Bactiguard
Infection prevention | Saving lives

Annual report 2018

The annual report is available both in Swedish and English. The Swedish version is the original, which has been audited by Bactiguard's auditors, and then translated into English.

Content

Company presentation

Financial reporting

Key ratios 2018

Revenues	163.2 MSEK
EBITDA	22.2 MSEK
EBITDA margin	14%
Total assets	587.5 MSEK
Equity ratio	63%
Earnings per share	-0.45 MSEK

Year in brief

CE mark opens the door to billion-dollar market

Orthopaedic trauma implants with Bactiguard's coating have been CE marked and can now be sold. It is a major breakthrough that opens up for new license business. Page 17

Agreement for China worth more than SEK 30 million

Bactiguard accelerates its ambitions in China through a combined distribution and license agreement with Well Lead Medical at an initial value of more than SEK 30 million. Page 15

Bactiguard Employer of the Year

Bactiguard received Sweden's most important labour market award, which is awarded to companies who lead the way by creating opportunities for people with disabilities. Page 21

Top-ranked for equality

With its 50 percent women in the management team and two female board members, Bactiguard advanced during 2018 on Allbright's list of the most equal listed Swedish companies on Nasdaq Stockholm. Page 22

New collaboration in the Nordics & Benelux

Bactiguard has initiated a collaboration with Mediplast in the Nordics and the Benelux countries aiming to adress more markets more efficiently. Page 15

New partnership for Germany

Bactiguard has entered a new partnership with Asid Bonz GmbH through an exclusive distribution agreement for Germany, including all products in Bactiguard's portfolio. Page 15

Product approval in Egypt

Bactiguard's Foley catheters have been approved for sale in Egypt This opens new opportunities in the most populous country in the region. Page 15

Success in Swedish tenders

Bactiguard won its first Swedish tender for central venous catheters (CVC), covering the Skåne region. Our urinary catheters are today procured through tenders covering approx. 70 % of the Swedish population. Page 4

An eventful and exciting year with strong growth in BIP sales

2018 was an exciting and eventful year for Bactiguard as we reached several important milestones. I particularly want to highlight the strong growth in sales of our own product portfolio for infection control (BIP portfolio), the distribution and license agreement with Well Lead for China and the CE mark for orthopaedic trauma implants, which broadens the applications for Bactiguard's technology.

Our primary focus in 2018 was to generate growth through increased sales of the BIP portfolio and by new license agreements, which we succeeded in.

Healthcare associated infections is one of the most common causes of death in the Western world and leads to four deaths every day in Sweden alone. This is serious as increasing antibiotic resistance makes the infections more difficult to treat. In Agenda 2030 for Sustainable Development, preventing antibiotic resistance is an important part of the work against global health threats. Therefore, it is encouraging that sales of the BIP portfolio almost doubled. It reflects that the need for infection prevention is increasing in healthcare and that our technology is gaining ground across the world, not least in China. In addition to increased sales of our catheters for infection control, the agreement with Well Lead (one of the world's largest catheter manufacturers) means that we have established a new license business. In a few years' time, we will thereby broaden the product range in the Chinese market to include our entire product portfolio, which will generate new license revenues.

The CE mark for orthopaedic trauma implants, which was secured in December 2018, is a breakthrough for Bactiguard. We already have a product portfolio that prevents infections in the urinary tract, the respiratory tract and in the blood stream. Now we take another big step. This is the first time our technology has been approved for use on metal implants intended to stay in the patient's body for many months, up to several years and sometimes lifelong.

This clearly shows that the technology is safe for patients. At the same time, it opens the door to the global market for trauma implants, with an annual turnover exceeding USD 5 billion and therefore an important growth area for us. Our current

license agreement with Vigilenz is limited to Southeast Asia. Our highest priority is therefore to establish new license deals in this application area, covering the major global markets.

BIP sales were strongest in China and we delivered products at a value of just over SEK 20 million in 2018. This is more than a doubling compared to the year before. India and Europe, primarily Germany and Sweden, also generated growth. Through our partnership with Mediplast, we expect to gain greater leverage from the Swedish tenders we have won and faster growth in the other Nordic and Benelux countries. The Middle East experienced an interim year, mainly due to delayed product registrations which are now in place.

The license business with our largest customer BD is stable and the agreement with Well Lead generated new license revenues, although not in line with the new license revenues in 2017.

Earnings and margins were lower than the year before despite the strong growth in BIP sales. This is primarly because we took considerable costs to terminate the previous distribution agreement for China and made write-downs of accounts receivable in Iraq. The decision to change partner in China is strategically right and will strengthen our long-term profitability.

The disposal of accounts receivable also affected earnings but provides a positive cash flow in early 2019. If we adjust for one-off costs, the EBITDA margin was at par with 2017.

Finally, I want to share how proud and happy I am that Bactiguard was acknowledged as one of the most equal listed Swedish companies and received the "Visa vägen" award as Employer of the Year 2018. It is evident that our work with sustainability and an inclusive leadership contribute to us as a company, our employees and the society at large.

In 2018 we reached several important milestones. We now look forward to an equally exciting and eventful 2019, with even greater leverage from our technology and the investments that lie behind us. As we develop our business we increase patient safety, prevent suffering and save more lives and thereby contribute to a more sustainable development.

Christian Kinch, CEO

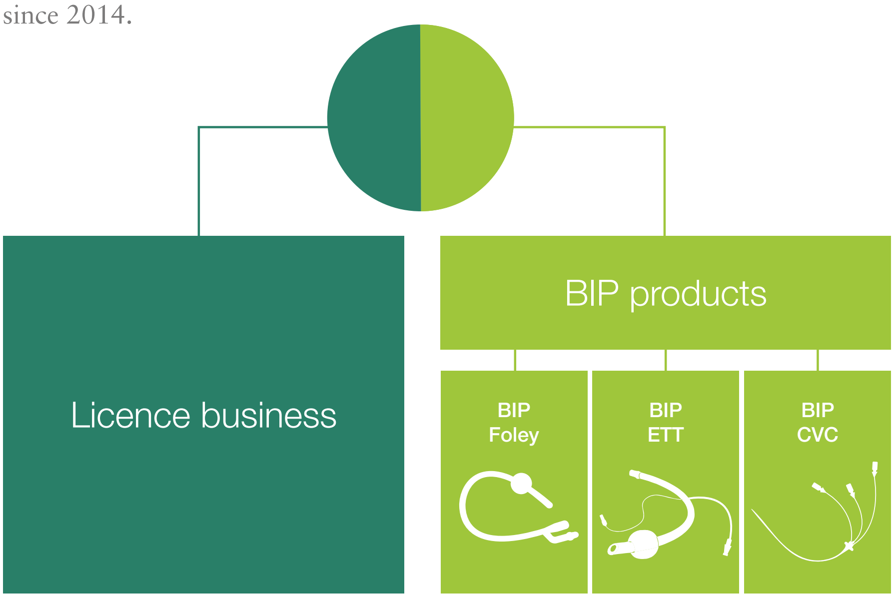
With the mission to save lives

Bactiguard is a Swedish medical device company with a mission to increase patient safety and save lives. To achieve this mission, we develop and supply infection preventive solutions which reduce the risk of healthcare associated infections and the use of antibiotics. This, in turn, contributes to a more sustainable development through reduced spread of antibiotic resistance.

With Bactiguard's infection prevention solutions we increase patient safety and reduce suffering. At the same time hospital stays are shortened which save significant resources and costs for the healthcare systems and society at large.

The Bactiguard technology prevents bacterial adhesion and biofilm formation on medical devices. The technology is offered through license agreements with other medical device manufacturers and our proprietary BIP (Bactiguard Infection Protection) portfolio of products. Through our license partner BD (following their acquisition of C.R. Bard), urinary catheters with Bactiguard's coating are market leading in the USA and Japan. Bactiguard's own product portfolio of urinary catheters, central venous catheters and endotracheal tubes prevent some of the most common infections, which appear in the urinary tract, the blood stream and the respiratory tract.

Bactiguard is in a strong expansion phase in Europe, China, India and the Middle East as well as by establishing license agreements in new therapeutic areas. The company has some 70 employees around the world. The headquarters and one of two production sites are located in Stockholm, the other one in Malaysia. Bactiguard is listed on Nasdaq Stockholm since 2014.



We save lives!
This is our mission.

We do this by developing and providing infection prevention solutions that reduce the risk of healthcare associated infections.

Our vision

Our vision is to eliminate healthcare associated infections to:

1. increase patient safety and save lives
2. reduce healthcare costs
3. reduce the spread of antibiotic resistance and contribute to a more sustainable future

Our core values

Everything we do in our daily operations is permeated by:

- Long-term partnership
- Trust and responsibility
- Creativity
- Responsiveness
- Resourcefulness

… and is embraced by empathy, respect and communication.

Healthcare associated infections affect every tenth patient

Healthcare associated infections, HAIs, are a major global problem and a threat to public health. According to the World Health Organization, WHO, on average every tenth patient seeking care is afflicted by a HAI, and HAI is today the third most common cause of death in developed countries.[1]

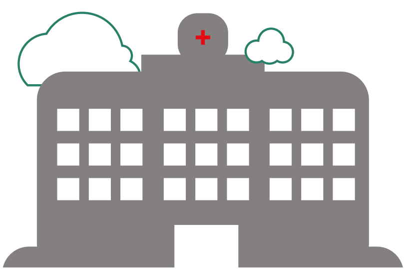
Healthcare associated infections, also known as nosocomial infections, are acquired by patients seeking healthcare. In addition to unnecessary suffering and longer hospital stays these infections also entail higher costs and resource allocation for healthcare, and many patients die.[2]

The OECD published a report in 2017 which emphasised that the costs for infection prevention are much lower than the costs associated with the occurrence of a HAI.[3]

Over half of all healthcare associated infections are caused by bacterial growth on medical devices. The urinary tract, respiratory tract and bloodstream are three of the most common areas where HAIs arise. Many HAIs require treatment with antibiotics, which means they also contribute to increased antibiotic resistance.[4]

> ”Preventing HAIs has never been more important. Every infection prevented, is an antibiotic treatment avoided.”
>
> WORLD HEALTH ORGANIZATION (WHO)[1]

In Sweden almost 65,000 patients are afflicted every year, which results in approximately 750,000 extra days for care at a cost of SEK 6.5 billion. Approximately 1500 patients die every year in conjunction with HAI, meaning four patients a day.[2]



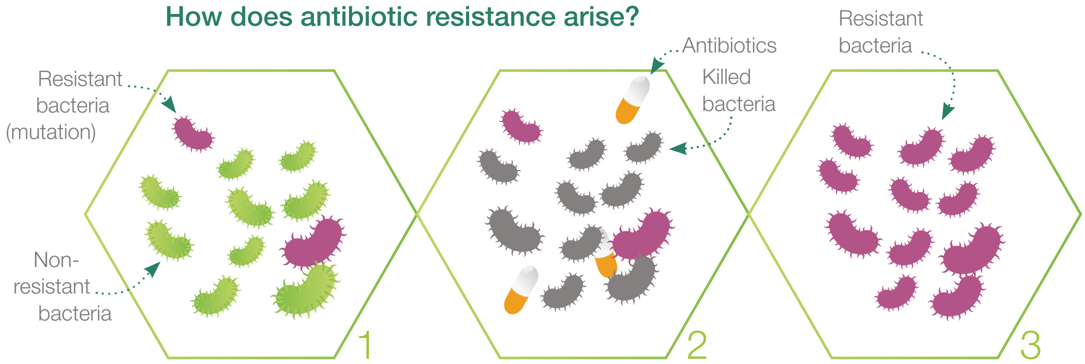
1 in every 10 patients is affected by healthcare associated infections worldwide[1]

Major consequences of antibiotic resistance

According to WHO, if the current development continues, by 2050, 10 million lives are at risk every year due to antibiotic resistance. This can be compared to about 8 million people dying of cancer every year.[5]

To reduce the problem of antibiotic resistance, it is important that antibiotics are only prescribed when necessary, as the use itself leads to increased resistance. The resistance makes common infections such as tonsillitis and ear infections very hard to treat, even resulting in death.[6] The same applies to common surgical procedures and cancer treatments that rely on antibiotics to complement the patient's own immune system.

How does antibiotic resistance arise?



1. Mutations that change bacteria arise all the time. Some of the changes lead to the bacteria becoming resistant to antibiotics.
2. Antibiotics kill both harmful bacteria that cause diseases and bacteria that protect the body — but not resistant bacteria. The strongest bacteria survive due to natural selection.
3. The new generation consists entirely of resistant bacteria. The conditions are ideal for antibiotic-resistant bacteria to take over and grow.

Sepsis — a life threatening condition

Sepsis, former known as blood poisoning, is the life-threatening condition that arises when the body's response to infection results in organ dysfunction or failure.[7] Late diagnosis and antibiotic resistance make it increasingly difficult to treat bacterial infections and to prevent them from developing into sepsis.

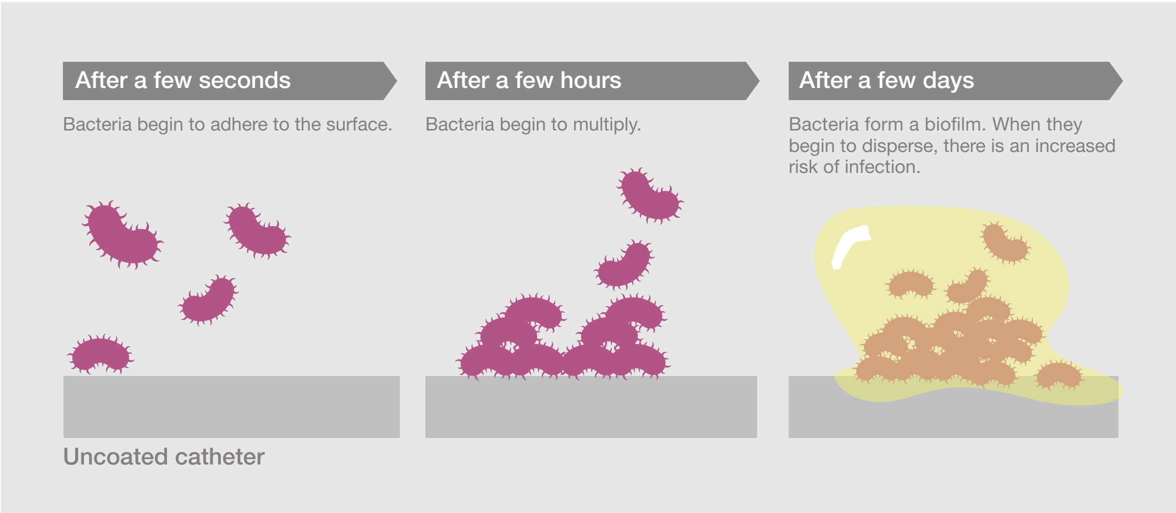
An estimated 50% of all cases of sepsis can be attributed to healthcare associated infections.[8] Consequently, preventing HAIs is imperative in reducing the occurrence of sepsis.

stop sepsis save lives | Official Sponsor of the World Sepsis Day

Bactiguard is a proud sponsor of World Sepsis Day

How an infection occurs

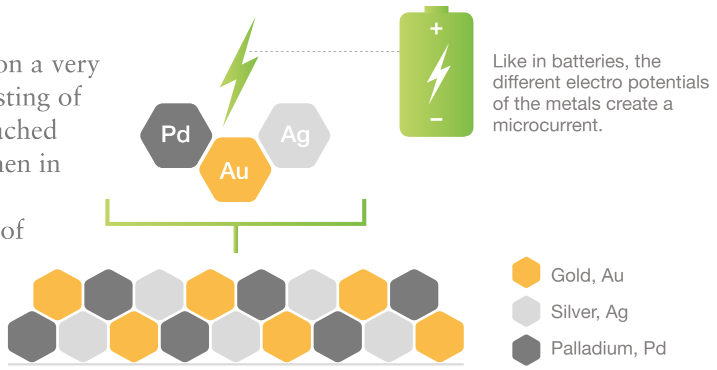
Bacteria and other microbes easily attach to the surface of medical devices, for example catheters, and this often leads to the development of biofilm. When they disperse, the risk for infection increases. Microbes that form biofilm are also more resistant to antibiotics and the patient's immune system, than those that do not produce biofilm.



How Bactiguard's technology works

Mechanism of action

The Bactiguard technology is based on a very thin noble metal alloy coating, consisting of gold, silver and palladium firmly attached to the surface of medical devices. When in contact with fluids, the noble metals create a galvanic effect. The amount of noble metals at the surface is very low and below all safety limits for each metal.



Reduction of microbial adhesion

The galvanic effect creates a micro current that reduces microbial adhesion to the catheter material, which decreases the risk for biofilm formation leading to infections.

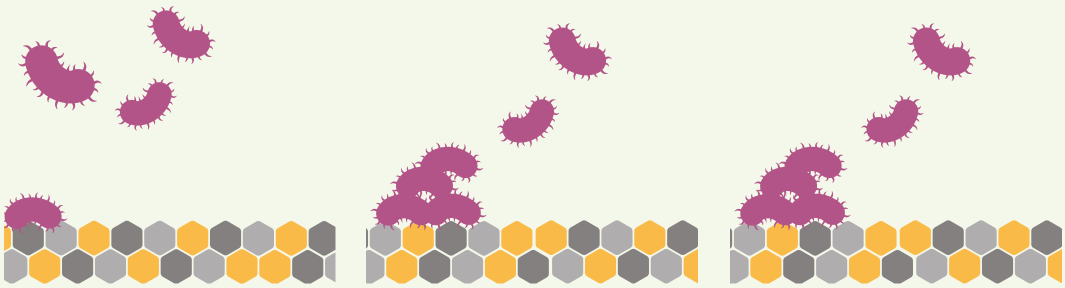
After a few seconds

Bacteria begin to adhere to the surface.

After a few hours

After a few days

Less bacteria adhere to the Bactiguard coated surface compared to an uncoated surface, which reduces the risk for biofilm formation leading to infections.



Bactiguard coated catheter

Both safe and effective

To date approx.170 million catheters have been used without any reported side effects related to the coating. The technology has been shown to be both tissue-friendly and safe for the patient, and effective in reducing microbial adhesion and subsequent infections.

Intangible assets

Bactiguard's patented technology is protected by a trinity.

Patent – The current patent is in force in the U.S. until 2029 and until 2027 in other countries. It comprises a combination of noble metals deposited on the surface of a product, the application process and most of the medical devices on which the technology can be applied.

Know-how – Both process know-how and pre-treatment tailored to the base material are called for to ensure that the coating attaches to the underlying material and has the desired effect.

Trade secrets – Trade secrets supplement both the patent and process know-how, and the formula is a valuable and well-safeguarded asset.

Bactiguard's product portfolio

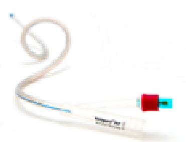
The BIP portfolio, Bactiguard Infection Protection, consists of urinary catheters, endotracheal tubes and central venous catheters with Bactiguard's coating, which reduce the risk of infections in the urinary tract, respiratory tract and bloodstream. Most of all healthcare associated infections affect these three areas, and medical devices are often the cause.

BIP Foley Catheter
– Infection prevention urinary catheter

BIP Foley Catheters are suitable for patients who need a catheter for more than 2 days, for example intensive care or surgery patients, or for patients who require a permanent catheter. Catheters with Bactiguard's coating have shown a significant reduction in catheter associated urinary tract infections (CAUTI) and antibiotic treatments.

Bactiguard is the market leader in coated urinary catheters through the company's own sales and its license partner BD (C.R. Bard). Since the product was launched in 1995, more than 170 million catheters have been used for patients all over the world.

BIP Foley Catheter



BIP Foley Catheter – Silicone

Catheter associated urinary tract infections (CAUTI) constitute the most frequently occurring type of infection, estimated to represent 30% of all HAIs.[4] They are often caused by indwelling urinary catheters and can lead to serious complications that cause suffering for the patient, higher mortality rate and increased healthcare costs.

BIP ETT
– Infection prevention endotracheal tube

BIP ETT reduces the risk of VAP since fewer bacteria colonize the in- and outside of the tube. BIP ETT Evac offers twice the protection, in part through subglottic secretion drainage (SSD) and in part through the coating's effect. A clinical study with 100 patients concluded that BIP ETT reduced the occurrence of VAP by 67%.[9]

Usage of endotracheal tubes with SSD has become increasingly common since they significantly reduce the risk of VAP. Bactiguard is the only company that can offer twice the protection through this feature and in addition, the coating.

BIP ETT Evac

Ventilator associated pneumonia (VAP) is a very serious respiratory tract infection that can afflict patients treated with endotracheal tubes. It is most common in intensive care, and it is estimated to afflict up to 25% of patients.[4,12,13] VAP prolongs hospital stay by up to 25 days, and the mortality rate that can be directly linked to VAP is as high as 30–50%.[14,15]

BIP CVC
– Infection prevention central venous catheter

BIP CVC has been shown to reduce CRBSI by up to 52%.[10] Another common complication is thrombosis, where Bactiguards coating can be favourable for outcome. Compared to central venous catheters that are uncoated as well as with competitive coatings, BIP CVCs have better blood compatibility and entail lower risk of thrombosis.[11]

Central venous catheters with infection prevention properties are an established treatment method in many parts of the world, and several different coatings are available on the market. BIP CVC is both effective against infections, while having a very good blood and tissue compatibility.

BIP CVC

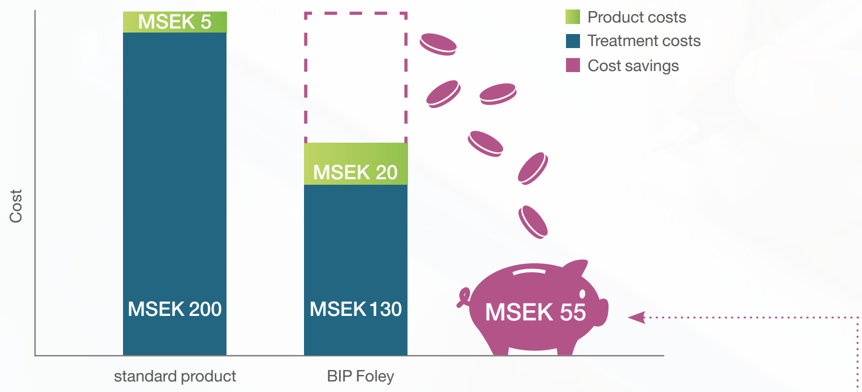
Catheter-related bloodstream infections (CRBSI) constitute one of the most common, expensive and most fatal complications associated with central venous catheters. According to WHO, treatment can cost up to USD 56,000. The Centre for Disease Control estimates that 12–25 % all patients who are afflicted by CRBSI die from the condition.[16]

Health economics

All BIP products are associated with lower total healthcare costs thanks to fewer complications and thus shorter hospital stays, lower treatment costs and improved quality of life for patients.[17,18]

Cost comparison of BIP Foley Catheter and standard product

An example from Sweden



	standard product	BIP Foley Catheter	
Number of patients	200 000	200 000	
Number of patients with infection	21 000	13 650	*35% less*
Costs			
Product costs (SEK)	5 000 000	20 000 000	*+15 MSEK*
Treatment costs (SEK)	200 000 000	130 000 000	*-70 MSEK*
Cost savings (SEK)		55 MSEK	

Assumptions:
- Incidence infection: 10 %
- Incidence sepsis: 0.5 %
- 35% less infections with BIP Foley Catheter
- Treatment costs per infection[19]: 5 000 SEK
- Treatment costs per case of sepsis[19]: 100 000 SEK

Strong growth in BIP sales

In 2018, sales of BIP products increased by almost 90 percent, mainly due to the development in China where we more than doubled sales and India where it tripled. Also, Europe and South America generated growth, while the Middle East had a decline after a strong year in 2017.

China

2018 was a very strong year for Bactiguard in China. We more than doubled sales compared to 2017, and also signed a strategically important agreement with Well Lead for both distribution and license. The Chinese market for healthcare products and medical devices has undergone major changes in recent years. Among other things, locally produced products are favoured more than before and the authorities have introduced new regulations to reduce the number of intermediaries in the distribution chain. Against this background, Bactiguard decided to take steps towards a more locally anchored product portfolio by entering into a deeper and broader collaboration with a Chinese company that has both distribution and manufacturing capacity. The agreement with Well Lead, one of the world's leading manufacturers of medical devices, covers all Bactiguard's products.

Europe

Also, Europe showed growth in 2018, where focus lies on establishing ourselves in the larger countries in the region. Our new partner in Germany is preparing a major launch in 2019, and we are working intensively to expand our presence with strong partners in other strategically important markets. For the Nordic and Benelux countries, we have initiated a collaboration with Mediplast with the aim of more efficiently addressing tender regions in Sweden and gaining access to completely new markets such as Denmark and Norway.

Greece is often referred to as a terrifying example of antibiotic resistance. One focus for the authorities is to reduce blood stream infections, and our BIP CVC is used in several hospitals. In Poland and Austria, patients themselves buy our urinary catheters for long-term use to avoid common problems related to bacterial colonization.

India

Sales in India picked up during 2018, thanks to the collaboration with our new partner, whose overall focus on intensive care and critically ill patients gives us good access to the hospitals. Since all our products are now approved for use in the country, we have a leverage effect on sales, as a broader concept of infection prevention can be presented. A large, randomized multi-center study with BIP Foley Catheter was completed during the year, and the results will be published in 2019.

Middle East

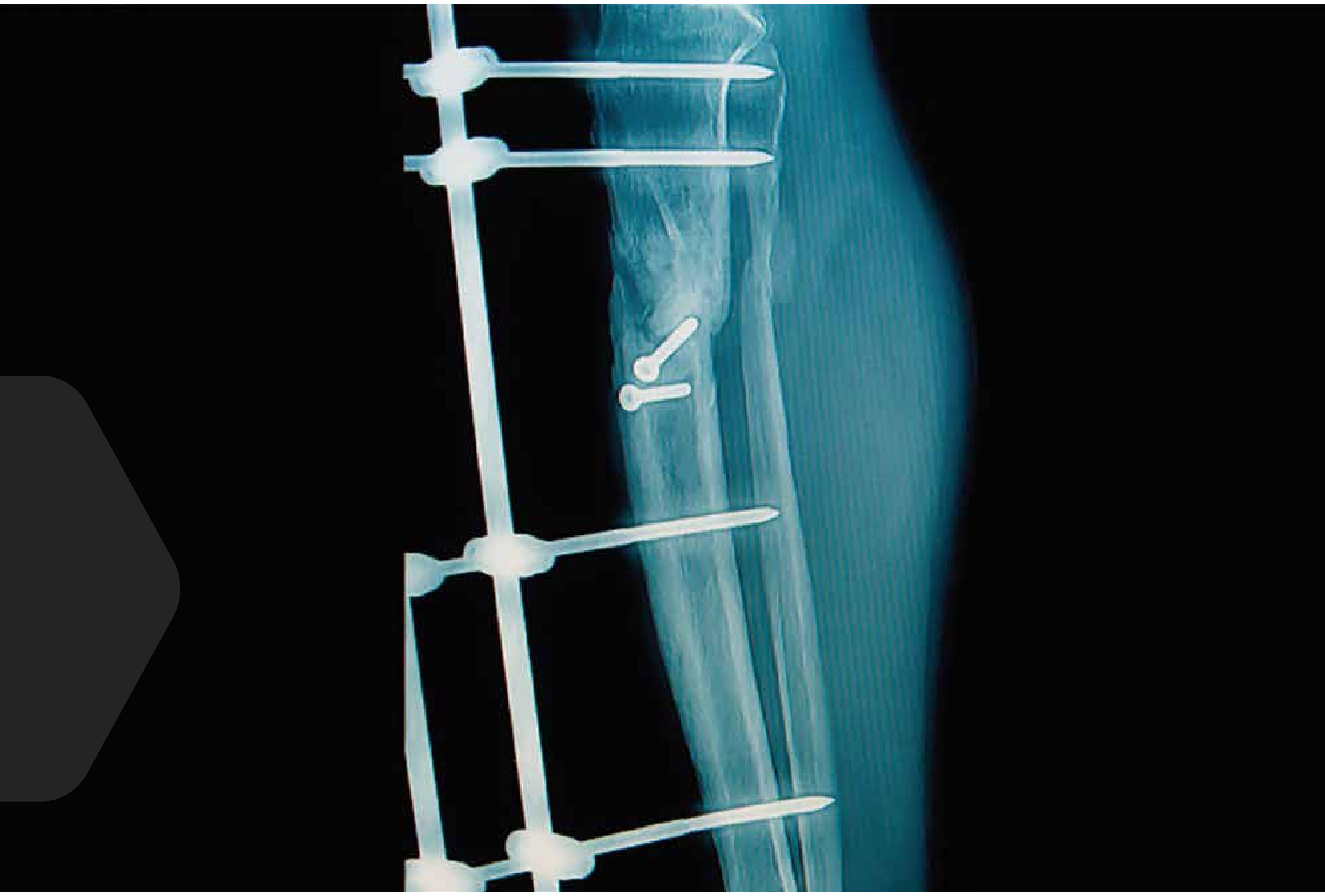
After a strong 2017 with doubled growth, the Middle East generated somewhat weaker overall sales in 2018. Large markets such as Saudi Arabia and Pakistan showed growth but political challenges as well as the registration process in Egypt where timelines extended, brought down the results for the region. We see positive developments in 2019 when a recovery is expected.

South America

Brazil is the largest market in South America and one of the most populous countries in the world with over 200 million inhabitants. Unfortunately, the launch that took place during the second half of 2017 did not meet our expectations because of long lead times and regulatory processes. In 2018, an agreement was signed with a distributor for Mexico and the market introduction has begun.

License collaborations

The Bactiguard technology is suitable within many different application areas where there is a need for infection prevention and tissue-friendly properties. We therefore continuously explore new collaborations where our technology can increase patient benefits and hence the value of the underlying products. Two significant news during 2018 was that Bactiguard-coated trauma implants received CE mark, and an extensive license collaboration with Well Lead was initiated for China.



Current collaborations

The CE mark for orthopedic trauma implants that was completed in December 2018 is a major breakthrough for Bactiguard. We already have a product portfolio that prevents infections in the urinary tract, the respiratory tract and in the bloodstream. The new partnership with Well Lead covers the entire portfolio and was another important milestone.

BD: Foley catheters

Since 1995, Bactiguard has a successful licensing agreement with the global medical device company C.R. Bard. BD acquired C.R. Bard in 2017 partly to be stronger within infection prevention. BD is now the market leader in USA and Japan with Bactiguard coated Foley catheters under the brands Bardex IC and Lubrisil IC.

Vigilenz Medical Devices: Orthopaedic trauma implants

Since 2015 Bactiguard collaborates with Vigilenz Medical Devices within orthopaedic trauma implants for Southeast Asia. The implants with Bactiguard's coating received CE mark at the end of 2018 and can now be sold and used in markets that accept EU's CE mark. Healthcare associated infections are frequent and severe for complicated bone fractures, and clinical studies are ongoing.

With the new CE mark as a precedent, Bactiguard intends to establish new partnerships and enter new agreements with one or more major trauma implant manufacturers covering the rest of the world.

Smartwise Sweden AB: Advanced injection catheters

The collaboration with Swedish Smartwise began in 2017. Advanced injection systems allow medication and other types of treatment to be delivered directly to damaged tissue in vital organs, for example after a stroke or a heart attack. Bactiguard's coating can reduce the risk of infections and thrombosis for these seriously ill patients.

During spring 2018, Smartwise entered a collaboration agreement with AstraZeneca, a major breakthrough. The catheters are currently in preclinical development.

Well Lead Medical: Distributor, Supplier and License partner

Well Lead is today China's largest and at the same time one of the world's leading manufacturer of medical devices, such as urinary catheters and endotracheal tubes. Since 2018 Well Lead has the exclusive right to sell and distribute Bactiguard's urinary catheters (BIP Foley) in China. At the same time, the process of obtaining product approval for locally-produced urinary catheters, central venous catheters and endotracheal tubes with Bactiguard's coating has been initiated. This means that, in a few years' time, Well Lead will manufacture and sell all products in Bactiguard's portfolio on the Chinese market.

Future licence opportunities

The Bactiguard technology can be applied to most materials used for medical devices. The coating is very thin and therefore not visible to the naked eye. This also means that other properties of the medical device, such as thickness, shape and size are not affected.

Production

The production process is adaptable for new applications and can easily be scaled up. New materials are always tested since every material has a unique surface composition. Bactiguard has successfully applied the coating to several types of titanium, stainless steel, latex, silicone, polymers, ceramics and non-woven materials. Process validation is based on well-defined steps to enable repetition and reproducibility.

Standard product procedures

There are no specific packaging requirements for Bactiguard coated products, which can be sterilised using standardised methods. Nor are there any specific requirements for handling procedures or waste management.

Clinical studies and research

Clinical studies

Bactiguard's products have a substantial impact on the lives and health of human beings, therefore we conduct clinical studies on an ongoing basis in both Sweden and abroad, and in cooperation with physicians, nurses and other healthcare professionals. All studies are designed according to international and local laws, regulations and ethical principles. They are reviewed and approved by ethical committees and relevant authorities. The purpose of the clinical studies is primarily to assess the technology efficacy of preventing infections, and its safety profile.

Research collaborations

Bactiguard collaborates with academia, healthcare institutions, organisations and companies to promote the development of new and improved products which will help reduce the number of healthcare associated infections. At the same time, collaboration is a way to partially fund research and product development. Bactiguard belongs to several scientific networks which have received funding from the EU and Sweden, primarily through Vinnova and Medtech4Health.

RedCath

In this project, which has received funding from Vinnova/Eurostars (Horizon 2020), Bactiguard is developing a new generation of venous catheters which reduce the risk of both infections and thrombosis – two of the most serious complications associated with using venous catheters. The project began by developing a new generation of central venous catheters and is now focusing on haemodialysis catheters and vascular transplants/grafts. The project was launched in 2015 and will be concluded during 2019.

Uppsala Antibiotic Research Center

Together with Professor Dan Andersson's research team at Uppsala University, Bactiguard received a grant from MedTech4Health/Vinnova for a six-month project during 2017–2018. The purpose was to survey bacteria and determine which characteristics are most and least significant in terms of their ability to attach to and multiply on products with Bactiguard's coating. The collaboration at Uppsala Antibiotic Center has received further funding.

From a patient's point of view

Life changed dramatically that day in January, when Elisabeth* suffered a stroke that left her in a wheelchair. Being confined to a wheelchair meant Elisabeth needed a urinary catheter permanently. This led to repeated urinary tract infections and constant rounds of antibiotics.

– Every time I got a new catheter, I fell ill within the space of a week. The chronic urinary tract infections made me feel ill and generally down, she says with a sigh.

The recurrent urinary tract infections and the large consumption of antibiotics resulted in Elisabeth developing antimicrobial resistance, which is when bacteria no longer respond to treatment. This meant that the countless urinary tract infections could no longer be treated with antibiotics. Around two years ago, Elisabeth's urotherapist at the Central Hospital in Karlstad, Sweden, told her about Bactiguard's BIP Foley Catheters.

The results exceeded all expectations for Elisabeth. She didn't have any urinary tract infections for two years. Elisabeth feels that everyone should be offered a Bactiguard catheter from the very start and stresses that the healthcare sector should give greater consideration to patient well-being when deciding which catheter to procure.

Since the risk of infection increases with duration of catheterization, CAUTI is a large health burden for patients with neurogenic bladder dysfunction who use indwelling catheters permanently. These patients suffer from voiding dysfunction due to a brain-, spinal cord-, or other nerve conditions, caused by e.g. stroke, spinal cord injury, multiple sclerosis or birth defects.

We met Elisabeth a few years ago through her nurse and have documented her case in a clinical study that will be published during 2019.

While Elisabeth was using her previous catheters, she experienced urinary tract infections that requiried antibiotics almost every month for four years. After one month with BIP Foley Catheter, the symptoms disappeared, and she remained free of infections and subsequent antibiotic treatment for 2.5 years.

"If it is as good for others as it has been for me, more patients should be offered the opportunity to use this catheter to avoid pain and discomfort. It would be a win/win situation, both for patients who would avoid unnecessary suffering and the healthcare sector that can reduce its costs for difficult to treat, chronic infections."

ELISABETH

* Elisabeth is a fictitious name

Our employees

Our employees are Bactiguard's most important asset. Thanks to them the company is innovative, entrepreneurial and diverse.

Bactiguard currently has some 70 employees, most of whom work at our headquarters in Sweden and at the production facility in Malaysia, but we also have employees closer to the market, in other European countries, China, India, the Middle East and Latin America.

We work together to achieve our objectives and thus create a work environment where employees experience job satisfaction and commitment. We strive to utilize our employees' individual competencies, which span several different areas such as product and business development, production, clinical studies, marketing and sales.

Together we work to prevent healthcare associated infections and save lives.

Employer of the Year

Bactiguard was during 2018 awarded "Employer of the Year" by the collaboration partner Samhall. The prize, referred to as Sweden's most important labour market prize, is awarded to companies and individuals who lead the way in the labour market by opening opportunities for people with disabilities.

The winner of Samhall's "Visa vägen" prize was announced at a prize ceremony in Stockholm in the presence of H.R.H Princess Sofia. Bactiguard was awarded Employer of the Year for its efforts in creating opportunities and breaking the exclusion in the labour market for people with disabilities.

Hanna Stjärne, CEO SVT, Joanna Halvardsson, H.R.H Princess Sofia, Christian Kinch, CEO Bactiguard.

"Winning the prize as Employer of the Year in Sweden is fantastic. The diversity and competencies of Samhall's employees help us grow and become stronger in the fight against healthcare associated infections."

CHRISTIAN KINCH, CEO

The jury's motivation:

"This year's Employer sees diversity as a cornerstone of its business concept. There is an uncompromising belief in the individual's ability to provide the company with a skill boost through his or her competencies. This year's Employer creates a team of different talents and succeeds in running a spearhead company in its industry, capable of competing internationally and at the same time securing jobs in Sweden. A striking evidence that diversity gives multiplicity in reward."

Top-ranked for equality

AllBright is a non-political and non-profit foundation that works in favour of gender equality and diversification in leading positions in business. The Foundation continuously reviews business leaders and boards to highlight the issue of representation.

Bactiguard climbs on Allbright's green list, listing the most equal public companies in Sweden. With 50 percent women in the management team and two female board members, Bactiguard advanced from position 29 (2017) to 21 among the 329 listed companies.

AllBright annually ranks the companies on the Stockholm Stock Exchange, from an equality perspective. The most equal companies are found on their "green list", while the less equal are placed on the "yellow list" and the male-dominated companies on the "red list". Bactiguard advanced several positions this year to place 21 (29) on the list which includes all listed companies. In Bactiguard there is a wide variety of different nationalities and languages, with employees from 17 different countries, of which 60 percent are women and 40 percent men. In the executive management team, there are as many women as men and two out of five board members are female. Since October 2018, the chairman of the Nomination Committee is also a woman.

Team Bactiguard

Bactiguard values good health by preventing infections and promoting a healthy lifestyle. Since 2012, Bactiguard has sponsored Team Bactiguard through the Good to Great Tennis Academy, which was founded by former elite players Magnus Norman, Nicklas Kulti and Mikael Tillström. The opportunity to support some of the world's best tennis players from an early age while inspiring other young people to focus on health and sport is Bactiguard's goal for this unique venture on Swedish tennis.

Bactiguard supports its own team of promising young players and Team Bactiguard, currently consists of: Måns Dahlberg, Isac Strömberg, Arslan Temirhanov, Tsegai Gebremeskel and Henrik Bladelius. Team Bactiguard enables the players to practise tennis full time in parallel with their studies, and to play and compete in a world-class environment both in Sweden and internationally.

Sweden's highest ranked tennis players, the Ymer brothers Elias and Mikael, were both part of the very first Team Bactiguard, which strongly has contributed to their success.

Focus on the entire value chain

Bactiguard's mission is to prevent healthcare associated infections and antibiotic resistance, one of the greatest health threats and challenges of our time. This is our primary contribution to a sustainable future, in line with the goals of Agenda 2030.

Bactiguard aims to be a reliable, long term partner which inspires confidence and delivers high-quality and safe products. The purpose of our sustainability work is primarily to contribute to a positive social development by preventing infections and limiting the spread of multi-resistant bacteria - while minimizing the business burden on society and increasing the value for patients, customers and shareholders.

Our code of conduct comprises the entire value chain, including our internal work and cooperation with external partners and includes guidelines for how our employees are to conduct day-to-day operations in a manner that is ethically, socially and environmentally sustainable. Together with compliance to laws and regulations, it ensures that the company behaves in a responsible manner towards patients, employees, customers, suppliers, shareholders and other stakeholders.

Patient benefit

Assuring patient benefit, including safety and quality aspects, is an integral part of our product development and product supply processes. Our quality management system and its processes comprise all the phases of the products' life cycles and also supports ongoing improvements of our products and business. Bactiguard's quality management system is certified in accordance with the standard for medical devices, ISO 13485.

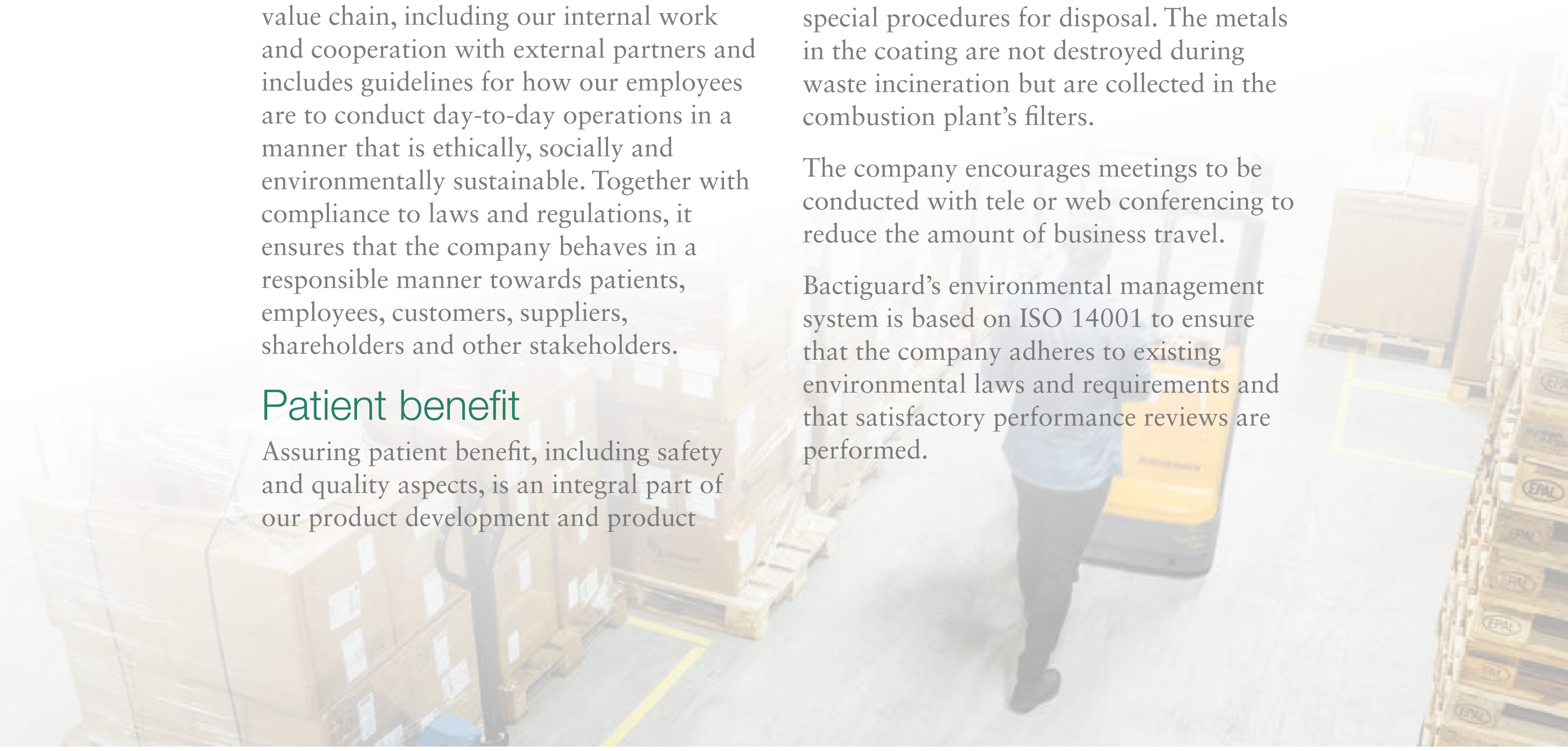
Environment

Within the framework of our overall sustainability work, we involve secure management and handling of chemicals and waste within product development and production. Bactiguard aims to continue reducing the impact that our operations and products have on the environment by increasing efficiency, reducing consumption of materials and improving waste management.

Bactiguard's coating contains very small amounts of noble metals and requires no special procedures for disposal. The metals in the coating are not destroyed during waste incineration but are collected in the combustion plant's filters.

The company encourages meetings to be conducted with tele or web conferencing to reduce the amount of business travel.

Bactiguard's environmental management system is based on ISO 14001 to ensure that the company adheres to existing environmental laws and requirements and that satisfactory performance reviews are performed.



Financial reporting

The Board of Directors and Chief Executive Officer of Bactiguard Holding AB (publ) hereby present their annual report and consolidated financial statements for the 2018 financial year.

Operations

Bactiguard is a Swedish medtech company with a global presence. The company offers an infection prevention solution that prevents healthcare associated infections caused by medical devices. By preventing infections, the company contributes to reduced usage of antibiotics and consequently the spread of multi-resistant bacteria, which is a growing problem for society worldwide. Bactiguard saves lives, shortens the duration of treatment, increases patient safety and thereby results in significant cost savings for healthcare and society.

Operations are primarily in Sweden and Malaysia and include research and development, production, marketing, and sales.

Bactiguard's product portfolio, Bactiguard Infection Protection (BIP) covers medical devices within three application areas; the urinary tract, the blood stream and the respiratory tract.

Bactiguard has ISO 13485 certification, and EC certification for the BIP Foley Catheter (indwelling urinary catheters), BIP ETT (endotracheal tube) and BIP CVC (central venous catheters) product portfolios.

Group structure

The Group includes Bactiguard Holding AB and its wholly-owned subsidiary Bactiguard AB which in turn owns subsidiaries. All operative activities were conducted in the Group of Bactiguard AB in the year.

Revenues, volumes and earnings

Revenues

Bactiguard has the following revenue streams:

- License revenues are revenues from sales of products through licensing agreements. In 2018 these revenues came from: the Group's licensing agreement with Becton Dickinson and Company ('BD', previously C.R. Bard) for Foley Catheters for the USA, Japan, the UK, Ireland, Canada and Australia; the licensing agreement with Vigilenz Medical Devices for orthopaedic trauma implants for the South East Asian ASEAN region; a global licensing agreement with Smartwise Sweden AB ('Smartwise') for vascular injection catheters; and a licensing agreement with Well Lead Medical ('Well Lead') for all products in Bactiguard's product portfolio for the Chinese market, all with the Bactiguard coating.
- The sale of BIP products relates to BIP Foley Catheters, BIP ETT and BIP CVC, under their own brand.
- Other revenues mostly comprise exchange rate differences and other operating revenues, for example, grants for development projects.

Group revenues for the full-year were MSEK 163.2 (153.6). License revenues from BD accounted for the highest proportion of revenues at around MSEK 101.2 (104.3). The reduction is due to slightly lower volumes at the beginning of the year. Although the underlying business is stable, the volumes vary across the quarters and do not follow any clear seasonal pattern.

In June 2018 a new licensing deal was signed with Well Lead for China, which is one of the world's largest manufacturers of urinary catheters. This deal generated license revenues of MSEK 8.3 during the year. This can be compared with new license revenues of MSEK 21.4 that were generated from the licensing agreement with Smartwise.

The increase in total revenues is mostly due to the sale of BIP products. In 2018 BIP products were sold at a value of MSEK 40.6 (21.8). China accounted for a significant proportion of this sales increase. Sales in the other regions also increased in 2018, except for the Middle East. This growth combined with the increase in value for the product mix resulted in revenues from BIP sales increasing by 86%.

Other revenues increased during the year, mostly as a result of positive currency effects.

Earnings

For the full-year, EBITDA, operating profit before depreciation, totalled MSEK 22.2 (34.4), with an EBITDA margin of 14% (22%). This change from the previous year is mostly due to new license revenues being MSEK 13.1 higher in 2017, while other external costs increased, partly as a result of non-recurrent costs in 2018.

The significant increase in BIP revenues in 2018 had a positive impact on the profit. Investments were also made in marketing and staff within the sales team to help fuel the expansion, which increased other external costs and personnel costs by approximately MSEK 5 compared with the previous year.

A new agreement was signed with Well Lead for China, which meant that the contract with the previous distributor (Jian AN) had to be terminated early. There were non-recurrent costs associated with the early termination of this agreement, which included remuneration for the investments Jian AN had made in marketing, the product approval process in China and the re-purchase of products. In total these non-recurrent cost negatively impacted EBITDA by MSEK 11.5.

At the start of 2019 Bactiguard transferred its distribution in Iraq and accounts receivable to a European distributor. The difference between the sale proceeds and the book value amounted to MSEK 4.3, resulting in impairment that affected the profit for 2018. The sale proceeds will generate a positive cash flow in the beginning of 2019.

Operating profit totalled MSEK -12.0 (-0.6). Depreciation, which is a non-cash item, affected operating profit by MSEK -34.2 (-35.0).

Profit from financial items amounted to MSEK -8.7 (-7.7). Interest on bank loans and changes in the value of forward contracts had a negative impact on financial items during the year.

Consolidated net profit for the full-year 2018 was MSEK -14.9 (-3.3).

Financial position

The equity ratio for the Group was 63% (62%) and shareholders' equity totalled MSEK 370.8 (387.1).

Cash and cash equivalents for the Group totalled MSEK 1.9, which was a decrease of MSEK 9.7 compared to the previous year. Net debt totalled MSEK 155.8 (152.4).

Total assets for the Group were MSEK 587.5 (625.4). The largest asset items in the balance sheet refer to goodwill of MSEK 226.3 (226.3) and technology relating to Bactiguard's product portfolio, which amounted to MSEK 189.0 (212.8).

Interest-bearing liabilities comprise a financial lease liability of MSEK 10.9 and a bank loan of MSEK 142.5 with a duration of three years to December 2020. The facility is subject to the customary covenants. The loan runs at an interest base of Stibor 90, but with a minimum of 0% and an interest surcharge of 3.0%.

Financial overview

An overview of the Group's financial performance MSEK	1/1/2018 –31/12/2018	1/1/2017 –31/12/2017	1/1/2016 –31/12/2016	1/1/2015 –31/12/2015	1/1/2014 –31/12/2014
Group					
Revenues	163.2	153.6	128.3	138.5	98.3
Net sales	150.1	147.5	118.7	131.4	93.6
EBITDA[1]	22.2	34.4	15.1	20.2	-5.4
EBITDA margin [2], %	14	22	12	15	-5
Operating profit/loss	-12.0	-0.6	-18.3	-12.7	-35.5
Profit before tax	-20.7	-8.3	-31.3	-31.0	-115.8
Profit after tax	-14.9	-3.3	-26.9	-26.5	-110.7
Total assets	587.5	625.4	632.1	676.2	811.1
Operating cash flow[3]	-4.9	-0.1	-19.8	-32.5	-54.0
Earnings per share[4], SEK	-0.45	-0.10	-0.81	-0.80	-4.43
Operating cash flow per share[5], SEK	-0.15	0.00	-0.60	-0.97	-2.16
Number of shares at period-end[6]	33,302,373	33,302,373	33,302,373	33,302,373	33,302,373
Weighted average number of shares[6]	33,302,373	33,302,373	33,302,373	33,302,373	25,007,242
Equity ratio, %	63	62	62	62	55
Net debt	155.8	152.4	134.4	120.0	90.4
Average number of employees	66	66	57	65	58

The consolidated figures are stated in accordance with accounting policies stated in note 2.
1 Earnings before interest, taxes, depreciation and amortisation.
2 EBITDA/Revenues
3 Cash flow from operating activities after investments and changes in working capital
4 Earnings for the period/weighted average number of shares during the period, issue-adjusted
5 Operating cash flow/weighted average number of shares during the period, issue-adjusted
6 Adjusted for split

Investments

Investments in property, plant and equipment for the year totalled MSEK 0.7 (2.6) and are related to investments in ERP systems and improvement expenses for rented premises.

Investments in intangible assets totalled MSEK 5.0 (3.7) for the year and are primarily related to capitalised development expenditure.

No investments in financial assets took place during the year.

Cash flow

Operating cash flow (cash flow from operating activities after investments and changes in working capital) totalled MSEK -4.9 (-0.1). The cash flow from operating activities before changes in working capital was positive at MSEK 17.6 (28.5), but was impacted by a negative cash flow from working capital of MSEK -16.7 (-22.4). Working capital improved slightly compared with the previous year, which was partly due to measures to convert outstanding accounts receivable into cash flow. During the year the bank loan was amortised by a total of MSEK -7.5, which negatively impacted cash flow.

Total cash flow for 2018 was negative at MSEK -9.9 (-3.3).

Key ratios

The company presents certain financial measures in its annual report that have not been defined in line with IFRS (referred to as alternative key ratios as set forth in the ESMA guidelines). The company believes that these measures will provide valuable additional information to investors and the company's management as they facilitate the evaluation of the company's performance. As not all of the companies calculate financial measurements in the same way, these are not always comparable with measurements used by other companies. These financial measures must therefore not be seen as a replacement for the measures that are defined in line with IFRS.

The definitions and tables below describe how the company's key ratios are calculated. Key ratios are alternative in line with ESMA guidelines unless otherwise stated.

EBITDA

Demonstrates the earnings capacity of the business from ongoing operations without any regard to capital structure and the tax situation. The key ratios are used to facilitate a comparison with other companies operating in the same industry. The company considers this key ratio as the most relevant performance measure as the company has a major asset item in Technology that generates a lot of depreciation while it is judged to be of significant value even after it has been fully depreciated. Bactiguard's patented and unique technology can be applied to an extensive range of products, both in the BIP portfolio and through license agreements.

The company defines EBITDA as operating income excluding depreciation and impairment of tangible and intangible assets.

	Group	
MSEK	2018	2017
Operating profit/loss	-12.0	-0.6
Depreciation	34.2	35.0
EBITDA	22.2	34.4

EBITDA margin

Demonstrates the earning capability of the business from ongoing operations without any regard to capital structure and the tax situation, in relation to the company's revenue. Key ratios are used to facilitate performance monitoring and comparisons with comparable companies.

	Group	
MSEK	2018	2017
EBITDA	22,2	34,4
Revenues	163,2	153,6
EBITDA margin	14%	22%

Net debt

Net debt is a measure used to describe the Group's indebtedness and its ability to repay liabilities with liquid funds generated from the Group's ongoing operations if the liabilities were due today. The company considers this key ratio to be of interest for creditors who are looking to understand the group's debt situation.

The company defines net indebtedness as interest-bearing liabilities less cash and cash equivalents at the end of the period.

Interest-bearing liabilities consist of liabilities to credit institutions, as well as the interest-bearing portion of other non-current and current liabilities.

	Group	
MSEK	2018	2017
Interest-bearing portion of other long-term liabilities	10.9	12.5
Non-interest-bearing portion of other long-term liabilities	-	-
Other long-term liabilities	10.9	12.5

	Group	
	2018	2017
Interest-bearing portion of other short-term liabilities	1.5	1.5
Non-interest-bearing portion of other short-term liabilities	14.2	5.4
Other short-term liabilities	15.7	6.9

	Group	
	2018	2017
Liabilities to credit institutions	145.2	150.0
Interest-bearing portion of other long-term liabilities	10.9	12.5
Interest-bearing portion of other short-term liabilities	1.5	1.5
Interest-bearing liabilities	157.7	163.9
Cash and cash equivalents	-1.9	-11.6
Net debt	155.8	152.4

Equity ratio

Equity is a measure that the company regards as important for creditors who are looking to understand the company's long-term ability to pay. The company defines equity ratio as equity and untaxed reserves (less deferred tax) in relation to the balance sheet total.

	Group	
MSEK	2018	2017
Equity	370.8	387.1
Total assets	587.5	625.4
Equity ratio	63%	62%

Operating cash flow

Cash flow from operating activities after investments and changes in working capital. Directly adjustable in relation to the financial statements.

Operating cash flow per share is operating cash flow in relation to the average number of shares outstanding. Key ratios regarding operating cash flow is presented as they are used by analysts and other stakeholders to evaluate the company.

Financial income and expense

Financial income minus financial expense. Directly adjustable in relation to the financial statements.

Key events during the year

- During the year Bactiguard extended its product range. In Central Venous Catheters, BIP CVC sets with the popular Raulserson syringe for easier handling and insertion were launched. Within BIP Foley urinary catheters, Female was launched, which is adapted to a woman's anatomy, along with Tiemann, which facilitates the catheterisation of men.
- In June Bactiguard signed a combined distribution and licensing agreement with Well Lead Medical (Well Lead) for China, comprising all products in Bactiguard's portfolio. This agreement generated revenues of approximately MSEK 28 during the year, comprising around MSEK 20 from product deliveries and MSEK 8 from license revenues. At the same time, the partnership with the distributor Jian AN was terminated early, which meant that Bactiguard had to pay a compensation of MSEK 11.5 for the significant investments Jian AN had made in marketing, the product approval process and the re-purchase of inventories. Well Lead is currently China's biggest manufacturer of medical devices and one of the biggest in the world. This agreement gives Well Lead the exclusive right to sell and distribute Bactiguard's urinary catheters in China. A process was also started to secure approval for locally manufactured central venous catheters and endotracheal tubes, all featuring Bactiguard's infection prevention technology. In a few years' time Well Lead is expected to manufacture and sell all products on the Chinese market and generate license revenues for Bactiguard.
- During the year Bactiguard started partnerships with new distributors in Mexico and Germany.
- In May Bactiguard's licensing partner Smartwise Sweden AB signed a strategic partnership agreement with Astra-Zeneca for the development of advanced vascular injection catheters featuring Bactiguard's coating for new, innovative treatment methods for heart failure and cancer. Although this agreement will not generate any new license revenues for Bactiguard initially, it will generate royalty revenues when the catheters reach the market, which is expected in two to three years' time.
- At the Annual General Meeting in May 2018 Jan Ståhlberg was elected as a Board member and Chairman of Bactiguard Holding AB (publ). At the end of the financial year Jan Ståhlberg had a shareholding corresponding to 8.9% of the capital and 4.3% of the votes, making him the fourth largest shareholder in the company.
- Jonas Östregård was recruited to the new position of Vice President Sales; he has extensive sales experience from various positions within AstraZeneca.
- During the year Bactiguard won its first Swedish procurement of central venous catheters (CVC) in Region Skåne. Bactiguard also won a procurement for urinary catheters in Östergötland during the year and secured a one-year extension of the framework agreement for urinary catheters with Region Skåne.
- In September the shareholder base in Bactiguard was broadened, following a transaction comprising 6.6 million shares. This transaction involved the two main owners Christian Kinch and Thomas von Koch each selling

3,315,000 B shares at a rate of SEK 39 per share. The total value of this transaction amounted to MSEK 258.6. The total number of shares in the company amounts to 33,302,373 and the total number of votes stands at 69,302,373. Following this transaction, the two main owners each have shares corresponding to 18.4% of the capital and 34.8% of the votes in the company. Together they still control the majority of the votes.

- In December titanium orthopaedic trauma implants that feature Bactiguard's infection prevention technology were CE marked, which means that they can be sold and used in healthcare on markets that apply EU quality standards. Bactiguard intends to use this new CE mark to establish new partnerships and sign agreements with one or more major suppliers of trauma implants for other parts of the world. The global market for trauma implants is forecast to exceed MUSD 5 billion in 2019.[20]

- During the year Bactiguard set up an exclusive partnership with Mediplast for sales and distribution in Sweden, Norway and Denmark. Mediplast is a medical device company and supplier to healthcare throughout the Nordic Region. At the end of the year this partnership was expanded to cover Belgium, the Netherlands and Luxembourg, and Finland was also included from January 2019. This means that the partnership now comprises seven European countries.

- The product approval process for Bactiguard's urinary catheters for infection prevention in Egypt was completed in October.

- Bactiguard was awarded the 'Visa vägen' (Showing the Way) prize as Employer of the Year. This is considered to be the most important labour market prize in Sweden and is given to companies and pioneers that are showing the way on the labour market by creating opportunities for people with accessibility issues.

Future expectations

Preventative measures are high up on the agenda of the World Health Organization (WHO), World Economic Forum, health ministers in the G7 nations and governments worldwide. Increased awareness of the consequences of antibiotic resistance has resulted in greater demand for infection prevention solutions for healthcare, which also paves the way for Bactiguard's infection prevention products and coating. Growth within this segment is managed by both a desire to reduce the number of healthcare associated infections and reduce the costs which can be related to these. This means that Bactiguard has good conditions to strengthen its position in existing markets and at the same time establish itself in new markets.

Research and development

Company research and development activities are focused on developing new products, and increasing knowledge of the problem of healthcare associated infections. The main focus for product development during 2018 was to broaden the range of BIP Foley catheters, Female adapted to a woman's anatomy and Tiemann, which facilitates the catheterisation of men. In terms of knowledge about healthcare-related infections, the company has focused on completing a major clinical study with BIP Foley catheter in India during the year and to start a clinical study on BIP ETT Evac in Belgium. Work on a third-generation patent has also taken considerable resources during the year. Today 11 people are working within R&D in the company.

Environmental impact

The Group engages in notifiable activities under the Swedish Environmental Code (environmentally hazardous activities and health protection) and to the Swedish Work Environment Authority (use of contagions in risk group 2).

The notifiable activities concern portions of the production process and the research and development the company conducts

Personnel

The average number of employees in the Group for the year was 66 (66) employees.

Guidelines for remuneration to senior management

The Board of Directors proposes that the 2019 AGM decides on the following guidelines for remuneration and other employment terms for senior management (unchanged compared to the decision of the 2018 AGM).

Guidelines

Senior management includes the CEO and other executives within Bactiguard, and the Board of Directors, to the extent they retain remuneration for assignments other than as directors.

Bactiguard shall have levels of remuneration and terms that are necessary in order to recruit and retain senior managers with the skills, competencies and experience required to achieve the company's operational targets. The total remuneration paid to senior managers shall be competitive, reasonable, and designed for this purpose.

Senior managers shall be offered a fixed salary that is competitive in market conditions and which shall be determined based on the individual's responsibilities and experience. Review of the fixed salary shall be made annually for each calendar year.

Senior managers may, from time to time, be offered variable remuneration that is adjusted to market conditions. Such variable remuneration shall be designed for the purpose of promoting long-term value creation in Bactiguard and be related to predetermined and measurable criteria. Any variable remuneration shall be limited to 50% of the fixed annual salary. In designing variable remuneration for senior managers that is paid in cash, the Board of Directors shall consider imposing reservations that (i) make payment of a portion of such remuneration conditional to that the performance to which earning such remuneration is based shall be sustainable over time (ii) provide the company the opportunity to recall any such remuneration that has been paid based on information that is later found to be obviously false.

Pensions

Senior managers are entitled to retirement solutions that are adjusted to market conditions. Defined contribution retirement plans shall be preferred.

Benefits

Other benefits may include access to company car, healthcare contribution and other common benefits. Other benefits may not constitute a significant portion of the total remuneration.

Severance pay

On termination of senior managers by the company, the notice period for such termination may not exceed 6 months. Any severance pay may not exceed the amount of a single year's fixed salary.

Incentive programme

When the Board of Directors finds it appropriate, company senior managers shall also be offered participation in long-term share or share price-related incentive programmes that shall ensure long-term commitment to the development of the company. Determination of any such share or share price-related

Shareholders	Total series A shares	Total series B shares	Total shares	% of capital	% of votes
Christian Kinch with family and company	2,000,000	4,125,977	6,125,977	18.4	34.8
Thomas von Koch and company	2,000,000	4,125,878	6,125,878	18.4	34.8
Nordea Fonder		3,158,095	3,158,095	9.5	4.6
Ståhlberg, Jan		2,956,831	2,956,831	8.9	4.3
Fjärde AP Fonden		2,853,000	2,853,000	8.6	4.1
Handelsbanken Fonder		1,599,619	1,599,619	4.8	2.3
Försäkringsaktiebolaget, Avanza Pension		1,040,213	1,040,213	3.1	1.5
Lancelot Asset Management AB		600,000	600,000	1.8	0.9
Swedbank Försäkring		542,790	542,790	1.6	0.8
Fröafall Invest AB		502,000	502,000	1.5	0.7
Total, largest shareholders	4,000,000	21,504,403	25,504,403	76.6	88.7
Total, other		7,797,970	7,797,970	23.4	11.3
Total number of shares	4,000,000	29,302,373	33,302,373	100.0	100.0

incentive programme shall be made by the Board of Directors.

The Board of Directors will evaluate on an annual basis whether a long-term incentive programme should be proposed at the AGM or not, and if this is the case, whether the proposed long-term incentive programme should comprise transfer of shares in the company. These guidelines shall apply to agreements that are entered subsequent to the AGM, and to all changes made to existing agreements after that time. The Board of Directors shall be entitled to depart from the above guidelines when, in the assessment of the Board of Directors in a specific case, there are special reasons therefore.

The Bactiguard share

Trade in the Bactiguard share was started at Nasdaq Stockholm with the ticker symbol “BACTI.”

The closing price for listed B shares as per 31 December 2018 was SEK 40.20 with a market capitalisation of MSEK 1,339.

Share capital in Bactiguard as per 31 December 2018 was MSEK 0.8 allocated to 29,302,373 series B shares each carrying a single vote (29,302,373 votes) and 4,000,000 series A shares, each with ten votes (40,000,000 votes). The total number of shares and votes in Bactiguard as per 31 December 2018 was 33,302,373 shares and 69,302,373 votes.

For the company’s series A shares the duty to give prior option of purchase applies in accordance with Section 15 of the articles of association, but for the rest there are no restrictions on transferability for these shares.

Significant risks and uncertainty factors

Bactiguard Holding’s operations and profits are affected by several external factors. The company continually engages in a process of identifying all risks that may arise and assessing how each of these risks shall be managed. The company is primarily exposed to market related risks, operational related risks and financial risks. The risks Bactiguard is thus exposed to are addressed separately below.

Financial risk management and financial instruments

Through its activities, the Group is exposed to various types of risk. Therefore the Group has a comprehensive risk management programme that concentrates on minimising potential unfavourable effects on financial results. The company’s Board of Directors is ultimately responsible for the exposures, management and follow-up of the Group’s risks. The frameworks that apply to the exposures, management, and follow-up of financial risks are set by the Board of Directors and revised annually. The Board of Directors has delegated responsibility for daily risk management to the company’s CEO, who in turn has delegated this to the company’s CFO. The Board of Directors is able to decide on temporary departures from these established frameworks.

Financial risks are described in note 4.

Macroeconomic risk

Weak economic performance and high national debt may cause both public and private customers to experience difficulty in obtaining financing. As well, this may have a negative impact on some countries’ ability and political willingness to invest in and allocate public resources to healthcare. Bactiguard maintains market presence in many geographic markets for the purpose of minimising any country-specific portion of the combined macroeconomic risk.

Regulatory risk

As manufacturer of medical devices, Bactiguard’s operations are subject to requirements and standards that are determined by regulatory authorities for each of the markets where Bactiguard is represented. Regulatory processes in various countries may cause a risk of delays in the launching process of products in these countries. Bactiguard works with its local distributors and regulatory advisors to minimise these risks.

Technology risk

There are technological advances in medical technology, which result in new products and improved treatment methods being launched continuously. Bactiguard has obtained patents in many of the countries in which the company operates in order to protect its technology, and has applied for patents in additional countries. Bactiguard has also taken several other measures to ensure that company-unique knowledge (such as application and manufacture of the Bactiguard coating) is not disclosed to any competitor.

Liquidity risk

Liquidity risk is defined as the risk of not having access to cash assets or credit available to cover payment commitments, including interest payments and amortisation. Liquidity risk is especially significant in the event large unanticipated payment commitments arise. Lack of liquidity to cover large payment commitments can have a negative impact on Bactiguard’s operations and its financial position. As per 31 December 2018, the Group has liquidity amounting to MSEK 28, including approved bank overdraft facilities of MSEK 30. The liquidity risk is monitored on a monthly basis through rolling forecasts of 3 months which evaluate the liquidity situation and is the base of taking relevant measures (financial or operational).

The management deems that current liquidity levels will be sufficient to manage the company's commitments for the coming year.

Parent company

Revenues consist of invoiced group-wide costs (management fees). The parent company has received interest on its receivables from group companies during 2018. The company's financial expenses relate to interest on bank loans. No investments have been made during 2018.

Proposed appropriation of profit

Parent company

The following retained earnings are at the disposal of the Annual General Meeting (SEK)

Retained earnings	-11,040,550
Share premium reserve	473,016,706
Profit/loss for the year	-5,523,186
	456,452,970
The Board of Directors proposes that the profits be carried forward	456,452,970
	456,452,970

In regard to the Group's and parent company's profit and financial position in general, further reference is made to the following financial statements. All amounts are expressed in thousands of Swedish krona (TSEK), unless otherwise specified.

The Corporate Governance Report for the 2018 financial year is available on page 31.

Bactiguard Holding AB (publ) ("Bactiguard" or "the company") has prepared this Corporate Governance Report in compliance with Chap 6, Section 6 of the Swedish Annual Accounts Act and Chap10 of the Swedish Code of Corporate Governance ("the Code").

In addition to the principles for corporate governance required by law or other applicable legislation, at Bactiguard corporate governance is based on internal documents such as the articles of association, the Board of Directors' work plan and CEO instruction, and policies and guidelines, as well as external rules such as the Nasdaq Stockholm Rules and regulations for Issuers and the Code. In 2018, the company has not made any deviations from the Code.

Bactiguard must observe the provisions of the EU's Market Abuse Regulation No 596/2014 (MAR), which imposes strict requirements on how the company handles insider information. MAR regulates, for example: the way in which insider information is released on the market; conditions under which this publication may be postponed; and the register that must be kept of the people who work for the company and who have access to insider information (this is known as a 'log book').

Since September 2018 Bactiguard has been using the digital tool InsiderLog to ensure that the way it handles inside information complies with the requirements in MAR and the company's insider policy; this includes everything from the decision to postpone the publication of insider information all the way through to the notification that must be sent to the Swedish Financial Supervisory Authority when the insider event is over and the information has been published. Only authorised people in Bactiguard have access to InsiderLog.

Shares and shareholders

The Bactiguard series B share is listed on Nasdaq Stockholm. At the end of 2018, the total number of shares was 33,302,373 (of which 4,000,000 non-listed series A shares) and the number of shareholders was 2,834. Page 29 contains a list of the company's ten biggest shareholders as per 31 December 2018.

General Meetings

The shareholders' right to decide on matters affecting Bactiguard is exercised at the general meeting in accordance with the Swedish Companies Act and is the company's highest decision making organ. The rules that govern general meetings of shareholders are found in the Swedish Companies Act, the Code, and the company articles of association Sections 10–12.

All shareholders registered in the share registry as of the record date and who have provided timely notice of their intention to participate in the general meeting are entitled to participate at the meeting and vote proportionally to the total number of shares they have. There are no limitations as to the number of votes shareholders may exercise at the general meeting. Notice for convening the general meeting is published for shareholders on the company's website and announced in Post- och Inrikes Tidningar. Simultaneously with publication of the notice, the company advertises this information in the newspaper Dagens Industri. Shareholders wanting to have a matter considered at the general meeting shall request so in writing to the Board of Directors. Such matters shall be brought for consideration at the general meeting if the request was submitted to the Board of Directors no later than seven weeks prior to the meeting. All shareholders are entitled to ask questions to the company regarding matters on the agenda for the general meeting, and in relation to the company and the Group's financial position.

The annual general meeting ('AGM') shall be held in Stockholm, Huddinge or Botkyrka within six months of the closing date for the financial year. The company's financial year begins on 1 January and closes 31 December. The AGM determines issues including adopting the company's annual report, appropriation of the company's profit or loss, and discharging the board members and the CEO from liability. The AGM also appoints board members and auditors, and determines the establishment of a nomination committee, fees for the Board of Directors and auditors, and guidelines for determining salaries and other remuneration to the CEO and other senior managers. Resolutions by the general meeting are normally passed by simple majority vote, except where the Swedish Companies Act imposes requirements for a higher portion of the shares and assigned votes represented at the general meeting, for example, resolutions regarding amendment of the company's articles of association. The general meeting has not authorised the Board of Directors to repurchase company shares.

The Articles of Association

Bactiguard's articles of association are published in full on the Bactiguard website, www.bactiguard.se. Changes to Bactiguard's articles of association are made in accordance with the provisions of the Swedish Companies Act. Bactiguard's articles of association stipulate that the Board of Directors shall consist of not less than three and no more than seven members. The board members are elected by the AGM for one year at a time. The company articles of association do not contain any special provisions on appointment or dismissal of board members.

Nomination Committee

At the 2018 AGM, rules were adopted for appointment of members to the Nomination Committee for the 2019 AGM. These rules, as adopted, provide that the Nomination Committee is to consist of five members and shall be formed by the Chairman of the Board of Directors contacting the four largest shareholders (by votes) as per ownership statistics as of 31 August, who each shall be entitled to appoint one member to serve together with the Chairman of the Board of Directors on the Nomination Committee. For the 2019 AGM, the Nomination Committee consists of Helena Borglund, Chair, (appointed by KK Invest AB, a company controlled by Christian Kinch), Thomas von Koch (appointed by Bactiguard B.V., a company controlled by Thomas von Koch), Mats J Andersson (appointed by Nordea Fonder), Per Colleen (appointed by Fjärde AP-Fonden) and Jan Ståhlberg (Chairman of the Board of Directors).

Board of Directors

The Board of Directors is the highest management organ of the company, standing under the authority of the general meeting. The Board of Directors is, inter alia, responsible for the company's organisation and management of the company's affairs, ensuring that the company's organisation is designed to adequately control the company's accounts, financial management and other economic conditions. The Board of Directors shall continually assess the company's financial position. The Board of Directors shall primarily address comprehensive and long-term issues, and other issues of unusual character or great significance to the Group and the company.

The Board of Directors' work shall follow a written work plan that shall ensure that the Board of Directors is fully informed and that all control related aspects of the company's operations are addressed. Pursuant to the work plan, the Chairman of the Board of Directors is responsible for monitoring and discussing the developments of Bactiguard in regular contacts with the CEO. The Chairman of the Board of Directors shall also perform duties such as ensuring that the Board of Directors receive continual information from the CEO as necessary to monitor the company's financial position, financial planning and development, and that an annual assessment of the work of the Board of Directors is conducted. In addition to the specific responsibility of the Chairman of the Board of Directors, the Board of Directors has not allocated its areas of responsibility in any way, other than that stipulated in the instructions for the audit and remuneration committees.

The work plan of the Board of Directors stipulates that the Board of Directors shall, in a 12 month cycle, address at least the following areas of importance for the company; accounting and auditing issues; market and market analyses; risk identification; strategy; organisation; assessment of the Board of Directors and the CEO and the system for internal control; and the company's capital structure. The Chairman of the Board of Directors is responsible for the annual evaluation of the work of the Board of Directors. In 2018 a survey was conducted that covered 18 different aspects of the Board's work and its efforts to promote value creation. The results of this survey were presented to both the Board and the Nomination Committee.

During 2018 the Board of Directors held a total of 8 meetings where minutes were recorded. All Board members were present at all Board meetings, except for one meeting when one Board member could not participate. In 2018, the Board's work, in addition to the regular board work, focused on the long-term strategy of reaching the company's financial targets of an average growth of 20% and an EBITDA margin of 30% over a five-year period.

Before the Annual General Meeting of 2018 Stanley Brodén declined re-election and Jan Ståhlberg was elected as the new Chairman at the AGM.

Since the 2018 AGM, the Board has therefore consisted of Jan Ståhlberg (Chairman), Mia Arnhult, Marie Wickman-Chantereau, Svante Östblom and Christian Kinch (CEO). Additional information on the board members is available on pages 36 – 37.

Board Committees

The Audit Committee is tasked with monitoring the company's financial reporting and the effectiveness of internal controls and risk management in the company, and internal audits as necessary. The committee shall also monitor and review the auditor's independence and impartiality, and especially follow whether the auditor provides other services than purely auditing services to the company. The committee also contributes proposals to the general meeting for adoption regarding the appointment of auditors. Up until the 2018 Annual General Meeting, the committee consisted of Mia Arnhult (Chair), Stanley Brodén, Marie Wickman-Chantereau and Svante Östblom. Since the 2018 AGM, Jan Ståhlberg has replaced Stanley Brodén as a member of the committee. All members were present at Audit Committee meetings during 2018.

The Remuneration Committee shall support the Board of Directors with proposals, advice, and preparation in regard to issues of remuneration principles for the CEO and other senior managers, and individual remuneration to the CEO in accordance with remuneration principles. These principles include the relationship between fixed and any variable remuneration, and the relationship between performance and remuneration, the general terms for any bonus and incentive programme, and the general terms for non-monetary benefits, pension, notice of termination and severance pay. The Board of Directors is also responsible as a whole for establishing remuneration levels and other employment terms for the CEO. Share-related incentive programmes for group management are, however, adopted only by the AGM. The committee shall also; support the Board of Directors in monitoring the system through which the company complies with publication requirements stipulated by legislation, market regulations and the Code in regard to information related to remuneration of the CEO and other senior managers. Monitor and assess any ongoing or concluded incentive programs for variable remunerations to the CEO and/or other senior managers; evaluate compliance with the guidelines for remuneration to the CEO and other senior managers adopted by the AGM as well as the current structure and levels of remuneration. Up until the 2018 AGM, the Remuneration Committee comprised the Board members Stanley Brodén (Chairman) and Marie Wickman-Chantereau. Since the 2018 AGM Jan Ståhlberg has replaced Stanley Brodén as the Chairman of the committee. All members comply with the Code's independence requirements for members of the committee. All members were present at Remuneration Committee meetings during 2018.

Chief Executive Officer

The CEO is appointed by the Board of Directors and is responsible for the daily administration of the company's operations in accordance with the instructions and regulations of the Board of Directors. The CEO also functions as the Chairman of the management making all decisions in consultation with other managers. Christian Kinch was the company's CEO in 2018. Additional information on the CEO is available on pages 34 and 36.

Internal controls and risk management activities regarding financial reporting

As the company's financial system is designed to ensure that entering agreements and payment of invoices, and similar, must follow the decision processes, and the signatory and authorisation procedures provided in internal steering documents, the company has a basic control structure to counteract and prevent the risks identified by the company. In addition to these control structures, a series of additional control activities are conducted to further discover and correct any errors and deviations. Such control activities consist of follow-up at various levels in the organisation, for example, follow-up and review by the Board of Directors regarding their formal decisions; review and comparison of income items and account settlement; and approval of the accounting of business transactions with the finance department. In accordance with its work plan, the Board of Directors conducts an annual review of these internal controls and also, annually, performs risk identification and establishes risk mitigation measures. The auditor is invited to a board meeting to present its auditing measures in regard to internal control.

The division and delegation of responsibility have been documented and communicated in internal steering documents established for the Board of Directors and the company, such as; the work plan of the Board of Directors, the CEO instruction, and the delegation of authority, authorisation procedure and other internal steering documents, such as the financial handbook. All internal steering documents are maintained up-to-date on a regular basis, to reflect legislative changes or revision of reporting standards. Bactiguard has established an organisation for the purpose of ensuring that all financial reporting is correct and efficient.

The internal steering documents define responsibilities and daily interactions between the positions involved so that all necessary information and communication reach all persons as necessary. The group management receives monthly financial information regarding the company and its subsidiaries in regard to developments of upcoming investments and liquidity planning. The company's communication policy is designed to ensure that publication of all information, both internal and external is made correctly and at the appropriate time for all occasions.

Monitoring is conducted continuously at all levels of the organisation. The Board of Directors regularly assesses the information which the company's senior management and auditors submit. In addition, the Board of Directors conduct annual follow-up of previous risk assessments and any measures implemented therefore. The Board of Directors' monitoring of developments in internal controls and ensuring that measures are taken in regard to any shortcomings or suggestions that arise are particularly important.

Internal audit

Considering the scope of the company's operations and the organisational structure at large, the Board of Directors has not found any reason to implement an internal auditing unit. The Board of Directors has assessed that the monitoring and review programme described above are sufficient, in combination with the external audits, to maintain effective internal controls in regard to the financial reporting.

Christian Kinch
CEO

Employed: 2005 (founder)

Born: 1966

Education: Studies at the Stockholm School of Economics.

Other assignments: Board member of Swecare Aktiebolag. Chairman of the Board of SWIB Holding AB (holding company for Smartwise Sweden AB and Procella Therapeutics AB). Owner and Board member of KK Invest AB, KK Consult AB and KK Technology AB.

Background: Founder and CEO of Kinchard AB and Netpharma AB.

Shareholding in the Company: 2,000,000 shares series A (legal entity) and 4,125,977 shares series B (family and legal entity), whereof 100 shares series B (children).

Cecilia Edström
CFO

Employed: 2014

Born: 1966

Education: BSc Business and Economics, Stockholm School of Economics.

Other assignments: Board member of Nordic Public Affairs AB.

Background: Various positions at SEB, as well as in Group Management for Scania AB and TeliaSonera AB

Shareholding in the Company: 216,948 shares of series B (own).

Nina Nilsson
Vice President Sales & Marketing

Employed: 2014

Born: 1977

Education: Diploma in Marketing from IHM Business School. Studies in medical education, Karolinska Institutet

Other assignments: –

Background: Several assignments within international marketing and sales for Johnson & Johnson, programme coordinator at the Swedish Agency for Health Technology Assessment and Assessment of Social Services (SBU).

Shareholding in the Company: 84,632 shares of series B (own).

Jonas Östregård
Vice President Sales

Employed: 2018

Born: 1975

Education: BSc Business and Economics, Stockholm University

Other assignments: –

Background: Various sales positions at AstraZeneca, reserve officer

Shareholding in the Company: 21,175 shares of series B (own).

Jan Ståhlberg
Chairman of the Board

Elected: 2018

Born: 1962

Education: BSc Business and Economics, Stockholm School of Economics. MBA programme at New York University, student at Stern School of Business.

Other assignments: Board member of Trelleborg AB and ITB-Med AB. Owner and CEO of Trill AB.

Shareholding in the Company: 2,956,831 shares of series B (own).

Independent of the company and company management: Yes

Mia Arnhult
Board member

Elected: 2014

Born: 1969

Education: Degree in Business finance and trade law, Lund University.

Other assignments: CEO and Board member of M2 Asset Management AB, M2 Gruppen AB and M2 Gruppen 1 AB. CEO for Locellus AB and Arnhult Invest AB. Board member of Odd Molly International AB, Devyser Holding AB, Lidingöloppet, Suburban Properties Stockholm AB with its subsidiaries, and M2 Capital Management AB.

Shareholding in the Company: 50,000 shares series B (own) and 502,000 shares series B (legal entity)

Independent of the company and company management: Yes

Christian Kinch
Board member

Elected: CEO of the Group since June 2015 and during the period June 2005 to March 2014. Chairman of the board from March 2014 to June 2015.

Born: 1966

Education: Studies at the Stockholm School of Economics.

Other assignments: Board member of Swecare Aktiebolag. Chairman of the Board of SWIB Holding AB (holding company for Smartwise Sweden AB and Procella Therapeutics AB). Owner and Board member of KK Invest AB, KK Consult AB and KK Technology AB.

Shareholding in the Company: 2,000,000 shares series A (legal entity) and 4,125,977 shares series B (family and legal entity), whereof 100 shares series B (children).

Independent of the company and company management: No

Marie Wickman-Chantereau
Board member

Elected: 2016

Born: 1955

Education: M.D and Med. DR., Associate Professor of Plastic Surgery, Karolinska Institutet Stockholm.

Other assignments: Chief Medical Officer, Sophiahemmet, and Professor in Medical Science at Sophiahemmets Högskola.

Shareholding in the Company: 20,000 shares of series B (legal entity).

Independent of the company and company management: Yes

Svante Östblom
Board member

Elected: 2017

Born: 1960

Education: BSc Business and Economics, Uppsala University.

Other assignments: Board member of Adamo Telecom Iberia S.A, Origo Group AB (Chairman), Bredbandsgruppen AB, Arremon AB and Candidator AB.

Shareholding in the Company: 50,000 shares of series B (legal entity).

Independent of the company and company management: Yes

Consolidated income statement

Amounts in TSEK	Note	2018	2017
Net sales	5, 6	150,097	147,458
Other operating revenues	5, 7	13,063	6,181
Total		163,160	153,639
Raw material and consumables		-25,717	-20,262
Other external expenses	8, 9	-56,429	-42,329
Personnel costs	10	-53,838	-51,475
Depreciation	15, 17-22	-34,194	-35,015
Other operating expenses	7	-5,022	-5,141
Total		-175,201	-154,221
Operating profit/loss		-12,040	-582
Profit/loss from financial items			
Financial revenues	11	3,698	1,378
Financial expenses	12	-12,353	-9,088
Total		-8,655	-7,710
Profit before tax		-20,695	-8,292
Taxes for the period	13	5,764	5,042
Profit/loss for the year		-14,931	-3,251
Attributable to:			
The parent company's shareholders		-14,931	-3,251
Earnings per share in SEK*		-0.45	-0.10

*no dilution is applicable

Consolidated statement of comprehensive income

Amounts in TSEK	2018	2017
Profit/loss for the year	-14,931	-3,251
Other comprehensive income:		
Items that will be reclassified to profit or loss for the year		
Translation differences	-421	28
Other comprehensive income, after tax	-421	28
Total comprehensive income for the year	-15,352	-3,223
Attributable to:		
The parent company's shareholders	- 15,352	-3,223
Total earnings per share, SEK	-0.46	-0.10

Consolidated statement of financial position

Amounts in TSEK	Note	31/12/2018	31/12/2017
ASSETS			
Non-current assets			
Intangible assets			
Goodwill	14	226,292	226,292
Technology	15	188,998	212,805
Brands	16	25,572	25,572
Customer relationships	17	9,368	10,548
Capitalised development costs	18	21,494	18,568
Patent	19	414	571
Total		472,138	494,355
Property, plant and equipment			
Improvements, leasehold	20	10,896	13,031
Machinery and other technical plant	21	16,761	19,580
Equipment, tools and installations	22	2,133	3,107
Total		29,790	35,717
Financial assets			
Non-current accounts receivable	26	-	17,263
Other non-current receivables		477	-
Participations in associates and joint ventures	24	-	-
Total		477	17,398
Total non-current assets		502,405	547,336
Current assets			
Inventories	25	14,266	13,608
Accounts receivable	26	54,492	39,596
Other current receivables		3,224	2,046
Prepaid expenses and accrued income	27	11,197	11,254
Cash and cash equivalents	28	1,893	11,550
Total		85,072	78,054
TOTAL ASSETS		587,477	625,390
EQUITY AND LIABILITIES			
Equity attributable to shareholders of the parent			
Share capital	29	833	833
Translation reserve		-305	116
Other capital contribution		675,690	675,690
Retained earnings including net profit for the year		-305,396	-289,533
Total		370,821	387,105
Total equity		370,821	387,105
Non-current liabilities			
Advance payments from customers		-	17,263
Deferred tax liabilities	13	19,471	25,243
Liabilities to credit institutions	30, 31	130,805	142,500
Other long-term liabilities	21	10,938	12,476
Total		161,214	197,482
Short-term liabilities			
Liabilities to credit institutions	30	14,400	7,500
Accounts payable		7,051	4,832
Other short-term liabilities	21	15,721	6,855
Accrued expenses and prepaid income	32	18,270	21,616
Total		55,442	40,803
Total liabilities		216,655	238,285
TOTAL EQUITY AND LIABILITIES		587,477	625,390

Consolidated statement of changes in equity

	Equity attributable to shareholders of the parent				
Amounts in TSEK	**Share capital**	**Other capital contribution**	**Translation reserve**	**Retained earnings including net profit for the year**	**Total equity attributable to shareholders of the parent company**
Opening balance 1 January 2017	833	675,690	88	-286,283	390,328
Comprehensive income					
Profit/loss for the year	–	–	–	-3,251	-3,251
Other comprehensive income:					
Translation differences	–	–	28		28
Total other comprehensive income, after tax	–	–	28	–	28
Total comprehensive income	–	–	28	-3,251	-3,223
Transactions with shareholders					
Total transactions with shareholders	–	–	–	–	–
Closing balance 31 December 2017	833	675,690	116	-289,533	387,105
Adjustment of opening balance on 1 January 2018, changed accounting policy, IFRS 9	–	–	–	-932	-932
Opening balance 1 January 2018	833	675,690	116	-290,465	386,173
Comprehensive income					
Profit/loss for the year	–	–	–	-14,931	-14,931
Other comprehensive income:					
Translation differences	–	–	-421	–	-421
Total other comprehensive income, after tax	–	–	-421	-	-421
Total comprehensive income	–	–	-421	-14,931	-15,352
Transactions with shareholders					
Total transactions with shareholders	–	–	–	–	–
Closing balance 31 December 2018	833	675,690	-305	-305,396	370,821

Consolidated statement of cash flows

Amounts in TSEK	Note	2018	2017
Cash flow from operating activities			
Net profit/loss for the year		-14,931	-3,251
Adjustment for non-cash flow items:			
Depreciation		34,194	35,015
Other non-cash items		-1,708	-3,224
		17,555	28,540
Increase/decrease inventory		-427	1,565
Increase/decrease accounts receivable		-1,162	-12,476
Increase/decrease other current receivables		-2,884	1,231
Increase/decrease accounts payable		2,213	-56
Increase/decrease other current liabilities		-14,431	-12,687
Cash flow from operating activities		-16,691	-22,424
Investing activities			
Investments in intangible assets		-5,020	-3,661
Investments in property, plant and equipment		-725	-2,571
Cash flow from investing activities		-5,745	-6,232
Operating cash flow		-4,881	-117
Financing activities			
Amortisation of financial leasing debt		-1,466	- 1,398
Amortisation of loan		-7,500	-150,000
Debt incurred		-	150,000
Up-front fee for loan		-	-1,800
Change to bank overdraft		3,905	-
Cash flow from financing activities	34	-5,061	-3,198
Cash flow for the year		-9,942	-3,315
Cash and cash equivalents at start of year		11,550	15,645
Exchange difference in cash and cash equivalents		285	-780
Cash and cash equivalents at end of year		1,893	11,550

Parent company income statement

Amounts in TSEK	Note	2018	2017
Net sales		–	–
Other operating revenues	5, 7	6,967	6,464
Total		6,967	6,646
Other external expenses	8, 9	-1,740	-2,474
Personnel costs	10	-8,700	-7,467
Total		-10,440	-9,941
Operating profit/loss		-3,474	-3,477
Profit/loss from financial items			
Interest income and similar items	11	3,073	3,076
Interest expenses and similar items	12	-5,122	-5,321
Total		-2,049	-2,245
Profit/loss after financial items		-5,523	-5,722
Taxes for the period	13	–	–
Profit/loss for the year		-5,523	-5,722

Statement of comprehensive income, parent company

Amounts in TSEK	2018	2017
Profit/loss for the year	-5,523	-5,722
Other comprehensive income	–	–
Total comprehensive income	-5,523	-5,722

Parent company balance sheet

Amounts in TSEK	Note	2018	2017
ASSETS			
Non-current assets			
Financial assets			
Shares in subsidiaries	23	414,574	414,574
Receivables from group companies		192,915	208,415
Total		607,489	622,989
Current assets			
Current receivables			
Other current receivables		146	4
Prepaid expenses and accrued income	27	201	1,962
Total		347	1,966
Cash and bank balances	28	648	374
Total current assets		995	2,340
TOTAL ASSETS		608,484	625,329
EQUITY AND LIABILITIES			
Equity			
Restricted equity			
Share capital	29	833	833
Total		833	833
Non-restricted equity			
Retained earnings		461,976	467,698
Profit/loss for the year		-5,523	-5,722
Total		456,453	461,976
Total equity		457,286	462,809
Non-current liabilities			
Liabilities to credit institutions	30	126,900	142,500
Total		126,900	142,500
Short-term liabilities			
Liabilities to group companies		7,656	9,775
Liabilities to credit institutions	30	14,400	7,500
Accounts payable		181	296
Other short-term liabilities		343	369
Accrued expenses and prepaid income	32	1,718	2,080
Total		24,298	20,020
Total liabilities		151,198	162,520
TOTAL EQUITY AND LIABILITIES		608,484	625,329

Changes in equity, parent company

Amounts in TSEK	Share capital	Restricted equity	Non-restricted equity	Total equity
Opening balance 1 January 2017	833	–	467,698	468,531
Comprehensive income				
Profit/loss for the year	–	–	-5,722	-5,722
Total comprehensive income	–	–	-5,722	-5,722
Total transactions with shareholders	–	–	–	–
Closing balance 31 December 2017	833	–	461,976	462,809
Opening balance 1 January 2018	833	–	461,976	462,809
Comprehensive income				
Profit/loss for the year	–	–	-5,523	-5,523
Total comprehensive income	–	–	-5,523	-5,523
Total transactions with shareholders	–	–	–	–
Closing balance 31 December 2018	833	–	456,453	457,286

Cash flow statement, parent company

Amounts in TSEK	Note	2018	2017
Cash flow from operating activities			
Net profit/loss for the year		-5,523	-5,722
Adjustment for non-cash flow items:		-2,487	-3,314
		-8,010	-9,036
Increase/decrease other current receivables		682	5,323
Increase/decrease accounts payable		-114	210
Increase/decrease other current liabilities		-284	29,459
Cash flow from operating activities		-7,726	25,956
Investing activities			
Shareholder contributions subsidiaries		-	-30,000
Cash flow from investing activities		–	-30,000
Financing activities			
Amortisation of loan		-7,500	-150,000
Debt incurred			150,000
Up-front fee for loan			-1,800
Amortisation loan group companies		15,500	5,100
Cash flow from financing activities	34	8,000	3,300
Cash flow for the year		274	-744
Cash and cash equivalents at start of year		374	1,118
Cash and cash equivalents at end of year		648	374

NOTE 1 General information

Bactiguard Holding AB, corporate identity number 556822-1187, is a limited company registered in Sweden and domiciled in Stockholm The address of the headquarters is Box 15, 146 21 Tullinge. The operations of the company and its subsidiaries ('the Group') are conducted in south Stockholm (headquarters and production facilities) and in Malaysia (production facilities). The operations cover research and development, production, marketing and sales of the company's products and technical solutions.

NOTE 2 Significant accounting policies

The consolidated financial statements for Bactiguard Holding AB have been prepared in accordance with International Financial Reporting Standards (IFRS) as approved by the EU and the interpretations of the IFRS Interpretations Committee (IFRIC) as per 31 December 2018.

In addition, the Group applies the Swedish Annual Accounts Act and the Swedish Financial Reporting Board's recommendation RFR 1 "Supplementary rules for Group accounting".

Items in the consolidated financial statements have been prepared on a cost basis, except for certain financial instruments which are stated at fair value.

The accounting currency of the parent company is the Swedish krona, which is also the presentation currency of the Group. All amounts are specified in thousands unless otherwise stated. The significant accounting policies which have been applied are described below.

New and amended IFRS standards and new interpretations 2018

Changes	Shall be applied for the financial year starting:
IFRS 9 Financial Instruments	1 January 2018
IFRS 15 Revenue from Contracts with Customers	1 January 2018
IFRIC 22 Foreign Currency Transactions and Advance Consideration	1 January 2018

IFRS 9 Financial Instruments replaces IAS 39 Financial Instruments: Recognition and Measurement. IFRS 9 contains rules for accounting, classification and measurement, impairment, derecognition and general rules for hedge accounting. The major changes are in the areas of classification and measurement, impairment and hedge accounting. The Group does not apply hedge accounting.

Classification and measurement: In the first report that complies with IFRS 9, the financial assets are classified as fair value via the income statement, amortised cost or as fair value via other comprehensive income.

- The classification assessment for debt instruments is based on two criteria: (a) the company's business model for managing the financial asset (b) the contractual cash flows of the instrument.
- The classification of equity instruments is fair value via the income statement, except when the company has chosen to present such instruments at fair value via other comprehensive income.
- The rules for the classification and measurement of financial liabilities remain largely unchanged from IAS 39.

Impairments: removes the requirement of identifying an eventual loss event and introduces a model for expected credit losses. The model calculates expected credit losses , which means all financial assets valued at amortised cost must have a reserve already at the time the asset is booked into the balance sheet. The model establishes a three-digit classification based on whether there has been a significant increase in credit risk or not. For financial assets where there has been no significant increase in credit risk since initial recognition, the provision corresponds to the credit loss that is expected to occur as a result of the default event within a period of 12 months. For financial assets where there has been a significant increase in credit risk since initial recognition and for those that are doubtful, the provision corresponds to the expected credit losses for the remaining maturity period of the asset.

The Group has applied this standard for the first time during the 2018 financial year. Bactiguard has elected to apply the forward-looking method for transitioning to IFRS 9 and has therefore not remeasured prior periods. Classification of financial assets has changed due to new model but the transition has not meant differences in the valuation of the assets. However the Group is affected by the new impairment model for calculating the expected credit loss provision for all accounts receivable, with the opening balance for equity in January 2018 being adjusted by MSEK -0.9 as a result of this new standard. For other financial assets valued at amortised cost no reserve for credit losses has been considered necessary, as these have a duration of less than 12 months and the credit risk is considered low. Thus, the transition to IFRS 9 did not have any significant effects for the Group with respect to impairment of these assets. Further information about the Group's impairment model is presented in note 4.

IFRS 15 replaces IAS 18 Revenue, IAS 11 Construction Contracts and Related Interpretations. The new standard means a new model of revenue recognition (five-step model) based on when the control of a product or service is transferred to the customer. The basic principle is that a company reports revenue to illustrate the transfer of promised goods and services to customers at an amount that reflects the remuneration that the company is expected to be entitled to in return for these goods or services. IFRS 15 introduces a five-step model:

Step 1 Identify the agreement
Step 2 Identify the performance obligations
Step 3 Determining the transaction price
Step 4 Allocation of the transaction price for performance obligations
Step 5 Report revenue when (or as) the company fulfilles its performance obligations

IFRS 15 contains more guidance and comprehensive disclosure requirements.

The Group has applied this standard for the first time during the current financial year. A detailed analysis in line with the five-step model has been conducted regarding the company's significant customer agreements. The analysis shows the Group's revenue streams, how the transaction price is determined, and how revenue recognition for each revenue stream illustrates the transfer of promised goods and services to the Group's customers. Following this analysis of the company's revenue recognition, the transition to IFRS 15 did not have any quantifiable impact on revenue flows. This means that this new standard has not resulted in any changes to the recognised amounts in the financial statements.

Bactiguard has elected to apply the forward-looking method and has therefore not remeasured prior periods. Further information about the Group's allocation of revenue is presented in note 5.

IFRIC 22 clarifies how transactions in foreign currency arising from the payment or receipt of advance consideration are to be recognised (for example an advance paid when purchasing property, plant and equipment or inventories). IFRIC 22 states that the payment and receipt of the advance consideration are to be recognised at the exchange rate on the transaction date. If there are multiple payments or receipts in advance, the company must determine a transaction date for each payment or receipt of advance consideration.

The Group has applied IFRIC 22 for the first time during the current financial year. This application has not resulted in any changes to the recognised amounts in the financial statements as the Group's accounting already complied with the content in IFRIC 22.

The management assesses that other new or amended standards and new interpretations, which have entered into force in 2018, have not had any material impact on the Group's financial statements.

New or amended IFRS standards and new interpretations that have not yet entered into force

The new or amended standards and new interpretations issued by the International Accounting Standards Board (IASB) and the IFRS Interpretations Committee (IFRIC) but that entered into force for the financial year beginning after 1 January 2019 are yet to be applied by the Group. The standard described below is the standard that is judged to have an impact on the consolidated financial statements as it is being applied for the first time.

Changes	Shall be applied for the financial year starting:
IFRS 16 Leases	1 January 2019

This standard has a leasing model for lessees, which means that virtually all leases must be recognised in the statement of financial position in order to provide a fairer picture of the company's financial position and to improve the disclosures on indebtedness and the use of capital.

The right of use (leasing asset) and the liability are measured at the present value of future lease payments. The right of use also includes direct costs attributable to the signing of the leasing agreement. In the income statement depreciation on the right of use and interest expenses are recognised. The right of use is recognised separately from other assets in the statement of financial position, or is included in the item in which the corresponding assets would be recognised if they were owned. If it is included among other assets, the company has to state this along with the items that include rights of use. In subsequent periods, the right of use is recognised at acquisition value less depreciation and impairments, if any, and is adjusted for any remeasurement of the leasing liability.

The leasing liability is recognised separately from other liabilities. If the leasing liability is not recognised separately, the company has indicate the items that cover these liabilities. In subsequent periods, the liability is recognised at the amortised cost and is reduced by the leasing payments that have been made. The leasing liability is revalued following changes to the leasing period, residual value guarantees and changes to lease payments, if any.

Short leasing contracts (12 months or shorter) and leasing agreements where the underlying assets amount to at low value (a maximum of TSEK 45) do not need to be recognised in the statement of financial position. These will be recognised in operating income in the same way as previous operating leases.

There are virtually no changes in rules for lessors in IFRS 16.

This new standard contains more extensive disclosures compared to the current standard.

The Group will start to apply IFRS 16 from 1 January 2019. In 2018 Bactiguard compiled and analysed all of the Group's leases and service agreements to determine which must be classified as leases in accordance with IFRS 16. As a result, 12 operating leases were identified for offices, company cars and office equipment, which will be reclassified as financial leases in accordance with IFRS 16. Bactiguard has a financial leasing agreement for a production plant, which used to be recognised in accordance with IAS 17 Leases, but which will be reclassified in accordance with IFRS 16 at the amounts that were reported on the day immediately before the application of this new standard.

The Group will apply the forward-looking method for transitioning to this new standard, which means that the comparison figures will not be recalculated. The effect of applying IFRS 16 is recognised as per 1 January 2019. Bactiguard will recognise a right of use at an amount corresponding to the lease liability, adjusted for the amount of any prepaid or accrued expenses that are attributable to the leasing agreement, as recognised as per 31 December 2018. The transition to IFRS 16 will therefore not have any impact on the Group's equity.

When establishing the right of use and lease liability for current agreements, the most important judgements are whether an agreement is, or contains a leasing agreement, establishing the leasing periods and discount rates. Leases with a term less than 12 months are classified as short-term agreements, and leases where the underlying asset has a replacement value less than TSEK 45 are classified as low-value agreements. None of these types of agreement are included in the rights of use or lease liabilities that have been recognised. The right of use period has been established based on how the termination and extension clauses are expected to be used, taking into account the company's strategic future plans, and historic information about how the extension options have previously been used. If it is not reasonably certain that there will be an extension, the extension will not be included in the calculation of the lease liability. The company's marginal loan rate at the transition date is used as the discount rate. This has been established per country based on the ten-year government bond rate, the company's credit risk and the currency risk.

Following calculations, the opening balances as per 1 January 2019 for the leasing asset and interest-bearing lease liability items have been adjusted by MSEK 74. When applying IFRS 16 EBITDA will increases as leasing fees decrease and is replaced by depreciation of the leased assets. and interest attributable to the lease amortization. Also the cash flow from operating activities will increase and cash flow from the financing activities will decrease compared to earlier, since amortization of the leasing liabilities will be classified as cash flows from financing activitites. IFRS 16 will also affect some of the key figures presented in the external reporting,such as EBITDA, Equity ratio and Net debt.

Consolidated financial statements

The consolidated financial statements cover the parent company Bactiguard Holding AB and those companies over which the parent company has direct or indirect control (subsidiaries). Control involves the entitlement to directly or indirectly design strategies of a company in order to obtain economic benefits. In determining whether control exists, any shareholder agreements or potential voting shares that may be utilised or converted without delay shall be considered. Control normally exists when the parent company directly or indirectly holds shares representing more than 50% of the votes.

Subsidiaries are consolidated in the financial statements as of the acquisition date, and are excluded from consolidation as of the date when such control ceases.

The accounting policies for subsidiaries have been amended, when necessary, to ensure consistent application of the Group's accounting policies. All intra-group transactions, dealings and unrealised gains and losses attributable to intra-group transactions have been eliminated when preparing the consolidated financial statements.

Loss of control

If the parent company loses control over a subsidiary, the gain or loss is measured at the time of disposal as the difference between:

i) the total of the fair value for the consideration received and the fair value of any remaining holding, and

Ii) the previous carrying amount for the subsidiary's assets (including goodwill), and liabilities, and any holdings without control.

Business combinations

Business combinations are recognised using the acquisition method. The cost of business combinations is carried at fair value on the acquisition date, and is measured as the sum of the fair value on the acquisition date for the assets paid, any incurred or assumed liabilities, and the equity interest issued in exchange for control of the acquired business. Acquisition-related costs are recognised in the income statement when they are incurred.

The identifiable acquired assets and assumed liabilities, and contingent assets are recognised at fair value on the acquisition date with the following exceptions:

- Deferred tax assets or liabilities and liabilities or assets attributable to the business combination agreements for remuneration to employees are recognised and valued in accordance with IAS 12 Income taxes and IAS 19 Employees benefits.
- Liabilities or equity instruments attributable to the acquired business' share-based allocations or to the exchange of the acquired businesses' share-based allocations against the acquiring entity's share-based allocations are valued on the acquisition date in accordance with IFRS 2 Share-based payment.
- Non-current assets (or disposal groups) classified as held for sale according to IFRS 5. Non-current assets held for sale and discontinued operations are measured according to the standard.

Contingent liabilities assumed in a business combination are recognised as though they are existing liabilities that are the result of past events, and whose fair value can be measured reliably.

For business combinations where the total purchase price, any holding without control, and fair value on the acquisition date of previous shareholding, exceeds the fair value of identifiable acquired net assets on the acquisition date, the difference is recognised as goodwill in the statement of financial position. If the difference is negative, this is recognised as a profit on an acquisition at a low price immediately in the income statement after testing the difference.

In every business combination, the previous holding without control in the acquired business is carried either at fair value or at the value of the proportional share of the holding without control in the identifiable net assets in the acquired business.

Goodwill

Goodwill arising from acquisition of subsidiaries is measured as the amount where the total purchase price, any holding without control and fair value on the acquisition date of previous shareholding exceeds the fair value on the acquisition date of the identifiable acquired net assets. Goodwill that arises during the acquisition of subsidiaries is recognised at cost less any accumulated impairments.

For impairment testing, goodwill is allocated to the cash generating units that are expected to benefit from synergies expected from combining operations. Goodwill shall be tested for impairment annually, or more often whenever events indicate that the carrying amount may not be recoverable. If the recovery value of a cash generating unit is determined to be lower than the carrying amount, the amount of write-down is allocated, first by reducing the carrying amount for goodwill attributable to the cash generating unit and then by the carrying amount for goodwill attributable to the other assets attributable to the cash-generating unit proportionally based on the carrying amount of each asset in the unit. A recognised impairment of goodwill can not be reversed in a later period.

During the sale of a subsidiary, the remaining carrying amount for goodwill is included in the calculation of the capital gain or loss.

Operating segments

Operating segments are components of a company that engages in business activities from which it may earn revenues and incur expenses, whose operating profit/loss is audited regularly by the company's chief operating decision maker, and for which independent financial information is available. The company's reporting of operating segments matches the internal reporting to the chief operating decision maker. The chief operating decision maker is the function that assesses the operating segment's results and makes decisions on the allocation of resources. The company's assessment is that the group management is the chief operating decision maker.

The company is deemed to operate entirely within a single operating segment.

Revenues

Before 1 January 2018 the Group applied IAS 18 Revenue for recognising revenue. From 1 January 2018 the Group applies IFRS 15 Revenue from Contracts with Customers, where the basic principle for revenue recognition is that a company should recognise revenue to illustrate the transfer of promised goods or services to the customer at an amount that reflects the remuneration to which the company expects to be entitled in exchange for these goods or services. Revenue is recognised when the customer obtains control over goods or services. The transition to IFRS 15 had no effect on the Group's revenue recognition.

The Group's revenues are mostly from license revenues and product sales. Revenues are recognised at the transaction price of the consideration that has been received or will be received, less VAT, discounts and similar deductions.

License revenues

License revenues are attributable to sales of products under license, which currently includes the Group's licensing agreement with Becton Dickinson and Company regarding Foley catheters for the USA, Japan, the UK, Ireland, Canada and Australia, a license agreement with Vigilenz Medical Devices for orthopaedic trauma implants, covering the ASEAN region, a global license agreement with Smartwise Sweden AB for vascular injection catheters as well as a license agreement with Well Lead Medical covering all products in Bactiguard's portfolio for the Chinese market, all with the Bactiguard technology

The licensing rights refer to the right to use Bactiguard's technology to provide coating for products. The Group's revenues from existing licensing agreements are recognised at a certain point of time, which is corresponding to the period to which the license entitlement refers. License revenues also include royalties. Royalties are a variable consideration from license customers, which are based on various factors in the agreement. Revenues for royalties are recognised continuously based on the expected value. The expected value is calculated based on current, historical and projected data.

When a new license agreement is signed, it is analysed based on the five-step model in IFRS 15; i.e. i) identify the agreement, ii) identify the performance obligations, iii) determining the transaction price, iiii) allocation of the transaction price for performance obligations, iiiii) report revenue when (or as) the company fulfilles its performance obligations. A new license agreement is normally divided into two phases; the collaboration phase and the commercial phase. Various performance obligations are identified in the different phases of the license agreement and a transaction price per obligation is stipulated in the agreement. The revenue from the new license agreement is recognised as the performance obligations are fulfilled.

Thus, only part of revenues from the new license agreements are recognized over time, other license revenues are recognized at a certain point of time. For detailed and quantified information, see note 5.

Product sales

Bactiguard's BIP (Bactiguard Infection Protection) product portfolio currently includes sales of the BIP Foley, BIP ETT and BIP CVC products. Revenues from the sale of products are recognised at the time the control passes to the customer, i.e. when the ownership of the product has been transferred to the customer which normally coincides with delivery to customer.

Sales of rights

Previously entered distribution agreements regarding the rights to geographical markets are recognised as accounts receivable and prepaid income. The distributor is entitled to call off products at a value corresponding to the prepaid revenue. Revenue is recognised once settlement against prepaid income occurs, that is once the products are delivered.

Since 2015, no new agreements have been concluded with the right to call off products. As of 31 December 2018 the company only has a limited number of these kinds of agreements. For information about prepaid income in these agreements, see note 32.

Leasing agreements

A financial leasing agreement is an agreement that essentially transfers all the financial risks and rewards associated with ownership of an object from the lessee to the lessor. Other leases are classified as operating leasing agreements. As of 31 December 2018, the Group has a financial lease for part of a production plant, which is recognised in the balance sheet, while other agreements are classified as operating leasing agreements.

Assets held under financial leasing agreements are recognised as non-current assets in the consolidated balance sheet at fair value at the beginning of the lease period, or at the present value of the minimum lease payments whichever is lower. Corresponding liabilities to the lessor are recognised in the balance sheet as financial leasing debt. Leasing payments are divided between interest rates and amortisation of the debt. The interest is allocated over the leasing period to ensure that each accounting period is charged with an amount corresponding to a fixed interest rate on the liability recognised during each reported period. The interest expense is recognised directly in the income statement. If the interest expense is directly attributable to the acquisition of an asset that necessitates taking considerable time to complete the intended use or sale, the interest expense is instead to be included in the asset's acquisition value in line with the Group's borrowing costs principles (see below). Fixed assets are depreciated over the shorter period of the useful life of the asset and the leasing period.

Leasing fees from operating leasing agreements are charged on a straight-line basis over the lease term unless other systematic methods better reflect the economic utility of users over time.

Foreign currencies

Items in the individual financial statements of each Group entity are presented in the currency of the primary economic environment in which each entity mainly operates. All amounts in the consolidated financial statements are translated to Swedish krona (SEK), which is the parent company's accounting and reporting currency.

Foreign currency transactions in each entity are translated into the entity's functional currency according to prevailing exchange rates on the transaction date. On each balance sheet date, monetary items in foreign currency are translated at the exchange rate on the balance sheet date. Non-monetary items, carried at fair value in a foreign currency, are translated at the rate that existed when the fair value was determined. Non-monetary items, carried at historical cost in a foreign currency are not translated.

Exchange rate differences are recognised in the income statement for the period in which they arise, except for transactions that are hedges that fulfil the conditions for hedge accounting of cash flows or for net investments, where the gain or loss is recognised in other comprehensive income.

In preparing these consolidated financial statements, foreign subsidiaries' assets and liabilities are translated to Swedish krona using the exchange rate on the balance sheet date. Revenue and cost items are translated to the average exchange rate for the period, unless the exchange rate has fluctuated significantly during the period, whereby the exchange rate on the transaction date is used instead. Any translation differences that arise are recognised in other comprehensive income and transferred to the Group's translation reserve. On disposal of a foreign subsidiary, such translation differences are recognised in the income statement as a part of the capital gain or loss.

Goodwill and changes to fair value that arise in the acquisition of a foreign business are treated as assets and liabilities of the operations and translated at the exchange rate on the balance sheet date.

Borrowing costs

Borrowing costs that are directly attributable to the acquisition, construction or production of an asset that necessarily takes a substantial period of time to complete for its intended use or sale are included in the cost of the asset up to the time the asset is completed for its intended use or sale. Interest income from the temporary investment of such borrowings is deducted from the borrowing costs that are recognised in the asset's cost.

Other borrowing costs are recognised in the income statement in the period they arise.

Employee benefits

Employee benefits in the form of salaries, bonus, paid vacation, paid sick leave, and similar, as well as pensions are recognised as they are incurred. Pensions and other benefits after terminated employment are classified as defined contribution or defined benefit pension plans. The Group only has defined contribution pension plans.

Defined contribution plans

The company pays fixed fees to a separate independent legal entity for defined contribution plans and has no liability to pay additional fees. Group earnings are charged for costs as the benefits are earned, which normally coincides with the date when the premiums are paid.

Taxes

Tax expense is the sum of current and deferred tax.

Current tax

Current tax is measured as the taxable earnings for the period. Taxable earnings differ from the profit shown in the income statement, which includes non-taxable revenue and non-deductible expenses, and revenues and costs that were taxable or deductible in other periods. The Group's current tax liabilities are calculated applying the tax rates that have been decided or advised as of the balance sheet date.

Deferred tax

Deferred tax is recognised for all temporary differences that arise between the carrying amount of the assets and liabilities in the financial statements and the taxable amounts used when calculating taxable income. Deferred tax is recognised, using the balance sheet liability method. In principle deferred tax liabilities are recognised for all taxable temporary differences, and in principle deferred tax assets are recognised for all deductible temporary differences to the extent it is probable that the amounts can be utilised against future taxable profit. Deferred tax liabilities and tax assets are not recognised if the temporary difference is attributable to goodwill or if it arises from a transaction that is the first reporting of an asset or liability (that is not a business combination) and which, on the transaction date, does not affect recognised or taxable income.

Deferred tax liabilities are recognised for taxable temporary differences attributable to investments in subsidiaries, except when the date for reversing the temporary differences can be controlled by the Group and it is probable that such a reversal will not take place in the foreseeable future. The deferred tax assets that are attributable to deductible temporary differences related to such investments shall only be recognised to the extent it is probable that the amounts can be utilised against future taxable profit and it is probable that these will be utilised in the foreseeable future.

The carrying amount for deferred tax assets is reviewed at the end of each reporting period and reduced to the extent it is no longer probable that sufficient taxable profit will be available to be utilised, wholly or partially, against the deferred tax assets.

Deferred tax is measured at the tax rates that are expected to apply for the period when the asset is realised or the liability is settled, based on tax rates (and tax laws) that have been decided or notified on the balance sheet date.

Deferred tax assets and tax liabilities are offset when they are attributable to income tax levied by the same authority and when the Group intends to settle the tax with 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 arises from transactions that are recognised as other comprehensive income or directly against equity. In such cases, the tax is also recognised in other comprehensive income or directly against equity. For current and deferred tax that arises during reporting of business combinations, the tax effect should be recognised in the acquisition calculation.

Property, plant and equipment

Property, plant and equipment is recognised at cost less accumulated depreciation and any accumulated impairments.

The cost consists of the purchase price, costs directly attributable to bringing the asset to the site and working condition for its intended use, and the estimated cost of dismantling and removing the asset, and restoring the site where it is located. Additional costs are included only if the asset is recognised as a separate asset, when it is probable that the future economic benefits that can be attributed to the item will flow to the Group and the cost for the same can be measured reliably. All other costs for repairs, maintenance and additional fees are recognised in the income statement for the period they arise.

Depreciation of property, plant and equipment is written off so that the asset's value less the estimated residual value at the end of the useful life, is depreciated on a straight-line basis over the estimated useful life, which is assessed as:

Improvements, leasehold	5–15 years
Machinery and other technical plant	5 years
Equipment, tools and installations	5 years

Estimated useful life, residual values, and depreciation methods are retested at least at the end of each financial period, the effect of any changes to assessments is recognised prospectively.

The carrying amount for property, plant and equipment is derecognised in the statement of financial position when it is retired or disposed, or when no future economic benefits are expected from the use or retirement/disposal of the asset. The gain or loss that arises when the asset is retired or disposed, is the difference between any net revenue during disposal and the carrying amounts recognised in profit for the period when the asset is derecognised in the statement of financial position.

Intangible assets

Separately acquired intangible assets

Intangible assets with a determinable useful life that are acquired separately are recognised at cost less accumulated depreciation and any accumulated impairments. Depreciation takes place on a straight-line basis over the asset's estimated useful life. Estimated useful life and depreciation methods are retested at least at the end of each financial year, the effect of any changes to assessments is recognised prospectively.

Internally generated intangible assets – Capitalised expenses for product development

The Group's product development expenses are recognised as internally generated intangible assets in cases where the following conditions have been met:

- It is technically feasible to complete the intangible asset so that it is available for use or sale,
- the company intends to complete the intangible asset and to use or sell it,
- conditions are present to use or sell the intangible asset,
- The company demonstrates how the intangible asset will generate reliable future economic benefits,
- adequate technological, financial, and other resources are available to complete development and to use or sell the intangible asset, and
- the expenses directly attributable to the intangible assets during its development can be measured reliably.

If these conditions are not met, the cost of development is recognised instead as an expense in the period in which they arise.

Depreciation of the asset begins once product development for each internally generated intangible asset is considered complete. The asset is then recognised at cost of acquisition less accumulated depreciation and any accumulated impairments.

Intangible assets acquired in a business combination

Intangible assets acquired through a business combination are identified and recognised separately from goodwill when they meet the definition of an intangible asset and their fair value can be measured reliably. The cost of such intangible assets comprises their fair value on the acquisition date.

After initial recognition, intangible assets acquired in a business combination are carried at cost less accumulated depreciation and any accumulated impairments in the same way as with separately acquired intangible assets.

Estimated useful life for intangible assets

Technology	15 years
Customer relationships	15 years
Patents	20 years
Capitalised expenses for product development	5 years
Brands	Indeterminable useful life

Disposals and retirements

An intangible asset is derecognised in the statement of financial position when it is retired or disposed, or when no future economic benefits are expected from the use or retirement/disposal of the asset. The gain or loss that arises when an intangible asset is derecognised in the statement of financial position, comprises of the difference between the payment received during the disposal and the asset's carrying amount, and is recognised in the income statement when the asset is derecognised from the statement of financial position.

Impairment of tangible assets and intangible assets excluding goodwill

On each balance sheet date, the Group analyses tangible and intangible assets to determine whether there is evidence that these assets have decreased in value. If so, the asset's recovery value is measured to determine the value of any impairment. If it is not possible to determine the recovery value of an individual asset, the Group measures the recovery value of the cash generating unit to which the asset belongs.

Intangible assets with indeterminable useful life and intangible assets that are not yet finished for use shall be tested for impairment annually, or when there is evidence of loss in value.

The recoverable amount is the higher of the fair value less selling cost and its value in use. When measuring value in use, an estimate of the future cash flows is discounted to present value using the pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset.

If the recovery value of an asset (or a cash generating unit) is determined to be below the carrying amount, an impairment loss is recognised for the carrying amount of the asset (or the cash generating unit) to reflect the recovery value. The impairment loss is immediately recognised as an expense in the income statement.

When an impairment loss is reversed, the carrying value of the asset (or the cash generating unit) is revalued to reflect the increase in recovery value, but this increased recovery value may not exceed what the depreciated historical cost would have been if the impairment of the asset had not been recognised (or cash generating unit). Reversal of an impairment loss is recognised directly in the income statement.

Financial instruments

Financial assets or liabilities are recognised in the balance sheet when the company becomes a party pursuant to the contractual terms of the instrument. A receivable is recognised when the company has performed its contractual obligations, and there is a contractual obligation for the counterparty to pay, even if no invoice has been sent. Accounts receivable are recognised in the balance sheet when an invoice has been sent. A liability is recognised when the counterparty has performed its contractual obligations, and there is a contractual obligation to pay, even if no invoice has been received. Accounts payable are recognised when an invoice has been received.

A financial asset is derecognised in the balance sheet when the entitlements in the contract are realised, when the risks and rewards are transferred to another party, when the right to the cash flows ends or the company loses control of the asset. The same applies to part of a financial asset. A financial liability is derecognised in the balance sheet when the agreed obligation is discharged or otherwise extinguished. The same applies to part of a financial liability. The acquisition and sale of financial assets are recognised on the trade date, which is the day when the company commits itself to acquire or sell the asset.

From 1 January 2018 the Group applies IFRS 9 Financial Instruments. Before 1 January 2018 the Group applied IAS 39 Financial Instruments: Recognition and Measurement. When applying IFRS 9, financial assets and financial liabilities have a new classification as described below.

Financial assets

- Hold to collect: assets that are held to collect the contractual cash flows that only comprise payments of capital amounts and interest on the outstanding capital amount. These are recognised at amortised cost.
- Hold to collect and sell: assets that are held both to collect contractual cash flows and sell investments and that have contractual cash flows that only comprise payments of capital amounts and interest on the outstanding capital amount. These are measured at their fair value via other comprehensive income.
- Other: other financial assets and investments in equity instruments. These are measured at their fair value via the income statement.

Financial liabilities

- Fair value through the income statement
- Other financial liabilities measured at amortised cost

Cash and cash equivalents

Cash and cash equivalents include cash assets and bank balances, and other short-term securities that are readily convertible to cash and are subject to an insignificant risk of changes in value. Classification as cash or cash equivalents requires that the maturity does not exceed three months from the date of the acquisition. Cash assets and bank balances are classified as 'Hold to collect' and these are measured at amortised cost. Since bank deposits are payable on demand, amortised cost equals the nominal amount.

Accounts receivable

Accounts receivable are classified as 'Hold to collect' and these are measured at amortised cost.

Derivative instruments

The Group does not apply hedge accounting, and all derivative instruments are therefore categorised as 'Fair value via the income statement' in the subcategory 'Other'. Derivative instruments with a positive fair value are recognised as assets in the 'Other current receivables' item. Derivative instruments with a negative fair value are recognised as liabilities in the 'Other current liabilities' item. Changes in value from derivative instruments are recognised either in net financial items or in operating income depending on the purpose of the instrument.

Currency forwards are used to hedge foreign currency flows. The Group used currency futures to hedge the USD flow in the year. The results for these are recognised under financial items.

Accounts payable

Accounts payable are measured at their amortised cost. However, the expected maturity of accounts payable is short, so the liability is recognised at the nominal amount and is not discounted.

Borrowing from credit institutions and other loans

Interest-bearing bank loans, bank overdrafts and other loans are measured at their amortised cost using the effective interest rate method. Any differences between the loan received (net after transaction costs) and the repayment amount or the amortisation of the loan are recognised over the maturity period of the loan.

The fair value of financial instruments

The fair value of financial assets and financial liabilities is measured as follows:

The fair value of financial assets and liabilities that have standard conditions that are traded on an active market is measured in relation to the quoted market price.

The fair value of other financial assets and liabilities is determined according to generally accepted valuation models that are based on information obtained from observable current market transactions.

The carrying amounts of all financial assets and liabilities are deemed to be a reasonable approximation of their fair value, unless otherwise stated.

Amortised cost

Amortised cost is the amount at which the asset or liability is measured at initial recognition, less principal repayments and plus or minus any accumulated accruals using the effective interest method of the initial difference between the amounts received or paid and amounts to be received or paid on the due date and less depreciation. The effective rate is the interest rate at which, when discounting all estimated future cash flows over the expected maturity, results in the initial carrying amount of the financial asset or the financial liability.

Offsetting financial assets and financial liabilities

Financial assets and financial liabilities are offset and recognised as a net amount in the balance sheet when there is a legal right to offset and when the intention is to settle the items on a net basis or to simultaneously realise the asset and settle the liability.

Impairment of financial instruments

One new feature of IFRS 9 is that a credit loss provision must be made based on expected losses. The Group recognises a provision for expected credit losses from financial assets measured at amortised cost or fair value via other comprehensive income, for lease receivables and contract assets. The impairment rules do not extend to equity instruments. On each balance sheet date, the change in expected credit losses since initial recognition is recognised in profit or loss.

The purpose of the impairment requirements is to recognise the expected credit losses for 12 months for all financial assets and the remaining term for all financial assets for which significant increases have occurred in the credit risk since initial recognition, either assessed individually or collectively, in view of all reasonable and verifiable data, including forward-looking data. The Group measures expected credit losses from a financial instrument in a way that reflects an objective and probability-weighted amount that is determined by evaluating a range of possible outcomes, the time value of money and reasonable verifiable data about current conditions and forecasts regarding future economic conditions.

Cash and cash equivalents and other operating receivables with a maturity of less than 12 months are covered by the general model, with the exception of low credit risk. Based on this no credit loss provision has been deemed necessary for the Group's cash and cash equivalents and other operating assets.

For accounts receivable, contract assets and lease receivables there is a simplified model, which means that the Group directly recognises expected credit losses for the remaining term of the asset. The Group applies the simplified model for accounts receivable using a matrix, where a historic credit loss is an indicator that is adjusted for current and future factors.

The Group's exposure to credit risk is primarily attributable to accounts receivable. The simplified model is used to calculate credit losses on the Group's accounts receivable. When calculating the expected credit losses, accounts receivable have been grouped based on the customers' credit rating. The expected credit losses for accounts receivable are calculated using a provision matrix based on previous events, current conditions and forecasts regarding future financial conditions. For quantified information, see note 4.

Impairment of accounts receivable and other receivables is recognised in operating expenses. Impairment of cash and cash equivalents and Other non-current securities holdings are recognised as a financial expense.

Before 1 January 2018, when IAS 39 was applied, the Group made reservations for doubtful account receivables, which consisted of the overdue account receivable for which payment appeared to be less likely.

IAS 39 Categories

IAS 39 Financial Instruments: Recognition and Measurement, had another classification of financial assets and financial liabilities:

Financial assets

- Fair value through the income statement
- Loans and accounts receivable
- Investments held to maturity
- Financial assets available for sale.

Financial liabilities

- Fair value through the income statement
- Other financial liabilities measured at amortised cost

Regarding transitional effects on financial assets in terms of classification and valutaion, see note 4.

Inventories

Inventories are carried at the lowest of cost or net realisable value. Cost is measured by first applying, the FIFO (First in, first out) method. Net realisable value is the expected sales price less expected costs necessary for completion and expected costs necessary for a sale.

Provisions

Provisions are recognised when the Group has a legal or informal obligation based on past events, it is probable that an outflow of resources will be required to settle the obligation, and the amount can be reliably measured.

The amount reserved is the best estimate of the amount required to settle the existing obligation on the balance sheet date, considering the risks and uncertainties associated with the obligation. When a provision is measured by estimating the payments expected to be required to settle the obligation, the carrying amount shall correspond to the present value of these payments.

When a part or all of the amount required to settled a provision is expected to be repaid by a third party, the reimbursement shall be separately recognised as an asset in the statement of financial position when the realisation of income is virtually certain if the company settles the obligation and the amount can be reliably measured.

Accounting policies for the parent company

The parent company applies the Swedish Annual Accounts Act and the Swedish Financial Reporting Board's Recommendation (RFR 2) Accounting for legal entities. The application of RFR 2 means that the parent company, to the extent possible, follows all the EU approved IFRS within the framework of the Swedish Annual Accounts Act and the Swedish Pension Obligations Vesting Act and considers the relationship between accounting and taxation.

The new standard IFRS 9 Financial instrumentsdeals with classification, valuation and accounting of financial assets and liabilities. For a description of IFRS 9 see corresponding section above for the Group. The changes in the RFR2 regarding IFRS 9 shall be applied for fiscal years starting January 1, 2018 or later.

Taking into account the connection between accounting and taxation companies do not have to apply IFRS 9 to a legal entity. The parent company has chosen not to apply IFRS 9 in legal person. The changes that came into force January 1, 2018 regarding write-down requirements according to IFRS 9, must be applied even if the company is applying the exception. The above did not have any effect on the reported amounts in the parent company's financial statments, but the changes have led to expanded information.

The changes in RFR 2 regarding IFRS 15 Revenue from Agreements with customers, shall be applied for fiscal years starting January 1, 2018 or later. For a description of IFRS 15 see corresponding section above for the Group. The transition to IFRS 15 did not have any effect on the reported amounts in the parent company's financial statements, but the changes have led to expanded information.

The differences between the accounting policies of the parent company and the Group are described below:

Classification and format

The parent company's income statement and balance sheet follow the format specified in the Swedish Annual Accounts Act. The differences from IAS 1 Presentation of Financial Statements that were used in preparing the Group's financial statements are primarily recognising revenues and costs, non-current assets, equity, and the introduction of provisions as a separate item.

Subsidiaries

Shares in subsidiaries are recognised at cost in the parent company's financial statements. Acquisition-related costs for subsidiaries that are charged in the consolidated financial statements are included as a part of the cost for shares in subsidiaries.

Group contributions

A group contribution received by the parent company from a subsidiary is recognised using the same policies as regular dividends from that subsidiary, which entails that the group contribution is recognised as financial income.

Group contributions from the parent company to a subsidiary are recognised in the income statement as an appropriation.

Pensions

The parent company's pension commitments have been calculated and recognised based on the Swedish Pension Obligations Vesting Act. Applying the Swedish Pension Obligations Vesting Act is a prerequisite for tax deductibility.

Financial instruments

As the parent company has elected not to apply IFRS 9 to legal entities, a method has been applied that is based on cost of financial instruments in accordance with the Swedish Annual Accounts Act.

Amendments to RFR 2 which have not yet entered into force

Due to the relationship between accounting and taxation, the rules in IFRS 16 Leases do not need to be applied to legal entities. The companies that elect to apply the exemption instead introduce rules that include the principles that apply to the reporting of leasing agreements by lessees and lessors, the recognition of sale-and-lease back transactions, and disclosure requirements. The amendments to RFR 2 regarding IFRS 16 will start to be applied for the financial year beginning 1 January 2019 or later.

The parent company will not apply IFRS 16 to legal entities, which means that the transition to IFRS 16 will not have any impact on the parent company's financial statements, but may lead to increased disclosures.

The management assesses that other amendments to RFR 2, which have not entered into force, are not expected to have any material impact on the parent company's financial reports when they are applied the first time.

NOTE 3 Significant accounting estimates and assessments

The most significant assumptions concerning the future, and other important sources of uncertainty in estimations on the balance sheet date, which cause a significant risk for substantial adjustment to carrying amounts for assets and liabilities in the coming financial year are described below.

Revenue recognition

One condition for revenue recognition is that revenue from sales must illustrate the transfer of promised goods and services to customers at an amount that reflects the consideration that the company is expected to be entitled to in return for these goods or services. The assessment of when these risks and rewards are transferred requires review of each contract and circumstance under which each transaction is conducted.

Bactiguard's new licensing agreements involve a certain level of complexity, as the value of the licensing business needs to be distributed over time based on the assessment of phases, obligations and the distribution of the transaction price. These estimates and judgements for new licensing agreements may have a significant impact on recognised revenues. The quantified amounts which are assessed as revenues are recognised in note 5.

Impairment testing of goodwill and brands

The Group conducts impairment testing annually for goodwill and brand or whenever there is an indication they may be impaired. In order to determine whether the value of these assets has decreased, the cash-generating unit to which goodwill and trademark are attributed must be measured by discounting the unit's cash flows. By applying this method, the company is relying on a number of factors, including achieved results, business plans, economic forecasts and market data. This is described in more detail in Note 14. As can be deduced from the description, changes in the conditions for these assumptions and estimates could have a significant effect on the value of goodwill and brand.

Estimation of useful life for intangible and tangible fixed assets

Group management determines the estimated useful life and consequent depreciation for the Group's intangible and tangible fixed assets. Estimates of the useful lives of intangible assets are based on expectations of how long the asset is expected to yield financial benefits. The useful lives of the tangible assets are based on the history of the useful lives of the corresponding assets. The useful life and assessed residual values are evaluated at the end of each financial year, and the estimated useful life could change the outcome whereby the results and financial position of the period may be affected.

Assessment of expected credit losses

Accounts receivable are one of the most substantial items in the balance sheet and are recognised at their nominal amount, net after deductions for expected credit losses.

The expected credit losses for accounts receivable are subject to estimates and judgements. In line with IFRS 9 the Group uses a model for provisioning based on the credit risk of all accounts receivable. The model contains several parameters which are subject to judgments, for example how different risk classes are defined and how expected default for each risk class is assessed on the basis of history and expected development. These estimates and assessments affect the size of the credit loss reserve and thus also the reported results of the Group.

NOTE 4 Financial risk management and financial instruments

Through its activities, the Group is exposed to various types of risk. The Group's objective is to create a comprehensive risk management programme that concentrates on minimising potential unfavourable effects on financial results. The company's Board of Directors is ultimately responsible for the exposures, management and follow-up of the Group's risks. The frameworks that apply to the exposures, management, and follow-up of financial risks are set by the Board of Directors and revised annually. The Board of Directors has delegated responsibility for daily risk management to the company's CEO, who in turn has delegated this to the company's CFO. The Board of Directors is able to decide on temporary departures from these established frameworks. The financial risks Bactiguard is thus exposed to are addressed separately below.

Liquidity and financing risks

Liquidity and financing risks involve the risk of not being able to meet payment obligations due to having insufficient liquidity or difficulties in obtaining external loans. The table below illustrates the Group's liquidity risks using a maturity analysis of financial liabilities. The amounts in these tables are not discounted values and they also contain, where applicable, interest payments and amortisation, whereby these amounts can not be reconciled against the amounts recognised in the balance sheets. Interest payments are determined based on conditions which apply on the balance sheet date. Amounts in foreign currencies are translated to Swedish krona on the balance sheet date exchange rates.

The company manages liquidity and financing risks through continual monitoring of liquidity forecasts and assessment of alternative financing solutions.

	Within 3 months	3–12 months	2–5 years	Later than 5 years	Total
Group 31/12/2017					
Liabilities to credit institutions	1,188	10,899	150,406	–	162,493
Leasing debt	360	1,106	6,616	5,860	13,942
Accounts payable	4,832	–	–	–	4,832
Total	6,380	12,005	157,022	5,860	181,267
Group 31/12/2018					
Liabilities to credit institutions	1,081	18,151	131,168	–	150,400
Leasing debt	378	1,160	8,891	2,047	12,476
Accounts payable	7,051	–	–	–	7,051
Bank overdraft	–	–	3,905	–	3,905
Total	8,510	19,311	143,964	2,047	173,832
The parent company 31/12/2017					
Liabilities to credit institutions	1,188	10,899	150,406	–	162,493
Accounts payable	296	–	–	–	296
Total	1,484	10,899	150,406	–	162,789
The parent company 31/12/2018					
Liabilities to credit institutions	1,081	18,151	131,168	–	150,400
Accounts payable	181	–	–	–	181
Total	1,262	18,151	131,168	–	150,581

Credit and counterparty risk

Credit risk refers to the risk that a counterparty in a transaction causes a loss to the Group by not fulfilling its contractual obligations. The Group's exposure to credit risk is primarily attributable to accounts receivable. To limit the Group's credit risk, every new customer is subjected to a credit analysis. The financial situation for existing customers is also continually monitored to identify warning signals at an early stage.

Accounts receivable are spread to a large number of customers where, however, a few of these represent a substantial amount of total accounts receivable. The company's largest customer is BD whose payment history is excellent, and payment terms with 50% advance invoicing are applied. Advance invoicing is also applied to larger transactions and to new distributors in order to minimise credit risk.

Accounts receivable are not concentrated to any single geographic area.

There is no significant concentration of credit risks. Sales of goods are only made to customers for which the credit risk is assessed as small. Bactiguard uses the Swedish Export Credits Guarantee Board's assessment of credit worthiness in each country. The greatest exposure to credit risk corresponds to the carrying amount in the balance sheet for each financial asset.

Financial instruments

From 1 January 2018 the Group applies IFRS 9 Financial Instruments, which involves a new way of classifying and measuring financial instruments. The table below shows the transition effects on financial assets from classification and measurement, and how the Group's financial assets are classified as per 31 December 2018.

Financial assets	IAS 39 Recognised as of 31/12/2017	Effect transition IFRS 9	IFRS 9 1/1/2018	Recognised as of 31/12/2018		
Category	Loans and accounts receivable		Hold to collect	Hold to collect	Other	Hold to collect and sell
Measurement	Amortised cost		Amortised cost	Amortised cost	Fair value through the income statement	Fair value through other comprehensive income
Assets						
Accounts receivable	56,859	-932	55,927	54,492		
Other current receivables	2,046	0	2,046	3,204	20	
Accrued expenses and prepaid income	11,254	0	11,254	11,197		
Cash and cash equivalents	11,550	0	11,550	1,893		
Total	81,709	-932	80,777	70,786	20	

Financial liabilities	IAS 39 Recognised as of 31/12/2017	Recalculated as a result of IFRS 9	IFRS 9 Recalculated on 1/1/2018	Recognised as of 31/12/2018
Category	Financial liabilities		Financial liabilities	Financial liabilities
Measurement	Amortised cost		Amortised cost	Amortised cost
Liabilities				
Long-term interest-bearing liabilities	142,500	0	142,500	130,805
Short-term interest-bearing liabilities	7,500	0	7,500	14,400
Accounts payable	4,832	0	4,832	7,051
Other liabilities	40,947	0	40,947	44,930
Total	195,779	0	195,779	197,186

Accounts receivable

Accounts receivable with a maturity longer than 12 months are discounted. As of 31 December 2018 there were no non-current accounts receivable.

A credit loss provision has been calculated in accordance with IFRS 9 and is set out in the table below. The credit loss provision for the transition to IFRS 9 on 1 January 2018 was calculated at TSEK -932 and was booked via the opening balance in Equity. The Group's impairment model is based on four different risk classes. Customers are classified into these risk classes based on their credit worthiness and payment history. Each risk class has an expected loss level, which is assessed based on previous events, current conditions and forecasts regarding future financial conditions. The classification of customers is reviewed on each quarterly closing and the customers may then be reclassified to a different risk class. Changes in the provision for expected credit losses are booked quarterly.

In addition to expected credit losses for all accounts receivable there is also a provision for credit losses from individual assessment. For example in cases when there is an assessment that the full amount of the receivable needs to be written down. For mor more information regarding the Group's provision for credit losses, see Note 26.

	Risk class 1	Risk class 2	Risk class 3	Risk class 4	Credit loss provision, individual assessment	Total outstanding receivables SEK
31/12/2017						
Accounts receivable, gross						54,063
Bad debts						-688
Exchange rate adjustment						3,484
Total accounts receivable, net 31/12/2017						56,859
01/01/2018						
Accounts receivable, gross per risk class	30,173	4,936	4,181	14,772		54,063
Exchange rate adjustment						3,484
Expected loss level %	0.2%	1%	2%	5%		
Credit loss provision	-60	-49	-84	-739	-688	-1,620
Total accounts receivable, net 01/01/2018						55,927
31/12/2018						
Accounts receivable, gross per risk class	6,290	29,947	3,651	16,344		56,232
Exchange rate adjustment						4,664
Expected loss level %	0.2%	1%	2%	5%		
Credit loss provision	-13	-299	-73	-817	-5,202	-6,404
Total accounts receivable, net 31/01/2018						54,492

Capital risk management

The Group's objective of managing capital is to ensure the Group's capability to continue its operations, in order to generate reasonable returns to the shareholders and benefit other stakeholders.

The Group is working to reduce its capital risk by:

- Establishing sufficient credit facilities in good time for the forecasted needs.
- Monitoring maturities for total debt with the purpose of matching amortisation in relation to the expected cash flow.
- Meeting key ratios in line with loan agreements. Key ratios in the three-year credit facility totalling MSEK 180 in the Skandinaviska Enskilda Banken are reported to the lender at the dates specified in the agreement. Current key ratios in this agreement are based on EBITDA.
- Optimising operating capital in the Group.
- Monitoring the debt ratio. The gearing ratio is determined as the net debt divided by EBITDA (Operating result adjusted for depreciation). Net debt is calculated as interest-bearing liabilities less cash and cash equivalents.

Currency risk

Currency risk relates to the risk that the fair value or future cash flows fluctuate due to changes in exchange rates. The exposure for currency risk primarily derives from payment flows in foreign currencies, referred to as 'transaction exposure,' and from translating balance sheet items in foreign currency and during translation of foreign subsidiaries' income statements and balance sheets to the Group's presentation currency which is Swedish krona, referred to as 'currency exposure.'

The Group's outflows primarily consist of SEK and USD while the primary inflows are USD and EUR. The Group is thereby highly affected by changes in these currency exchange rates.

Under the Group's currency policy such transaction exposure can be reduced through the use of derivative instruments. Pursuant to the currency policy, the Group may use forward contracts, swaps and currency options. If such instruments are used, hedging should take place by 40–80% of the forecasted cash flows in the relevant currency for the next twelve months. As of 31 December 2018 there was MEUR 0.3 (-) in outstanding currency contracts.

The Group's consolidated profit is primarily affected by exchange rates which are mostly attributable to USD and EUR. Under the Group's finance policy, currency exposure shall not be hedged.

Sensitivity analysis

Based on the year's revenues, cost, and currency structures, a general one percent point change in the exchange rate between SEK and USD would impact the Group's operating profit by approximately MSEK +/– 0.5 (0.6). A similar change to the rate of SEK in relation to the EUR (one percentage point) would impact the Group's operating profit by approximately MSEK +/- 0 (0.1).

Interest rate risk

Interest rate risk relates to the risk that the fair value or future cash flows fluctuate due to changes in market rates of interest. The Group is primarily exposed to interest rate risk through its loan financing.
As the loan runs at an interest base of Stibor 90, however minimum 0%, and an interest surcharge of 3.0%, the company's foremost interest risk to possible changes is represented by the underlying Stibor rate.

NOTE 5 Revenues

	Group		Parent company	
	2018	2017	2018	2017
License revenues	109,536	125,609	–	–
Sales of BIP products	40,561	21,849	–	–
Change in inventory of finished goods and products in progress	1,405	1,238		
Other operating revenues	11,658	4,943	6,967	6,464
Total	163,160	153,639	6,967	6,464

From 1 January 2018 the Group applies IFRS 15. The transition to IFRS 15 did not have any impact on the Group's profit or financial position. The table above includes items from the income statement that are not defined as revenue in accordance with IFRS 15; the table has only been produced to illustrate the items in net sales and other operating revenues from the income statement. Below he Group's revenues are defined in accordance with IFRS 15.

Revenue distribution

The Group's revenues come from sale of BIP products and license revenues.

Revenues from the sale of products are recognised at the time the control passes to the customer, i.e. when the ownership of the product has been transferred to the customer which normally coincides with delivery to customer.

The licensing rights refer to the right to use Bactiguard's technology to provide coating for products. When a new license agreement is signed, it is analysed based on the five-step model in IFRS 15. A new license agreement is normally divided into two phases; the collaboration phase and the commercial phase. Various performance obligations are identified in the different phases of the license agreement and a transaction price per obligation is stipulated in the agreement. The first obligation in the collaboration phase is normally when the contractual party obtains the license entitlement to immediately use Bactiguard's technology. A signing fee is payable for this right and the performance obligation in this part of the agreement is completed when the contract has been signed and is therefore recognised as revenue directly, at a certain point in time.

The collaboration phase then continues with several different performance obligations, such as development and testing. The time frames for satisfying each performance obligation is set based on definitions and expectations in agreements and project schedules. When the performance obligation has been fulfilled, the part of the transaction price that has been allocated to this performance obligation is recognised as revenue. These revenues are therefore recognised over time. Production methods are used to determine whether a performance obligation has been fulfilled. These methods include analysing the performance that has been achieved, test results and the amount of time that has passed. Continual assessments are made in consultation with the license party to determine how far the collaboration has progressed, what the next step is, etc. This is considered to be a suitable basis for assessing which performance obligations have been met and which transaction price can be recognised as revenue in the period.

When the collaboration phase is finished the license agreements turns into the commercial phase. Most of the Group's existing license agreements are in the commercial phase. In this phase the revenues are recognised at a certain point in time, relating to the period to which the licensing right relates.

The table below shows the division of the Group's revenues for 2018 in terms of the type of product/service, the time of revenue recognition, and the part of the transaction price that has been allocated to the remaining performance obligations in the future.

Type of product/service	Group
	2018
License revenues	109,536
Sales of BIP products	40,561
Total	150,097

Time of revenue recognition	Group
	2018
Performance obligations fulfilled at a certain point in time	141 781
Performance obligations fulfilled over time	8,317
Total	150,097

Revenues for remaining performance obligations as per 31 December 2018 amount to TSEK 2,072. These revenues come from the new licensing deal with Well Lead in China, which was signed in 2018 for the right to use Bactiguard's technology. The remaining performance obligations in this licensing deal and how these are expected to be recognised are set out in the table below.

Transaction price that is allocated to the remaining performance obligations	Group		
	2019	2020	2021
Services for technical support and quality assurance	1,036	-	-
Services for consultation on regulatory product approval	1,036	-	-
Total	2,072	-	-

Important components in customer agreements

Bactiguard does not apply a general right of return for products to its distributors.

The Group applies a variety of different payment terms, depending on, for example, the market where the distributor operates and complexity in the agreement. Payment terms with 50% advance invoicing is applied to the Group's largest customer, BD. Advance invoicing is also applied to new distributors. The former business model involved the distributor paying a fee for the right to a geographic market, with the right to call off products at a value corresponding to the prepaid income. Since 2015 no new agreements have been concluded with the right to call off products, but a few remain where prepaid income is considered to be an advance paid by a customer, with a contractual liability recognised in the balance sheet. The table below shows the agreement balance of advances from customers and prepaid territorial fees.These agreement liabilities is shown in the item accrued expenses and prepaid income (see Note 32).

Agreement liabilities	Prepaid income
Opening balance 1 January 2018	29,299
Gross increase during the year	9,309
Revenues recognised during the year	-6,535
Other changes to contract balances*	-22,668
Closing balance 31 December 2018	9,406

* This change relates to prepaid territorial fees that were adjusted during the year due to contracts being terminated. The territorial fees are mirrored by an account receivable of the same amount, which is also cleared from the balance sheet when contracts are terminated.

Intra-group purchases and sales

Intra-group purchasing in the parent company for 2018 was TSEK 6,967 (6,464) and purchases were TSEK 0 (-).

NOTE 6 Segment reporting

Group

The information recognised to the chief operating decision makers as bases for distribution of resources and assessing segment profit, is not separated into different operating segments. The Group is therefore seen as a single operating segment.

Net sales totalled TSEK 150,097 (147,458) allocated to the following geographic markets: America 68% (71%), MEA 3% (4%), Asia (19%) (7%), Europe 11% (18%) of which Sweden 2% (15%).

Of the Group's total intangible and tangible assets of TSEK 501,927 (530,072), less than 1% (1%) were attributable to foreign subsidiaries.

Parent company

No sales of goods were made in the parent company for the period.

NOTE 7 Exchange rate differences

	Group		Parent company	
	2018	2017	2018	2017
Operating profit includes exchange rate differences relating to operating receivables and operating liabilities as follows:				
Other operating revenues	5,691	2,208	–	–
Other operating expenses	-5,022	-5,141	–	–
Total	669	-2,939	–	–

NOTE 8 Remuneration to auditors

	Group		Parent company	
	2018	2017	2018	2017
Deloitte				
audit assignment	530	510	530	510
additional audit assignments	57	124	33	124
tax consultancy	–	2	–	2
other services	37	–	22	–
Total	624	636	585	636
Other auditors				
audit assignment	56	48	–	–
audit-related services	–	–	–	–
tax consultancy	–	–	–	–
other services	–	–	–	–
Total	56	48	–	–

The audit assignment refers to fees charged for the statutorily required audit. The assignment includes auditing the annual accounts and financial statements, reviewing the administration of the Board of Directors and Chief Executive Officer, and the fees for audit advice provided to the company during the audit engagement. Other audit assignments refer to quality assurance services and include, for example, an in-depth audit of new IFRS rules and audits of projects with grants.

NOTE 9 Operating leases

On the balance sheet date, the parent company and the Group had outstanding commitments in the form of minimum lease fees for non-cancellable operating leasing agreements, with due dates as below:

	Group		Parent company	
	2018	2017	2018	2017
Within 1 year	10,584	9,178	–	–
Between 1 year and 5 years	37,136	35,839	–	–
After more than 5 years	49,379	57,018	–	–
Total	97,099	102,035	–	–

The rental commitment is the largest portion of the amounts above. Expenses for operating leasing agreements for the year totalled TSEK 10,529 (10,391) for the Group and TSEK 0 (0) for the parent company.

NOTE 10 Number of employees, salaries, other remuneration and social security costs

Employees	2018		2017	
Average number of employees	Number of employees	Of which women	Number of employees	Of which women
Parent company	3	1	3	1
Swedish subsidiaries	43	24	36	22
Foreign subsidiaries	20	15	27	17
Group total	66	40	66	40

	2018			2017		
Total salaries and other remuneration to employees	Salaries and other remuneration	Social security costs	Total	Salaries and other remuneration	Social security costs	Total
Parent company	4,966	3,101	8,066	4,467	2,634	7,100
– of which pension costs		1,320	1,320		1,231	1,231
Swedish subsidiaries	29,444	12,237	41,681	28,665	12,284	40,949
– of which pension costs		5,107	5,107		4,995	4,995
Foreign subsidiaries	3,298	565	3,862	3,253	542	3,795
– of which pension costs		318	318		–	–
Group total	37,708	15,902	53,610	36,385	15,459	51,844
– of which total pension costs		6,745	6,745		6,226	6,226

Salaries and remuneration to employees excludes consultant fees, i.e. not employees. The above figures do not include other personnel costs, which amount to TSEK -2,392 (-1,474). Personnel costs relating to the time spent on ongoing product development projects of TSEK 2,497 (1,843) have been capitalized during 2018 and has positively affected the item Personnel costs in the Income Statement.

Board of Directors and senior managers in the Group	2018		2017	
Gender distribution in Board of Directors and senior managers	Board of Directors	Senior managers	Board of Directors	Senior managers
Men	3	2	3	5
Women	2	2	2	5
Total	5	4	5	10

The CEO, also board member, is included in the Board in the above table.

	2018				2017			
Remuneration and other benefits to senior managers in the Group	Salary/Fee	Other benefits	Pension	Total	Salary/Fee	Other benefits	Pension	Total
Chief Executive Officer	1,946	–	522	2,468	2,113	–	522	2,635
Other senior management	6,456	–	1,463	7,919	12,362	62	2,182	14,606
Total	8,402	–	1,985	10,387	14,475	62	2,704	17,242

The CEO of the parent company Bactiguard Holding AB was employed for the year. No agreements regarding severance pay are in effect between the company and the current CEO or other senior management. The definition of other senior managers has changed for the year 2018 and now only includes Group management, which comprised four people at the end of the year. However, more people were in Group management during the full-year 2018, so salaries to other senior executives are equivalent to salaries for 5.5 senior managers. In previous years, the CFO, three regional sales managers, the head of product development and market access, the clinical research manager, and a manager for production and purchasing were also included in the definition of senior managers. Guidelines for remuneration to senior executives are described in the Directors' Report on Page 28.

Board of Directors	2018 Salary/ Board fee	2018 Other remunera-tion	2018 Pension	2018 Total	2017 Salary/ Board fee	2017 Other remunera-tion	2017 Pension	2017 Total
Jan Ståhlberg, Chairman of the Board from AGM May 2018	292	58		350				
Stanley Brodén, Chairman of the Board up to AGM May 2018	208	42	–	250	500	100	–	600
Christian Kinch, member of the board	–	–	–	–	–	–	–	–
Mia Arnhult, member of the board	200	100	–	300	200	100	–	300
Marie Wickman-Chantereau, Board member	200	–	–	200	200	–	–	200
Svante Östblom, member of the board from AGM May 2017	200	_	–	200	117	–	–	117
Peter Hentschel, Board member, up to AGM May 2017	–	–	–	–	83	–	–	83
Total	1,100	200	–	1,300	1,100	200	–	1,300

Board fees are paid from the parent company. Variable remunerations, , included in the afore-mentioned salaries and remuneration to the Board of Directors and CEO totalled TSEK - (-). Defined benefit plans do not form any portion of the total pension costs of the Group parent company. Other remuneration comprises fees for the chair of the audit and remuneration committees.

NOTE 11 Financial income

	Group		Parent company	
	2018	2017	2018	2017
Interest income	38	–	–	–
Interest income, group company	–	–	3,073	3,076
Exchange rate gains	1,246	–	–	–
Other financial income	2,414	1,378	–	–
Total financial income	3,698	1,378	3,073	30,076

All interest income is attributable to financial assets that are measured at their amortised cost. Other financial income for 2018 refers in its entirety to the reversal of the discounting of non-current receivables. The discounting of receivables was reversed following the early termination of the agreement with the former distributor in China. There was also a non-current liability with the same distributor, which has been discounted. The reversal of a discounted liability impacts other financial expenses by a corresponding amount (see note 12), which means that the early termination has not had any net effect on financial items.

NOTE 12 Financial expenses

	Group		Parent company	
	2018	2017	2018	2017
Interest expenses	5,927	6,438	5,122	5,321
Exchange rate loss	–	796	–	–
Other financial expenses	6,426	1,854	–	–
Total financial expenses	12,353	9,088	5,122	5,321

Interest expenses in the Group are attributable to interest on bank loans and interest on financial leasing liabilities. The bank overdraft facility has been measured at amortised cost. Other financial expenses comprise losses in currency contracts and the discounting of non-current liabilities.

NOTE 13 Taxes

	Group		Parent company	
	2018	2017	2018	2017
Nominal tax (22%)	4,553	1,824	1,215	1,259
Tax effect non-deductible expenses	-899	-470	0	-1
Tax effect non-deductible income	34	537	–	–
Utilized loss carry-forwards for which no deferred tax assets are recognised	3,299	4,410	–	–
Tax effect for which no deferred tax loss carry-forwards are recognised	- 1,223	-1,259	-1,215	-1,258
Total	5,764	5,042	–	–

The Group has tax loss carry-forwards on 31 December 2018 of TSEK -340,233 (-347,599) that can be used against future profits. The tax loss carry-forwards have no maturity date.

	Group		Parent company	
	2018	2017	2018	2017
Current taxes	-8	–	–	–
Deferred taxes	5,772	5,042	–	–
Total	5,764	5,042	–	–

Deferred tax

Temporary differences occur whenever the carrying amounts and taxable values of assets and liabilities differ. The temporary differences of the Group and parent company have resulted in deferred tax liabilities and deferred tax assets in regard to the following items:

	Group	
	31/12/2018	**31/12/2017**
Deferred tax assets	-	
Opening value loss carry-forwards	33,606	33,606
Change of the year	-	-
Change due to new tax rate	-2,139	-
Closing value deferred tax assets	31,467	33,606
Deferred tax liabilities	-	-
Intangible assets	58,848	63,891
Change of the year	-4,853	-5,043
Change due to new tax rate	-3,058	-
Closing value deferred tax liabilities	50,938	58,848
Total net deferred tax liabilities	19,471	25,242

The deferred tax asset of TSEK 31,467 (33,606) arose when Bactiguard Holding acquired Bactiguard AB. In 2018 the deferred tax asset was remeasured at 20.6% which is a new tax rate that will come into force from 2021. This tax claim is not expected to be utilized until after 2021 because additional loss carry-forwards have arised after the acquisition.

The deferred tax assets have reduced the deferred tax liabilities on intangible assets in conjunction with this acquisition. The year's change to deferred tax liabilities is attributable to temporary differences related to the depreciation of intangible assets. The deferred tax liabilities were remeasured in 2018 and the new tax rates will apply from 2019.

The net is recognised as deferred tax liability in the balance sheet. The remeasurement based on these new tax rates affected deferred tax by TSEK 918 in 2018.

NOTE 14 Goodwill

	Group		Parent company	
	31/12/2018	**31/12/2017**	**31/12/2018**	**31/12/2017**
Opening acquisition value	226,292	226,292	–	–
Closing accumulated acquisition value	226,292	226,292	–	–
Net carrying amount	226,292	226,292	–	–

The carrying amount of goodwill is attributable to Bactiguard Holding's acquisition of Bactiguard AB.

Impairment testing intangible assets with indeterminable useful life

Impairment testing of goodwill and brands with indeterminable useful life is conducted annually in the Group and, when indications arise of the necessity for impairment testing. Goodwill that arose in connection with a business combination was allocated on the transfer date to the cash generating units in the Group that were expected to obtain benefits of the combination. Bactiguard Holding has a single cash generating unit.

The recoverable amount for a cash generating unit is established based on estimations of value in use. These estimations are based on expected future cash flows identified in financial forecasts that were approved by the company management that cover a five-year period. The assessment of future cash flows includes assumptions regarding primarily sales growth and discount rates. The management expects stable growth and a good rate of development for both sales of BIP products and license revenues, for a five-year period. The discount rate of 13.7% (13.2%) before taxes reflects specific risks tied to the asset. The forecasted operating margin was based on previous performance and the management's expectations of the market. Growth beyond the forecasted five-year period is expected to be 1.5% (1.5%) per year, which matches the Group's long-term assumptions for inflation. These assumptions are in line with the previous year's impairment testing.

The assumptions of impairment testing follow the company's growth strategy which is divided into the following four phases;

Phase 1
- Stable revenues from the licensing agreement with BD
- Development of the BIP portfolio

Phase 2
- Develops the BIP portfolio
- Establish market precense through distribution agreements with several countries
- Obtain product approval and initiate deliveries

Phase 3
- Expansion to new markets
- Obtain product approvals for several countries and initiate deliveries
- Additions to the existing BIP portfolio with new variants of current products
- Develop new products
- Sign two to three new licensing agreements over a five-year period

Phase 4
- Sign additional licensing agreements
- Increase sales generated by the BIP portfolio
- Develop new products

Bactiguard is in a growth and build-up phase, with market expansion. Investments have been made in the sales and marketing function, the product portfolio has been developed, and opportunities for new licensing business have been investigated. The rewards of these investments are now expected to have greater impact. In the impairment test, this means an assumption of rising operating margins during the five-year period due to higher sales volumes and license revenues.

Based on the assumptions presented above, the value in use exceeds the carried goodwill and the conclustion is that there is no impairment requirement for goodwill and brand. Sensitivity analysis has been carried out, where the discount rate has been increased by 4 percentage points and expected future cash flow has increased by 30%without this resulting in a change of the conclusion. The impairment testing does not include any effects of potential future restructuring or future improvements to the bulk of assets. The forecast revenue is based on the present and existing condition of the assets.

NOTE 15 Technology

	Group		Parent company	
	31/12/2018	**31/12/2017**	**31/12/2018**	**31/12/2017**
Opening acquisition value	357,100	357,100	–	–
Closing accumulated acquisition value	357,100	357,100	–	–
Opening depreciation	-144,295	-120,488	–	–
Depreciation for the year	-23,807	-23,807	–	–
Closing accumulated depreciation	-168,102	-144,295	–	–
Net carrying amount	188,998	212,805	–	–

The item technology includes Bactiguard's patented and unique coating technology which can be applied to a broad spectrum of products.

NOTE 16 Brands

	Group		Parent company	
	31/12/2018	**31/12/2017**	**31/12/2018**	**31/12/2017**
Opening acquisition value	25,572	25,572	–	–
Closing accumulated acquisition value	25,572	25,572	–	–
Net carrying amount	25,572	25,572	–	–

The carrying amount for brands is attributable to Bactiguard Holding's acquisition of Bactiguard AB as Bactiguard was identified as an intangible asset. The brand is known, established and enjoys trademark protection for an indeterminate period in relevant markets where the company operates. The Group conducts impairment testing annually for the brand or whenever there is an indication that it may be impaired, see note 14.

NOTE 17 Customer relationships

	Group		Parent company	
	31/12/2018	**31/12/2017**	**31/12/2018**	**31/12/2017**
Opening acquisition value	17,700	17,700	–	–
Closing accumulated acquisition value	17,700	17,700	–	–
Opening depreciation	-7,152	-5,972	–	–
Depreciation for the year	-1,180	-1,180	–	–
Closing accumulated depreciation	-8,332	-7,152	–	–
Net carrying amount	9,368	10,548	–	–

NOTE 18 Capitalised development expenditure

	Group		Parent company	
	31/12/2018	**31/12/2017**	**31/12/2018**	**31/12/2017**
Opening acquisition value	24,245	20,586	–	–
Capitalisation for the year	4,867	3,658	–	–
Closing accumulated acquisition value	29,112	24,245	–	–
Opening depreciation	-5,677	-4,024	–	–
Depreciation for the year	-1,941	-1,652	–	–
Closing accumulated depreciation	-5,678	-5,677	–	–
Net carrying amount	21,494	18,568	–	–

Capitalised development expenditure refers to ongoing development projects. Impairment is initiated when the project is completed.

NOTE 19 Patents

	Group		Parent company	
	31/12/2018	**31/12/2017**	**31/12/2018**	**31/12/2017**
Opening acquisition value	2,859	2,856	–	–
Capitalisation for the year	153	3	–	–
Closing accumulated acquisition value	3,012	2,859	–	–
Opening depreciation	-2,288	-1,835	–	–
Depreciation for the year	-310	-453	–	–
Closing accumulated depreciation	-2,598	-2,288	–	–
Net carrying amount	414	571	–	–

NOTE 20 Improvements, leasehold

	Group		Parent company	
	31/12/2018	31/12/2017	31/12/2018	31/12/2017
Opening acquisition value	21,058	21,058	–	–
Purchases	209	–	–	–
Closing accumulated acquisition value	21,267	21,058	–	–
Opening depreciation	-8,027	-4,925	–	–
Depreciation for the year	-2,344	-3,102	–	–
Closing accumulated depreciation	-10,371	-8,027	–	–
Net carrying amount	10,896	13,031	–	–

Improvements to the property of a third party primarily concerns installations at headquarters/ production facilities in Tullinge.

NOTE 21 Machinery and other technical plant

	Group		Parent company	
	31/12/2018	31/12/2017	31/12/2018	31/12/2017
Opening acquisition value	28,207	10,777	–	–
Purchases	174	17,431	–	–
Exchange rate differences	776	-1	–	–
Closing accumulated acquisition value	29,157	28,207	–	–
Opening depreciation	-8,627	-5,118	–	–
Depreciation for the year	-3,297	-3,510	–	–
Exchange rate differences	-475	1	–	–
Closing accumulated depreciation	-12,396	-8,627	–	–
Net carrying amount	16,761	19,580	–	–

This item includes a finance leasing agreement for production equipment in Tullinge with a current value of a minimum lease fee of TSEK 13,636. During the year, lease assets were depreciated by TSEK -1,704, whereby the closing value in the balance sheet as at 31 December 2018 is TSEK 11,931. The remaining lease commitments are given in the table below, these are also recognised as leasing liabilities in the balance sheet under other long and other short-term liabilities. Once the lease is completed, Bactiguard is entitled to acquire ownership of the production equipment for SEK 1.

	Group		Parent company	
	2018	2017	2018	2017
Within 1 year	1,538	1,466	–	–
Between 1 year and 5 years	6,939	6,616	–	–
After more than 5 years	3,999	5,860	–	–
Total	12,476	13,942	–	–

NOTE 22 Equipment, tools and installations

	Group		Parent company	
	31/12/2018	31/12/2017	31/12/2018	31/12/2017
Opening acquisition value	7,776	7,707	–	–
Purchases	341	480	–	–
Sales/scrapping	–	-441	–	–
Closing accumulated acquisition value	8,117	7,776	–	–
Opening depreciation	-4,669	-3,770	–	–
Depreciation for the year	-1,315	-1,310	–	–
Sales/scrapping	–	411		
Closing accumulated depreciation	-5,984	-4,669	–	–
Net carrying amount	2,133	3,107	–	–

NOTE 23 Shares in subsidiaries

	Parent company	
	31/12/2018	31/12/2017
Opening acquisition value	414,574	384,574
Shareholder contributions subsidiaries	–	30,000
Closing acquisition value	414,574	414,574

Subsidiaries	Corp.ID. no.	Domicile	Share of equity %	Share of voting power %	Book value
Bactiguard AB	556668-6621	Stockholm	100	100	414,574
Bactiguard International AB	556754-7731	Stockholm	100	100	–
Bactiguard China Limited	1403452	Hong Kong	100	100	–
Bactiguard Malaysia SDN. BHD.	970618-V	Malaysia	100	100	–
Bactiguard Singapore Pte. Ltd.	201135972E	Singapore	100	100	–
Bactiguard Israel Ltd.	514794247	Israel	100	100	–
Total					414,574

NOTE 24 Participations in associates and joint ventures

	Group		Parent company	
	31/12/2018	31/12/2017	31/12/2018	31/12/2017
Opening balance	-	1,228	–	–
Investments	–	–	–	–
Sales/scrapping		- 1,228		
Participations in result of associates	–	–	–	–
Closing balance	–	–	–	–

The participations in previous years relate to a 50% ownership in Casil BG Medical Ltd (Joint venture in Cadila Pharmaceuticals in India) which were phased out, with the participations being written down in their entirety in 2017.

NOTE 25 Inventory

	Group		Parent company	
	31/12/2018	31/12/2017	31/12/2018	31/12/2017
Raw material	3,134	2,750	–	–
Products in progress	2,103	1,716	–	–
Finished goods	9,029	9,142	–	–
Total inventory	14,266	13,608	–	–

The Inventories item includes an impairment of TSEK 5,176 (5,261) and for the parent company by TSEK - (-). This refers to earlier generations products where the technical life span exceeds the commercial. Goods are scrapped after the end of the technical life, which is an unchanged principle. No significant reversals of previous impairments have been made in 2018 or 2017.

NOTE 26 Accounts receivable

	Group		Parent company	
	31/12/2018	31/12/2017	31/12/2018	31/12/2017
Accounts receivable, gross	60,895	57,547	–	–
Provision for expected credit losses	-6,404	-688	–	–
Total accounts receivable, net after loss provision	54,492	56,859	–	–

Non-current accounts receivable amount to TSEK - (17,263). 0.2% (30%) of accounts receivable refer to territorial fees and correspond to deferred income and advance payments from customers of the same amount and have thereby not impacted the income statement.

The management has assessed that the carrying amount for accounts receivable, net after loss provision, is the fair value.

	Group	
Age analysis of accounts receivable	2018	2017
Not due	32,432	19,712
Overdue 1–30 days	2,122	6,660
Overdue 31–90 days	1,377	1,553
Overdue > 90 days	24,963	29,682
Provision for expected credit losses	-6,404	-688
Total	54,492	56,859

Provision credit losses	Group 31/12/2018	Group 31/12/2017	Parent company 31/12/2018	Parent company 31/12/2017
Opening balance	-688	-58,191	–	–
Provision for expected credit losses	-6,404	-476	–	–
Realised loss	688	57,978	–	–
Closing balance	-6,404	- 688	–	–

At the beginning of 2019 Bactiguard transferred its distribution in Iraq and accounts receivable to a European distributor with a book value of TSEK 17,062. The difference between the sale proceeds and the book value amounted to TSEK 4,265, which is included in the provision for expected credit losses in the figure for 2018. As this receivable was not sold as of 31 December 2018, the receivable is still included in total accounts receivable above, and in Overdue > 90 days.

The figures for 2017 have not been remeasured in accordance with IFRS 9, but are based on IAS 39 and bad debt.

The previous provision of accounts receivable between 2013 and 2017 that was linked to previous business models was cleared from the balance sheet in the previous year (2017), resulting in a loss of TSEK 57,978, which had no effect on earnings or cash flow.

The company's assessment is that payment will be received for accounts receivable that are past due but not impaired.

NOTE 27 Prepaid expenses and accrued income

	Group 31/12/2018	Group 31/12/2017	Parent company 31/12/2018	Parent company 31/12/2017
Prepaid rent	2,525	2,403	–	–
Other items	8,672	8,851	201	1,962
Total	11,197	11,254	201	1,962

NOTE 28 Cash and cash equivalents

	Group 31/12/2018	Group 31/12/2017	Parent company 31/12/2018	Parent company 31/12/2017
Cash and bank balances	1,893	11,550	648	374
Total	1,893	11,550	648	374

Provision for expected credit losses for cash and cash equivalents are not considered necessary as the Group's cash and cash equivalents are invested in reputable banks with low credit risk.

NOTE 29 Share capital

Share capital in Bactiguard as per 31 December 2018 was TSEK 833 allocated to 29,302,373 series B shares each carrying a single vote (29,302,373 votes) and 4,000,000 series A shares, each with ten votes (40,000,000 votes). The total number of shares and votes in Bactiguard as per 31 December 2018 was 33,302,373 shares and 69,302,373 votes. The shares have a quotient value of SEK 0.025.

The disclosures are unchanged compared to 31 December of the previous year.

NOTE 30 Loans

	Group 2018	Group 2017	Parent company 2018	Parent company 2017
Long-term liabilities to credit institutions	126,900	142,500	126,900	142,500
Short-term liabilities to credit institutions	14,400	7,500	14,400	7,500
Total	141,300	150,000	141,300	150,000

At the end of December 2017, the Company signed an agreement with the Skandinaviska Enskilda Banken (SEB) for a three year credit facility totalling TSEK180,000 in the form of a bank overdraft of TSEK 30,000 and a bank loan of TSEK 150,000. The loan runs at an interest base of STIBOR 90, however minimum 0%, and an interest surcharge of 3.0%. The bank loan of TSEK 150,000 is amortised by a total of TSEK 35,000 over the maturity period. The facility is subject to the customary covenants.

NOTE 31 Bank overdrafts

	Group 31/12/2018	Group 31/12/2017	Parent company 31/12/2018	Parent company 31/12/2017
Bank overdraft facilities granted	30,000	30,000	–	–
Unutilised bank overdrafts	26,095	30,000	–	–
Utilised bank overdrafts	3,905	–	–	–

NOTE 32 Accrued expenses and prepaid income

	Group 31/12/2018	Group 31/12/2017	Parent company 31/12/2018	Parent company 31/12/2017
Accrued interest expenses	48	63	48	63
Accrued holiday pay	6,295	5,806	1,319	1,053
Prepaid income*	9,406	12,036	–	–
Other items	2,522	3,712	351	965
Total	18,270	21,616	1,718	2,080

Disclosures regarding contract liabilities included in this row can be found in Note 5.

NOTE 33 Pledged assets and contingent liabilities

	Group		Parent company	
Pledged assets	31/12/2018	31/12/2017	31/12/2018	31/12/2017
Shares in subsidiaries	162,226	169,328	414,574	414,574
Floating charge	150,000	150,000	–	–
Total	312,226	319,328	414,574	414,574

There are no contingent liabilities in effect.

NOTE 34 Reconciliation of liabilities attributable to financing activities

Group	31/12/2017	Cash flow from financing activities	Change to short-term loans	Other changes*	31/12/2018
Non-current liabilities					
Leasing debt	12,476		-1,538		10,938
Liabilities to credit institutions	142,500	3,905	-15,000	-600	130,805
Short-term liabilities					
Leasing debt	1,466	-1,466	1,538		1,538
Liabilities to credit institutions	7,500	-7,500	15,000	-600	14,400
Reconciliation of liabilities attributable to financing activities	163,942	-5,061		-1,200	157,681

Parent company	31/12/2017	Cash flow from financing activities	Change to short-term loans	Effect of changes to exchange rate	Other changes	31/12/2018
Non-current liabilities						
Liabilities to credit institutions	142,500		-15,000		-600	126,900
Short-term liabilities						
Liabilities to credit institutions	7,500	-7,500	15,000		-600	14,400
Reconciliation of liabilities attributable to financing activities	150,000	-7,500	-	-	-1,200	141,300

* Liabilities to credit institutions relates to the net of loans and prepaid up-front fee regarding the loan. TSEK 600 of the up-front fee refers to year 2019 and TSEK 600 to year 2020, whereby they affected short-term and long-term liabilities to credit institutions.

NOTE 35 Related party transactions

Transactions between the company and its subsidiaries, which are related to the company, have been eliminated in the consolidation, and disclosures regarding these transactions are therefore not provided in this note. Disclosures regarding transactions between the Group and other related parties are presented below.

Services and other transactions between companies within the Group are charged based on commercial principles.

Since 2017 the company has had a licensing agreement with Smartwise Sweden AB, a company owned by a group of private investors, including Bactiguard's CEO and main owner Christian Kinch and main shareholder Thomas von Koch.

Besides that stated above, neither Bactiguard nor its subsidiaries have provided loans, guarantees or guarantee commitments to or for the benefit of any board members or senior management in the Group. None of these people have had any direct or indirect participation in another business transaction with any company within the Group which is or was uncustomary in its nature or with respect to the conditions.

Details of remuneration and benefits for key individuals in a managerial position are provided in note 10.

NOTE 36 Key events after the balance sheet date

Bactiguard is focusing its operations in the Middle East. It has transferred its distribution for Iraq to a European distributor, which also took over accounts receivable at a book value of MSEK 17.1. The proceeds amounts to MSEK 12,8 and, therefore, a write-down of accounts receivable corresponding to the balance of MSEK 4.3 is made in the accounts for 2018.

NOTE 37 Dividends

No dividends were issued during 2018 and no dividends are proposed to the 2019 AGM.

NOTE 38 Proposed appropriation of profit

Parent company

The following retained earnings are at the disposal of the Annual General Meeting (SEK)	
Retained earnings	-11,040,550
Share premium reserve	473,016,706
Profit/loss for the year	-5,523,186
	456,452,970
The Board of Directors proposes that the profits be carried forward	456,452,970
	456,452,970

Signing the annual report

The Board of Directors and Chief Executive Officer hereby certify that these consolidated financial statements were prepared in accordance with the international financial reporting standards, as referenced in the European Parliament and of the Council regulation (EC) No 1606/2002 of 19 July 2002 on the application of international accounting standards and provide a fair representation of the parent company's and the Group's operations, financial position and performance and describe the material risks and uncertainties facing the parent company and group companies.

Stockholm 11 April 2019

Christian Kinch
CEO and Board member

Jan Ståhlberg
Chairman of the Board

Svante Östblom
Board member

Marie Wickman-Chantereau
Board member

Mia Arnhult
Board member

Our auditor's report was submitted on 12 April 2019.
Deloitte AB

Kent Åkerlund
Authorised Public Accountant

Report on the annual accounts and consolidated accounts

Opinions

We have audited the annual accounts and consolidated accounts of Bactiguard Holding AB (publ) for the financial year January 1, 2018 – December 31, 2018 except for the corporate governance statement on pages 31–37. The annual accounts and consolidated accounts of the company are included on pages 25–63 in this document.

In our opinion, the annual accounts have been prepared in accordance with the Annual Accounts Act and present fairly, in all material respects, the financial position of parent company as of 31 December 2018 and its financial performance and cash flow for the year then ended in accordance with the Annual Accounts Act. The consolidated accounts have been prepared in accordance with the Annual Accounts Act and present fairly, in all material respects, the financial position of the group as of 31 December 2018 and their financial performance and cash flow for the year then ended in accordance with International Financial Reporting Standards (IFRS), as adopted by the EU, and the Annual Accounts Act. Our opinions do not cover the corporate governance statement on pages 31–37. The statutory administration report is consistent with the other parts of the annual accounts and consolidated accounts.

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

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

Basis for Opinions

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

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

Key Audit Matters

Key audit matters of the audit are those matters that, in our professional judgment, were of most significance in our audit of the annual accounts and consolidated accounts of the current period. These matters were addressed in the context of our audit of, and in forming our opinion thereon, the annual accounts and consolidated accounts as a whole, but we do not provide a separate opinion on these matters.

Revenue recognition

The Group revenue amounts to 163 MSEK for the financial year 2018 and mainly consists of license revenues and revenues from product sales.

License revenues are received and recognised based on the volume that the company's clients have sold to the end-customers and is recognised in the period of the sale. The license contracts can contain various components and revenue streams that must be evaluated under the recognition criteria of IFRS 15. For example revenue that is recognised directly upon signing of an agreement.

Revenues from product sales are recognised when control have been transferred to the buyer. In the instances where deliveries are made close to a period-end an estimate needs to be made to determine when the control have been transferred to the buyer and in what period to recognise the revenue.

Estimates related to various components in the license contracts and the cut off related to revenues from the sale of products make revenue recognition a key audit matter in the audit.

For further information refer to accounting principles on page 45 and 47, Note 3 and Note 5 in the annual report.

Our audit procedures

Our work included the following procedures, but were not limited to these:

- We have gained an understanding of the company's processes for recognising revenue in accordance with the criteria in IFRS 15, with focus on significant revenue streams.
- We have audited a sample of material product deliveries to determine whether the revenue recognition criteria have been fulfilled.
- We have reviewed all material new agreements and assessed how the company have treated them in the financial reports.
- We have reviewed that appropriate disclosures have been presented in the relevant notes to the financial statements.

Valuation of Goodwill and other intangible assets

The Group has goodwill amounting to 226 MSEK and other intangible assets, foremost technology, amounting to 246 MSEK accounted for in the balance sheet. These assets are tested annually, or as soon there are events indicating that there is a need, for impairment. Since the total value of these assets represent a significant part of the total assets and is sensitive to changes in assumptions such as growth rate and discount factor we consider it to be a key audit matter in our audit.

For further information refer to accounting principles on page 46 and 48, Note 3 and Notes 14 to 19 in the annual report.

Our audit procedures

Our work included the following procedures, but were not limited to these:

- We have reviewed and evaluated Bactiguards process for impairment-testing of goodwill and other intangible assets in order to assure that assumptions are reasonable, that the processes are consequently applied and that there are integrity in the calculations performed.
- We have reviewed the integrity in calculations performed and the arithmetic correctness in the model used for impairment testing of goodwill by involving a valuation expert.
- We have compared the value of the company's assets with current market value in the form of the company's market cap.

- We have reviewed that appropriate disclosures have been presented in the relevant notes to the financial statements.

Accounting for accounts receivable

The Group has accounts receivable amounting to 54 MSEK. The receivables have in some instances long payment terms and are to a great extent related to foreign clients. For a portion of the receivables there is a risk for customers not paying due to that regulatory approvals are delayed or due to country and client specific risks. Accounts receivable represent a significant asset in the Group's statement of financial position and is associated with difficult judgments related to the customer's ability to pay and as a consequence it is key audit matter in our audit.

For further information refer to accounting principles on page 49 and Note 3 as well as 26 in the annual report.

Our audit procedures

Our work included the following procedures, but were not limited to these:

- We have reviewed the company's estimate of each individual significant receivable and performed subsequent payment procedures for a sample of the most significant receivables.
- We have reviewed that receivables with payment conditions exceeding one year are accounted for in accordance with IAS 18.
- We have reviewed that credit loss recognition is in accordance with IFRS 9.
- We have reviewed that appropriate disclosures have been presented in the relevant notes to the financial statements.

Other information than the annual accounts and consolidated accounts

This document also contains other information than the annual accounts and consolidated accounts and is found on pages 1–24 and 67. The Board of Directors and the Managing Director are responsible for this other information.

Our opinion on the annual accounts and consolidated accounts does not cover this other information and we do not express any form of assurance conclusion regarding this other information.

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

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

Responsibilities of the Board of Directors and the Managing Director

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

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

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

Auditor's responsibility

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

A further description of our responsibilities for the audit of the annual accounts and consolidated accounts is located at the Swedish Inspectorate of Auditors website: www.revisorsinspektionen.se/revisornsansvar. This description forms part of the auditor's report.

Report on other legal and regulatory requirements

Opinions

In addition to our audit of the annual accounts and consolidated accounts, we have also audited the administration of the Board of Directors and the Managing Director of Bactiguard Holding AB (publ) for the financial year January 1, 2017 – December 31, 2017 and the proposed appropriations of the company's profit or loss.

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

Basis for Opinions

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

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

Responsibilities of the Board of Directors and the Managing Director

The Board of Directors is responsible for the proposal for appropriations of the company's profit or loss. At the proposal of a dividend, this includes an assessment of whether the dividend is justifiable considering the requirements which the company's and the group's type of operations, size and risks place on the size of the parent company's and the group's equity, consolidation requirements, liquidity and position in general.

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

Auditor's responsibility

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

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

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

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

A further description of our responsibilities for the audit of the management's administration is located at the Swedish Inspectorate of Auditors website: www.revisorsinspektionen.se/rn/showdocument/documents/rev_dok/revisors_ansvar.pdf. This description forms part of the auditor's report.

The auditor's examination of the corporate governance statement

The Board of Directors is responsible for that the corporate governance statement on pages 31–37 has been prepared in accordance with the Annual Accounts Act.

Our examination of the corporate governance statement is conducted in accordance with FAR's auditing standard RevU 16 The auditor's examination of the corporate governance statement. This means that our examination of the corporate governance statement is different and substantially less in scope than an audit conducted in accordance with International Standards on Auditing and generally accepted auditing standards in Sweden. We believe that the examination has provided us with sufficient basis for our opinions.

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

Deloitte AB, was appointed auditor of Bactiguard Holding AB (publ) by the annual general meeting of the shareholders on May 16, 2018 and has been the company's auditors' since May 18, 2012.

Stockholm April 12, 2019
Deloitte AB

Kent Åkerlund
Authorised Public Accountant

Glossary

Antibiotic resistance
Microorganisms, such as bacteria, that have developed a resistance to antibiotics, which makes infections and diseases caused by these bacteria to no longer be treated as effectively with antibiotics.

BIP CVC
Bactiguard Infection Protection (BIP) central venous catheter.

BIP ETT
Bactiguard Infection Protection (BIP) endotracheal tube.

BIP Foley
Bactiguard Infection Protection (BIP) urinary catheter.

Haemolysis
Causes the red blood cells to burst

Clinical study
A study designed to determine the effects that medical technical devices have on patients.

Multi-resistant bacteria
Bacteria that are resistant to several antibiotic treatments, so that established antibiotic alternatives can no longer be used for treatment or preventive purposes.

Healthcare associated infections
Infections that occur while treated at hospital, at other healthcare unit or at home.

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