation was a sign of the cream's effectiveness. Today, this approach characterises Swedish law enforcement politics – no pain, no gain. This gives rise to measures that are more symbolic than practical. Mass surveillance when there is no suspicion of crime is reminiscent of the Cold War, where an iron curtain and a powerful state apparatus controlled citizens meticulously. All in the name of stability, security and safety.



It was not without some pride that the recently appointed Minister of the Interior Mikael Damberg stated that he intended to once again “shine a light” for the police by reinstating the data storage directive that the EU Court of Justice disallowed – a law that mandates mobile operators to monitor all citizens even when there is no suspicion or intent to commit a crime. Parliamentary consensus seems broad. This is remarkable, to put it mildly. And it hurts.

It is worrisome when the only way to effectively enforce the law is through methods that are incompatible with a democratic society. That is my main position. My pragmatic position is that operators' involvement in our daily communication and interaction declines with every passing day. Currently, operators are responsible for cloud access. Conversations, messages and communication are managed by social networks and servers that are independent from operators but connected to the cloud. Legislators risk introducing a law that is democratically reprehensible and useless in practice – all in one sweep.

## More efficient police via methodology development

But the police need not either stumble in the darkness or turn to the Minister of the Interior's “lights”. There are methods compatible with democracy and a functioning rule of law, and MSAB provides the tools. However, we have cause to take a good look at ourselves as well. The inadequate exploitation of our products is largely due to lack of knowledge amongst decision-makers and politicians. And if we do not communicate the possibilities and potential inherent in our technology, no one else will either. Responsible ministers are trying to stack the deck by asserting that the police will become more efficient by allocating more money to them. The truth is that the police can only become more efficient when they solve more crimes per dedicated krona. Otherwise, their operations

simply become more inefficient and more expensive. This is true regardless of the number of police or the severity of the punishment. And the reality is that of the total budget allocated to the police, only approximately 0.04 percent is spent on equipment for analysing mobile devices. The idea that a little methodology development could make the Swedish police more efficient is not that far-fetched.

## We must never waiver in our efforts to explain and inform

A criminal investigator speaking in the media claimed that he could not access call data from a SIM card because the teleoperators are no longer required to save call data. Another police officer told me how she had put two weeks of manual labour into establishing the link between two seized mobile phones. Using our products, the same task would have been solved in a few minutes, and with legally secure precision. Lack of knowledge is wide-spread and comprehensive, which inevitably leads to inefficient and dysfunctional law enforcement. We have been working for a long time under the assumption that our solutions are a given. That's not the case. A large part of our efforts must lie in explaining, enlightening and informing. And we can never waiver.

MSAB's goals are ambitious and long-term. We are not running a charity, but we are dedicated to a more open and democratic society. Such a society is characterised by a resolute rule of law and efficient law enforcement, and operates within the hallmarks of internationally-recognised human rights.

Stockholm, April 2019

**Henrik Tjernberg**  
Chairman of the Board



”

A police officer told me how she had put two weeks of manual labour into establishing the link between two seized mobile phones.

Using our products, the same task would have been solved in a few minutes and with legally secure precision.



# The share and shareholders

MSAB's B share is listed on Nasdaq Stockholm Small Cap under the ticker symbol MSAB B. The share price on the last trading day of the year, 29 December, was SEK 55.6 and share capitalisation was SEK 1,066 million.

## Share capital

Share capital on 31 December, 2018 was SEK 3,834,400 spread over 19,172,000 shares with a quote value of SEK 0.2. The Company has three share classes, of which shares from series A and B have equal rights to the Company's assets and profit, but where C shares do not entitle the holder to dividends. Every A series share entitles the holder to ten votes and every B and C share entitles the holder to one vote. In 2018, 90,000 B shares were issued through the 2015 options programme. The number of shares in series A is 1,000,000 and in series B 17,550,000. The number of series C shares is 622,000 all of which are held in treasury. Additionally, 81,596 B shares are held in treasury.

## Ownership

The total number of shareholders as of 31 December, 2018 was 2,974 compared to 3,309 the previous year. The ten largest shareholders in MSAB as of 31 December, 2018 as recorded in Euroclear's share register are listed in the table on the following page.

## Long-term incentive programme 2017–2020

On 10 May, 2017, MSAB's AGM decided to implement a long-term incentive programme for the Company's senior management and certain key persons (no more than 20 in total). Participants are invited to subscribe for share warrants at fair market compensation (as per the Black & Scholes method). These entitle the holder to subscribe for new B series shares in the Company during the period 1 June, 2020 up to and including 31 August, 2020 at a price equal to 130 percent of the average volume-weighted closing price for the Company's B series shares for the

period 11 May up to and including 24 May, 2017. The maximum number of share warrants that any programme participant is offered shall not exceed 40,000.

## Long-term incentive programme 2018–2021

On 15 May, 2018, MSAB's AGM decided to implement a long-term incentive programme for the Company's senior management and certain key persons (no more than 20 persons in total). Participants are invited to subscribe for share warrants at fair market compensation (as per the Black & Scholes method). These entitle the holder to subscribe to new B series shares in the Company during the period 1 June, 2021 up to and including 31 August, 2021 at a price equal to 130 percent of the average, volume-weighted closing price for the Company's B series shares for the period 16 May up to and including 29 May, 2018. The maximum number of share warrants that any programme participant is offered shall not exceed 40,000.

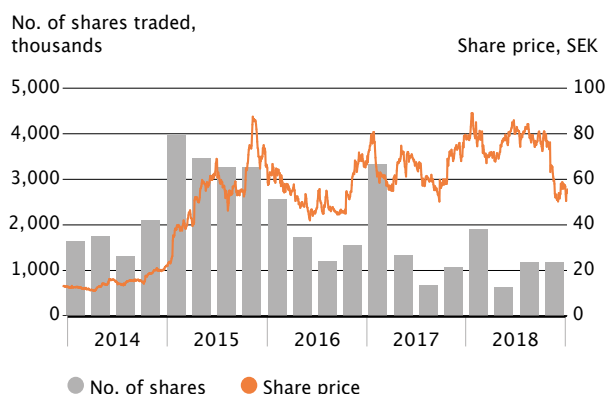
## Share price trend

During the year, the share price fluctuated between SEK 50.3 and SEK 89.1 finishing at SEK 55.6 on the last trading day of the year. During the year, MSAB's share price decreased 28.7 percent. For the same period, OMX Stockholm PI decreased 4.9 percent. MSAB's market capitalisation at year-end was SEK 1,065.9 million.

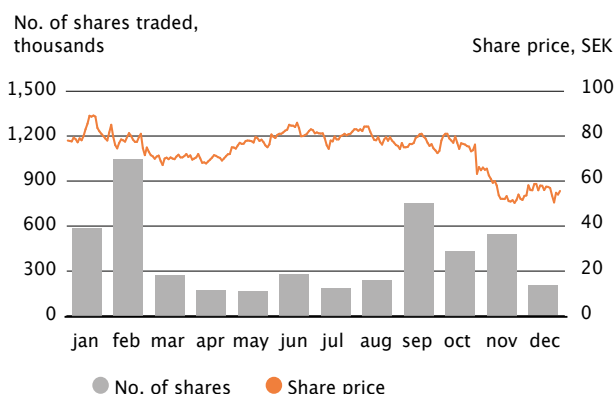
## Dividend policy

The Board has adopted a dividend policy whereby at least 30 percent of the Company's reported profit shall be returned to shareholders if this is compatible with sustaining adequate capital for planned operations.

SHARE PRICE TREND AND VOLUMES 2014–2018



SHARE PRICE TREND AND VOLUMES 2018



## The ten largest shareholders as of 31 December, 2018

Shareholder	Total no. of shares	A shares	B shares	C shares	% of capital	% of votes
Henrik Tjernberg	920,522	865,000	55,522	0	4.80	30.90
Edastra AB	1,278,592	135,000	1,143,592	0	6.67	8.85
Cooperatieve Rabobank U.A. Quartz	1,900,600	0	1,900,600	0	9.91	6.74
Swedbank Robur Ny teknik	1,348,000	0	1,348,000	0	7.03	4.78
Öhman Sweden Micro Cap	860,452	0	860,452	0	4.49	3.05
Handelsbanken svenska småbolag	1,142,300	0	1,142,300	0	5.96	4.05
Fjärde AP Fonden	927,623	0	927,623	0	4.84	3.29
Humle småbolagsfond	905,296	0	905,296	0	4.72	3.21
State Street Bank & Trust com., Boston	1,152,781	0	1,152,781	0	6.01	4.09
Länsförsäkringar Småbolag Sverige	486,759	0	486,759	0	2.54	1.73
<b>The 10 largest shareholders</b>	<b>10,922,925</b>	<b>1,000,000</b>	<b>9,922,925</b>	<b>0</b>	<b>56.97</b>	<b>70.72</b>
Micro Systemation AB	703,596	0	81,596	622,000	3.67	2.50
Other	7,545,479	0	7,545,479	0	39.36	26.79
<b>Total</b>	<b>19,172,000</b>	<b>1,000,000</b>	<b>17,550,000</b>	<b>622,000</b>	<b>100.00</b>	<b>100.00</b>

## Share capital events up to 31 December, 2018

Year	Month	Transaction	Changes in no. of shares	Total no. A shares	Total no. B shares	Total no. C shares	Total no. outstanding shares	Quote value	Changes in share capital, SEK	Total share capital, SEK
1984	June	Formation of Company		5,000			5,000	10.0		50,000
1998	February	Bonus issue 1:1	5,000	10,000			10,000	10.0	50,000	100,000
1998	November	Split 50:1	490,000	500,000			500,000	0.2		100,000
1998	November	New share issue	205,000	500,000	205,000		705,000	0.2	41,000	141,000
1998	December	Bonus issue		500,000	205,000		705,000	1.0	564,000	705,000
1999	March	Split 5:1	2,820,000	2,500,000	1,025,000		3,525,000	0.2		705,000
1999	March	Reclassification		1,970,000	1,555,000		3,525,000	0.2		705,000
1999	December	New share issue	705,000	1,970,000	2,260,000		4,230,000	0.2	141,000	846,000
2000	October	Reclassification	200,000	1,970,000	2,460,000		4,430,000	0.2	40,000	886,000
2004	March	New share issue 3:1	13,290,000	1,970,000	15,750,000		17,720,000	0.2	2,658,000	3,544,000
2007	November	Reclassification		1,000,000	16,720,000		17,720,000	0.2		3,544,000
2011	June	New share issue	922,000	1,000,000	16,720,000	922,000	18,642,000	0.2	184,400	3,728,400
2014	June	Reclassification		1,000,000	17,020,000	622,000	18,642,000	0.2		3,728,400
2016	March	New share issue	440,000	1,000,000	17,460,000	622,000	19,082,000	0.0	88,000	3,816,400
2018	July	New share issue	30,000	1,000,000	17,490,000	622,000	19,112,000	0.2	6,000	3,822,400
2018	August	New share issue	45,000	1,000,000	17,535,000	622,000	19,157,000	0.2	9,000	3,831,400
2018	September	New share issue	15,000	1,000,000	17,550,000	622,000	19,172,000	0.2	3,000	3,834,400

## Ownership structure, 31 December, 2018

Holdings	No. of shareholders	A shares	B shares	C shares	% of capital	% of votes
1-500	2,093	0	281,927	0	1.47	1.00
501-1,000	339	0	279,752	0	1.46	0.99
1,001-5,000	375	0	885,386	0	4.62	3.14
5,001-10,000	73	0	552,806	0	2.88	1.96
10,001-15,000	22	0	271,935	0	1.42	0.97
15,001-20,000	10	0	183,781	0	0.96	0.65
20,001-	62	1,000,000	15,094,413	622,000	87.19	91.28
<b>Total</b>	<b>2,974</b>	<b>1,000,000</b>	<b>1,755,000</b>	<b>622,000</b>	<b>100.00</b>	<b>100.00</b>

# Five-year overview

	2018	2017	2016	2015	2014
<b>Profit/loss, SEK thousands</b>					
Net sales	303,871	301,763	242,355	226,912	180,971
Rörelsens kostnader	-271,224	-232,993	-183,947	-170,460	-166,863
<b>EBIT</b>	<b>32,646</b>	<b>68,770</b>	<b>58,408</b>	<b>56,452</b>	<b>14,108</b>
Net financial income/expense	2,509	858	2,163	2,207	623
<b>Profit before tax</b>	<b>35,155</b>	<b>69,628</b>	<b>60,571</b>	<b>58,659</b>	<b>14,731</b>
Tax	-7,407	-16,738	-15,335	-13,526	-4,347
<b>Profit/loss for the year</b>	<b>27,748</b>	<b>52,890</b>	<b>45,236</b>	<b>45,133</b>	<b>10,384</b>
<b>Balance sheet, SEK thousands</b>					
Non-current assets	2,571	2,042	2,816	4,018	4,464
Other current receivables	91,122	70,779	53,290	52,038	56,431
Cash and cash equivalents	98,816	127,430	123,199	103,697	65,541
<b>Total assets</b>	<b>192,508</b>	<b>200,250</b>	<b>179,305</b>	<b>159,753</b>	<b>126,436</b>
Equity	110,096	114,608	104,415	90,851	63,232
Other current liabilities	82,413	85,642	74,890	68,902	63,204
<b>Total equity and liabilities</b>	<b>192,508</b>	<b>200,250</b>	<b>179,305</b>	<b>159,753</b>	<b>126,436</b>
<b>Cash flow, SEK thousands</b>					
Cash flow before changes in working capital	28,622	49,149	52,487	46,749	22,968
Cash flow from changes in working capital	-23,388	-1,295	-342	10,818	-8,218
Cash flow from operating activities	5,234	47,854	52,145	57,567	14,750
Cash flow from investing activities	-1,495	-874	-655	6,807	-565
Cash flow from financing activities	-34,521	-40,172	-32,574	-17,462	-1,451
<b>Cash flow for the year</b>	<b>-30,782</b>	<b>6,808</b>	<b>18,916</b>	<b>46,912</b>	<b>12,734</b>
<b>Key figures</b>					
Net sales, SEK millions	303.9	301.8	242.4	226.9	181.0
Net sales growth, %	0.7	24.5	6.8	25.4	31.6
EBIT, SEK millions	32.7	68.8	58.4	56.4	14.1
EBIT margin, %	10.8	22.8	24.1	24.9	7.8
Earnings per share*, SEK (after dilution)	1.51	2.88	2.46	2.48	0.58
Return on equity, %	24.7	48.3	46.3	58.6	18.6
Return on capital employed, %	37.0	68.3	63.9	84.0	30.8
Equity/assets ratio, %	57.2	57.2	58.2	56.9	50.0
Liquidity ratio, %	223.5	196.2	230.7	216.5	181.7
Net worth per share, SEK	5.99	6.24	5.68	4.99	3.53
Dividend per share, SEK	2.2	2.20	2.20	1.00	0.10
Cash flow from operating activities per share, SEK	0.28	2.60	2.84	3.16	0.83

Reconciliation of measurements not defined as per IFRS	2018	2017	2016	2015	2014
<b>Capital employed, SEK millions</b>					
Total assets	192.5	200.3	179.3	161.0	126.4
Trade payables	-3.7	-5.0	-4.6	-5.0	-12.7
Current tax liabilities	-0.5	-3.6	-6.2	-1.4	-2.0
Other liabilities	-78.2	-77.0	-64.1	-62.6	-48.5
Capital employed	110.1	114.6	104.4	92.0	63.2
Average capital employed	112.4	109.5	98.2	77.6	55.7



# Definitions

The Company presents certain financial metrics in its interim reports that are not defined under IFRS. The Company believes these metrics provide useful, supplemental information to investors and Company management as they allow for evaluation of the Company's performance.

Key figures	Definition/calculation	Utilisation
<b>EBIT (operating profit)</b>	Net sales less operating expenses	Indicates the Company's profitability in current operations
<b>EBIT-margin (operating margin)</b>	EBIT (operating profit) in relation to net sales	Indicates the degree of profitability in current operations
<b>Earnings per Share *</b>	Profit/loss after tax in relation to average number of outstanding shares after dilution.	Measure of the Company's profitability after tax per share. This indicator is greatly significant when evaluating share value.
<b>Return on equity</b>	Profit/loss after tax in relation to average adjusted equity	Earning capacity of equity demonstrates the total return on owners' capital from an accounting perspective and reflects business profitability and financial leverage. The measure is mainly used to analyse owner profitability over time.
<b>Return on capital employed</b>	EBIT (operating profit) plus financial income in relation to average capital employed	Earning capacity of capital employed demonstrates how well the business uses capital tied up in operations. Used to measure consolidated profitability over time.
<b>Equity ratio</b>	Equity in relation to total assets	This key figure demonstrates the proportion of assets financed through equity and can be used as an indicator of the Company's long-term solvency
<b>Cash flow from operations/share</b>	Cash flow from operations in relation to average number of outstanding shares after dilution	Measures the Company's cash generation relative to the number of shares, i.e. from a shareholder perspective
<b>Equity per share</b>	Equity in relation to number of shares at end of period	Measures the Company's net value per share
<b>Average equity</b>	Average equity during a 12-month period. Equity at beginning of period plus equity at end of period divided by two.	Measures the Company's net value
<b>Capital employed/ average capital employed</b>	Capital employed is calculated as total assets less non-interest-bearing liabilities. Average capital employed is calculated as capital employed over a 12-month period. Capital employed at beginning of period plus capital employed at end of period divided by two.	Capital consists of those funds made available to the Company by shareholders and lenders. It shows the net capital invested in operations plus financial assets.
<b>Revenue growth, %</b>	Increase or decrease in sales expressed in percent relative to the corresponding period the previous year	An indicator of the demand trend for the Company's products
<b>Recurring revenue</b>	Refers to revenue from license renewals, i.e. when a license expires, a customer can choose to renew the license which generates revenue.	Recurring revenues are an important aspect of the Company's business model and provide financial stability. This key figure indicates to what degree.
<b>Net financial items</b>	Net financial income and expenses	Net reporting of financial income and expenses – provides a simplified view of their impact on profit/loss.
<b>Quick asset ratio, %</b>	Current assets less goods for resale in relation to current liabilities	An indicator of the Company's short-term solvency
<b>Net worth per share, SEK</b>	Assets less liabilities in relation to number of outstanding shares	An indicator of the Company's net value from an owner perspective

\* Defined in accordance with IFRS\*

# Report of the Directors

## Operations

MSAB is engaged in product development, production, sales and marketing of solutions within the area of mobile digital forensics. MSAB was founded in 1984. The B share has been listed since 1999 and listed on Nasdaq Stockholm since December 2011. The XRY product is used to extract and present data from digital devices, primarily mobile phones. In practical terms, this means that as much as possible user-specific information as is contained in a mobile phone or other digital device is transferred to a computer for further analysis. XAMN simultaneously analyses data from different digital devices in a sophisticated manner to efficiently identify links between the different devices. The Company also provides various hardware configurations depending on the environment in which the customer is active. The products are used mainly by police, military and intelligence agencies world-wide and are effective tools for securing evidence. Other customer segments such as customs, border control and migration authorities are also starting to realise the need for tools to secure digital information. The products are sold directly by the Company and through partners, depending on where in the world the sale takes place. The products have been sold in over 120 countries, and together they support over 26,000 device profiles. The need to recover data from confiscated mobile phones is increasing continuously. Hence, MSAB's products meet a large and significant need.

## Significant events in 2018

- With the launch of XRY 7.11.1, there is now support for more than 26,000 different mobile phone profiles and app versions.
- The 2018 AGM approved a dividend to shareholders of SEK 2.20 per share.
- In July, the Company announced a new order for a decentralised solution from the French Gendarmerie Nationale worth approximately SEK 12 million.
- During the fourth quarter, Access Services was launched as a complement to XRY. Through Access Services, MSAB's experts use advanced, secure technology to extract and decrypt data.

## Profit/loss and financial position

For definitions of key figures, refer to the Five-year Overview on page 20.

	2018	2017	2016
Net sales, SEK millions	303.9	301.8	242.4
EBIT, SEK millions	32.7	68.8	58.4
EBIT margin, %	10.8	22.8	24.1
Profit/loss before tax, SEK millions	35.2	69.6	60.6
Balance sheet total, SEK millions	192.5	200	179
Equity/Assets ratio, %	57.2	57.2	58.2
Return on equity, %	24.7	48.3	46.3
Average no. employees	157	134	117

## Comments on financial performance

Consolidated net sales for the year increased 0.7 percent to SEK 303.9 (301.8) million. In local currencies, net sales declined 2.7 percent. Expenses for goods for resale for the year were SEK 37.7 (30.1) million. Direct costs are dependent on the product mix sold and in 2018 this entailed more hardware than for the previous year. Other external costs for the year amounted to SEK 71.7 (65.9) million. Personnel expenses for the year were SEK 160.9 (135.6) million. This increase was primarily due to investment in personnel related to products and markets to encourage further growth. EBIT for the year was SEK 32.7 (68.9) million, corresponding to an EBIT margin of 10.8 (22.8) percent. Net financial income/expense was SEK 2.5 (0.8) million for the year. Net financial income/expense consisted primarily of revaluation of cash and cash equivalents in foreign currencies. Profit after tax for the year was SEK 27.8 (53.0) million. Consolidated sales and profit tend to vary between quarters, primarily due to our customers' purchasing patterns and individual larger orders, which due to the Company's relatively fixed total costs, leads to a corresponding variation in profit. Even viewed over several years, growth has taken place in waves, where for example growth was strong in 2015, more modest in 2016, and then significantly stronger again in 2017.

## Markets

### North America

Sales for the region declined somewhat compared with the previous year. Revenue from license renewal grew compared with 2017 but new sales did not reach the same levels in 2018 as in the previous year.

### EMEA & Latin America

Total growth for the region was up somewhat in 2018 compared with the previous year, which was historically strong due to the exceptionally large order from Germany in the third quarter. The most significant order of 2018 was from the French Gendarmerie Nationale for Frontline solutions. The UK and the Nordics demonstrated good growth during the year. In addition, the trend was positive in several southern European countries.

### Asia & CIS (Commonwealth of Independent States)

The region is growing on an annual basis, where growth is particularly good in southeast Asia and to some extent Australia, but clearly weaker in China.

## Research and development

At year-end 2018, the development department, together with the test and support departments, consisted of a total of 71 persons. A large part of efforts within the development department are devoted to maintaining and adding support for new mobile devices and applications. The market for mobile phones is fast-paced with new functions and application areas being added continuously. Thus, it is essential that the Company's products are continuously adapted to meet these conditions so we remain a competitive alternative for criminal

investigative authorities. During this past year, refinement of existing products continued with several product updates. It is the Company's assessment that all expenses attributable to development efforts should be expensed in their entirety as they occur. The cost for research and development totalled SEK 56.7 (51.3) million.

### Financial position

The equity/assets ratio at year-end was 57.2 (57.2) percent. Cash flow from operating activities for the year amounted to SEK 5.2 (47.8) million. The decline in cash flow is due to the weaker profit, and that a large part of sales took place near year-end 2018 and thus have not yet been settled. During the year, dividends in the amount of SEK 40.4 (40.4) million were paid out and share warrants were converted to shares in the amount of SEK 5.9 million. Cash and cash equivalents at year-end were SEK 98.8 (127.4) million.

### The Parent Company

The Parent Company's net sales for the year amounted to SEK 221.0 (226.5) million. EBIT for the year was SEK 24.4 (58.6) million. Investments for the period totalled SEK 1.6 (0.8) million and were essentially IT related. The number of employees in the Parent Company was 129 (107) at year-end.

### Financial risks and instruments

Through its business, MSAB is exposed to a variety of financial risks such as market, liquidity, currency and credit risks. Market risk consists primarily of interest rate and currency risk. MSAB's Board of Directors is ultimately responsible for handling and monitoring of the Group's financial risk, through a framework established by the Board. Note 4 Financial risk management and financial instruments describes the Group's financial risks and risk management. Currency risk represents the most significant financial risk while interest rate risk, liquidity and financing risk carry a lower risk factor. Currency risk results to a large extent from consolidated income from sales occurring in foreign currencies, while operating expenses are primarily paid in Swedish kronor. In 2018, the Group's export sales in foreign currencies were approximately 98 (97) percent of total sales. The dominant currencies are the Euro (EUR), the British pound (GBP) and the American dollar (USD). Other currencies include the Canadian dollar (CAD), the Australian dollar (AUD), the Singapore dollar (SGD) and the Chinese renminbi (CNY).

### Personnel

The average number of employees was 157 (134), of which 21 (25) percent were women. At year-end, the number of employees was 178 (145).

### Profit-sharing

In 2006, the Board launched a profit-sharing programme for all employees, except for the CEO and CTO. The objective of the programme is to motivate, stimulate and reward employees for efforts which lead to an improvement in Company results. The Board is convinced that performance-based financial

incentives create fertile ground for bringing about the best solutions and providing the best service to customers.

### Incentive programmes

#### Long-term incentive programme 2017–2020

On 10 May, 2017, MSAB's AGM approved implementation of a long-term incentive programme for the Company's senior position holders and certain key persons (maximum 20 persons). Participants shall be offered to subscribe for share warrants at fair market compensation (as per the Black & Scholes method). These entitle the holder to subscribe for new B series shares in the Company during the period 1 June, 2020 up to and including 31 August, 2020 at a price equal to 130 percent of the average volume-weighted closing price for the Company's B series shares during the period 11 May up to and including 24 May, 2017. The maximum number of share warrants that any programme participant is offered shall not exceed 40,000.

#### Long-term incentive programme 2018–2021

On 15 May, 2018, MSAB's AGM approved implementation of a long-term incentive programme for the Company's senior position holders and certain key persons (maximum 20 persons). Participants shall be offered to subscribe for share warrants at fair market compensation (as per the Black & Scholes method). These entitle the holder to subscribe for new B series shares in the Company during the period 1 June, 2021 up to and including 31 August, 2021 at a price equal to 130 percent of the average volume-weighted closing price for the Company's B series shares during the period 16 May up to and including 29 May, 2018. The maximum number of share warrants that any programme participant is offered shall not exceed 40,000.

### Board of Directors and CEO

MSAB's Board of Directors consists of five persons. During the year, the Board held nine meetings (documented in meeting minutes). The Board is kept continually informed of Company developments between meetings. The Board acts in accordance with the Procedural Plan, the distribution of tasks between the Board and the CEO, and the Board's terms of reference to the CEO. At every meeting, information is presented on finances, personnel, operations and competition. The work of the Board is described in the Corporate Governance report which can be found on the Company's website (msab.com) and on pages 49–51 of this annual report.

### Proposals for guidelines for remuneration of senior position holders

The Company shall offer remuneration and other employment conditions that allow the Company to recruit, motivate and retain senior position holders with the competencies the Company needs to execute its strategy and achieve its operational objectives.

The overall principles for remuneration to senior position holders shall be founded on market conditions and based on position, individual performance, consolidated earnings and

that remuneration should be competitive. Total remuneration to senior position holders shall consist of fixed salary and variable remuneration based on attainment of incentive-based performance targets.

For variable remuneration paid in cash, a maximum amount must be determined. Variable remuneration in the form of share and share-related incentive programmes shall be designed to achieve an increased sense of shared interest between participating position holders and the Company's shareholders and promote long-term value creation.

Pension terms shall be founded on market conditions relative to holders of similar positions on respective markets. Additionally, conditions for termination and severance pay shall apply.

The Board shall have the right to deviate from the proposed guidelines on special grounds. For more information, see Note 8.

### The share

Share capital in MSAB amounts to SEK 3,834,400 spread over 19, 172,000 shares with a quote value of SEK 0.20. The Company has three classes of shares, where shares of series A and B entitle the holder to equal rights to the Company's assets and profit, but where holders of C shares are not entitled to partake in dividends. In the event of Company liquidation, assets shall be distributed equally over all shares regardless of class. C shares, however, shall not afford the holder an amount higher than the share's quote value. Every share of series A entitles the holder to ten votes, and every share of series B and C entitles the holder to one vote. The number of shares in series A is 1,000,000 and in series B is 17,550,000. The number of series C shares is 622,000, all of which are held in treasury. The number of series B shares held in treasury is 81,596. Shareholders attending the AGM are entitled to vote for the full number of shares they hold without any restrictions. Holders of A shares can by way of a written request to the Company's Board request that their A shares be converted to B shares. C shares held in treasury can by way of a Board decision be converted to B shares. The Board has the right to decide on reduction of share capital, though not to a point below the minimum capital stipulated in the Articles of Association, through redemption of all C shares. Upon redemption, holders of C shares are obliged to accept a price corresponding to the share's quote value. MSAB's Articles of Association contain a record day provision and the Company's shares are registered with Euroclear, which means that Euroclear administers the Company's share register and that no share certificates are issued for the Company's shares. All shares are denominated in Swedish kronor. In accordance with the Swedish Company Act, shareholders have preferential rights to subscribe for new share issues and other equity securities, but these preferential rights can be waived at the discretion of the AGM.

Shares in MSAB are not subject to any offer made as a result of mandatory bids, redemption rights or redemption obligations. No public takeover bids for the Company's shares were made during the current or previous fiscal years. The Company has no knowledge of agreements between shareholders that could result in the restriction of transfer of shares. There are

no special rules in the Articles of Association governing the appointment or dismissal of board members, or for amending the Articles of Association. There are no significant agreements to which the Company is part, and which would come into effect, be amended or expire, if control of the Company changed as a result of a public offer. There are no agreements between the Company and board members or other employees which prescribe compensation for termination of employment as a result of a public takeover bid.

### Significant risks and uncertainty factors

MSAB's success is to a great extent linked to its ability to recruit, develop, motivate and retain engineers and other qualified personnel. Within the IT branch, there is fierce competition for qualified personnel. MSAB has a relatively small development department and is thus dependent on a few key persons. Another potential risk is that any fault in the Company's products could lead to claims for compensation and damages. The Board is, however, of the opinion that the Company has sufficient insurance for product liability to limit any direct risk. Of total sales, 97 percent of income is from sales in foreign currencies. To reduce currency risk, MSAB uses currency hedging in accordance with the financial policy established by the Board. At year-end 2018, there was no currency hedging in place.

### Proposal for profit distribution

#### The Parent Company

The AGM has at its disposal the following earnings (SEK):

Profit brought forward from previous year	37,792,023
Profit for the year	20,648,020
<b>Total</b>	<b>58,440,043</b>

The Board and CEO propose a dividend

of SEK 2.2 per share to shareholders:	40,630,489
New account carried forward:	17,809,554
<b>Total</b>	<b>58,440,043</b>

### Board's statement on proposed dividend pursuant to the Swedish Companies Act, Chapter 18, §4

Based on the Company's strong financial position, positive results and strong cash balance, the Board has determined that the proposed dividend does not cause any substantial limitation on the Company's ability to make any necessary investments or to meet its obligations in the short- or long-term. Neither does the proposed dividend have any significant impact on the Company's key ratios. Against the above background, the Board finds that the proposal on a value transfer in the amount of SEK 40,630,489 is both carefully considered and justified. Further, the Board finds that the proposed dividend falls within the framework of established policy. As regards Parent Company and Group earnings and financial position, please refer to the income statements and balance sheets, cash flow analyses and other supplemental information that follows. All amounts are expressed in SEK thousands unless otherwise stated.



Income statement			
Group, SEK thousands	Note	2018	2017
Net sales	5	303,871	301,763
<b>Operating income</b>		<b>303,871</b>	<b>301,763</b>
Goods for resale		-37,746	-30,141
Other external expenses	6, 7	-71,688	-65,941
Personnel expenses	8	-160,857	-135,646
Depreciation	13, 14	-933	-1,265
<b>Operating expenses</b>		<b>-271,224</b>	<b>-232,993</b>
<b>EBIT</b>		<b>32,647</b>	<b>68,770</b>
Financial income	9	8,982	6,015
Financial expenses	10	-6,473	-5,157
<b>Net financial income/expense</b>		<b>2,509</b>	<b>858</b>
<b>Profit/loss before tax</b>		<b>35,156</b>	<b>69,628</b>
Tax	11	-7,407	-16,738
<b>Profit/loss for the year</b>		<b>27,749</b>	<b>52,890</b>
Profit/loss for the year attributable to:			
Holders with no controlling interests		–	–
Holders of shares in Parent Company		27,749	52,890
Earnings per share before dilution, SEK	12	1.51	2.88
Earnings per share after dilution, SEK		1.50	2.88
Total no. outstanding shares before dilution, thousands		18,488	18,378
Total no. outstanding shares after dilution, thousands		18,488	18,379
Average no. outstanding shares before dilution, thousands		18,433	18,378
Average no. outstanding shares after dilution, thousands		18,433	18,379

Statement of comprehensive income		
Group, SEK thousands	2018	2017
<b>Profit/loss for the year</b>	<b>27,749</b>	<b>52,890</b>
Other comprehensive income		
Foreign exchange differences	1,942	-2,845
Tax on foreign exchange differences	317	320
<b>Comprehensive income for the year</b>	<b>30,008</b>	<b>50,365</b>
<b>Comprehensive income for the year attributable to Parent Company shareholders</b>	<b>30,008</b>	<b>50,365</b>

Balance sheet			
Group, SEK thousands	Note	2018-12-31	2017-12-31
<b>ASSETS</b>			
Intangible assets	14	172	302
Inventory, equipment, and fixtures and fittings	13	2,338	1,646
Deferred tax assets	11	61	93
Other long-term receivables		–	4,297
<b>Total non-current assets</b>		<b>2,571</b>	<b>6,338</b>
Finished goods and goods for resale		5,713	5,959
Trade receivables	16	67,574	45,810
Other receivables		7,470	2,243
Prepaid expenses and accrued income	17	10,364	12,470
Cash and cash equivalents	18	98,816	127,430
<b>Total current assets</b>		<b>189,937</b>	<b>193,912</b>
<b>TOTAL ASSETS</b>		<b>192,508</b>	<b>200,250</b>
<b>EQUITY AND LIABILITIES</b>			
Share capital	19	3,834	3,816
Other contributed capital		28,058	28,058
Reserves		1,793	-467
Retained profit including the year's profit/loss		76,410	83,201
<b>Total equity attributable to Parent Company's shareholders</b>		<b>110,095</b>	<b>114,608</b>
Trade payables		3,699	4,987
Tax liabilities	11	519	3,621
Other liabilities		8,234	6,798
Accrued expenses and deferred income	20	69,961	70,236
<b>Total current liabilities</b>		<b>82,413</b>	<b>85,642</b>
<b>TOTAL EQUITY AND LIABILITIES</b>		<b>192,508</b>	<b>200,250</b>

## Changes in equity

Group, SEK thousands	Share capital	Other contributed capital	Translation reserve	Cash flow hedges	Retained earnings	Total equity
<b>2017</b>						
Opening balance, equity 2017-01-01	3,816	28,058	2,033	25	70,483	104,415
Comprehensive income for the year			-2,525	0	52,890	50,365
<b>Total profit/loss for the year</b>	<b>0</b>	<b>0</b>	<b>-2,525</b>	<b>0</b>	<b>52,890</b>	<b>50,365</b>
Transactions with shareholders:						
Dividends						
Issue of share warrants					-40,432	-40,432
Closing balance, equity 2017-12-31					260	260
<b>Closing balance, equity 2017-12-31</b>	<b>3,816</b>	<b>28,058</b>	<b>-492</b>	<b>25</b>	<b>83,201</b>	<b>114,608</b>
<b>2018</b>						
Opening balance, equity 2018-01-01	3,816	28,058	-492	25	83,201	114,608
Comprehensive income for the year			2,260	0	27,748	30,008
<b>Total profit/loss for the year</b>	<b>0</b>	<b>0</b>	<b>2,260</b>	<b>0</b>	<b>27,748</b>	<b>30,008</b>
Transactions with shareholders:						
Dividends					-40,432	-40,432
Conversion of share warrants	18				5,893	5,911
<b>Closing balance, equity 2018-12-31</b>	<b>3,834</b>	<b>28,058</b>	<b>1,768</b>	<b>25</b>	<b>76,410</b>	<b>110,095</b>

## Cash flow analysis

Group, SEK thousands	Note	2018	2017
<b>Operating activities</b>			
Profit/loss before tax		35,156	69,628
Adjustments for items not included in cash flow	21	1,844	-1,430
Income tax paid		-8,378	-19,049
<b>Cash flow from operating activities before changes in working capital</b>		<b>28,622</b>	<b>49,149</b>
<b>Cash flow from changes in working capital</b>			
Changes in inventory		246	-2,224
Changes in operating liabilities/receivables		-18,948	-12,573
Changes in operating liabilities		-4,686	13,502
<b>Cash flow from operating activities</b>		<b>5,234</b>	<b>47,854</b>
<b>Investing activities</b>			
Investments in current assets		-1,495	-874
<b>Cash flow from investing activities</b>		<b>-1,495</b>	<b>-874</b>
<b>Financing activities</b>			
Dividends paid		-40,432	-40,432
Conversion of share warrants		5,911	-
Issuance of share warrants		-	260
<b>Cash flow from financing activities</b>		<b>-34,521</b>	<b>-40,172</b>
<b>Cash flow for the year</b>		<b>-30,782</b>	<b>6,808</b>
Cash and cash equivalents at the beginning of the year		127,430	123,199
Translation differences in cash and cash equivalents		2,168	-2,577
<b>Cash and cash equivalents at year-end</b>	<b>18</b>	<b>98,816</b>	<b>127,430</b>

# The Parent Company

Income statement			
Parent Company, SEK thousands	Note	2018	2017
Net sales	5	220,968	226,477
<b>Operating income</b>		<b>220,968</b>	<b>226,477</b>
Goods for resale		-37,746	-30,142
Other external expenses	6, 7	-48,202	-44,139
Personnel expenses	8	-109,792	-92,651
Depreciation	13, 14	-933	-1,044
<b>Operating expenses</b>		<b>-196,673</b>	<b>-167,976</b>
<b>EBIT</b>		<b>24,295</b>	<b>58,501</b>
Financial income	9	8,697	6,591
Financial expenses	10	-6,304	-5,034
<b>Net financial income/expense</b>		<b>2,393</b>	<b>1,557</b>
<b>Profit/loss before tax</b>		<b>26,688</b>	<b>60,058</b>
Tax	11	-6,040	-13,281
<b>Profit/loss for the year</b>		<b>20,648</b>	<b>46,777</b>

Statement of Comprehensive Income		
Parent Company, SEK thousands	2018	2017
<b>Profit/loss after tax</b>	<b>20,648</b>	<b>46,777</b>
<b>Comprehensive income for the year</b>	<b>20,648</b>	<b>46,777</b>



Balance sheet			
Parent Company, SEK thousands	Note	2018-12-31	2017-12-31
<b>ASSETS</b>			
Intangible assets	14	172	302
Inventory, equipment, and fixtures and fittings	13	2,338	1,646
Participations in Group companies	15	404	13
Other long-term receivables		–	4,297
<b>Total non-current assets</b>		<b>2,914</b>	<b>6,258</b>
Finished goods and goods for resale		5,713	5,959
Trade receivables	16	31,221	22,086
Intra-Group receivables	16	16,803	11,995
Tax asset		4,124	–
Other receivables		1,536	2,073
Pre-paid expenses and accrued income	17	10,054	12,324
Cash, bank		56,560	87,472
<b>Total current assets</b>		<b>126,011</b>	<b>141,909</b>
<b>TOTAL ASSETS</b>		<b>128,925</b>	<b>148,167</b>
<b>EQUITY AND LIABILITIES</b>			
<b>Restricted Equity</b>			
Share capital	19	3,834	3,816
Statutory reserve		20,288	20,288
<b>Non-restricted equity</b>			
Cash flow hedges		–7	–7
Share premium reserve		7,770	7,770
Profit/loss carried forward		30,030	17,793
Profit/loss for the year		20,648	46,776
<b>Total equity</b>		<b>82,563</b>	<b>96,436</b>
Trade payables		3,120	4,536
Tax liabilities		–	2,806
Other liabilities		5,019	4,147
Accrued expenses and deferred income	20	38,223	40,242
<b>Total current liabilities</b>		<b>46,362</b>	<b>51,731</b>
<b>TOTAL EQUITY AND LIABILITIES</b>		<b>128,925</b>	<b>148,167</b>

## Changes in equity

Parent Company, SEK thousands	Restricted equity		Non-restricted equity				Total equity
	Share capital	Statutory reserve	Cash flow hedges	Share premium reserve	Retained earnings	Profit/loss for the year	
<b>2017</b>							
Opening balance, equity 2017-01-01	3,816	20,288	-7	7,770	12,775	45,190	89,832
Disposition of last year's profit					45,190	-45,190	0
Profit for the year						46,776	46,776
Other comprehensive income	0	0	0		0	0	0
<b>Comprehensive income for the year</b>	<b>0</b>	<b>0</b>	<b>0</b>		<b>0</b>	<b>46,776</b>	<b>46,776</b>
Transactions with shareholders:							
Issuance of share warrants					260		260
Dividends					-40,432		-40,432
<b>Closing balance, equity 2017-12-31</b>	<b>3,816</b>	<b>20,288</b>	<b>-7</b>	<b>7,770</b>	<b>17,793</b>	<b>46,776</b>	<b>96,436</b>
<b>2018</b>							
Opening balance, equity 2018-01-01	3,816	20,288	-7	7,770	17,793	46,776	96,436
Disposition of last year's profit					46,776	-46,776	0
Profit/loss for the year						20,648	20,648
Other comprehensive income	0	0	0		0	0	0
<b>Comprehensive income for the year</b>	<b>0</b>	<b>0</b>	<b>0</b>		<b>0</b>	<b>20,648</b>	<b>20,648</b>
Transactions with shareholders:							
Conversion of share warrants	18				5,893		5,911
Dividends					-40,432		-40,432
<b>Closing balance, equity 2018-12-31</b>	<b>3,834</b>	<b>20,288</b>	<b>-7</b>	<b>7,770</b>	<b>30,030</b>	<b>20,648</b>	<b>82,563</b>

## Cash flow analysis

Parent Company, SEK thousands	Note	2018	2017
<b>Operating activities</b>			
Profit/loss before tax		26,688	60,058
Adjustments for items not included in cash flow	21	933	1,044
Income tax paid		-12,969	-15,560
<b>Cash flow from operating activities before changes in working capital</b>		<b>14,652</b>	<b>45,542</b>
<b>Cash flow from changes in working capital</b>			
Changes in inventory		246	-2,224
Changes in operating receivables		-6,839	-13,036
Changes in operating liabilities		-2,564	8,064
<b>Cash flow from operating activities</b>		<b>5,495</b>	<b>38,346</b>
<b>Investing activities</b>			
Investments in non-current assets		-1,495	-784
Investments in subsidiaries		-391	-
<b>Cash flow from investing activities</b>		<b>-1,886</b>	<b>-784</b>
<b>Financing activities</b>			
Dividends paid		-40,432	-40,432
Conversion of share warrants		5,911	-
Issuance of share warrants		-	260
<b>Cash flow from financing activities</b>		<b>-34,521</b>	<b>-40,172</b>
<b>Cash flow for the year</b>		<b>-30,912</b>	<b>-2,610</b>
Cash and cash equivalents at the beginning of the year		87,472	90,082
<b>Cash and cash equivalents at year-end</b>	18	<b>56,560</b>	<b>87,472</b>

# Notes

## Note 1 General information

Micro Systemation AB (publ) "MSAB", with Corporate ID no. 556244 3050, is a listed company registered in Sweden with headquarters in Stockholm. The headquarters address is Box 17111, 104 62 Stockholm. The street address is Hornsbruksgatan 28. The Company and its subsidiaries ("the Group") engage in product development and marke-

ting of software solutions within digital forensics. Note 15 describes the Group's composition. MSAB's share has been listed since 1999 and listed on Nasdaq Stockholm since December 2011.

## Note 2 Critical accounting principles

The consolidated accounts for MSAB have been prepared in accordance with International Financial Reporting Standards (IFRS) as adopted by the EU and the interpretations of the IFRS Interpretations Committee (IFRIC) applicable for periods starting 1 January, 2018 or later. Furthermore, the Group complies with the Swedish Annual Accounts Act and the Swedish Financial Reporting Board's recommendation RFR 1, Supplementary Accounting Rules for Groups. In the consolidated accounts, items have been valued at historical cost, except for certain financial instruments which have been measured at fair value. Critical accounting policies are described below.

### New and revised standards and interpretations applicable for 2018

Reported below are new and revised standards and interpretations from IASB and IFRS which have had an impact on the Group's financial reporting in 2018. Other new and revised standards and interpretations from IASB and IFRS have had no significant impact on the Group's financial reporting.

#### IFRS 15 Revenue from Contracts with Customers

As of 1 January, 2018, IFRS 15, which replaces IAS 18 Revenues, IAS 11 Customer Contracts and associated interpretations, is applied. The new standard is a model for revenue recognition based on when goods or services are transferred. The basic principle is that a company recognises revenue in a way that reflects the transfer of promised goods or services to the customer in the amount that the company considers itself entitled to receive in exchange for the goods or services. As previously reported, this principle entails no significant changes relating to when the Company recognises revenues. The new standard has some effect on the proportion of revenue which accrues depending on contract length (1 – 3 years), where the distributed proportion for a one-year contract has increased but decreased for two- and three-year contracts. Composition of the contract at time of transfer does not entail any significant difference on when revenues are recognised. Thus, in all material aspects, IFRS 15 only involves extended disclosure requirements. The Group is applying IFRS 15 retroactively for 2017. See also the Revenues section in this note.

#### IFRS 9 Financial Instruments

As of 1 January, 2018, the Group applies IFRS 9 Financial Instruments, which replaces IAS 39 Financial Instruments: Recognition and Measurement. IFRS 9 contains rules for reporting, classification, valuation, impairment, de-recognition and general rules for hedge accounting. As of 31 December, 2018, the Company has no financial instruments requiring application of hedge accounting. The transition to IFRS 9 has not had any significant impact on the Company's financial reporting except extended disclosure requirements. The Company has chosen to apply IFRS 9 retroactively. At first reporting, financial assets shall be classified at fair value in the

Income Statement, accrued historical cost or at fair value in Other Comprehensive Income.

- The classification assessment for liability instruments is based on two criteria: (a) the Company's business model for managing a financial asset; and (b) the instrument's contractual cash flow.
- Classification of equity instruments is at fair value via the Income Statement, except when the Company chooses to present such instruments at fair value through Other Comprehensive Income. There are no equity instruments in the accounts for 2018 or 2017.
- The rules for classification and valuation of financial liabilities are largely unchanged from IAS 39.

As regards credit provisions, IFRS 9 introduced a model for expected loan losses where all financial assets valued at accrued historical cost shall have a provision from the point in time that the asset is booked in the balance sheet.

See also the section in Accounting Principles on Financial Instruments.

### New and revised standards and interpretations not yet in force

IFRS 16 Leases shall apply as of 1 January, 2019. The Company has inventoried all leases covered by the new standard including operational leases already entered into. The results of the analysis show that in all material aspects, it is leases for the Group's office premises that are affected by the new standard. The Company has chosen to transition using the modified retrospective approach. This means that as of 1 January, 2019, the Company will recognise an asset for future rights of use valued at approximately SEK 40 million. The value is determined by discounting future agreed payments with the Company's marginal loan interest adjusted for prepayments paid for the period 1 January, 2019 and beyond. The corresponding liability is calculated at approximately SEK 38 million. The Company's total assets as of 31 December, 2018 are SEK 193 million. All else being equal, this means that assets as of 1 January, 2019 amount to SEK 233 million. The transition to IFRS 16 has no significant impact on the Company's EBIT or net profit/loss. The new standard does mean, however, that previously recognised rental expense will be recognised as amortisation and to some extent as interest expense, compared with the earlier method where rental expense as a whole was recognised as Other external expense. The Company reports the key figure equity/assets ratio, which is affected by the new standard. The reported equity/assets ratio as of 31 December, 2018 was 57 percent. Adjusted for the transition to IFRS 16, the equity/assets ratio as of 1 January, 2019 is 47 percent.

It is Company management's assessment that other new and revised standards and interpretations not yet in effect will not significantly impact the Group's financial reporting when applied for the

## Note 2 continued

first time.

### Consolidated reporting

Consolidated reporting consists of reporting for the Parent Company and those companies where the Parent Company has a controlling influence (subsidiaries). The Group has controlling influence over a company when it is exposed to, or has the right to, variable returns from its investment in the company and can use its influence to affect the size of the returns. Normally, controlling influence exists when a parent company directly or indirectly holds more than 50 percent of votes in another company. Controlling influence can also be exercised in ways other than through shareholdings. The results for subsidiaries acquired or disposed of during the year are included in the Consolidated Income Statement from, and up to, the date the transaction takes place, i.e. when controlling influence commences or terminates respectively. If accounting principles applied in subsidiaries deviate from those applied within the Group, the subsidiary's accounting is adjusted to ensure consistency with other Group companies. Internal transactions and intra-Group dealings are eliminated in the preparation of the consolidated accounts. Minority interest is the portion of earnings and net assets in a partly-owned company held by other owners. The minority share of earnings are included in the consolidated profit/loss after tax. The portion of net assets is included in equity in the consolidated balance sheet but reported separately from equity attributable to the Parent Company's shareholders.

### Business combinations

Business combinations are recognised in accordance with the acquisition method. The cost of acquisition is measured on the date of the transaction as an aggregate of the fair value of assets, incurred or assumed liabilities, and equity instruments issued by the acquirer in exchange for controlling influence in the acquired business. Acquisition-related expenses are recognised in the Income Statement as they occur. Acquired identifiable assets, liabilities, and contingent liabilities are measured at fair value on the acquisition date. If the cost of acquisition of the acquired parts exceeds the total fair value of acquired identifiable assets, liabilities and contingent liabilities, then the difference is recognised as goodwill. If the cost of acquisition is lower than the fair value as calculated above, then the difference is recognised directly in the Income Statement. Minority interests are recognised by stating the minority shareholders' proportion of recognised fair value of assets, liabilities and contingent liabilities. Upon acquisition of minority interests, any differences between the cost of acquisition of the acquired parts and the fair value of acquired, identifiable assets and liabilities is recognised directly against equity.

### Revenues

The basic principle is that MSAB recognises revenue to depict the transfer of promised goods and services to customers in an amount that reflects the consideration the Company expects to be entitled in exchange for the goods and services. This is done via the five-step model defined in IFRS 15:

- Step 1 Identify the contract
- Step 2 Identify the performance obligations
- Step 3 Determine the transaction price
- Step 4 Allocate the transaction price to each performance obligation
- Step 5 Recognise revenue when (or as) the Company fulfils its performance obligations.

The Company has two types of revenue: product sales, and training and other services.

### Product sales

A product sale consists of a license to use MSAB's software and some type of hardware, depending on which platform the customer

chooses. The customer contract also includes the right to support and any updates to the software during the license period. It is MSAB's assessment that the Company has the following performance obligations: any hardware, software licenses, right to support, and any software updates released during the license period. Hardware and software is usually priced as a package and the transaction price is defined in the contract. Hardware and software licenses are delivered immediately upon receipt of an order. These performance obligations are met at the time of delivery whereupon the revenue is recognised. Performance obligations for support and updates apply from time of delivery and fulfilled over time during the license period. A license period is between one and three years, where one year is most common.

The transaction price for the various performance obligations has been assessed on the basis of their relative sales price as per a method for expected costs plus a profit margin. The Company's assessment is that this method is fairest for allocating the portion of the transaction price relating to future performance obligations. Monitoring is continuous to ensure that the calculation is fair. A contract liability for support and updates is recognised at the time of invoicing, after which income is recognised on a straight-line basis during the license period. Payment conditions for product sales are normally 30 days. Note 5 shows the proportion of the Company's performance obligations that are fulfilled at a certain point in time and those that are met over time. Additionally, Note 5 specifies the Company's total contract liabilities and how much of the opening balance was recognised as revenue during the year. The contract liability's maturity structure is reported, which corresponds to when the closing balance of the contract liability will be recognised as revenue.

### Training and other services

Sales of training and other services means that MSAB has undertaken to deliver a service. The performance obligation consists of MSAB delivering training to the customer, often in their premises. The transaction price is defined in the contract. The performance obligation is considered fulfilled when the training has been executed, whereupon the revenue from the training operation is recognised in the period when the service was performed. Payment conditions for training and other services is normally 30 days.

### Dividends and income from interest

Dividend income is reported when shareholders' right to receive payment has been established. Interest income is recognised over the term using the effective interest method. Effective interest renders the present value of all future receipts and payments during the fixed interest term equal to the reported value of the receivable.

### Government grants received

Government grants received are recognised in the Income Statement and allocated in the same way as the expenses they are intended to compensate. Government support attributable to operating expenses reduces these expenses.

### Leasing agreements

A financial leasing agreement is one under which the financial risks and rewards associated with ownership of an object are in all material aspects transferred from the lessor to the lessee. Other leases are classified as operational leases.

### The Group as lessee

Assets held under financial leases are recognised as non-current assets in the consolidated balance sheet at fair value as of the commencement date of the lease period or at the current value of the minimum leasing fee if this is lower. The corresponding liability to the lessor is recognised in the balance sheet as a financial lease liability. Lease payments are allocated between interest and



## Note 2 continued

amortisation of the liability. Interest is allocated over the lease period so that every accounting period is charged in an amount corresponding to a fixed interest rate for the respective period of the recognised liability. Interest expense is recognised directly in the Income Statement. If interest expense is directly attributable to acquisition of an asset which requires a substantial amount of time to be prepared for utilisation or sale, then the interest expense shall instead be included in the asset's acquisition cost as per the Group's policies for loan expenses (see below). Lease fees related to operational leases are charged on a straight-line basis over the term of the lease, unless another systematic approach better reflects the user's financial benefit over time.

### Foreign currencies

Items included in the financial statements for the various entities within the Group are recognised in the currency used in the primary financial environment where the respective entity conducts its operations (functional currency). In the consolidated financial statements, all amounts are translated to Swedish kronor (SEK), which is the Parent Company's functional currency and reporting currency. Transactions in foreign currencies are translated into the functional currency in each respective entity using the exchange rates prevailing on the transaction date. On every closing date, monetary items in foreign currencies are recalculated using the prevailing exchange rate of the closing date. Non-monetary items measured at fair value in a foreign currency are translated at the exchange rate of the date when the fair value was established. Non-monetary items measured at cost in a foreign currency are not translated. Foreign exchange differences are recognised in the Income Statement in the period in which they occur, except for transactions that constitute hedges which met the conditions for hedge accounting for cash flow or for net investment, where profit and loss are recognised in Other Comprehensive Income. When preparing the consolidated financial statements, the assets and liabilities of foreign subsidiaries are translated to Swedish kronor at the exchange rate of the closing date. Revenue and expense items are translated using the period's average exchange rate, unless exchange rates fluctuated significantly during the period, in which case the exchange rate of the transaction date is used instead. Any translation differences are recognised in equity and in Other Comprehensive Income. When a foreign subsidiary is disposed of, translation differences are recognised in the Income Statement as part of capital gains. Goodwill and adjustments to fair value which arise upon acquisition of a foreign operation are treated as assets and liabilities in the foreign operation itself and translated at the exchange rate on the closing date.

### Employee Remuneration

Employee remuneration in the form of salaries, paid vacation, paid sick leave, pensions, etc., are recognised as they are earned. Pensions and other post-employment benefits are classified as defined contribution or defined benefit pension plans.

### Profit-sharing

The Group recognises the expected cost of profit-sharing payments when the Company has a legal or informal obligation to make such payments due to prior events and can reliably estimate this obligation. The Group recognises a liability and cost for profit-sharing based on 5 percent of consolidated profit before tax. Profit-sharing payments are due within 12 months after the end of the period in which the employees perform the services and are therefore recognised as a current liability.

### Incentive programmes

Share-related remuneration is regulated through measurement of the equity instrument at fair value at the date of issuance. The fair values established at the time of issuance are charged in the Income Statement. The cost of distributed rights is recognised as a

personnel expense in the Income Statement and in equity. Payment of social fees is recognised as a personnel expense in the Income Statement and as a liability in the balance sheets.

### Defined contribution pension plans

There are only defined contribution pension plans at MSAB. MSAB pays fixed fees for these to a separate and independent legal entity. The Group is under no obligation to pay additional fees. The consolidated profit/loss is charged for expenses as the benefits are earned, which normally coincides with the point in time when the premium is paid.

### Taxes

Tax expense is the aggregate of current and deferred taxes.

### Current tax

Current tax is calculated on the taxable profit for the period. Taxable income differs from the reported profit/loss in the Income Statement in that it has been adjusted for non-taxable income and non-deductible expenses, and for revenue and expenses that are taxable or deductible from other periods. The Group's current tax liability is calculated in accordance with tax rates enacted or substantively enacted as of the closing date.

### Deferred tax

Deferred tax is recognised as the difference between the recognised value of assets and liabilities in the financial statements and the tax base used in the computation of taxable income. Deferred tax is reported in accordance with the balance sheet method. In principle, deferred tax liabilities are recognised for all taxable temporary differences, and deferred tax assets are recognised for all deductible temporary differences to that extent that the amount is likely to be used against future taxable profit. Deferred tax liabilities and assets are not recognised if the temporary difference is attributable to goodwill or if it occurs as a result of a transaction that is the initial recognition of an asset or liability (which is not a business combination), and which at the time of the transaction affects neither recognised nor taxable profit. Deferred tax liabilities are recognised for taxable temporary differences attributable to investments in subsidiaries and associated companies, except in those cases where the Group can control the timing of the reversal of the temporary differences, and it is likely that such reversals will not take place in the foreseeable future. Deferred tax assets attributable to deductible temporary differences for such investments and interests are only recognised to the extent that the amount can be used against future taxable profit, and such use is likely to occur within the foreseeable future. The carrying amount of deferred tax assets is reviewed at every balance sheet date and reduced to the extent that it is no longer probable that sufficient taxable profit will be available to be used, in whole or part, to offset the deferred tax asset. Deferred tax is calculated at the tax rates expected to apply for the period when the asset is recovered or the liability is settled, based on the tax rates (and tax laws) enacted or substantively enacted as of the closing date. Deferred tax assets and liabilities are offset when they relate to income taxes levied by the same authorities and where the Group intends to settle the tax by a net amount.

### Current and deferred tax for the period

Current and deferred tax is recognised as an expense or revenue in the Income Statement, except when the tax is attributable to transactions that are recognised directly in equity. In such cases, the tax is also recognised directly in equity. If the tax is attributable to a business acquisition or merger, the tax effect is considered when calculating goodwill or when determining the size of any excess amount that arises if the fair value of the acquired share of the acquirer's identifiable assets, liabilities and contingent liabilities exceed the purchase price of the business combination.

## Note 2 continued

**Tangible assets**

Tangible assets are stated at historical cost less allowance for accumulated depreciation and any impairments. Historical cost includes the purchase price, costs directly attributable to the acquisition, and expenses for preparation of the asset until it is ready to be brought into service. Subsequent costs are only included in the asset or recognised as a separate asset when it is probable that future financial benefits attributable to the item will flow to the Group and the cost of same can be measured reliably. All other expenses for repairs, maintenance, and any additional expenses are recognised in the Income Statement in the period in which they occur. Depreciation of tangible assets are expensed so that the asset's value less estimated residual value at end of useful life are amortised on a straight-line basis which is estimated at:

Inventory, equipment, fixtures and fittings . . . . . 5 years

**Intangible assets**

Intangible assets are stated at historical cost less allowance for accumulated depreciation and any impairments. Historical cost includes the purchase price, costs directly attributable to the acquisition, and expenses for preparation of the asset until it is ready to be brought into service. Subsequent costs are only included in the asset or recognised as a separate asset when it is probable that future financial benefits attributable to the item will flow to the Group, and the cost of same can be reliably measured. All other costs for repairs and maintenance, and any other expenses are recognised in the Income Statement in the period in which they occur. Depreciation of intangible assets are expensed so that the asset's value less estimated residual value at end of useful life are amortised on a straight-line basis which is estimated at:

Intangible assets . . . . . 5 years

Assets held under financial leases are depreciated over the asset's estimated useful life as described above or over the term of the lease if this is shorter. Gains or losses which arise when intangible assets are retired or disposed of represent the difference between what is received for the asset and its carrying value and recognised in the operating profit.

**Research and Development**

Expenses for research and development are expensed as they occur. Expenditures which occur in development projects are recognised as intangible assets when the following criteria are met:

- It is technically possible for the Company to complete the intangible asset so it can be utilised.
- Management intends to complete the intangible asset and use or sell it.
- The conditions necessary to use or sell the intangible asset are in place.
- It can be demonstrated how the intangible asset will likely generate future financial benefits.
- There are adequate technical, financial, and other resources to complete development and to use or sell the intangible asset.
- The expenses attributable to the intangible asset during its development can be reliably measured.

Other development expenditures that do not meet these conditions are recognised as they occur. Development expenditures previously recognised as an expense are not recognised as an asset in the subsequent period. Capitalised development expenditures are recognised as intangible assets and amortised from that point in time when the asset is ready for use on a straight-line basis over the period of useful life.

**Inventory**

Inventory is recognised at the lowest cost or net sales value. Historical cost is determined using the first-in, first-out method (FIFO).

The cost of finished goods consists of raw materials and direct labour costs. Net sales value is the estimated sales price in the ordinary course of business, less applicable variable sales expenses. No part of inventory has been pledged as collateral for loans or other liabilities.

**Financial instruments**

A financial asset or liability is recognised in the balance sheet when the Company becomes party to the instrument's contractual terms and conditions. A financial asset is de-recognised from the balance sheet when the contractual rights are realised, when it matures or when the Company loses control over it. A financial liability is de-recognised from the balance sheet when the contractual obligation is fulfilled or otherwise extinguished. At each balance sheet date, the Company assesses whether there are any objective indications that a financial asset or a group of financial assets are impaired due to past events. The Company has chosen to apply IFRS 9 retroactively, which means that comparative figures for 2017 are recognised as accrued acquisition cost in accordance with IAS 39.

**Classification and valuation of financial assets**

In accordance with IFRS 9, financial assets are classified into categories depending on the business model for management of the assets and the characteristics of the contractual cash flows. This refers to the way in which the agreed terms for the financial asset at certain times gives rise to cash flows that consist solely of payments of principal and interest on the outstanding capital amount. IFRS 9 recognises three valuation categories for financial assets, where the Company only has assets valued at amortised cost:

*Financial assets valued at amortised cost* – Assets held to collect contractual cash flows that only consist of payments of principal and interest on the outstanding amount of capital. These are valued at amortized cost.

*Financial assets valued at fair value via other comprehensive income* – Assets held to collect contractual cash flows and sell investments, and which have contractual cash flows that consist of only payments of principal and interest on the outstanding capital amount. These are valued at fair value in other comprehensive income.

*Financial assets at fair value through in the Income Statement* – Other financial assets and investments in capital instruments. These are recognised at fair value in the Income Statement.

**Impairment of financial assets**

For financial assets valued at amortised cost where there is no significant increase in credit risk, provision is made for a credit loss relating to the loss expected within 12 months. For financial assets where there is a significant increase in credit risk, and for those which are doubtful, a credit loss is recognised relating to expected loss during the entire asset's remaining term.

**Fair value of financial liabilities decided as follows:**

- The fair value of financial assets and liabilities with standard conditions traded on an active market is determined with reference to the quoted market price.
- The fair value of other liabilities is determined by generally accepted pricing models based on discounted cash flow analyses using values from current, observable market transactions. For all financial assets and liabilities, the carrying amount is deemed to be a good approximation of its fair value, unless otherwise stated in the following notes.

**Offsetting of financial assets and liabilities**

Financial assets and liabilities are offset and recognised in a net amount in the balance sheet where there is a legally enforceable right to offset, and where there is an intention to settle items on a

## Note 2 continued

net basis or to realise the asset and settle the liability. There was no offsetting of financial assets or liabilities in 2018 and 2017.

### Cash and cash equivalents

Cash and cash equivalents include cash and bank balances, and other current, liquid investments which are easily converted to cash and which carry an insignificant risk of value change. To classify as a cash equivalent, maturity shall not exceed three months from the time of acquisition. Cash and bank balances are valued at fair value through the Income Statement. Because bank balances are payable on demand, the amortised cost corresponds to the nominal amount.

### Trade receivables

Trade receivables are characterised as "Contractual assets", which means they are valued at amortised cost. For all trade receivables, a credit loss is reserved for losses expected within 12 months. For trade receivables where there is a significant rise in credit risk, and for those which are doubtful, a credit loss is recognised relating to the loss expected over the entire asset's remaining term. Impairment of trade receivables is recognised in operating costs. See also the section on Credit Risk and Note 16 Trade Receivables.

### Trade payables

Trade payables are characterised under "Other financial liabilities" and valued at amortised cost. The expected duration of trade payables is, however, short. Hence recognition is at the nominal amount without discounting.

### Accounting principles for the Parent Company

The Parent Company complies with the Swedish Annual Accounts Act and the Swedish Financial Reporting Board's recommendation RFR 2 Accounting for Legal Entities. Application of RFR 2 means

that to the extent possible, the Parent Company shall apply all IFRS adopted by the EU within the framework for the Swedish Annual Accounts Act and the Safeguarding Act and consider the relation between reporting and taxation. Differences between the accounting policies of the Parent Company and Group are described below:

### Revised accounting principles

Revisions to RFR 2 Accounting for Legal Entities which entered into force and applies for fiscal year 2018 have had no significant impact on the Parent Company's accounting. IFRS 9 is not applied in the Parent Company, but RFR 2 entails a new model for assessing the need for impairment, but which has no significant effect on the Parent Company. Of those revisions to RFR 2 not yet in force, it is the Company's assessment that these will not have any impact on the Parent Company's financial position and profit/loss. Please refer to the section in Note 2 on new and revised standards and interpretations that apply to the Group in 2018.

### Shares in subsidiaries

Shares in subsidiaries are recognised in accordance with the cost method. Acquisition-related costs for subsidiaries which are expensed in the consolidated financial statements are included as a part of the cost for shares in the subsidiary. The recognised value of shares in subsidiaries is tested for impairment when there are indications that impairment is needed.

### Leasing

All leases in the Parent Company are recognised in accordance with the regulations for operational leases.

## Note 3 Estimates and assumptions in the financial reports

Preparing financial statements to conform with IFRS requires that Company management make certain assessments, estimates and assumptions that affect the application of accounting principles and the reported amounts of assets, liabilities, revenues and costs. The actual results may differ from these estimates and assumptions. Estimates and assumptions are reviewed regularly.

Changes in estimates are recognised in the period when a change is made if the change only affects this period, or in the period the change is made and future periods if the change affects both current and future periods. At year-end, special consideration is given to valuation of trade receivables which are considered the Company's single most important asset. Provisions are made for

future credit losses for trade receivables as per IFRS 9 based on historical outcome and described in Note 16. The Group recognises revenue in accordance with IFRS 15 – Revenue from Contracts with Customers. The basic principle is that a company reports revenue to describe the transfer of promised goods and services to customers in an amount that reflects the remuneration that the company expects to be entitled to in exchange for these goods or services. In accordance with the description in Note 2, transaction prices are allocated on future performance obligations to deliver support and product updates based on the assessed resources required to deliver these obligations. This forms the basis for valuation of the various sub-components bearing on revenue recognition.

## Note 4 Financial risk management and financial instruments

The overall objective of MSAB's financial risk management is to identify and control the Group's financial risk. MSAB's Board of Directors is ultimately responsible for exposure, management and monitoring of the Group's financial risk. The framework which applies to exposure, management and monitoring of financial risk is established by the Board. The most significant financial risks to which the Group is exposed are market, liquidity, and credit risk. Market risk consists primarily of currency risk and interest rate risk.

### Market risk Currency risk

Currency risk refers to the risk that consolidated profit/loss and equity will be negatively impacted by changes in exchange rates. Exposure to currency risk derives from the flow of payments (transaction exposure) in foreign currencies and from translation of balance sheet items in foreign currencies, and recalculation of foreign subsidiary's income statements and balance sheets to the Group's presentation currency Swedish kronor (translation exposure).

### Transaction exposure

Transaction exposure occurs as a result of MSAB's export sales. Of the Group's total sales in 2018, approximately 98 (97) percent were export sales and sales through foreign subsidiaries in foreign currencies. Inflows in foreign currencies consist primarily of Euros (EUR), British pounds (GBP) and American dollars (USD). The majority of goods and services purchased are in Swedish kronor (SEK). Net exposure in relation to the inflow of payments in foreign currencies is thus essential. MSAB applies hedge accounting from time to time and uses forward contracts to minimise larger currency fluctuations. At year-end 2018, the Company held no forward contracts.

### Translation exposure

Translation exposure occurs primarily when translating asset and liability posts in foreign currencies, and income statements and balance sheets for foreign subsidiaries to SEK. Currency fluctuations can have a negative impact on consolidated equity and profit/loss. The table below shows the Group's and Parent Company's net currency exposure on closing day (foreign currencies translated to SEK thousands in the table):

	Group		Parent Company	
Market risks, SEK thousands	2018	2017	2018	2017
<b>Currency</b>				
AUD	3,536	1,698	2,459	564
CAD	943	1,066	482	552
EUR	28,667	18,333	27,079	18,296
GBP	8,618	3,401	8,787	4,530
HKD	0	0	2,195	1,972
SGD	156	50	2,626	3,203
USD	21,862	17,498	505	1,201
<b>Total trade receivables in foreign currencies</b>	<b>63,781</b>	<b>42,047</b>	<b>44,134</b>	<b>30,318</b>
SEK	3,793	3,764	3,890	3,764
<b>Total trade receivables</b>	<b>67,574</b>	<b>45,810</b>	<b>48,024</b>	<b>34,081</b>

A change of +/-5 percent in relevant exchange rates relative to Swedish kronor would entail an impact on the consolidated profit/loss for respective currencies on closing day: USD – SEK 1,109 (875) thousand; EUR – SEK 1,320 (917) thousand; GBP – SEK 854 (170) thousand. For the Parent Company, the corresponding impact on profit/loss is: USD – SEK 28 (60) thousand; EUR – SEK 1,320 (915) thousand; GBP – SEK 854 (227) thousand.

### Interest rate risk

Interest rate risk is the risk for a negative impact on the consolidated Income Statement and cash flow due to changes in market interest rates. MSAB has no interest-bearing liabilities and interest rate risk is primarily limited to the Group's excess liquidity, which is placed in interest-bearing bank accounts and in other interest-bearing investments. Excess liquidity shall be invested at a low risk with short, fixed interest rate terms, as stipulated in the Board's instructions. Hence the Group has chosen to place excess liquidity in different bank accounts, primarily in SEB.

### Liquidity and financing risk

Liquidity risk is the risk that the Group is impacted negatively by inadequate management and control of liquidity and payment flow. Financing risk refers to the risk that the Group cannot raise enough cash to meet its obligations. Liquidity and financing risk is currently very low. The Group has good liquidity and a high earnings capacity. The Group's excess liquidity is placed in bank accounts. Liquidity preparedness is thus high and there is currently no need for external credit to finance operations or create liquidity. The duration and distribution of contractual payment obligations related to the Group and Parent Company's financial liabilities is listed in the table below:

	Group					Parent Company				
Liquidity and Financing risks, SEK, thousands	Within 3 months	3–12 months	1–5 years	Over 5 years	Total	Within 3 months	3–12 months	1–5 years	Over 5 years	Total
Trade payables	3,699	0	0	0	3,699	3,120	0	0	0	3,120
Other liabilities	8,234	–	–	–	8,234	5,019	–	–	–	5,019
<b>Total</b>	<b>11,934</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>11,934</b>	<b>8,139</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>8,139</b>



Note 4 continued

### Credit risk

Credit risk refers to a counter-party not being able to meet their contractual obligations as they relate to the Group resulting in a financial loss. The Group's exposure to credit risk derives primarily from trade receivables. Sales of MSAB's products are conducted either directly to the end customer or via partners. End customers are almost exclusively criminal investigative authorities, and non-payment due to insolvency within this customer segment is very low. To limit the Group's exposure to credit risk, a credit rating is conducted on every new customer. The financial situation of existing customers is also monitored on an on-going basis to identify warning signals at an early stage. A credit rating is always performed before the Company enters into new sales partnerships, after which their financial situation is monitored on an on-going basis to identify warning signals. The Group may also establish credit limits for partners, or require bank guarantees for larger contracts.

To further minimise credit risk, the Group can also choose to invoice an end customer directly, and instead allow the sales partner to invoice MSAB for their commission. Assessment of the risk for future credit losses is continuous, which results in changes to provisions for doubtful trade receivables. See also Note 16 Trade Receivables. Credit risk also occurs when the Company's excess liquidity is invested in various types of financial instruments. According to the Board's instructions, excess liquidity is placed in interest-bearing bank accounts or interest-bearing securities/fixed income funds. The Swedish state and banks are eligible counter-parties, where the Company has assessed their credit rating. The Group's lending to banks is covered by the Swedish state's deposit guarantee, which covers up to SEK 500 thousand per bank. The Group's and Parent Company's maximum exposure to credit risk corresponds to the booked value of all financial assets and is listed in the table below

	Group		Parent Company	
Credit risk, SEK thousands	2018	2017	2018	2017
Trade receivables	67,574	45,810	48,024	34,081
Other receivables	7,470	2,243	1,536	2,072
Equity	98,816	127,430	56,560	87,472
<b>Maximum exposure for credit risks</b>	<b>173,860</b>	<b>175,483</b>	<b>106,120</b>	<b>123,625</b>

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### Concentration risk

Trade receivables consist primarily of a smaller number of major customers with a high credit rating. The ten largest customers accounted for 30 (32) percent of total revenue. Approximately 47 (46) percent of consolidated sales occur on the European market, of which the UK represents the single largest geographic exposure. North America accounts for 38 (41) percent of sales. The majority of the Company's customers are active within the judicial system. The purchasing process can differ between countries, where some negotiations are conducted centrally while in others, decision-making is local. Similarly, procurement can originate from within certain branches of the military. In these cases, customers can be referred to purchasing companies where procurement is centralised, and for a given period, a purchasing company can account for a relatively large proportion of the Company's net sales. Procurement through purchasing companies is on-going and varies from year to year. In practice this means that in any given year, purchasing companies can account for more than 10 percent of total net sales. In 2018, no single customer accounted for 10 percent or more of the Company's total net sales. Note 16 Trade Receivables provides an age analysis of the Group's and Parent Company's trade receivables.

### Management of capital risk

MSAB defines its managed capital as the aggregate of consolidated net liabilities and equity. Because the Group currently has no loans, managed capital and consolidated equity are the same. At year-end 2018, consolidated equity was SEK 110,095 (114,608) thousand. The Company's objective regarding its capital structure is to secure its ability to sustain operations and generate returns for shareholders and other stakeholders, and that the capital structure is optimal as regards cost of capital. Shareholder dividends, redemption of shares, issuance of shares or sales of assets are examples of measures the Group can take to adjust capital structure. The Board has adopted a dividend policy whereby at least 30 percent of the Company's reported earnings are returned to shareholders given that this is compatible with maintaining an adequate amount of liquidity for planned operations.

### Categorisation and valuation of financial instruments

Booked values of financial assets and liabilities by valuation category are in accordance with IFRS 9 for 2018 (see Note 2) and the classification of financial assets and fair values are shown in the table below. The Company has not applied IFRS 9 retroactively. Thus valuation and classification for comparative figures for 2017 are in accordance with IAS 39.

	Group		Parent Company	
Categorisation of financial instruments, SEK, thousands	2018	2017	2018	2017
<b>FINANCIAL ASSETS</b>				
<b>Loans and trade receivables</b>				
Trade receivables – contractual assets	67,574	45,810	48,024	34,081
Cash and cash equivalents – other assets	98,816	127,430	56,560	87,472
<b>TOTAL FINANCIAL ASSETS</b>	<b>166,390</b>	<b>173,240</b>	<b>104,584</b>	<b>121,553</b>
<b>FINANCIAL LIABILITIES</b>				
<b>Other financial liabilities</b>				
Trade payables	3,699	4,987	3,120	4,536
<b>TOTAL FINANCIAL LIABILITIES</b>	<b>3,699</b>	<b>4,987</b>	<b>3,120</b>	<b>4,536</b>

There were no reclassifications between the valuation categories above during the year.  
For financial assets and liabilities with short maturities, the reported values are a reasonable estimate of fair value.

Note 4 continued

	Group		Parent Company	
Net gains/losses for each category of financial instrument SEK, thousands	2018	2017	2018	2017
<b>Loan receivables and trade receivables</b>				
Currency gains	258	267	258	256
Currency losses	-124	-14	–	–
<b>Other financial liabilities</b>				
Currency gains	8,469	5,631	8,326	5,574
Currency losses	-6,343	-4,760	-6,341	-4,760
<b>Total</b>	<b>2,261</b>	<b>1,123</b>	<b>2,243</b>	<b>1,070</b>

## Note 5 Operating income

	Asia & Russia	EMEA & Latin America*	North America	Total
<b>Group, revenue distribution 2018</b>				
Product sales	41,492	127,422	109,161	278,075
Training and other services	3,469	15,008	7,319	25,796
<b>Total</b>	<b>44,961</b>	<b>142,430</b>	<b>116,480</b>	<b>303,871</b>
Performance obligations fulfilled at a certain point in time	37,519	125,236	98,501	261,256
Performance obligations fulfilled over time	7,442	17,193	17,980	42,615
<b>Total</b>	<b>44,961</b>	<b>142,429</b>	<b>116,481</b>	<b>303,871</b>

\*Of which, Sweden 5,464

<b>Group, revenue distribution 2017</b>				
Product sales	37,377	122,874	116,610	276,861
Training and other services	3,383	14,477	7,042	24,902
<b>Total</b>	<b>40,760</b>	<b>137,351</b>	<b>123,652</b>	<b>301,763</b>
Performance obligations fulfilled at a certain point in time	34,820	125,259	109,724	269,803
Performance obligations fulfilled over time	6,047	11,984	13,929	31,960
<b>Total</b>	<b>40,867</b>	<b>137,243</b>	<b>123,653</b>	<b>301,763</b>

\*Of which, Sweden 5,249

	Asia & Russia	EMEA & Latin America*	North America	Total
<b>Parent Company, revenue distribution 2018</b>				
Product sales	34,312	119,091	59,020	212,423
Training and other services	725	7,775	45	8,545
<b>Total</b>	<b>35,037</b>	<b>126,866</b>	<b>59,065</b>	<b>220,968</b>
Performance obligations fulfilled at a certain point in time	30,415	114,850	59,065	204,330
Performance obligations fulfilled over time	4,622	12,016	–	16,638
<b>Total</b>	<b>35,037</b>	<b>126,866</b>	<b>59,065</b>	<b>220,968</b>

<b>Parent Company, revenue distribution 2017</b>				
Product sales	34,886	112,232	71,199	218,317
Training and other services	1,210	6,950	–	8,160
<b>Total</b>	<b>36,096</b>	<b>119,182</b>	<b>71,199</b>	<b>226,477</b>
Performance obligations fulfilled at a certain point in time	32,432	111,388	71,186	215,006
Performance obligations fulfilled over time	3,664	7,794	13	11,471
<b>Total</b>	<b>36,096</b>	<b>119,182</b>	<b>71,199</b>	<b>226,477</b>

\*Of which, Sweden 5,249

Note 5 continued

**Contractual liabilities – performance obligations over time**

MSAB has performance obligations for support and product updates that are fulfilled over a license period. The Company recognises these performance obligations as contractual liabilities, and these

are taken up as revenue on a straight-line basis over the license period. Refer also to the section on revenue in Critical Accounting Principles.

	Group		Parent Company	
	2018	2017	2018	2017
Opening balance, contractual liabilities	43,925	37,761	19,318	16,700
Of opening balance, taken up as revenue during the year	-31,538	-23,224	-12,529	-9,900
Additional contractual liabilities during the year	31,509	29,388	12,441	12,518
<b>Closing balance, contractual liabilities</b>	<b>43,896</b>	<b>43,925</b>	<b>19,230</b>	<b>19,318</b>
<b>Of which</b>				
Current liabilities	34,156	30,256	14,191	12,529
Non-current liabilities	9,740	13,669	5,039	6,789
<b>Total</b>	<b>43,896</b>	<b>43,925</b>	<b>19,230</b>	<b>19,318</b>

**Revenue for remaining performance obligations**

The expectation for revenue for remaining performance obligations as of 31 December, 2018 is as follows:

	Group		Parent Company	
	2018	2017	2018	2017
2018	–	30,256	–	12,529
2019	34,156	10,680	14,191	5,037
2020	7,452	2,820	4,031	1,639
2021 and beyond	2,288	169	1,008	113
<b>Total</b>	<b>43,896</b>	<b>43,925</b>	<b>19,230</b>	<b>19,318</b>

**Distribution of the Group's fixed assets**

The Group's fixed assets are distributed as follows:  
EMEA & Latin America SEK 2,914 (1,961) thousand; Asia & Russia SEK 0 (0) thousand; North America SEK 0 (0) thousand.

**Information on intra-group purchasing and sales**

Purchasing and sales from the Parent Company to other Group companies amounted to SEK 104,559 (114,231) thousand in sales and SEK 0 (0) thousand for purchasing.

**Currency exposure**

Of total consolidated net sales, SEK 258 (267) thousand related to foreign exchange differences attributable to translation of trade receivables. Impact on profit was SEK 2,261 (1,123) thousand.

**Segment reporting**

The Company sells and markets a small number of products which are for the most part packaged and sold to the same customers. The Company's operations and management are organised by function, e.g. development, support, sales and administration, and the Company's internal monitoring is currently at the aggregate level only. Monitoring of geographic areas is only done for sales in respective countries or regions. Against this background, the Group recognises no operating segments in the financial statements.

**Note 6 Disclosure of auditor's fees and expenses**

SEK, thousands	Group		Parent Company	
	2018	2017	2018	2017
Auditing services, Deloitte	340	320	340	320
Other audit assignments, Deloitte	79	–	79	–
Tax consultancy, Deloitte	25	–	25	–
Auditing services, other	124	92	–	–
<b>Total</b>	<b>568</b>	<b>412</b>	<b>444</b>	<b>320</b>

## Note 7 Operational leases

The year's cost for operational leases related to vehicles and rent amounted to SEK 9,062 (7,761) thousand for the Group and SEK 7,710 (6,421) thousand for the Parent Company. At balance sheet

date, the Group had outstanding commitments for non-cancellable operational leases due for settlement as follows:

	Group		Parent Company	
SEK, thousands	2018	2017	2018	2017
Within a year	11,259	7,354	10,047	6,724
Within two to five years	33,677	6,227	31,782	6,227
<b>Total</b>	<b>44,936</b>	<b>13,581</b>	<b>41,829</b>	<b>12,951</b>

## Note 8 Salaries, other remuneration and social fees

	2018		2017	
Average no. of employees	Total	Of which men	Total	Of which men
<b>Parent Company</b>				
Sweden	114	87	99	68
<b>Group subsidiaries</b>				
USA	25	19	21	15
United Kingdom	11	8	9	7
Canada	1	1	1	1
Australia	1	1	1	1
Hong Kong	–	–	–	–
China	2	1	2	1
Singapore	2	2	1	1
Japan	1	1	–	–
<b>Total</b>	<b>157</b>	<b>120</b>	<b>134</b>	<b>94</b>

Gender distribution, senior position holders	Total	Of which men	Total	Of which men
<b>Parent Company</b>				
Board members	5	4	6	5
Other senior position holders	2	2	2	2
<b>Total, Parent Company</b>	<b>7</b>	<b>6</b>	<b>8</b>	<b>7</b>

Salaries and remuneration, SEK, thousands	2018	2017
<b>Parent Company</b>		
Salaries and remuneration	71,592	60,488
Pension expenses	8,830	7,210
Other social fees	21,448	18,687
<b>Total</b>	<b>101,870</b>	<b>86,384</b>
<b>Subsidiaries</b>		
Salaries and remuneration	42,586	36,654
Pension expenses	1,039	788
Other social fees	3,094	2,671
<b>Total</b>	<b>46,719</b>	<b>40,114</b>

Pension expenses relate to the amount recognised as an expense for defined contribution plans in the Income Statement and associated payroll tax.

Note 8 continued

Remuneration: Board, CEO, and senior position holders 2018, SEK, thousands	Salaries / Board fees	Incentive Programmes	Pension expenses	Other benefits	Total
<b>Board:</b>					
Henrik Tjernberg, Board chair	500	–	–	–	500
Jan-Olof Backman, Board member	185	–	–	–	185
Robert Ahldin, Board member	185	–	–	–	185
Katarina G Bonde, Board member	185	–	–	–	185
Carl Bildt, Board member	185	–	–	–	185
<b>Other senior position holders</b>					
Joel Bollö, CEO	3,021	–	471	82	3,575
Other senior position holders (1 person)	2,295	–	467	104	2,866
<b>Total</b>	<b>6,556</b>	<b>–</b>	<b>939</b>	<b>186</b>	<b>7,681</b>

Remuneration: Board, CEO and senior position holders, 2017, SEK, thousands	Salaries / Board fees	Incentive Programmes	Pension expenses	Other benefits	Total
<b>Board:</b>					
Henrik Tjernberg, Board chair	475	–	–	–	475
Örjan Gatu, Board member <sup>1</sup>	–	–	–	–	–
Jan-Olof Backman, Board member	175	–	–	–	175
Robert Ahldin, Board member	175	–	–	–	175
Katarina G Bonde, Board member	175	–	–	–	175
Carl Bildt, Board member	175	–	–	–	175
<b>Other senior position holders</b>					
Joel Bollö, CEO	2,442	–	436	67	2,945
Other senior position holders (1 person) <sup>1</sup>	2,310	–	432	93	2,835
<b>Total</b>	<b>5,927</b>	<b>–</b>	<b>868</b>	<b>160</b>	<b>6,955</b>

1) Örjan Gatu receives no fees for board membership – only remuneration as a member of senior management.

## Remuneration principles

Remuneration to the Board chair and other board members is decided by the AGM. The overall principles for remuneration of senior position holders are based on position, individual performance, consolidated profit, and that remuneration shall be competitive. Total remuneration of senior position holders shall consist of fixed salary, and variable salary in the form of incentives based on performance targets. Additionally, there are conditions governing termination and severance pay. In 2018, Group management comprised one senior position holder and the Chief Executive Officer. All senior position holders were employed for the whole year.

## Variable remuneration

MSAB has a profit-sharing programme whereby five percent of consolidated profit before tax is distributed to employees, excluding the CEO and Deputy CEO. This total includes social fees and the allocation shall not exceed three months of salary.

## Incentive programmes

### Long-term incentive programme 2017–2020

On 10 May, 2017, MSAB's AGM decided to implement a long-term incentive programme for the Company's senior position holders and certain key persons (maximum 20 persons). Participants are invited to subscribe for share warrants at fair market compensation (as per the Black & Scholes method). These entitle the holder to subscribe for new B series shares in the Company during the period 1 June, 2020 up to and including 31 August, 2020 at a price equal to 130 percent of the average volume-weighted closing price for the Company's B series shares for the period 11 May up to and including 24 May, 2017. The maximum number of share warrants that any programme participant is offered shall not exceed 40,000.

### Long-term incentive programme 2018–2021

On 15 May, 2018, MSAB's AGM decided to implement a long-term incentive programme for the Company's senior position holders and certain key persons (maximum 20 persons). Participants are invited to subscribe for share warrants at fair market compensation (as per the Black & Scholes method). These entitle the holder to subscribe for new B series shares in the Company during the period 1 June, 2021 up to and including 31 August, 2021 at a price equal to 130 percent of the average volume-weighted closing price for the Company's B series shares for the period 16 May up to and including 29 May, 2018. The maximum number of share warrants that any programme participant is offered shall not exceed 40,000.

## Pension

The contractual retirement age for the CEO and other senior position holders is 65 years. Pension premiums for the CEO are maximum 22 percent of pensionable salary and follow a defined pension contribution plan. Other senior position holders also belong to a defined pension contribution plan, and for 2018, pension premiums amounted to 16 percent of basic salaries on average. Variable remuneration is not included in pension calculations for the CEO nor for any other senior position holders. All pensions are inviolable, i.e. not conditional upon future employment.

## Severance pay

At year-end 2018, the CEO had a fixed annual salary of SEK 3,240,000. Additionally, the CEO has variable remuneration up to a maximum of 8 months of salary (SEK 2,160,000), which is linked to the Company's targets for growth and profitability. Upon termination, the CEO is entitled to compensation corresponding to one annual salary. The Company pays insurance compensation on severance pay. Severance pay is not offset against other income. When termination of other senior position holders is initiated by the Company, Swedish labour law (LAS) shall apply.



## Note 9 Financial income

	Group		Parent Company	
SEK, thousands	2018	2017	2018	2017
Dividends from Group companies	–	–	–	743
Interest income	159	187	17	74
Currency exchange gains	8 824	5 828	8 680	5 774
<b>Total financial income</b>	<b>8 983</b>	<b>6 015</b>	<b>8 697</b>	<b>6 591</b>

## Note 10 Financial expenses

	Group		Parent Company	
SEK, thousands	2018	2017	2018	2017
Interest expenses	-20	-109	-19	-22
Currency exchange losses	-6 453	-5 048	-6 377	-5 012
<b>Total financial expenses</b>	<b>-6 473</b>	<b>-5 157</b>	<b>-6 396</b>	<b>-5 034</b>

## Note 11 Tax

	Group		Parent Company	
SEK, thousands	2018	2017	2018	2017
Current tax	-7,446	-16,831	-6,040	-6,040
Deferred tax	39	93	–	–
<b>Total reported tax expense</b>	<b>-7,407</b>	<b>-16,738</b>	<b>-6,040</b>	<b>-6,040</b>
<b>Reconciliation of tax for the year</b>				
Profit/loss before tax	35,155	69,628	26,688	60,057
Tax in accordance with tax rate in Sweden, 22%	-7,734	-15,318	-5,872	-13,213
Effect of different tax rates in foreign operations	495	-1,352	–	–
Non-taxable income	–	164	–	164
Non-deductible expenses	-168	-232	-168	-232
<b>Tax expense</b>	<b>-7,407</b>	<b>-16,738</b>	<b>-6,040</b>	<b>-13,281</b>
Average tax rate, %	21,1	24,0	22,6	22,1
<b>Deferred tax in balance sheet</b>				
Temporary difference relating to distribution over time of income in the USA (MSAB Incorporated)	39	93	–	–
<b>Total</b>	<b>39</b>	<b>477</b>	<b>–</b>	<b>–</b>

## Note 12 Earnings per share

Earnings per share before and after dilution is calculated by dividing consolidated profit attributable to the Parent Company's shareholders by weighted number of ordinary shares outstanding during the year. Number of shares is given in thousands.

	Group	
SEK, thousands	2018	2017
Profit/loss for the year after tax, SEK thousands	27,749	52,890
Average no. of shares before dilution, thousands	18,433	18,378
Average no. of shares after dilution, thousands	18,488	18,379
Earnings per share before dilution, SEK	1.51	2.88
Earnings per share after dilution, SEK	1.50	2.88

Dilution derives from the Company's employee share-option programme, where dilution occurs when the exercise price falls below the market price for the period.

## Note 13 Inventory, equipment, fixtures and fittings

	Group		Parent Company	
SEK, thousands	2018	2017	2018	2017
<b>Opening balance, historical cost</b>	<b>8,051</b>	<b>7,722</b>	<b>7,543</b>	<b>7,295</b>
Purchases	1,495	878	1,495	784
Sold/Scrapped	–	-536	–	-536
Currency Exchange difference	–	-13	–	–
<b>Closing balance, accumulated historical cost</b>	<b>9,546</b>	<b>8,051</b>	<b>9,038</b>	<b>7,543</b>
<b>Opening balance, depreciation</b>	<b>-6,405</b>	<b>-5,814</b>	<b>-5,897</b>	<b>-5,519</b>
Planned depreciation for the year	-803	-1,127	-803	-914
Sold/scrapped	–	536	–	536
<b>Closing balance, accumulated depreciation</b>	<b>-7,208</b>	<b>-6,405</b>	<b>-6,700</b>	<b>-5,897</b>
<b>Closing balance, planned residual value</b>	<b>2,338</b>	<b>1,646</b>	<b>2,338</b>	<b>1,646</b>

## Note 14 Intangible assets

	Group		Parent Company	
SEK, thousands	2018	2017	2018	2017
<b>Opening balance, historical cost</b>	<b>2,402</b>	<b>2,402</b>	<b>2,402</b>	<b>2,402</b>
Purchases	–	–	–	–
Sold/scrapped	–	–	–	–
<b>Closing balance, accumulated historical cost</b>	<b>2,402</b>	<b>2,402</b>	<b>2,402</b>	<b>2,402</b>
<b>Opening balance, depreciation</b>	<b>-2,100</b>	<b>-1,970</b>	<b>-2,100</b>	<b>-1,970</b>
Depreciation for the year	-130	-130	-130	-130
Sold/scrapped	–	–	–	–
<b>Closing balance, accumulated depreciation</b>	<b>-2,230</b>	<b>-2,100</b>	<b>-2,230</b>	<b>-2,100</b>
<b>Closing balance, planned residual value</b>	<b>172</b>	<b>302</b>	<b>172</b>	<b>302</b>

## Note 15 Participations in Group

	Parent Company	
SEK thousands	2018	2017
<b>Opening balance, historical cost</b>	<b>13</b>	<b>13</b>
Share capital MSAB Japan K.K.	391	–
<b>Closing balance, accumulated cost</b>	<b>404</b>	<b>13</b>

SEK, thousands	No. shares	Corp. ID number	Capital and voting rights, %	Book value	Domicile	Equity	Profit/loss
Micro Systemation Ltd	1	6783784	100	–	United Kingdom	3,997	2,139
MSAB Incorporated	3,000	33-1211059	100	6	USA	20,375	3,874
Micro Systemation Canada Inc	100,000	850091-6	100	–	Canada	587	106
Micro Systemation Pty Ltd	100	164546632	100	1	Australia	1,680	547
MSAB Pte Ltd	1,000	201617865E	100	6	Singapore	-538	206
Micro Systemation HK Ltd	10,000	1986284	100	–	Hong Kong	-433	-51
– MSAB Technology (Beijing) Co., Ltd		09557804-X	100	–	China	4,117	1,833
MSAB Japan K.K.	100	0104-01-138205	100	391	Japan	191	-209
<b>Total</b>				<b>404</b>			

## Note 16 Trade receivables

	Group		Parent Company	
SEK thousands	2018	2017	2018	2017
Trade receivables	67,674	45,810	48,024	34,081
Reserve for doubtful trade receivables	-100	–	–	–
<b>Total</b>	<b>67,574</b>	<b>45,810</b>	<b>48,024</b>	<b>34,081</b>
<b>Trade receivables, age analysis, SEK thousands</b>	<b>2018</b>	<b>2017</b>	<b>2018</b>	<b>2017</b>
Not yet due	47,062	35,459	38,621	28,289
Overdue 30 days	7,375	7,607	1,931	5,019
Overdue 31–60 days	6,360	482	6,172	413
Overdue 61–90 days	4,157	834	1,028	83
<b>Overdue &gt; 90 days</b>	<b>2,720</b>	<b>1,428</b>	<b>272</b>	<b>277</b>
<b>Total</b>	<b>67,674</b>	<b>45,810</b>	<b>48,024</b>	<b>34,081</b>

Overdue trade receivables amounted to SEK 20,612 (10,351) thousands. Total provisions for doubtful trade receivables amounted to SEK 100 (0) thousands. Established bad debt losses amounted to SEK 0 (0) thousand. It is management's assessment that reported values for trade receivables correspond to fair values. The Company has calculated provisions for bad debt losses with a probability of default, i.e. customers default on payment, based on historical bad debt losses. The Company's customers are essentially law enforcement authorities who pay their liabilities, though delays are not uncommon due to extensive, cumbersome administration. This means that the Company assesses the probability for payment failure

as applied to trade receivables as a whole, as the maturity structure says nothing in and of itself about the risk for non-payment. For 2016 – 2018, the Group had no reported bad debt losses. In 2015, there was a bad debt loss of SEK 32 thousand. This means that relative to average trade receivables that year, bad debt losses were 0.07 percent. This is the basis for calculations of probability for payment failure. Adjustments to this assumption are made if risk is assessed as increasing as sales rise. The Company notes that there was no change in 2018 regarding the type of customer that would justify an adjustment to future probability.

## Note 17 Prepaid expenses and accrued income

	Group		Parent Company	
SEK thousands	2018	2017	2018	2017
Pre-paid rent	229	1 596	229	1,596
Pre-paid insurance premiums	774	827	774	827
Pre-paid inventory purchases	2,922	3,769	2,922	3,769
Accrued income	4,755	4,188	4,755	4,188
Other items	1,685	2,091	1,374	1,945
<b>Total</b>	<b>10,363</b>	<b>12,470</b>	<b>10,053</b>	<b>12,324</b>

## Note 18 Cash and cash equivalents

Cash and cash equivalents comprise only the cash available in the Group's normal bank accounts. Net asset value for these assets is assessed as corresponding to fair value.

## Note 19 Share capital

Share capital amounted to 19,172,000 shares at a nominal value of SEK 0.20.

The Company has three classes of shares. Every share gives equal rights to the Company's assets and profit, but where every share in the A series entitles the holder to ten votes and every share of the B and C series entitle the holder to one vote. The number of shares in series A is 1,000,000 and 17,550,000 respectively. The number of

C shares is 622,000, all of which are held in treasury. Of B shares, 81,596 shares are held in treasury. Micro Systemation's B share has been listed on Nasdaq OMX Stockholm since 27 December, 2011. One trade unit in MSAB is one share.

Other contributed equity consists primarily of share premium reserves.

## Note 20 Accrued expenses and deferred income

	Group		Parent Company	
SEK thousands	2018	2017	2018	2017
Accrued vacation pay	9,300	7,935	9,093	7,768
Accrued bonuses	4,218	8,571	2,900	5,816
Accrued social fees	3,768	4,268	3,768	4,268
Deferred income	47,189	47,752	20,032	20,995
Other items	5,485	1,710	2,430	1,395
<b>Total</b>	<b>69,960</b>	<b>70,236</b>	<b>38,223</b>	<b>40,242</b>

## Note 21 Adjustments for items not included in cash flow

	Group		Parent Company	
SEK thousands	2018	2017	2018	2017
Depreciation	933	1,265	933	1,044
Unrealised foreign exchange rate fluctuations	911	-2,695	–	–
<b>Total</b>	<b>1,844</b>	<b>-1,430</b>	<b>933</b>	<b>1,044</b>
Interest received	92	66		66
Interest paid	–	–	–	–

## Note 22 Dividends

The dividend approved by the AGM and paid out during 2018 amounted to SEK 2.20 per share, totalling SEK 40,432 thousand.

The Board of Directors will propose to the AGM on 15 May, 2019 a cash dividend of SEK 2.2 per share, totalling SEK 40,630 thousand.

## Note 23 Pledged assets and contingent liabilities

	2018	2017
<b>SEK thousands</b>		
<b>Group</b>		
Pledge	1,863	2,849
<b>Total</b>	<b>1,863</b>	<b>2,849</b>
<b>Parent Company</b>		
Pledge	1,863	2,849
<b>Total</b>	<b>1,863</b>	<b>2,849</b>

Pledges relate to a performance guarantee for payment of rent for headquarter offices in Stockholm and a customer guarantee. There are no contingent liabilities.

## Note 24 Appropriation of profit

SEK	2018	2017
<b>Available funds</b>		
Profit brought forward from previous year	30,021,623	17,785,955
Share premium reserve	7,770,400	7,770,400
Profit/loss for the year	20,648,020	46,776,191
<b>Total</b>	<b>58,440,043</b>	<b>72,332,546</b>
Proposed dividend	40,630,489	40,432,489
Transferred to new account	17,809,554	31,900,057
<b>Total</b>	<b>58,440,043</b>	<b>72,332,546</b>

# Approval of financial reports

Micro Systemation AB's (publ) consolidated accounts and annual accounts for financial year 2018 were approved for publication by the Board of Directors and the Chief Executive Officer on 22 April, 2019. The consolidated accounts and the annual accounts will be put before the Annual General Meeting for adoption on 15 May, 2019.

The Board of Directors and the Chief Executive Officer hereby give their assurance that the annual accounts have been prepared in accordance with the Annual Accounts Act and RFR2.2 and that they provide a true and fair view of the Company's financial position and results, and that the Report of the Board of Directors gives a true

and fair view of the Group's business activities, financial position and results, and describes the significant risks and uncertainties to which the Company is exposed.

The Board of Directors and the Chief Executive Officer hereby give their assurance that the consolidated accounts have been prepared in accordance with International Financial Reporting Standards (IFRS), as adopted by the EU, and that they give a true and fair view of the Group's business activities, financial position and results, and describe the significant risks and uncertainties to which the Group is exposed.

Stockholm, 22 April, 2019

**Henrik Tjernberg**  
Chairman of the Board

**Joel Bollö**  
Chief Executive Officer

**Jan-Olof Backman**  
Board member

**Carl Bildt**  
Board member

**Robert Ahldin**  
Board member

**Katarina G Bonde**  
Board member

Our audit report was submitted 22 April, 2019

Deloitte AB

**Erik Olin**  
Authorised Public Accountant



# Auditor's Report

To the Annual General Meeting of Micro Systemation AB (publ), Corporate ID number 556244-3050.

## Report on the annual accounts and consolidated accounts

### Opinions

We have audited the annual accounts and consolidated accounts of Micro Systemation AB (publ) for the financial year 20180101 – 20181231 except for the Corporate Governance Report on pages 4951. The annual accounts and consolidated accounts of the Company can be found on pages 2248 of this document.

In our opinion, the annual accounts have been prepared in accordance with the Annual Accounts Act and present fairly, in all material respects, the financial position of the Parent Company as of 31 December, 2018 and its financial performance and cash flow for the year in accordance with the Annual Accounts Act. The consolidated accounts have been prepared in accordance with the Annual Accounts Act and present fairly, in all material respects, the financial position of the Group as of 31 December, 2018 and its financial performance and cash flow for the year in accordance with the International Financial Reporting Standards (IFRS), as adopted by the EU, and the Annual Accounts Act. The statutory administration report is consistent with other parts of the annual accounts and the consolidated accounts.

We therefore recommend that the Annual General Meeting of shareholders adopts the income statements and balance sheets of the Parent Company and the Group.

Our opinions in this report on the annual accounts and the consolidated accounts are consistent with the content in the supplementary report submitted to the Parent Company's Board of Directors in accordance with Article 11 of the Accountants Ordinance (537/2014).

### Basis for opinion

We conducted our audit in accordance with the 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 relative to 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 means that to the best of our knowledge and belief, no prohibited services as outlined in Article 5.1 of the Accountants Ordinance (537/2014) have been provided to the audited Company, its Parent Company or any companies with controlled interests within the EU.

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

### Key audit matters

Key audit matters are those which in our professional judgement were most significant for the audit of the annual accounts and the consolidated accounts for the period under review. These matters were addressed in the context of our audit of, and in forming our opinion on, the annual accounts and consolidated accounts as a whole, but we do not provide a separate opinion on these matters.

### Revenue recognition

#### Assessment of risk

Net sales for financial year 2018 were SEK 303.9 (301.8) million and were generated primarily from sales of goods, but also of services. We have identified this as a key audit area as the Company's revenue is a significant item that in some cases consists of an amal-

gamation of products and services. If a pledge regarding goods or service meet criteria for being "distinct", then it is a performance undertaking that shall be reported separately from other goods and services in the agreement. Income is recognised when control of underlying goods or services for a performance commitment has been transferred to the customer. Identification of distinct pledges (performance obligations) depends on management's assessment and can have a significant impact on when consolidated sales are reported, which affects consolidated profit and financial position.

For further information, please refer to the Group's accounting principles in Note 2 on page 31 and the section Critical accounting estimates and assumptions for accounting purposes in Note 3 on page 35.

### Our audit measures

Our audit measures included but were not limited to:

- evaluation of the Company's principles for revenue recognition and review of compliance with these for respective material revenue streams
- acquisition of an understanding of essential transaction flows and for these, evaluation of the Company's significant controls for managing the risk for errors in the financial reporting
- for a selection of individual revenue transactions, verification that revenue was reported at the established fair value for each sub-component and in the period when Micro Systemation AB fulfilled its commitments.

### Information other than the annual accounts and consolidated accounts

This document also contains information other than the annual accounts and consolidated financial statements, which can be found on pages 1–21 and 5257. The Board of Directors and the Chief Executive Officer are responsible for this other information.

Our opinion as regards the annual accounts and consolidated annual accounts does not include this information and we offer no opinions to corroborate this other information.

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

If, based on the work performed relative to this other information, we conclude there is a material misstatement, we are required to report this. We have nothing to report in this regard.

### Responsibilities of the Board of Directors and Chief Executive Officer

The Board of Directors and the Chief Executive Officer are responsible for preparation of the annual accounts and consolidated annual accounts, and for ensuring they provide a true and fair view as per the Annual Accounts Act and, for the consolidated annual accounts, in accordance with IFRS as adopted by the EU. The Board of Directors and the Chief Executive Officer are also responsible for the internal controls they deem necessary to ensure that the annual accounts and consolidated annual accounts do not contain any material misstatement, whether due to fraud or error.

In preparing the annual accounts and the consolidated annual accounts, the Board of Directors and the Chief Executive Officer

are responsible for assessment of the Company's and the Group's ability to run as a going concern. They disclose, when appropriate, conditions which can impact the ability to continue operating, and use the going concern assumption on continued operation.

The going concern assumption is not applied, however, if the Board of Directors and the Chief Executive Officer intend to liquidate the Company, cease operation, or have no realistic alternative to do any of this.

### Auditor's responsibilities

Our objective is to achieve a reasonable degree of assurance that the annual accounts and the consolidated annual accounts as a whole do not contain any material misstatement, whether due to fraud or error, and to issue an auditor's report that contains our opinions. Reasonable assurance is a high degree of assurance but is not a guarantee that an audit performed in accordance with ISA and generally accepted auditing standards in Sweden will always detect a material misstatement if such exists. Misstatements can arise from fraud or errors and are considered material if they individually or in the aggregate can reasonably be expected to impact the financial decisions of users who base their decisions on the annual accounts and consolidated annual accounts.

An additional description of our responsibilities for auditing of annual accounts and consolidated annual accounts can be found on the Swedish Inspectorate of Auditors' website: [www.revisorsinspektionen.se/revisornsansvar](http://www.revisorsinspektionen.se/revisornsansvar). This description is part of the Audit Report.

### Report on other legal and regulatory requirements Opinions

In addition to our audit of the annual accounts and the consolidated annual accounts, we also performed an audit of the Board of Directors and the Chief Executive Officer's administration of Micro Systemation AB (publ) for the financial year 20180101 – 20181231, and for the proposed appropriation of the Company's profit or loss.

We recommend that the Annual General Meeting of shareholders appropriates the profit in accordance with the proposal in the statutory administration report, and that the members of the Board of Directors and the Chief Executive Officer be discharged from liability for the fiscal year.

### Basis for opinions

We conducted the audit in accordance with generally accepted accounting 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 according to these requirements.

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

### Responsibilities of the Board of Directors and Chief Executive Officer

The Board of Directors is responsible for the proposal for appropriation of the Company's profit or loss. In the event of a proposed 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 Parent

Company's and the Group's equity, capital, consolidation requirements, liquidity and financial position in general.

The Board of Directors is responsible for the Company's organisation and for the administration of the Company's affairs. This includes among other things continuous assessment of the Company's financial situation and ensuring that the Company's organisation is designed so that accounting, management of assets, and the Company's financial affairs are otherwise controlled in a reassuring manner. The Chief Executive Officer shall manage the ongoing administration in accordance with the Board of Directors' guidelines and instructions, including taking necessary measures to ensure that the Company's accounting is conducted in full compliance with the law and that assets are managed in a reassuring manner.

### Auditor's responsibilities

Our objective as regards the audit of the administration, and hence our opinions on discharge of liability, is to obtain audit evidence to assess with a reasonable degree of assurance whether any member of the Board of Directors or the Chief Executive Officer in any material respect has:

- undertaken any action or been guilty of any negligence which can give rise to liability for the Company, or
- in any way acted in contravention of the Companies Act, the Annual Accounts Act, or the Articles of Association.

Our objective with the audit of the proposed appropriation of the Company's profit or loss, and thereby our opinion on this, is to assess with a reasonable degree of assurance whether the proposal complies with the Companies Act.

Reasonable assurance is a high level of assurance but is not a guarantee that an audit performed in accordance with generally accepted auditing standards in Sweden will always detect measures or negligence that can lead to liability for the Company, or whether the proposal for the appropriation of the Company's profit or loss does not comply with the Companies Act.

A further description of my (our) responsibility for auditing the administration can be found on the Swedish Inspectorate of Auditors' website: [revisorsinspektionen.se/revisornsansvar](http://revisorsinspektionen.se/revisornsansvar). This description is part of the audit report.

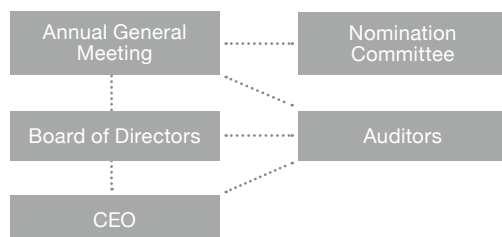
Deloitte AB was appointed as Micro Systemation AB's auditor at the Annual General Meeting held 20170510 and has been the Company's auditor since 20090507.

Stockholm, 22 April, 2019  
Deloitte AB

Erik Olin  
Authorised Public Accountant

# Corporate Governance Report

As of 1 December, 2016, MSAB applies the revised Swedish Corporate Governance Code. Corporate Governance in MSAB is based on Swedish legislation, and the regulations and recommendations as set out by relevant organisations such as the Swedish Corporate Governance Board, Nasdaq Stockholm, the Swedish Securities Council, and others. Corporate Governance is conducted through the AGM, the Board of Directors ("the Board") and the Chief Executive Officer (CEO). The Company's auditors, appointed by the AGM, review the financial statements and the administration of the Company as conducted by the Board and CEO. The Nomination Committee prepares proposals to the AGM on the election and remuneration of the Board and auditors. The Code is built on the principle comply or explain, which means that a Company that applies the Code may deviate from its provisions provided that each deviation can be explained in a satisfactory manner.



## Annual General Meeting (AGM)

The AGM is the Company's highest decision-making body. The Company complies with the Swedish Companies Act with regards to how the AGM is organised, how shareholders exercise their rights, and what decision-making powers the AGM has. The AGM was held on 15 May, 2018 at Spårvagnshallarnas' premises in Stockholm. Decisions taken at the AGM included:

- adoption of the income statement and balance sheet as reported in the annual report, and discharge of board members and the CEO from liability.
- approval of proposal for a dividend of SEK 2.20 per share.
- re-election of Henrik Tjernberg as Board chair, and re-election of Katarina G. Bonde, JanOlof Backman, Carl Bildt and Robert Ahldin as Board members.
- re-election of Deloitte AB with Erik Olin as Auditor-in-Charge for the period up to the conclusion of the next AGM.
- adoption of the Nomination Committee's proposal for non-employee board member remuneration in the amount of SEK 185,000 and SEK 500,000 to the Board chair.
- adoption of the Board's proposal for remuneration of senior position holders.
- adoption of the Board's proposal on the Long-term Incentive Programme 2018-2021, and the Board's proposal on the issuance of share warrants in accordance with the Long-term Incentive Programme 2018-2021.
- adoption of the Board's proposal authorising the Board to make decisions regarding issuance of shares, share warrants and convertibles.
- adoption of the Board's proposal authorising the Board to make decisions on transfer of shares held in treasury.
- re-election of Henrik Tjernberg and Joakim Dal as members of the Nomination Committee. Erik Hermansson was appointed Nomination Committee chair.

Complete minutes from the AGM are available on the Company's website: [msab.com](http://msab.com).

## Share ownership

The Company's B share (MSABB) are listed on Nasdaq Stockholm. The total number of shareholders as of 31 December, 2018 was 2,974. At the end of the period, Henrik Tjernberg held shares or votes exceeding 10 percent.

## Nomination Committee

The Nomination Committee is elected by the AGM. At the 2018 AGM, Erik Hermansson, Henrik Tjernberg and Joakim Dal were re-elected to the committee. The Nomination Committee is responsible for preparing proposals for fees for the AGM chair, board chair and board members and auditors, and for preparing proposals for procedures for the Nomination Committee itself. Shareholders who wish to submit proposals to the Nomination Committee can do so via email to: [valberedning@msab.com](mailto:valberedning@msab.com).

## The Board and its work in 2018

The Board consisted of five members as elected by the AGM. The Board is ultimately responsible for how the Company is organised and for administration of the Company's affairs. Information about the business and its financial status is provided regularly at Board meetings. As part of the internal control of financial information, the Board reviews financial year-end reports, interim reports and annual reports, and poses control questions on process descriptions and ways of working prepared by senior management. The CEO and the Board chair communicate frequently regarding the business. The Board is also responsible for ensuring that appropriate policies are drawn up and implemented within the organisation. The distribution of tasks between board members, the Board chair and CEO are clarified in the following written instructions:

- the Board's Procedural Plan;
- distribution of tasks between the Board and CEO;
- instructions for the CEO.

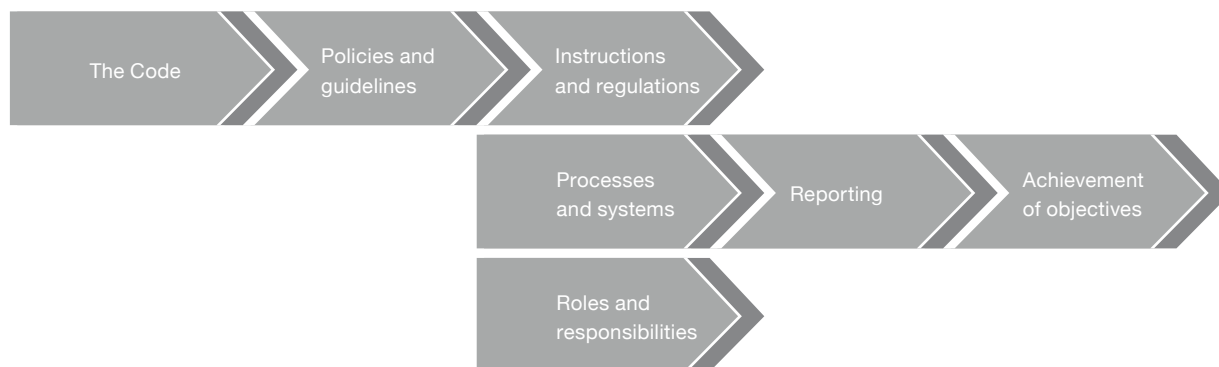
## Evaluation of Board and CEO performance

The Board, excluding members who are part of operational management, evaluates on a continuous basis the performance of the CEO within the framework of routine Board work. Board evaluation has been accomplished partly through the Chairman's reporting to the Nomination Committee on the Board's work and its way of functioning, and partly through surveys compiled jointly by the Board and completed by each board member. Great emphasis is placed on following up on former high-profile issues and on continuity in the change and improvement work. When necessary, complementary, in-depth interviews of individual board members are conducted. The results have provided a basis for the Nomination Committee's on-going work and have to some extent been reported back to the Board. The Board met nine times in Stockholm in 2018 with attendance as follows:

Board 2018	Board Function	Elected	Independent	Attendance board meetings
Henrik Tjernberg	Board Chairman	1986	No	9 of 9
Jan-Olof Backman	Member	1999	Yes	9 of 9
Örjan Gatu*	Member	1999	No	4 of 4
Katarina G Bonde	Member	2011	Yes	8 of 9
Robert Ahldin	Member	2013	No	9 of 9
Carl Bildt	Member	2016	Yes	4 of 9

\* Left the Board in conjunction with the 2018 AGM.

## Corporate Governance



### Board independence

The Board considers itself independent relative to major shareholders, management and the Company except for Board chair Henrik Tjernberg, whose voting rights exceed 10 percent, and Board member Robert Ahldin whose shareholdings and voting rights stand at 9 percent but were 10 percent until September 2018. The Board has not established special committees for remuneration as the Company and Board employ relatively few people, and these are handled entirely by the Board. In 2018, the Company did, however, establish an audit committee consisting of Henrik Tjernberg and Katarina Bonde.

The Board has discussed the Company's focus, product development, growth, future strategy and other significant operational issues. MSAB works actively with targets set by the Board, which are communicated to operational units via the CEO and management.

### Senior management

The CEO is responsible for preparing and implementing MSAB's strategies for achieving agreed targets. The CEO leads regular meetings with operational management teams, and with a team dedicated to product development issues. Meetings are also regularly convened for the entire Company, or certain departments, to disseminate information and review activities with the Company's employees.

### Auditors

At the 2018 AGM, the audit firm Deloitte was re-elected as the Company's external auditor for the period up to the next AGM. Erik Olin is the responsible Auditor-in-Charge. The auditor reports its conclusions to the Board and the Audit Committee annually and meets with the Board without management presence in accordance with the Swedish Corporate Governance Code.

### Internal control

The Board has overall responsibility for effective internal control of the Company. The CEO is responsible for ensuring there is a process and organisation that assures internal control and the quality of the financial reporting to the Board and the market. The essential components of the Company's internal control structure are the control environment itself, risk assessment, control activities and monitoring.

### Control environment

The basis for MSAB's control environment is the Company's established corporate culture. MSAB works actively to communicate the Company's values to ensure that a high level of morals, ethics and integrity permeate the organisation.

The backbone of internal control is built on the Company's guidelines, instructions, policies and the accountability and authority structure adapted to the organisation. During the year, the Board established a Code of Conduct to ensure good behaviour vis-à-vis customers, suppliers, employees and other stakeholders, and to ensure the Company's long-term value creation. The Group-wide ERP system has been upgraded and to some extent integrated into the Company's Group-wide CRM system. This is to streamline the sales process, reduce the need for manual actions, and contribute to strengthening the internal control environment.

### Risk assessment

Risks relating to the financial reporting are evaluated and monitored continuously by the Board and management. Risk assessments are made at both the Company and functional level for critical processes, including the IT environment. The Company's accounting is characterised by precautionary principles and management strives to limit financial risk. It is management's goal that even the Company's IT environment shall be reliable and risk-minimised, and that the Company's business systems are appropriate given the nature of the Company's operations. The Company strives for strong control of the production flow, including that all development and design takes place within the Company's organisation, and that all designs are proprietary. The Company is not dependent upon any single supplier, although some production is external. MSAB's operations are affected by several business risks which impact the Company's earnings and financial strength. When assessing future trends, it is important to weigh opportunities for growth in profitability against the risks. The most significant risks identified relating to business operations are currently:

- Exposure in various foreign currencies. The value of the Swedish krona relative to applicable currencies fluctuates, which creates uncertainties in forecasts of future income in Swedish kronor.
- More than 90 percent of the Company's total sales are for export, while approximately 60 percent of expenses are in Swedish kronor.
- Competition for customers is intensifying, and the Company works continuously with product improvements and packaging to meet customer requirements for the best tools.

- The speed of technological development and the launch rate of new and more advanced mobile phones places even greater demands on development resources.

### Control activities

Several control activities are applied in the on-going business processes to ensure that any errors or deviations in the financial reporting are prevented, detected, and corrected. The goal is to have an authorisation structure where the same individual cannot perform and control the same task. Finance personnel are also involved in on-going dialogues with subsidiaries and conduct visits to follow-up and ascertain that routines and policies are adhered to in accordance with Group management instructions.

### Monitoring

The CEO reports monthly to the Board through a report covering the consolidated earnings trend compared to the previous year and the budget, as well as the consolidated financial position. MSAB has no particular audit function or internal audit as the Company is relatively small, and the Board's opinion is that the Company's business model, current structure and scope do not require such a function. This function is instead performed by Group management and the Group's finance department, with support from the external auditors. An on-going dialogue takes place between the Company and its external auditor, and those controls performed by Group management are currently assessed as adequate to evaluate whether the internal control is of a good standard. This assessment is continually evaluated and will be examined again in 2019.

### Remuneration of Board of Directors and senior position holders

The Nomination Committee prepares proposals for remuneration of the Board and these fees are decided by the AGM and paid to board members who are not Company employees. Amounts of remuneration to the Board by fiscal year are reported in Note 8.

### Remuneration principles

The Board chair and other board members receive remuneration as decided by the AGM. Overall principles guiding remuneration to senior position holders are based on position, individual performance, consolidated profit, and that remuneration shall be competitive. Total remuneration to senior position holders shall consist of fixed salary and variable salary based on attainment of performance targets. Additionally, there are conditions governing termination and severance pay. Group management in 2018 comprised one senior position holder and the CEO. All senior position holders were employed throughout the entire year.

### Long-term Incentive Programme 2017–2020

On 10 May, 2017, MSAB's AGM decided to implement a long-term incentive programme for the Company's senior position holders and certain key persons (maximum 20 persons). Participants are invited to subscribe for share warrants at fair market compensation (as per the Black & Scholes method). These entitle the holder to subscribe for new B series shares in the Company during the period 1 June, 2020 up to and including 31 August, 2020 at a price equal to 130 percent of the average, volume-weighted closing price of the Company's B series shares during the period 11 May up to and including 24 May, 2017. The maximum number of shares that any programme participant is offered shall not exceed 40,000.

### Long-term Incentive Programme 2018–2021

On 15 May, 2018, MSAB's AGM decided to implement a long-term incentive programme for the Company's senior position holders and certain key persons (maximum 20 persons). Participants are invited to subscribe for share warrants at fair market compensation (as per the Black & Scholes method). These entitle the holder to subscribe for new B series shares in the Company during the period 1 June, 2021 up to and including 31 August, 2021 at a price equal to 130 percent of the average, volume-weighted closing price of the Company's B series shares during the period 16 May, 2018 up to and including 29 May, 2018. The maximum number of shares that any programme participant is offered shall not exceed 40,000.

### Pension

The contractual retirement age for the CEO and other senior position holders is 65 years. Pension premiums for the CEO are calculated at a maximum of 22 percent of pensionable salary and follow a defined pension contribution plan. Other senior position holders also belong to a defined pension contribution plan, and pension premiums for 2018 were on average up to 16 percent of basic salaries. Variable remuneration is not included in pension calculations for the CEO nor for any other senior position holders. All pensions are inviolable, i.e. not conditional upon future employment.

### Severance pay

At year-end 2018, the CEO had a fixed annual salary of SEK 3,240,000 and variable remuneration of a maximum of 8 monthly salaries (SEK 2,160,000). Upon termination, the CEO is entitled to compensation corresponding to one year's fixed salary. The Company pays insurance compensation on severance pay. Severance pay is not offset against other income. When termination of other senior position holders is initiated from the Company's side, Swedish labour law (LAS) shall apply.

### Auditor's report on the Corporate Governance Report To the Annual General Meeting of shareholders in Micro Systemation AB (publ), Corp. ID no. 556244–3050

The Board of Directors is responsible for the Corporate Governance Report and for ensuring that it has been prepared in accordance with the Annual Accounts Act. As a basis for opinion on whether the Corporate Governance Report has been prepared and is consistent with the annual accounts and consolidated accounts, we have read the Corporate Governance Report and assessed its statutory content based on our knowledge of the Company. In our opinion, the Corporate Governance Report has been prepared in accordance with, and its statutory content is consistent with, the annual accounts and the consolidated accounts.

Stockholm, 22 April, 2019

Deloitte AB  
Erik Olin  
Authorised Public Accountant



# The Board of Directors



**Henrik Tjernberg**

Board chair  
Independent in relation to the Company and senior management. Not independent in relation to major shareholders.

**Born:** 1960

**Education:** Studied at KTH

**Current employment:** Investor Relations Advisor

**Board member:** 1986–2002

**Board chair since:** 2002

**Shareholdings as of 2019–04–22:**

865,000 A shares; 55,522 B shares

**Other Board assignments:** Board chair, Tjernkraft AB and Flowscape Technology AB; Board deputy, SpinnY AB.



**Katarina G Bonde**

Board member  
Independent in relation to the Company, senior management and major shareholders.

**Born:** 1958

**Education:** M.Sc. Engineering, KTH and studied economics at Stockholm University  
**Current employment:** CEO, Kubi LLC.

**Previous positions:** CEO, UniSite Software Inc; CEO, Captura International; VP Sales and Marketing, Timeline Software Inc; Head of Marketing, Dun & Bradstreet Software Inc; CEO, Programator Industri AB.

**Board member since:** 2011

**Shareholdings as of 2019–04–22:** 0

**Other board assignments:** Board chair, Opus Group AB, Propellerhead Software AB, Imint AB and Mentimeter AB; Board member, Mycronic AB, Allihooopa AB, Ysäter AB, Birger Jarl Securities AB and Stillfront Group AB.



**Robert Ahldin**

Board member  
Independent in relation to the Company, senior management and major shareholders  
**Born:** 1971

**Education:** Studied economics at Eckerd College, FL, USA

**Current employment:** Partner GP Bullhound investment company Edastra, Rite Internet Ventures, Arctic Ventures and stockbroker at Remium. Began career in 1995 as a financial analyst at Matteus Fondkommission.

**Board member since:** 2013

**Shareholdings as of 2019–04–22:**

135,000 A shares; 1,143,592 B shares

**Other board assignments:** Board chair, Verderol AB and Edastra AB; Board member, Matsmart in Scandinavia AB and Edastra Venture Capital AB.



### Jan-Olof Backman

Board member

Independent in relation to the Company, senior management and major shareholders.

**Born:** 1961

**Education:** M.Sc. Engineering, KTH and University of Washington.

**Current employment:**

Self-employed

**Previous positions:** Senior positions at Coor Service Management and McKinsey & Company.

**Board member since:** 2002

**Shareholdings as of 2019-04-22:** 80,000 B shares held privately and through Company

**Other board assignments:** Board member, Vasakronan AB, Logent Holding AB, AB Torgfastigheter, J & R Backmans Fastighets and Företagsutveckling Aktiebolag, Byggnads Aktiebolaget O. Tjärnberg and several 24Storage companies and several housing co-operatives



### Carl Bildt

Board member

Independent in relation to the Company, senior management and major shareholders

**Born:** 1949

**Education:** Stockholm University

**Current Employment:** Chair, Global Commission Internet Governance; CoChair

European Council on Foreign Relations;

Senior Advisor, Wallenberg Foundations

**Previous positions:** Prime Minister; Foreign Minister; Member of Parliament

**Board member since:** 2016

**Shareholdings as of 2019-04-22:** 0

**Other board assignments:** Fastator AB, Bildt Global AB and Point Properties AB

# CEO and operational management

## CEO and President

### Joel Bollö

**Born:** 1968  
**Education:** Engineer  
**Current position:** CEO and President  
**Previous assignments:** CEO DLX AB (own company); Key Account Manager, Netwise AB  
**Shareholdings as of 2019-04-22:** 54,222 B shares



## Deputy CEO

### Örjan Gatu

**Born:** 1971  
**Education:** Technical secondary education  
**Current position:** Deputy CEO, has worked with development at MSAB since 1994  
**Shareholdings as of 2019-04-22:** 102,908 B shares



## CFO

### Henrik Bergentoft

**Employed:** 2016  
**Previous experience:** CFO in several listed companies.



## Deputy Officer

### Mike Dickinson

**Employed:** 2009  
**Previous experience:** Management positions at Mouchel and Reliance; former police officer and naval officer.



## Sales Manager EMEA & Asia

### Mikael Falkovén

**Employed:** 2017  
**Previous experience:** Several senior positions at SAAB and several years in the Swedish Armed Forces.



## CTO

### Joakim Grundvall

**Employed:** 2017  
**Previous experience:** Management positions at Dice and Klarna.



## CMO

### Steele Hays

**Employed:** 2017  
**Previous experience:** Marketing manager in several technology companies including Wynyard and DellSecure Networks.



## President North America

### Glenn Hickok

**Employed:** 2014  
**Previous experience:** Several senior positions at Cross Match Technologies; several years in the US army.



## HR

### Susanne Jegendal

**Employed:** 2009  
**Previous experience:** Finance positions at ÅF (Steam-boiler Assoc.) and Combra AB.



## CPO

### Bradley Sipes

**Employed:** 2016  
**Previous experience:** Management positions at Ericsson and Verizon and self-employed as consultant.



## COO

### Per-Olof Stark

**Employed:** 2018  
**Previous experience:** Management positions at Cisco Systems, PacketFront, Fujitsu and Oracle.

# Information for shareholders

## Financial information

Annual and interim reports and other information communicated through press releases can be ordered from Micro Systemation AB, Hornsbruksgatan 28, 117 34 Stockholm. Tel: +46 (0) 739 0270 Email [info@msab.com](mailto:info@msab.com) or visit [msab.com](http://msab.com).

## Dividend

The Board proposes that the AGM approve a dividend of SEK 2.2 per share totalling SEK 40.6 million. The record date for dividends is 17 May and dividends will be paid out on 22 May.

## AGM 2019

The 2019 AGM will be held at Konferens Spårvagnshallarna's premises at Birger Jarlsgatan 57A, Stockholm, Wednesday, 15 May, 2019 at 18.00.

## Right to participate

Shareholders in Micro Systemation AB (Publ), Corporate ID no. 5562443050, who wish to participate at the AGM must be registered in Euroclear Sweden AB's shareholder register by 9 May as per the instructions below.

## Registration

Registration to participate must have been received by the Company latest, Thursday, 9 May, 2019 at 24:00, via the form available at [msab.com](http://msab.com), by telephone +46 (8) 402 9075, weekdays 9.00–16.00 or by letter to the following address: Micro Systemation AB, AGM 2019, c/o Euroclear Sweden AB, Box 191,

SE-101 23 Stockholm. A notice to participate received in any other manner will not be accepted. Notification of participation shall include name, personal ID or organisation number, address, telephone number, and the name of any advisor who may attend. Proxy forms, registration certificates and any other authorisation documentation should be provided to the Company at the address above latest 9 May, 2019 to facilitate entry to the AGM.

## Shares registered through an equity manager

To participate at the AGM, shareholders with shares registered by their equity manager must temporarily re-register their shares in their own name with Euroclear Sweden AB. Shareholders who wish to re-register their shares must advise their equity manager in good time and before 9 May for the re-registration to be finalised in time.

## Notice to convene the AGM

A notice to convene will be issued latest four weeks before the AGM in Post and Inrikes Tidningar and will also be available on the Company's website [www.msab.com](http://www.msab.com). Additionally, an advertisement will be placed in Svenska Dagbladet that the notice has been issued.

## Shareholders may contact

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[henrik.bergentoft@msab.com](mailto:henrik.bergentoft@msab.com)

# Addresses

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Beijing  
China

## Micro Systemation HK Ltd

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Wanchai  
Hong Kong

## MSAB Pte Ltd (Singapore)

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Singapore 238164  
Singapore

## MSAB Japan Ltd.

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Minato-ku, Tokyo  
Japan

# History

## 1984

Bo Ericsson founds MSAB, a company focussed on advanced data communication. The current Board chair Henrik Tjernberg is employed the following year.

## 1998

The first GSM-related product, SoftGSM, an entirely software-based GSM modem, is launched. At the same time, the Company releases a new share issue and an informal listing takes place.

## 1999

The Company is listed on NGM (formerly SBI). An OEM agreement with Option International is signed. During June and July 1999, over 10,000 units of SoftGSM are sold.

## 2000

Launch of SoftNet, which facilitates connection of laptops to the internet automatically via cable, wireless or GSM mode

## 2002

Joel Bollö succeeds Henrik Tjernberg as CEO and initiates discussions with the Swedish police regarding the need for systems for retrieval of data from mobile phones.

## 2003

SoftGSM and a subsequent product called SoftNet are consolidated under the name Mobile Communication Suite. The first version of SoftGSM XRY is sold

## 2004

A new share issue of SEK 10 million is used to finalise and begin selling the XRY system, which is launched globally and is the first product within the field of mobile forensics.

## 2005

The Company receives orders for XRY, including from Germany and Austria. MSAB launches the first training in the field of forensics focusing on the preservation of evidence from mobile phones.

## 2006

MSAB reports a profit of just over SEK 10 million. XRY is described in Fortune Magazine in an article entitled "How to get the most out of a mobile phone". Version 3.0 of XRY makes it possible to create reports in local languages.

## 2007

MSAB records sales of over SEK 50 million and reports a net profit of SEK 23 million, corresponding to growth of 93 percent. 2007 is the first year with new launch plans involving five product updates per year. XRY now supports 500 phone models. MSAB is the successful bidder on a tender issued by the French Ministry of the Interior and receives a large order.

## 2008

XRY is the de facto standard within mobile forensics. The complementary product XACT, which can also recover deleted information, is launched. Dagens Industry awards MSAB the Gazelle Company of the Year, which recognises the fastest growing company. The Company makes Technology Fast 500's list for demonstrating sustainable profitability and strong growth for at least five consecutive years. A subsidiary is established in the USA. The AGM decides to distribute dividends of SEK 11.5 million to shareholders.

## 2009

The Company opens offices in Washington, DC and establishes itself in other key markets such as the UK, Australia and Asia. A three-year framework agreement with the French Ministry of the Interior is signed and one of the Company's largest orders follows. The AGM decides to distribute dividends of SEK 11.5 million to shareholders.



## 2018

The number of mobile devices and apps supported by XRY grows steadily to 26,000+. XRY Drone is introduced and XAMN 4.0 and XAMN Horizon are launched, with time-saving functions for presenting and analysing mobile data. A new subsidiary is established in Japan.

## 2017

XEC Director and XAMN Elements are launched. MSAB announces a partnership with Nuix, a manufacturer of a market-leading digital criminal investigative platform. XAMN Spotlight 2.0 is launched, which allows users to analyse extracted data more quickly and with greater precision. New updates expand XRY support for additional mobile devices including drones.

## 2016

MSAB launches a whole new concept within mobile forensics - The MSAB Eco-system. The AGM decides to distribute dividends of SEK 40.4 million to shareholders. A new subsidiary is established in Singapore. A new version of XRY is launched. A single, large order worth SEK 11 million is received from Asia. MSAB and Berla, a leading global actor within automotive-related criminal technology, enter into a strategic collaboration.

## 2015

The Company launches a new graphic profile and is henceforth known as MSAB. An updated version of XRY Kiosk is launched, followed by a major order from Metropolitan Police Services in London. The AGM decides to distribute dividends of SEK 17.9 million to shareholders.

## 2014

A subsidiary is registered in China, which makes possible local sales through distributors. XRY Tablet is launched – as a complement to staff working in the field. The AGM decides to distribute dividends of SEK 1.7 million to shareholders.

## 2013

XRY Kiosk, a stationary solution that allows for fast, simple data extraction, is launched. New offices are established in Canada and Australia. The Company wins several significant contracts in Russia during the year. The AGM decides to distribute dividends of SEK 10.6 million to shareholders.

## 2012

MSAB presents XAMN, an entirely new product which significantly improves customers' ability to analyse large quantities of data from several sources. The Company sets up in Russia, Brazil and China. The AGM decides to distribute dividends of SEK 17.7 million to shareholders.

## 2011

MSAB announces its intention to start preparing to list the Company on Nasdaq Stockholm, with completion in December. During the year, the Company receives a couple of additional orders from a major governmental organisation in the USA and from the French Ministry of the Interior. In June, the Company receives a strategically critical order from the FBI. The AGM decides to distribute dividends of SEK 14.2 million to shareholders.

## 2010

During the second half of the year, an American authority orders Field Version II valued at SEK 50 million. Financial goals are presented: 25 percent growth and an operating margin of 25 percent over a three-year period. The AGM decides to distribute dividends of SEK 17.7 million to shareholders.

MSAB