

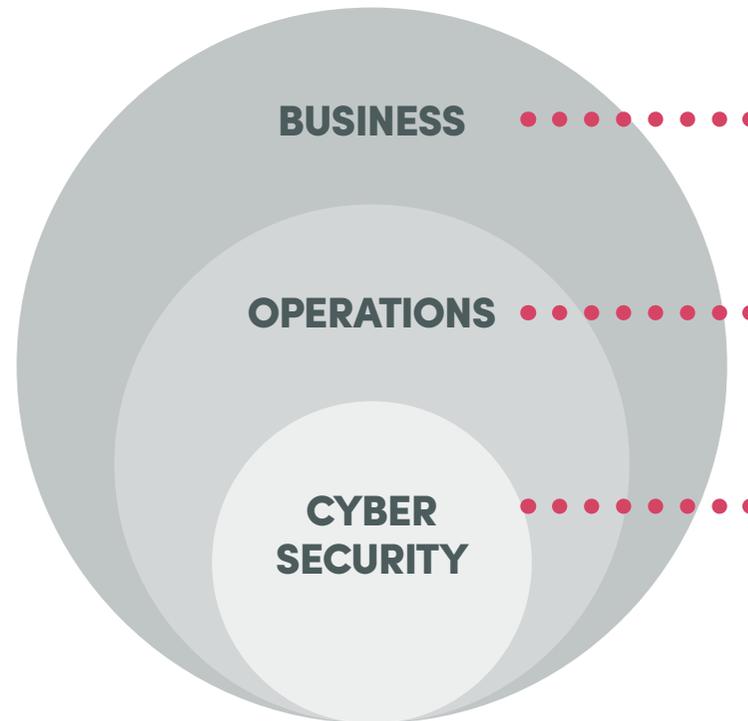


**SSH.COM**  
**ANNUAL REPORT 2017**

# ACCESS YOUR DIGITAL CORE

with zero inertia, zero friction and zero credential risk.

## Our Value Promise.



### Zero Inertia

Our process-driven software solutions enable business velocity and reduce security-generated inertia. We help you innovate, scale and externalize faster and more cost-effectively.

### Zero Friction

We provide non-intrusive, autonomous, pervasive and interoperable solutions with excellent usability. We help you kill operational friction, cut OPEX, and minimize administrative effort.

### Zero Credential Risk

We build with the design principle of mitigating and eliminating the risk of lost, stolen and unmanaged credentials. We protect your digital core and only allow legitimate, trusted access to your critical data, applications and services.

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# SSH COMMUNICATIONS SECURITY IN BRIEF

SSH Communications Security helps organizations access, secure and control their digital core – their critical data, applications and services. In the rapidly growing global data economy, secure access that enables digital transformation at business velocity is the new competitive advantage.

We have over 3,000 customers around the world, including 40 % of Fortune 500 companies, the world's largest financial institutions, and major organizations in all verticals. Our solutions guard against the rapidly changing threat landscape that includes both internal and external actors.

We generate value from a combination of our world-leading expertise, proven enterprise-class solutions, professional services, support offering, and from our strong IP portfolio and well-established licensing operations.

SSH Communications Security sells through offices in North America, Europe and Asia and through a global network of certified partners. The company's shares (SSH1V) are quoted on the NASDAQ Helsinki. For more information, visit [www.ssh.com](http://www.ssh.com).

KEY FIGURES		2017	2016
Net sales	KEUR	16,233	15,122
Operating profit/loss	KEUR	-1,709	-10,753
% of net sales	%	-10.5	-71.1
Profit/loss before taxes	KEUR	-2,220	-11,017
Earnings per share	EUR	-0.09	-0.36
Equity ratio	%	82.9	63.1
Gearing	%	-104.5	-94.8
Number of personnel 31 Dec		80	84



# 2017 IN BRIEF

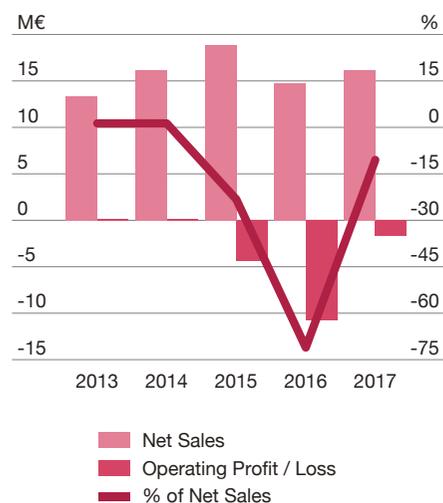
## FOR SSH, 2017 WAS A YEAR OF REBUILDING

**WE RETURNED TO GROWTH, MANAGED COSTS CAREFULLY, AND STREAMLINED THE ORGANIZATION AND OUR PROCESSES FOR MORE EFFICIENT OPERATIONS**

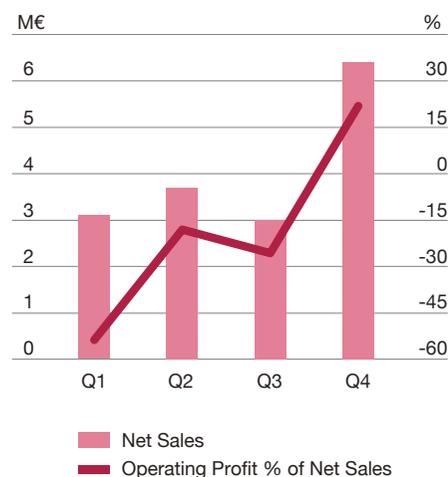
- Subscription revenue continued to progress with +80 % growth, helping us to move towards a more stable revenue base for future years.
- First patent licensing wins, with a EUR 2.1 M cross-licensing deal announced in Q4.
- The Service + other revenue category (including patent licensing) grew significantly with +253 % growth over 2016.
- Recurring revenue from maintenance and support strong; +5 % over 2016.
- A successful EUR 7 million funding round in June boosted cash reserves.
- Clearly improved financial performance: slight revenue growth (+7 %) and positive cash flow from operations; Q4 EBIT +22 %, full year EBIT still negative -11 %.

**CASH FLOW FROM OPERATIONS POSITIVE**  
**+1.3M EUR**

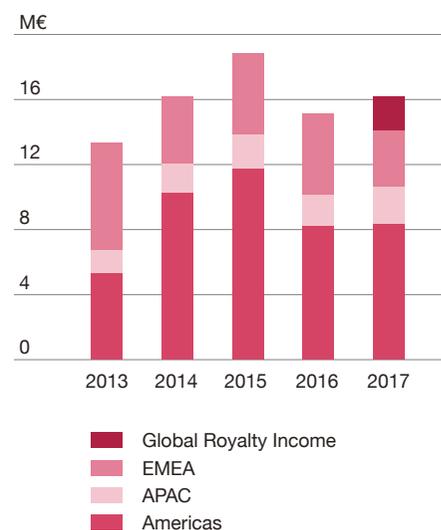
**Yearly Development 2013–2017**



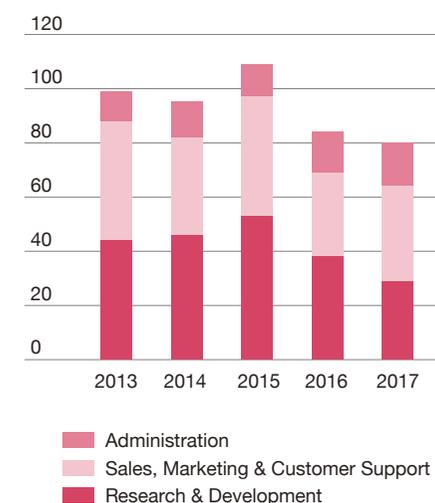
**Quarterly Development 2017**



**Regional Net Sales Split**



**Personnel (as of 31 Dec)**



# “A NEARLY EUR 10 MILLION EBIT TURNAROUND FROM 2016”

## FINANCIAL PERFORMANCE

- FY 2017 marked a return to revenue growth, but license sales were still challenging.
- The company's annual revenue was in total EUR 16.2 million (EUR 15.1 million), representing an increase of +7.3 %. EBIT was EUR -1.7 million (EUR -10.8 million), -10.5 % of revenue (-71.1 %).
- Earnings per share was at EUR -0.09 (EUR -0.36). Cash flow from operations was EUR 1.3 million (EUR -8.1 million).
- Total operating expenses were EUR 16.5 million (EUR 23.9 million), a decrease of EUR 7.4 million due to continued careful cost controls and streamlining of the organization and processes.
- In 2017, sales were geographically divided into: Americas 50.9 % (53.9 %), EMEA 21.8 % (33.2 %), and APAC 14.3 % (12.9 %). Global royalty revenue was 12.9 % of total sales.
- Further information on the key financial figures is presented in the Financial Statements section of this Annual Report.

## SALES AND MARKETS

We achieved 80 % year-on-year growth in software subscription sales which is in line with our focus on subscription sales and helps build a stable base for future growth.

Software license sales were challenging due to long sales cycles, increasing competition, and the trend of custom-

ers starting their deployments with smaller orders instead of large one-off purchases. As a result of this, license sales decreased by 34 %. This is a result we are not happy with and we have started several initiatives to boost license sales.

The category of professional services & other sales showed a remarkable 253 % growth. This number, however, must be understood in the right context. The figure includes the EUR 2.1 million royalty payment from the patent cross-licensing deal we announced in December.

Pure professional services sales showed a more reasonable +64 % growth, resulting from continued demand from larger customers to support them in their SSH key remediation projects. While we continue to emphasize license and subscription sales, the growth in demand for our professional services indicates the trust placed in us by some of the largest and most successful companies in the world.

The above-mentioned patent licensing deal was our first licensing win. It validates our patent licensing strategy and gives us renewed energy to further pursue patent licensing negotiations.

The company operates globally with regional headquarters in Helsinki (for EMEA) and Boston (for Americas). In EMEA, we have sales and support offices in the UK and Germany. In the APAC region, the company has an office in Hong Kong.

AMER total revenue in 2017 was up +1.4 %. APAC revenue was up +18.9 % in 2017. EMEA revenue decreased by -29.4 % in 2017. The patent licensing revenue was recognized as Global royalty revenue.

We continue to work with a mixed sales model in AMER and EMEA, while APAC is predominantly channel-driven.

## ORGANIZATIONAL RENEWAL

The cost reduction and restructuring process started in Q4 of 2016 resulted in a significantly decreased headcount. During 2017, we streamlined both our organization and processes to increase operative efficiency.

The most visible change was the start of the new PrivX Business Program to manage the go-to-market process of the PrivX® On-Demand Access Manager product and ensure there are enough resources and focus on the product line to make it a success and an engine of future growth for the company.

# “WE ANNOUNCED AN AMBITIOUS NEW STRATEGIC DIRECTION”

Product Management was also streamlined and unified under clear leadership.

The marketing organization was reshaped, and a new Chief Marketing Officer and Chief Digital Officer were appointed to lead us in our digital transformation process and create the increased online presence and visibility required for future growth.

## TECHNOLOGIES AND PRODUCTS

Despite significantly reduced headcount, R&D produced a brand-new product, PrivX® On-Demand Access Manager, and new versions of our Universal SSH Key Manager® (UKM) and CryptoAuditor® products. Our Tectia® SSH products continue to be the gold standard in encryption technology that leading customers around the world use for their mission-critical operations.

The launch of PrivX On-Demand Access Manager in June of 2017 was the first phase of SSH's ambitious new strategy. PrivX rearchitects access management for the Cloud and DevOps, enabling enterprises to instantly reap the business benefits of faster time-to-market, increased agility, and lower costs. As a “keyless” on-demand solution, PrivX solves one of greatest challenges facing CIO's and CISO's now and in the future: how to manage the virtually unlimited number of privileged access credentials in data-driven organizations.

Our firewall/VPN product entered the final national CAA (Crypto Approval Authority) certification process. The successful completion of this certification process will enable sales to public sector customers in Finland.

## IPR PROTECTION AND LICENSING

While we had mixed results in the patent litigation process early in the year, we were able to conclude and announce our first patent cross-licensing agreement with a global technology player during Q4. This agreement resulted in a EUR 2.1 million one-time payment to SSH Communications Security in Q4.

We entered into a settlement and patent cross-licensing agreement with Sony in February 2018. The agreement ends all litigation between SSH and Sony and provides for a one-time royalty fee payable by Sony to SSH. This royalty fee will have a moderate positive effect on SSH's revenue and EBIT in Q1 of 2018.

We continue other patent licensing negotiations with full force.

In addition to enforcement efforts and licensing negotiations, we filed several international patents on key PrivX innovations to continue growing our IPR portfolio, further differentiate the product in the market, and increase patent licensing potential.

## MARKET VIEW

The cybersecurity market is poised to keep growing at a brisk pace for the foreseeable future, fueled by the growing and shifting threat landscape, accelerating cloud transformation, and new regulations (in Europe, primarily GDPR which comes into full force in May 2018).

The growth of the traditional cybersecurity market notwithstanding, there is a fundamental shift happening in the market. By 2020, 50 % of the Global 2000 will see the majority of their business depend on their ability to create digitally-enhanced products, services, and experiences in response to evolving consumer expectations. This evolution requires businesses to invest in technology enablers to ramp up their digital transformation efforts.

IDC calls technologies that enable businesses to fast-track their digital transformation “3rd Platform Technologies”: Big Data & Analytics, Cloud, Mobile and Social. These four technologies are important foundational elements that enable enterprises to disrupt the market.

In this new reality, cybersecurity has to be an innovative accelerator. Organizations need security solutions that enable secure access between the critical assets of their digital core and these 3rd Platform Technologies. SSH Communications is positioned to exploit this need with our solutions that offer secure access with zero inertia, zero friction and zero credentials risk.

# “CLOUD-FIRST STRATEGIES ARE THE FOUNDATION FOR STAYING RELEVANT IN A FAST-PACED WORLD.”

## SSH ANNOUNCED A NEW STRATEGIC DIRECTION IN JUNE 2017.

The new direction addresses the tectonic shift in the IT landscape caused by the parallel emergence of cloud computing and the global data economy, resulting in an ever-accelerating digital transformation of businesses.

The scale of the opportunity created by the cloud is unprecedented. Gartner, Inc. wrote in 2016: “More than \$1 trillion in IT spending will be directly or indirectly affected by the shift to cloud during the next five years. This will make cloud computing one of the most disruptive forces of IT spending since the early days of the digital age. Cloud-first strategies are the foundation for staying relevant in a fast-paced world.”

The EU estimates the size of the data economy to exceed EUR 700 billion by the year 2020 in Europe alone. The global number is likely to be in excess of EUR 2 trillion by the year 2020. Craig Mundie of Microsoft succinctly describes this development: “Data is becoming the new raw material of business: an economic input almost on a par with capital and labor.”

A key impediment to companies’ digital transformation is the cost, effort and risk balance associated with secure access to critical data, applications, and services. According to Forbes, 49 % of businesses are delaying cloud deployment due to cybersecurity.

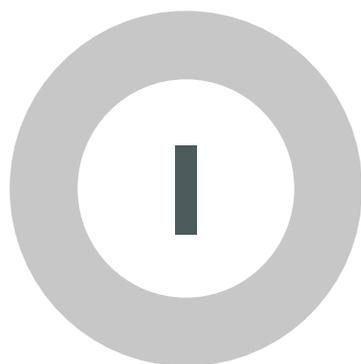
With the new strategic direction, we are repositioning SSH Communications Security to better respond to changing customer needs and increase shareholder value:

- We will exploit this opportunity by being a pivotal player in removing the security and access management bottlenecks that impede the cloud transformation of enterprises.
- We do this by rearchitecting access management for the cloud, enabling enterprises to instantly reap the business benefits of the cloud and DevOps for faster time-to-market, increased agility and lower costs.
- Unlike our competitors, we have a cloud-first, legacy-friendly approach that optimally supports both pure cloud and hybrid IT.
- The value of business enablement in the cloud is vastly greater than that of the traditional cybersecurity.

In 2017, we laid the groundwork for our new strategy, but the process is just starting. We will execute the new strategy in four successive stages, the first of which was completed in 2017.

**“THE VALUE OF BUSINESS ENABLEMENT  
IN THE CLOUD IS VASTLY GREATER THAN  
THAT OF THE TRADITIONAL CYBERSECURITY.”**

## Four Phases of our **Transformation**



**2017**

**Fix and Plan**

We tackled the deepest systemic issues and started our transformation journey.



**2018**

**Launch**

Rebuilding sales and marketing, targeting new customer segments with a disruptive new offering.



**2019**

**Grow**

Scaling up, further strengthening the organization, and introducing new products and technologies.



**2020 and beyond**

**Leverage**

Leveraging our growth, continuing to disrupt the industry from a position of strength.



**Kaisa Olkkonen, CEO**

## CEO Letter

# “2017 WAS A YEAR OF REBUILDING FOR SSH.”

Dear valued customers, partners, co-workers, and shareholders,

The year 2017 was a period of rebuilding for SSH Communications Security – we restructured the organization after the reorganization and cost savings actions in late 2016, announced a new cloud-facing strategy, launched a new product, increased our focus on marketing, and also started changing our sales model. While this process is still ongoing, the results were encouraging.

Supported by our patent licensing activity and a strong fourth quarter (56 % year-on-year revenue growth and very healthy 22 % operating profit), we grew our annual revenue by 7 % and decreased our operating loss by nearly 85 %. Our cash flow from operations for the year was also positive, signifying a nearly EUR 10 million turnaround from 2016.

We successfully controlled costs and improved our operational efficiency throughout the organization. Despite significantly reduced headcount, R&D produced a brand-new product, PrivX® On-Demand Access Manager, and new versions of our our Universal SSH Key Manager® (UKM) and CryptoAuditor® prod-

ucts. Our Tectia® SSH products continue to be the gold standard in encryption technology that leading customers around the world use for their mission-critical operations.

The launch of PrivX On-Demand Access Manager in June of 2017 was the first phase of SSH’s ambitious new strategy. PrivX rearchitects access management for the cloud and DevOps, enabling enterprises to instantly reap the business benefits of faster time-to-market, increased agility, and lower costs. As a “keyless” on-demand solution, PrivX® On-Demand Access Manager solves one of future CIO and CISO’s biggest concerns: managing the virtually limitless number of privileged access credentials.

While we are encouraged by our progress, there is still a lot of work ahead of us as we are far from finished with our transformation journey. However, the past year clearly shows that we are on the right path.

We did not yet turn our result positive and new license sales were challenging due to long sales cycles,

**“THE PAST  
YEAR  
CLEARLY  
SHOWS  
THAT  
WE ARE  
ON THE  
RIGHT  
PATH.”**

increasing competition, and the trend of customers starting their deployments with smaller orders instead of large one-off purchases.

On the other hand, our software subscription revenue grew 80 % year-on-year, and the maintenance revenue from old products remained robust. The APAC region performed especially well and the results there exceeded our expectations.

Many of the changes and initiatives we decided on and started executing in 2017 will start showing results in 2018 and beyond. Some of the key initiatives include a strategic shift in our marketing to digital and online, and investment in a new sales model that encompasses both online sales and aggressive inside sales for targeting new customer segments and faster market penetration.

We successfully grew our digital footprint and increased the number of visitors on our web site by more than 500 % compared to 2016. One of the key initiatives in 2018 will be increasingly converting this visitor flow into new customers.

Online and inside sales help us reach a significantly larger number of customers cost-efficiently and also help in the visitor-to-customer conversion. The average deal sizes will be smaller in these channels than in our direct sales channel, but this difference will be more than offset by the expected larger number of transactions and much shorter sales cycles. 2018 will be a very important year for the new sales model: while we do not expect a large revenue impact yet, the work will build a strong foundation for future growth and should start producing significant results in 2019 and beyond.

Our cash position remains very strong. We ensured we have enough resources to execute our new strategy and invest in R&D and marketing with a successful EUR 7 million share issue in June. The share issue was fully subscribed and led to a new major institutional investor joining our list of shareholders. While the success of the funding round was

gratifying, we also feel the urgency to successfully execute the new strategy to create growing shareholder value.

We strengthened and streamlined our organization and leadership team during the year. We started a dedicated PrivX Business Program to manage the go-to-market process of the PrivX product and ensure there are enough resources and focus on the product line to make it a success and an engine of future growth. We were successful in hiring new world-class marketing and digital talent to lead us in our digital transformation process and create the increased online presence and visibility required for future growth.

We also saw our first win on the patent licensing front: in December, we announced a EUR 2.1 million cross-licensing agreement with a global technology company. We continue our other patent licensing efforts with full force.

The firewall business continues to progress steadily, and the certification process is proceeding well. However, deliveries still await the completion of the certification process and confirmed customer orders.

I would like to thank my entire team at SSH Communications Security for their efforts and dedication during 2017. This was not an easy year as the pace of change was fast and we were in a heavy rebuilding phase. The team responded superbly to the challenges we faced, and we emerged from this year stronger and in a clearly better position to prosper than we were at the end of the previous year.

I expect the new initiatives and changes we made in 2017 to start bearing fruit in 2018. I am looking forward to continuing the change journey together with our talented and focused team.

Kaisa Olkkonen  
CEO

# BOARD OF DIRECTORS

The Annual General Meeting held in March 2017 elected Petri Kuivala, Jukka Manner, Timo Syrjälä, Ari Vanttinen, and Tatu Ylönen as members of the Board of Directors.

Jukka Manner was elected as the Chairman of the Board of Directors. The majority of the Board members are considered independent of the company. Board Members Petri Kuivala, Jukka Manner and Timo Syrjälä are deemed to be independent Board members. Board members Ari Vanttinen and Tatu Ylönen are not independent of the company. Ari Vanttinen has signed a multi-year CMO-as-a-Service contract with SSH. Tatu Ylönen is a member of the Executive Management Team and the largest shareholder. Directly and through his holdings he owns approximately 47.7 % of SSH Communications Security shares.



## JUKKA MANNER

Chairman of the Board

Jukka Manner is Professor of Networking Technology at Aalto University. He has more than 20 years of experience in networking, software engineering and distributed systems. He has contributed to standardization of Internet technologies in the Internet Engineering Task Force (IETF) since 1999. Jukka has been principal investigator and project manager for over 25 national and international research projects and has authored over 100 publications, including eleven IETF standards. Prior to joining the board of SSH Communications Security, he served on the board of StoneSoft. He has received the Cross of Merit, Signals, and the Medal for Military Merits for contributions in national defense and C4. Jukka is also a member of the board of the Nokia Foundation. Jukka has a Ph.D. degree from the University of Helsinki (Computer Science). Jukka owns 12,000 SSH shares. He has no option rights.



## PETRI KUIVALA

Board Member

Petri Kuivala is an experienced international leader who currently works as the Chief Information Security Officer of NXP Semiconductors, which is a world leading provider of security and automotive semiconductor solutions. Prior to NXP, he was member of the Microsoft Global Security management team. Prior to that, he worked for almost 14 years in different security leadership positions at Nokia Corporation, including as CISO and CSO. Prior to joining Nokia, Petri worked for the Helsinki Police department, and was a founding member of the Helsinki Criminal Police IT investigations department. Petri neither owns any SSH shares nor has any option rights.



## TIMO SYRJÄLÄ

Board Member

Timo Syrjälä has more than 30 years of experience in capital markets and has spent the last 10 years as a private investor and a non-executive director in several firms. Prior to joining the board of SSH Communications Security, he served on the boards of several leading technology firms including StoneSoft (a security company specializing in firewalls, acquired by Intel/McAfee, now ForcePoint) and Efore. Earlier in his career, Timo held executive and managerial positions in management consulting, asset management, and investment banking. Timo holds a Master of Science degree from the Helsinki University of Technology (now Aalto University) in Finland. Timo owns 3,559,131 SSH shares directly and through his holdings. He has no option rights.



## ARI VÄNTTINEN

Board Member

Ari Vanttinen is an experienced leader in international B2B marketing within the software industry and digital economy. Since 2010, Ari has been instrumental in changing the marketing of two Finnish publicly listed software companies (StoneSoft and Comptel) that have both, during his time, significantly increased shareholder value and company valuation. Ari has deep subject matter expertise in cybersecurity matters and understands how to build a global thought leader position in the industry. He has held various marketing management roles and also currently works as a mentor and advisor to several startups and tech/software companies. Ari neither owns any SSH shares nor has any option rights.



## TATU YLÖNEN

Board Member

Tatu Ylönen founded SSH Communications Security in 1995, grew the company to \$20 million in sales and 190 employees in five years, and led the company to a public listing on the NASDAQ OMX Nordic in 2000. Tatu is an experienced entrepreneur and the original inventor of SSH (Secure Shell) and NAT Traversal technologies. He has also co-authored the NIST IR 7966, guide-lines for managing SSH keys. Prior to his current role as Founder and SSH Fellow, Tatu has held various roles in the company throughout the years, including CEO, CTO, and Chief Innovation Officer. He is also the largest shareholder in the company. Tatu holds a degree of Licentiate of Technology from the Helsinki University of Technology (now Aalto University) in Finland. He has previously founded and invested in several other companies; one of these companies went public in 2014. Tatu owns 18,317,123 SSH shares directly and through his company Clausal Computing Ltd. He has no option rights.

# EXECUTIVE MANAGEMENT TEAM December 31, 2017

## The following people also served in the executive management team during 2017:

Chris Riley, President, SSH, Inc. and Vice President, US Sales & Global Marketing, 01-12/2017

Kalle Jääskeläinen, Vice President, Platform Management, 01-05/2017

The CFO of SSH Communications Security, Helena Kukkonen resigned in December 2017 to pursue new challenges. Helena will continue in her duties until spring of 2018

Tatu Ylönen will step down from the Executive Management Team starting March 1, 2018.

Niklas Nordström will join the Executive Management Team as CFO starting March 19, 2018.



### KAISA OLKKONEN

Chief Executive Officer  
Born 1964, Master of Laws,  
Helsinki University

Kaisa is an experienced leader and expert in international business, legal matters, intellectual property, and digitalization. She has previously been, e.g. VP, Legal and VP, Government Relations at Nokia Corporation.

Kaisa has led international and diverse expert teams through changes and transitions. Her international career has taken her on expatriate assignments in Sweden, Singapore, and Belgium. She also holds Board of Directors positions in Cargotec Oyj, Enfo Oyj, and John Nurminen Foundation, and acts as an investor and advisor to several startup companies.

Kaisa owns 10,000 SSH Communications Security shares and has 300,000 option rights.



### TATU YLÖNEN

SSH Fellow, Founder  
born 1968,  
Lic.Sc. (Technology)

After founding SSH Communications Security in 1995, Tatu grew the company to \$20 million in sales and 190 employees in five years and led the company to a public listing on the NASDAQ OMX Nordic in 2000.

He is an experienced entrepreneur with significant technical achievements:

- Developed the SSH (Secure Shell) protocol for secure remote access and SFTP for file transfers.
- Implemented the original free SSH client and server, which later became OpenSSH.
- Developed patented NAT Traversal technology, which is now included in most major smartphones, computers, and 3G/4G telecoms equipment.

Tatu has authored several IETF standards and NIST IR 7966 and is the inventor in 30+ US and international patents, including several essential patents on major telecommunications standards.

Tatu owns 18,317,123 SSH Communications Security shares directly and through his company, Clausal Computing Ltd. He has no option rights.



### HELENA KUKKONEN

Chief Financial Officer  
born 1972,  
M.Sc. (Economics)

Helena brings more than 20 years of experience in financial and management accounting and reporting, finance process, and systems development. She is responsible for financial management, treasury, human resources, corporate development, and corporate governance. She also acts as the secretary to the Board of Directors.

Prior to joining the company in September 2016, Helena held several senior financial management positions at Microsoft Corporation and Nokia Corporation. She headed finance and control functions on group and business unit level for a global large-scale company, as well as global functional finance teams in the manufacturing and supply chain areas, including mobile phone factories worldwide.

Helena has a Master of Science in Economics degree from the University of Vaasa, Finland.

Helena does not own any SSH Communications Security shares but has 115,000 option rights.



### JUSSI LÖPPÖNEN

Head of PrivX Business Program and Product Management  
(starting from 07/2017),  
born 1963, M.Sc. (Engineering)

Jussi has extensive experience in international business management. His career includes a long tenure with Nokia where he led two businesses from the beginning to world #1 positions in their segments.

Jussi combines deep market and customer understanding with knowledge of technology. He also has deep understanding of SSH as a company and its products due to his long career working with the SSH R&D team.

Jussi has a Master of Science in Engineering degree from Aalto University.

Jussi does not own any SSH Communications Security shares but has 35,000 option rights.



### MARKKU ROSSI

Chief Technology Officer  
born 1970,  
M.Sc. (Technology)

Markku is responsible for the company's global R&D and directs the company's technology strategy. Markku has extensive knowledge and experience with SSH Communications Security products, having served the company from 1998 through 2005 as a Chief Engineer, making a leading contribution to SSH solutions' software architecture. Prior to re-joining the company in 2015, Markku founded several companies, such as Codento and ShopAdvisor, served as CTO at Navicore, Chief Architect at Nokia, and is currently member of the board at Codento and partner at Prominda Revolution.

Markku holds a Master of Science degree in Computer Science from the Helsinki University of Technology (Aalto University) in Finland. Markku does not own any SSH Communications Security shares but has 140,000 option rights.



# EXECUTIVE MANAGEMENT TEAM December 31, 2017 continued



## **RAMI RAULAS**

Vice President,  
EMEA and APAC Sales  
born 1961, M.Sc. (Economics)

Rami is a seasoned sales leader with a background of international leadership positions in sales and business management, marketing, and product management in global companies.

He has been developing and leading regional and global sales teams in multiple companies for successful sales growth, and customer satisfaction and loyalty.

He is experienced in go-to-market strategy, implementation and channel partner management.

Rami has been working in management positions in Finnish, Asian and Global companies including Nokia, ICL, Fujitsu, Fujitsu-Siemens, and Ahlstrom.

Rami holds a Master of Science degree in strategic marketing, business economics and computer science from Helsinki School of Economics (Aalto University).

Rami does not own any SSH Communications Security shares but has 35,000 option rights.

## **JOE SCAFF**

VP Americas Operations &  
Global Customer Services  
(starting from 12/2017)  
born 1981  
B.Sc. (Computer Science)

Joe has over 15 years of experience in the information security technology and network communications industry. He has held various management roles at SSH Communication Security, including technical sales, technical support and professional services.

He has a strong technical and managerial background that allows him to deliver strategic solutions to Fortune 500 customers. He is responsible for all US business operations, including sales in the Americas and global customer services.

Joe holds a Bachelor of Computer Science degree from Wentworth Institute of Technology

Joe owns 40,000 SSH Communications Security shares and has 20,000 option rights.

## **SIMO KARKKULAINEN**

Chief Digital Officer  
(starting from 12/2017)  
born 1981

Simo Karkkulainen brings SSH marketing function over 20 years of experience and a strong international point of view. He is responsible for Global Digital marketing, go-to-market strategies and online demand generation.

Prior to joining the company in December 2017, Simo held several senior marketing positions at Stonesoft, McAfee, Comptel and several other companies.

Simo neither owns any SSH Communications Security shares nor has any option rights.

## **JUSSI MONONEN**

Vice President, Business  
Development  
born 1964  
M.Sc. (Engineering)

Jussi is a seasoned growth company executive who has been CEO and founder of several venture-backed companies. He has nearly 30 years of management and consulting experience from international technology-intensive businesses with a sound understanding of strategy, communications, operations, processes, and critical success factors. He also has a strong track record in fundraising and M&A transactions.

Jussi holds a Master of Science degree in Industrial Engineering and Management from the Helsinki University of Technology (Aalto University) in Finland.

Jussi does not own any SSH Communications Security shares but has 100,000 option rights.

# FINANCIAL STATEMENTS 2017



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# Report of the Board of Directors for 1 Jan –31 Dec 2017

NET SALES EUR million	10-12/ 2017	7-9/ 2017	4-6/ 2017	1-3/ 2017	1-12/ 2017	10-12/ 2016	1-12/ 2016
BY GEOGRAPHICAL SEGMENT							
AMERICAS	2.6	1.6	2.2	1.9	8.3	2.2	8.2
APAC	0.7	0.6	0.6	0.4	2.3	0.6	2.0
EMEA	1.0	0.8	1.0	0.8	3.5	1.3	5.0
Global royalty income	2.1	0.0	0.0	0.0	2.1	0.0	0.0
<b>Total</b>	<b>6.4</b>	<b>3.0</b>	<b>3.7</b>	<b>3.1</b>	<b>16.2</b>	<b>4.1</b>	<b>15.1</b>
BY OPERATION							
Software fees	1.8	0.6	1.0	0.6	4.0	1.3	6.1
Professional services and other	2.5	0.4	0.6	0.4	3.9	0.6	1.1
Recurring revenue	2.1	2.0	2.1	2.1	8.3	2.2	7.9
<b>Total</b>	<b>6.4</b>	<b>3.0</b>	<b>3.7</b>	<b>3.1</b>	<b>16.2</b>	<b>4.1</b>	<b>15.1</b>

## NET SALES

Consolidated net sales for January–December totaled EUR 16.2 million (EUR 15.1 million), up 7.3 %, year on year.

The majority of SSH Communications Security's invoicing is U.S. dollar-based. During the reporting period, the U.S. dollar's average exchange rate to euro weakened 2.0 % compared with the same period in 2016. With comparable exchange rates the net sales growth in 2017 would have been 8.8 % compared to 2016.

## PROFIT AND PROFITABILITY TRENDS

Operating loss for January–December amounted to EUR -1.7 million (EUR -10.8 million), with net loss totaling EUR -2.2 million (EUR -11.1 million). Profitability improved considerably from the previous year due to the performance improvement program.

Sales, marketing and customer support expenses amounted EUR -8.8 million (EUR -12.0 million), while research and development expenses totaled EUR -5.6 million (EUR -9.5 million) and administrative expenses EUR -2.1 million (EUR -2.4 million). Operating expenses decreased ac-

ording to the plan (-31 %) compared to previous year.

## BALANCE SHEET AND FINANCIAL POSITION

The financial position of SSH Communications Security remained strong during the reporting period. The consolidated balance sheet total on December 31, 2017 stood at EUR 23.2 million (EUR 21.8 million; December 31, 2016), of which liquid assets accounted for EUR 13.5 million (EUR 7.8 million), or 58.1 % of the balance sheet total. In June, new shares for EUR 7 million were issued in a directed share issue. On December 31, 2017, gearing, or the ratio of net liabilities to shareholders' equity, was -104.5 % (-94.8 %) and the equity ratio stood at 82.9 % (63.1 %).

The reported gross capital expenditure for the period totaled EUR 1.5 million (EUR 2.5 million). Financial income and expenses totaled EUR -0.5 million (EUR -0.3 million), which consisted mainly of exchange rate gains or losses.

During January–December, SSH Communications Security reported a positive cash flow of EUR 1.3 million (EUR -8.1 million) from business operations, and investments showed a negative cash flow of EUR -1.5 million (EUR -2.5

million). Cash flow from financing totaled EUR 6.1 million (EUR 7.1 million). Increase in cash totaled EUR 5.9 million (EUR -3.5 million).

## RESEARCH AND DEVELOPMENT

Research and development expenses totaled EUR -5.6 million (EUR -9.5 million), the equivalent of 34.3 % of net sales (62.5 %). During the reporting period, R&D cost capitalizations totaled EUR 1.2 million (EUR 1.9 million). The overall activation level has decreased due to maturing of the products and overall cost reductions. Depreciation from R&D capitalization assets was EUR -1.7 million (EUR -1.6 million).

## RISKS AND UNCERTAINTIES

Most significant risks that might impact the profitability of the company have remained by and large the same as in the previous reporting period and are listed below. Other risks, which are currently either unknown or considered immaterial to SSH Communications Security may, however, become material in the future.

Largest risks:

- Continuing uncertainty of the macroeconomic environment
- Cybercrime, including e.g. ransomware
- Delays in product development and closing new business
- Ability to execute our strategy
- Ability to retain and recruit key personnel
- Maintaining our ability to innovate and develop our product portfolio, including intellectual property rights (IPR)
- IPR litigation and the utilization of our patent portfolio
- Large portion of the company revenue is invoiced in U.S. dollars, and possible large fluctuation in the U.S. dollar exchange rates during 2018 could have unpredictable effects for profitability that difficult to estimate at this time. The company decides on hedging of USD based contracts on a case-by-base basis.

The principles and organization of risk management of SSH Communications Security can be read from the company's website: [www.ssh.com](http://www.ssh.com).

## HUMAN RESOURCES AND ORGANIZATION

SSH Communications Security Group had 80 (84) employees at the end of December, down by 4 persons or -4.8 % from the previous year. The average age of the employees was 40.8 years (42.4 years). 17.5 % (13.1 %) of the employees were women and 82.5 % (86.9 %) men. At the end of the period under review, 36.3 % (36.9 %) of the employees worked in sales, marketing, and customer services, 43.8 % (45.2 %) in research and development, and 20.0 % (17.9 %) in corporate administration.

At the end of the financial period, the parent company had 53 (56) employees on its payroll. On average, the parent company had 53 (79) employees during the period under review. Parent company salaries, bonuses, and other personnel expenses during the financial period totaled EUR 3.6 million (6.5 million).

## BOARD AND AUDITORS

At the Annual General Meeting held on March 29, 2017, Petri Kuivala and Ari Vanttinen were elected as new members of the Board of Directors. Tatu Ylönen, Timo Syrjälä and Jukka Manner were re-elected as members of the Board of Directors. In the Board's organizing meeting, Jukka Manner was elected as the Chairman of the Board of Directors.

The Authorized Public Accountant Firm Ernst & Young Oy was elected as the auditor of the company with Erkka Talvinko, authorized public accountant, as principal auditor.

## PRINCIPAL PROVISIONS OF THE ARTICLES OF ASSOCIATION

According to the Articles of Association, the highest decision-making power in the company is wielded by the shareholders at the shareholders' meeting. The Annual General Meeting (AGM) is held within six months of the completion of the company's financial period, at a time decided by the Board. The AGM decides the number of members of the Board of Directors and elects them. Additionally, under the Finnish Limited Liability Companies Act, the AGM has the authority

to amend the company's Articles of Association, adopt the financial statements, approve the amount of dividend, and select the company's auditors. Each SSH Communications Security Corporation share conveys one vote at the shareholder's meeting. Under the Articles of Association, the CEO is appointed by the Board of Directors.

## CORPORATE GOVERNANCE

SSH Communications Security complies with the Finnish Limited Liability Companies Act, securities market legislation, including the market abuse regulation, rules of Nasdaq Helsinki, and Finnish Corporate Governance Code 2015 adopted by the Securities Market Association.

More information on corporate governance is available under the Corporate Governance section at: <https://www.ssh.com/investors>.

## RESPONSIBILITY AND BUSINESS ETHICS

SSH Communications Security is committed to systematically maintain and develop the responsibility and sustainability of business through its strategy, operations and actions. Company is committed to operate in socially and ethically responsible way.

The adoption and maintenance of high ethical standards is a core principle of SSH Communications Security and its subsidiaries and affiliates worldwide. Company's ethical principles emphasize the values important to SSH, including environmental effects, treatment of employees and safety and behavioral culture within workplaces.

SSH Communications Security is responsible employer and treats all employees equally. Company does not approve harassment or discrimination in any form. Company constantly develops the safety and comfort of its workplaces as well as the management of work-related stress ja coping with the workload.

SSH Communications Security regards the diversity of its personnel as essential strength and encourages the appraisal and adoption of diversity throughout the organization

including top management.

The company has a separate Anti-Bribery and Anti-Corruption Policy, which prohibits all forms of bribery and corruption as well as annually updated equality plan focusing on equal and fair treatment of its employees.

The company has also established a whistle-blower process which is initiated when someone reports suspected internal or external misconduct or violation of law, regulations, human rights, labour practices, discrimination and harassment, or similar within the operations of SSH Group or by its personnel.

## SHARES, SHAREHOLDING, AND CHANGES IN GROUP STRUCTURE

The reported trading volume of SSH Communications Security Corporation totaled 5,565,659 shares (valued at EUR 11,728,799). The highest quotation was EUR 2.59 and the lowest EUR 1.72. The trade-weighted average share price for the period was EUR 2.11 and the share closed at EUR 1.77 (December 29, 2017).

The company's principal owner Tatu Ylönen holds directly and through his company, Clausal Computing Oy, 47.7 % of the company's shares, Timo Syrjälä holds directly and through his company, Acme Investments SPF S.a.r.l., 9.3 % and Juha Mikkonen holds directly 5.5 % of the company's shares. More information about the shareholding can be obtained from the company's web site [www.ssh.com](http://www.ssh.com).

The company has the following subsidiaries: SSH Communications Security, Inc. and SSH Government Solutions, Inc. in the USA, SSH Communications Security Ltd. in Hong Kong, SSH Communications Security UK Ltd. (formerly SSH ROKITT Solutions and Services Ltd.) in the UK, and SSH Operations Ltd., Kyberleijona Ltd., and SSH Technology Ltd. in Finland. SSH Operations Ltd. has a branch in Germany.

The company closed its subsidiary in Singapore in October 2017 and its subsidiary in Japan in November 2017. The company focuses its operations in the Asia Pacific region in Hong Kong.

## INFORMATION ON SHAREHOLDERS

### DISTRIBUTION OF OWNERSHIP BY SECTOR

Type of sector	Number of shares	Percentage of shares and votes, %
Companies	7,239,004	18.83 %
Financial and insurance institutions	2,993,463	7.79 %
Households and private individuals	24,584,281	63.95 %
Public sector organizations	3,420,600	8.90 %
Non-profit organizations	80,950	0.21 %
Foreign shareholders	122,585	0.32 %
<b>Total</b>	<b>38,440,883</b>	<b>100.00 %</b>

### DISTRIBUTION OF HOLDINGS BY NUMBER OF SHARES

Shares	Number of shareholders	Percentage of shareholders, %	Number of shares	Percentage of shares, %
1-100	1,617	33.52 %	88,288	0.23 %
101-500	1,357	28.13 %	409,832	1.07 %
501-1,000	690	14.30 %	577,838	1.50 %
1,001-5,000	869	18.01 %	2,091,766	5.44 %
5,001-10,000	141	2.92 %	1,043,378	2.71 %
10,001-50,000	119	2.47 %	2,456,785	6.39 %
50,001-100,000	14	0.29 %	935,607	2.43 %
100,001-500,000	7	0.15 %	1,559,645	4.06 %
500,001-999,999,999	10	0.21 %	29,277,744	76.16 %
<b>Total</b>	<b>4,824</b>	<b>100.00 %</b>	<b>38,440,883</b>	<b>100.00 %</b>
of which nominee-registered			2,905,490	7.56 %

### THE TEN LARGEST SHAREHOLDERS

31 December 2017, Excluding Nominee- Registered	Percentage of shares, %	Shares
Ylönen Tatu	37.74 %	14,508,473
Clausal Computing Oy	9.91 %	3,808,650
Mikkonen Juha Taneli	5.48 %	2,108,000
Elo Mutual Pension Insurance Company	3.90 %	1,500,000
Gaselli Capital Oy	3.08 %	1,185,070
Ilmarinen Mutual Pension Insurance Company	3.03 %	1,165,300
Syrjälä Timo Kalevi	2.17 %	835,011
Varma Mutual Pension Insurance Company	1.96 %	755,300
Taaleritehdas Mikro Markka Fund	1.62 %	623,000
AC Invest Oy	1.04 %	400,000
<b>Total</b>	<b>69.95 %</b>	<b>26,888,804</b>

Tatu Ylönen holds directly and through his company, Clausal Computing Oy, 47.65 % of the company's shares, Timo Syrjälä holds directly and through his nominee-registered company 9.26 % of the company's shares.

## SHARE CAPITAL AND BOARD AUTHORIZATIONS

The registered share capital of SSH Communications Security Corporation on December 31, 2017 was EUR 1,153,226.49 consisting of 38,440,883 shares.

SHARE SUBSCRIPTIONS WITH OPTION CERTIFICATES FROM THE COMPANY'S OPTION PLANS		
Number of shares	2017	2016
I/2012 option plan class A option certificates	14,800	32,900
I/2012 option plan class B option certificates	159,150	164,750
I/2012 option plan class C option certificates	292,900	
I/2013 option plan class A option certificates	6,600	37,950
I/2013 option plan class B option certificates	6,600	
I/2013 option plan class C option certificates		
I/2013 option plan class D option certificates		
I/2013 option plan class E option certificates		
I/2013 option plan class F option certificates		
I/2014 option plan class A option certificates		4,950
I/2014 option plan class B option certificates		
I/2014 option plan class C option certificates		
<b>Total</b>	<b>480,050</b>	<b>240,550</b>

The Annual General Meeting approved the Board of Directors' proposal to authorize the Board of Directors to decide

upon the issuing of a maximum of 6,000,000 shares as a share issue against payment or by giving stock options or other special rights entitling to shares, in accordance with Chapter 10 Section 1 of the Finnish Limited Liability Companies Act, either according to the shareholders' pre-emptive right to share subscription or deviating from this right, in one or more tranches. Based on the authorization, either new shares can be issued or own shares, which the company possibly has in its possession, can be transferred. Based on the authorization, the Board of Directors has the same right as the Annual General Meeting to decide on the issuing of shares against payment and special rights (including stock options) in accordance with Chapter 10 Section 1 of the Finnish Limited Liability Companies Act. Thereby, the authorization to be given to the Board of Directors includes, inter alia, the right to deviate from the shareholders' pre-emptive rights with directed issues providing that the company has a weighty financial reason for the deviation in respect of the share issue against payment.

Furthermore, the authorization includes the Board of Directors' right to decide who are entitled to the shares and/or stock options or special rights in accordance with Chapter 10 Section 1 of the Finnish Limited Liability Companies Act as well as on the related compensation, subscription and payment periods and on the registering of the subscription price into the share capital or invested non-restricted equity fund within the limits of the Finnish Limited Liability Companies Act.

The authorization will be valid until the next Annual General Meeting, but will however expire at the latest on June 30, 2018. As announced on June 15, 2017, a directed share issue of 3,400,000 shares was issued under the authorization.

The Annual General Meeting approved the Board of Directors' proposal to authorize the Board of Directors to decide upon the acquiring of a maximum of 2,000,000 shares of the company with assets belonging to the company's non-restricted equity. The shares can also be acquired otherwise than in proportion to the holdings of the existing shareholders

(directed acquisition). The maximum compensation to be paid for the acquired shares shall be the market price at the time of purchase, which is determined in the public trading.

The Board of Directors proposes that the authorization for the acquiring of the company's own shares would be used, inter alia, to strengthen the company's capital structure, to finance and realize corporate acquisitions and other arrangements, to realize the share-based incentive programs of the company or otherwise to be kept by the company, to be transferred for other purposes or to be cancelled. The acquisition of shares reduces the company's distributable non-restricted equity.

Decision concerning the acquiring of own shares cannot be made so that the combined amount of the own shares which are in the possession of, or held as pledges by, the company or its subsidiaries exceeds one-tenth of all shares. The Board of Directors decides on all other matters related to the acquisition of shares.

The authorization will be valid until the next Annual General Meeting, but will however expire at the latest on June 30th, 2018.

## SHARE-BASED PAYMENTS

The share-based payments of SSH Communications Security are stock options. Stock option programs have been in effect in the reporting period or in the comparison year from the years 2012, 2013, 2014, 2015 and, 2016.

Each option gives the right to subscribe to one new share at a price and at a time specified in the terms of the stock option plan. The option rights will be canceled in case the employee leaves the company before the subscription time has begun. There are no other conditions to the beginning of the option rights.

The shares subscribed with the granted option rights include the rights to any dividend payable for the reporting period during which the shares were subscribed. Other shareholder rights commence as soon as the increase in the share capital has been registered in the Trade Register. More

information on stock option plans is given in note 17 in the consolidated financial statements.

### **RELATED PARTY TRANSACTIONS**

In the directed share issue issued by the company on June 15, 2017, Member of the Board Tatu Ylönen subscribed for 243,500 shares and Member of the Board Timo Syrjälä through his controlled company for 728,500 shares.

SSH entered into a patent cross license agreement with a global technology company including a one-time license fee payment. According to the agreement between SSH and Clausal Computing Ltd, SSH paid to Clausal Computing EUR 462,000 of the license revenue as a royalty fee in January 2018.

In January 2018, SSH entered into marketing service agreement with Ari Vääntinen, whereupon Ari Vääntinen is no longer an independent board member.

During the reporting period, there have not been any other significant transactions with related parties.

### **EVENTS AFTER THE BALANCE SHEET DATE**

SSH Communications Security has entered into a patent cross license and settlement agreement with Sony on 5 February 2018. The agreement resolves all disputes between the parties. SSH estimates that after taxes, costs and royalty fee paid to Clausal Computing Ltd, this patent license and settlement agreement will have a moderate positive impact in SSH's net profit for the first quarter of 2018.

### **DIVIDEND AND OTHER DISTRIBUTION OF ASSETS**

The SSH Communications Security's Board of Directors will propose to the Annual General Meeting on March 28th, 2018 that no dividend or return of capital shall be distributed. It is proposed that the loss of the financial year shall be entered to the shareholders' equity in the profit/loss account.

## FINANCIAL INDICATORS

		2017	2016	2015
Net sales	EUR	16,232,979	15,121,803	18,867,166
Operating profit/loss	EUR	-1,708,913	-10,753,470	-4,372,562
% of net sales	%	-10.5	-71.1	-23.2
Profit/loss before taxes	EUR	-2,219,679	-11,017,005	-3,854,905
% of net sales	%	-13.7	-72.9	-20.4
Return on equity	%	-21.2	-112.1	-40.4
Return on investments	%	-21.0	-111.8	-39.9
Net interest-bearing debt	EUR	-13,476,582	-7,844,754	-11,302,677
Gearing	%	-104.5	-94.8	-98.8
Equity ratio	%	82.9	63.1	66.8
Gross investments in tangible and intangible assets	EUR	1,545,190	2,454,542	2,589,673
% of net sales	%	9.5	16.2	13.7
Research and development costs	EUR	-5,571,580	-9,456,568	-5,068,848
% of net sales	%	34.3	62.5	26.9
Average number of personnel		82	111	102
Number of personnel 31 Dec		80	84	109
Salaries and fees	EUR	-8,927,260	-11,402,920	-9,132,955

## INDICATORS PER SHARE

		2017	2016	2015
Earnings per share*	EUR	-0.09	-0.36	-0.15
Earnings per share, diluted*	EUR	-0.09	-0.36	-0.15
Equity per share	EUR	0.34	0.24	0.36
Dividends	EUR	0	0	0
Dividends per share	EUR	0.00	0.00	0.00
Dividend pay-out ratio	%	0	0	0
Effective dividend yield	%	0	0	0
Return of capital	EUR	0	0	0
Return of capital per share	EUR	0	0	0
Adjusted average number of shares during the period	1,000	36,570	32,983	31,068
Adjusted number of shares at the end of the period	1,000	38,441	34,561	31,370
Adjusted number of shares considering dilution effect	1,000	41,169	38,492	36,419
Price per earnings ratio (P/E)		neg.	neg.	neg.
Market capitalization 31 Dec	mEUR	68.0	67.0	94.7

		2017	2016	2015
<b>Share performance on the Helsinki Stock Exchange</b>				
Average price	EUR	2.11	2.84	4.50
Share price, year end	EUR	1.77	1.94	3.02
Lowest quotation	EUR	1.72	1.86	2.52
Highest quotation	EUR	2.59	4.39	6.32
Volume of shares traded	millions	5.6	6.5	8.4
Volume of shares traded, % of total number	%	15.2	19.6	27.0
Volume of shares traded	mEUR	11.7	18.3	37.7

\*Earnings per share is impacted by unpaid interest of hybrid capital securities

## CALCULATION OF FINANCIAL RATIOS

Return on Equity, % (ROE)	=	$\frac{\text{Profit / loss for the financial period}}{\text{Equity (average during the financial period)}} \times 100$
Return on Investment, % (ROI)	=	$\frac{\text{Profit / loss before taxes + Interest and other financial costs}}{\text{Balance sheet total - Non-interest bearing debts (average during financial period)}} \times 100$
Equity Ratio, %	=	$\frac{\text{Equity}}{\text{Balance sheet total - Advance payments received}} \times 100$
Earnings Per Share (EPS)	=	$\frac{\text{Profit / loss for the financial period - Interest on hybrid capital securities}}{\text{Average number of outstanding shares during the financial period}}$
Diluted EPS	=	$\frac{\text{Profit / loss for the financial period - Interest on hybrid capital securities}}{\text{Adjusted average number of shares considering dilution effect}}$
Dividend Per Share	=	$\frac{\text{Dividend}}{\text{Number of outstanding shares during the financial period}}$
Dividend Pay-out Ratio, %	=	$\frac{\text{Dividend per share}}{\text{Earnings per share}} \times 100$
Equity Per Share	=	$\frac{\text{Equity}}{\text{Number of outstanding shares on the financial statement date, adjusted for share issue}}$
Gearing, %	=	$\frac{\text{Interest bearing debt - Liquid assets}}{\text{Equity}} \times 100$



# **CONSOLIDATED FINANCIAL STATEMENTS**

## CONSOLIDATED COMPREHENSIVE INCOME STATEMENT

EUR	Note	1 Jan–31 Dec 2017	1 Jan–31 Dec 2016
<b>NET SALES</b>	3	<b>16,232,979</b>	<b>15,121,803</b>
Cost of goods sold		-1,532,616	-1,925,392
<b>GROSS MARGIN</b>		<b>14,700,363</b>	<b>13,196,411</b>
Other operating income		49,049	0
Sales and marketing costs	4, 5	-8,822,437	-12,045,279
R&D costs	4, 5	-5,571,580	-9,456,568
Administrative costs	4, 5	-2,064,308	-2,448,033
<b>OPERATING LOSS</b>		<b>-1,708,913</b>	<b>-10,753,470</b>
Financial income	6	54	1,285
Financial costs	7	-510,820	-264,821
<b>LOSS BEFORE TAXES</b>		<b>-2,219,679</b>	<b>-11,017,005</b>
Income taxes	8	-25,907	-36,860
<b>LOSS FOR THE FINANCIAL PERIOD</b>		<b>-2,245,586</b>	<b>-11,053,865</b>
<b>OTHER COMPREHENSIVE INCOME</b>			
<b>Items that may be reclassified subsequently to profit or loss:</b>			
Translation differences		381,079	421,150
<b>COMPREHENSIVE LOSS FOR THE FINANCIAL PERIOD</b>		<b>-1,864,507</b>	<b>-10,632,715</b>
<b>Loss for the financial period attributable to:</b>			
Equity holders of the parent company		-2,245,586	-11,053,865
Non-controlling interest		0	0
<b>Comprehensive loss for the financial period attributable to:</b>			
Equity holders of the parent company		-1,864,507	-10,632,715
Non-controlling interest		0	0
Earnings per share	9	-0.09	-0.36
Earnings per share, diluted	9	-0.09	-0.36

## CONSOLIDATED BALANCE SHEET

EUR	Note	31 Dec 2017	31 Dec 2016
<b>ASSETS</b>			
<b>NON-CURRENT ASSETS</b>			
Property, plant and equipment	10	113,250	240,304
Intangible assets	11	4,842,426	5,216,663
Investments		11,000	11,000
<b>NON-CURRENT ASSETS, TOTAL</b>		<b>4,966,676</b>	<b>5,467,967</b>
<b>CURRENT ASSETS</b>			
Current receivables			
Trade receivables	12, 14	3,876,814	6,928,563
Other receivables	13	597,158	1,107,048
Prepaid expenses and accrued expenses		279,717	494,379
<b>Current receivables, total</b>		<b>4,753,689</b>	<b>8,529,990</b>
<b>Cash and cash equivalents</b>		<b>13,476,582</b>	<b>7,844,754</b>
<b>CURRENT ASSETS, TOTAL</b>		<b>18,230,270</b>	<b>16,374,744</b>
<b>ASSETS, TOTAL</b>		<b>23,196,947</b>	<b>21,842,711</b>

## CONSOLIDATED BALANCE SHEET

EUR	Note	31 Dec 2017	31 Dec 2016
<b>SHAREHOLDERS' EQUITY AND LIABILITIES</b>			
<b>EQUITY ATTRIBUTABLE TO THE PARENT COMPANY SHAREHOLDERS</b>			
Share capital		1,153,226	1,036,825
Fair value and other reserves		0	0
Translation differences		-1,307,361	-1,688,440
Unrestricted invested equity fund		22,131,155	14,952,192
Hybrid capital securities		12,000,000	12,000,000
Retained earnings		-21,083,523	-18,029,682
		<b>12,893,498</b>	<b>8,270,895</b>
<b>NON-CONTROLLING INTEREST</b>			
Non-controlling interest		0	0
<b>EQUITY, TOTAL</b>	15	<b>12,893,498</b>	<b>8,270,895</b>
<b>NON-CURRENT LIABILITIES</b>			
<b>NON-CURRENT LIABILITIES, TOTAL</b>		<b>0</b>	<b>0</b>
<b>CURRENT LIABILITIES</b>			
Advances received		7,649,078	8,731,532
Accounts payable	14	830,835	1,240,944
Accrued expenses	18	1,380,586	3,324,649
Other liabilities	19	442,949	274,690
<b>CURRENT LIABILITIES, TOTAL</b>		<b>10,303,449</b>	<b>13,571,816</b>
<b>LIABILITIES, TOTAL</b>		<b>10,303,449</b>	<b>13,571,816</b>
<b>EQUITY AND LIABILITIES, TOTAL</b>		<b>23,196,947</b>	<b>21,842,711</b>

## CONSOLIDATED CASH FLOW STATEMENT

EUR	Note	1 Jan–31 Dec 2017	1 Jan–31 Dec 2016
<b>CASH FLOW FROM BUSINESS OPERATIONS</b>			
Receipts from customers	3, 12	18,465,195	16,206,939
Payments to suppliers and employees	4, 18, 19	-16,939,884	-24,270,931
<b>Cash flow from business operations before financial items and taxes</b>		<b>1,525,312</b>	<b>-8,063,991</b>
Interest paid and payments on other financial costs		-261,376	-13,324
Interest received and other financial income		54	1,285
Income taxes paid		13,240	-36,860
<b>Cash flow from business operations</b>		<b>1,277,229</b>	<b>-8,112,890</b>
<i>whereof change in working capital</i>		<i>850,405</i>	<i>408,913</i>
<b>CASH FLOW FROM INVESTING ACTIVITIES</b>			
Investments in tangible and intangible assets	10, 11	-1,545,190	-2,454,542
Investment in subsidiaries		0	-73,090
<b>Cash flow from investing activities</b>		<b>-1,545,190</b>	<b>-2,527,632</b>
<b>CASH FLOW FROM FINANCING ACTIVITIES</b>			
Interest on hybrid capital securities		-900,000	-900,000
Proceeds from shares subscribed with option rights		325,365	204,092
Proceeds from share issue		6,970,000	8,024,000
Expenses from share issue		-253,059	-223,650
<b>Cash flow from financing activities</b>		<b>6,142,305</b>	<b>7,104,442</b>
<b>Change in cash and cash equivalents</b>		<b>5,874,345</b>	<b>-3,536,080</b>
<b>Cash and cash equivalents in beginning of period</b>		<b>7,844,754</b>	<b>11,302,677</b>
Exchange rate effect		-242,517	78,156
Change in cash and cash equivalents		5,874,345	-3,536,080
<b>Cash and cash equivalents at end of period</b>		<b>13,476,582</b>	<b>7,844,754</b>

## STATEMENT OF CHANGES IN CONSOLIDATED EQUITY

EUR	Note	Share capital	Fair value and other reserves	Hybrid capital securities	Translation differences	Unrestricted invested equity fund	Retained earnings	Equity, total
<b>Equity 1 Jan 2016</b>	15	941,108	0	12,000,000	-2,109,590	6,819,816	-6,205,781	11,445,554
<b>Comprehensive profit/loss</b>								
Profit/loss for the period							-11,053,865	-11,053,865
Other comprehensive items								
Translation differences					421,150			421,150
<b>Comprehensive profit/loss for financial period, total</b>		0	0	0	421,150	0	-11,053,865	-10,632,715
Hybrid capital securities							-900,000	-900,000
Share issue		88,500				7,935,500	-223,650	7,800,350
Share-based payment plans							353,615	353,615
Shares subscribed on option rights	17	7,217				196,876		204,092
<b>Transactions with shareholders</b>		95,717	0	0	0	8,132,376	-770,035	7,458,057
<b>Equity 31 Dec 2016</b>		1,036,825	0	12,000,000	-1,688,440	14,952,192	-18,029,682	8,270,895
<b>Equity 1 Jan 2017</b>	15	1,036,825	0	12,000,000	-1,688,440	14,952,192	-18,029,682	8,270,895
<b>Comprehensive profit/loss</b>								
Profit/loss for the period							-2,245,586	-2,245,586
Other comprehensive items								
Translation differences					381,079			381,079
<b>Comprehensive profit/loss for financial period, total</b>		0	0	0	381,079	0	-2,245,586	-1,864,507
Hybrid capital securities							-900,000	-900,000
Share issue		102,000				6,868,000	-253,059	6,716,941
Share-based payment plans							344,805	344,805
Shares subscribed on option rights	17	14,402				310,964		325,365
<b>Transactions with shareholders</b>		116,402	0	0	0	7,178,964	-808,254	6,487,111
<b>Equity 31 Dec 2017</b>		1,153,226	0	12,000,000	-1,307,361	22,131,155	-21,083,523	12,893,498

# Notes to the Consolidated Financial Statements

## 1. GENERAL INFORMATION

SSH Communications Security Corporation helps organizations access, secure and control their digital core – their critical data, applications and services. In the rapidly growing global data economy, secure access that enables digital transformation at business velocity is the new competitive advantage.

Our thousands of customers include Fortune 500 companies, the world's largest financial institutions, and major organizations in all verticals. Our solutions guard against the rapidly changing threat landscape that includes both internal and external actors.

We generate shareholder value from a combination of our world-leading expertise, proven enterprise-class solutions, professional services, support offering, and from our strong IP portfolio and well-established licensing operations.

The SSH Communications Security Group consists of SSH Communications Security Corporation and its subsidiaries. SSH Communications Security Corporation (corporate id 1035804-9) is domiciled in Helsinki, Finland and is a publicly traded company, whose share is quoted on NASDAQ Helsinki Oy (SSH1V). SSH Communications Security Corporation has its registered office at address Kornetintie 3, 00380 Helsinki, Finland.

The SSH Communications Security Board of Directors approved this financial statement for publication at its meeting on 6 February 2018. Under the Finnish Limited Liability Companies Act, the shareholders can accept or reject the financial statement at the AGM held after its publication. A copy of the financial statements is published as a part of the company's annual report. The annual report is available on the company website at [www.ssh.com](http://www.ssh.com), or at the head office of SSH Communications Security Corporation. All stock exchange bulletins are available on the company website [www.ssh.com](http://www.ssh.com).

## 2. ACCOUNTING PRINCIPLES

### Basis of Preparation

The consolidated financial statements have been prepared in compliance with the International Financial Reporting Standards (IFRS) including the International Accounting Standard (IAS) and International Financial Reporting Standards (IFRS) as well as the interpretations by Standing Interpretations Committee (SIC) and International Financial Reporting Interpretations Committee (IFRIC) in force as of 31 December 2017. The aforementioned standards are the standards and interpretations thereof approved for use in the EU pursuant to Regulation (EC) No. 1606/2002 implemented in the Finnish Accounting Act and legislation based thereon. The notes to the consolidated financial statements are also compliant with Finnish accounting and company legislation.

The following new and amended standards have been adopted as of January 1, 2017:

- **Amendments to IAS 7 Statement of Cash Flows:** Disclosure Initiative. The amendments require disclosure of changes in liabilities arising from financing activities.
- **Amendments to IFRS 12 Disclosure of Interests in Other Entities.** The disclosure requirements apply also to interests held for sale, distribution to owners and discontinued operations in accordance with IFRS 5. The amendments had no impact on the consolidated financial statements.
- **Amendments to IAS 12 Income Taxes:** Recognition of Deferred Tax Assets for Unrealized losses. The amendments clarify the accounting of deferred tax asset for unrealized losses where asset is measured at fair value. The amendments had no impact on the consolidated financial statement.

The consolidated financial statements are based on original acquisition costs unless otherwise noted in the accounting principles. The consolidated financial statements are presented in full euros unless otherwise stated.

### Subsidiaries

The consolidated accounts include the parent company SSH Communications Security Corporation and all its subsidiaries. Subsidiaries are companies in which the Group has a controlling interest. A controlling interest is created when the Group has power over the investee, exposure, or rights, to variable returns from its involvement with the investee and the ability to use its power over the investee to affect the amount of the Group's returns. In practice, controlling interest is established when the Group owns more than half of the votes in a company. All subsidiaries a wholly owned by the parent company SSH Communication Security Corporation.

Group-internal share ownership is eliminated using the purchase method. Subsidiaries are consolidated from the date on which control is transferred to the Group and are no longer consolidated from the date on which that control ceases. All Group-internal transactions, receivables and debts, unrealized profit, and profit distribution have been eliminated.

### Converting Foreign Currency Transactions

Items of each subsidiary included in the consolidated financial statements are measured using the currency of the operating environment of that subsidiary ('functional currency'). The consolidated financial statements are presented in euros, which is the functional and reporting currency of the parent company.

### Transactions in Foreign Currency

Foreign currency denominated transactions are recognized at the exchange rate of the functional currency on the transaction date. In practice, the exchange rate used is approximately the rate of the transaction date. Outstanding receivables and liabilities in foreign currencies are measured using the exchange rates on the balance sheet date. Exchange rate gains and losses on financing are included in financing income and costs.

### **Translation of Financial Statements of Foreign Subsidiaries**

The comprehensive income statements and cash flow statements of subsidiaries whose functional currency is other than EUR are translated into euros using the exchange rate of the transaction dates. In practice, the translations are done once a month using the monthly average exchange rate. Balance sheet items are translated into euros with the exchange rate of the balance sheet date. The translation of the comprehensive profit/loss for the financial period using different exchange rates in the comprehensive income statement on the one hand and in the balance sheet on the other causes a translation difference recognized under Group equity under other comprehensive profit/loss items.

Translation differences generated through elimination of the acquisition costs of foreign subsidiaries and translation of equity items accrued after acquisition are recognized under other comprehensive profit/loss items. When a subsidiary is sold, accumulated translation differences are recognized in the income statement as part of the gain or loss on the sale.

### **Revenue Recognition**

SSH Communications Security net sales derive mainly from software license sales and subscriptions, related support and maintenance fees, and consulting services. Net sales comprise the invoiced value for the sale of goods and services adjusted with any discounts given, sales taxes, and exchange rate differences.

The revenue from product sales is recognized at the time when significant risks and rewards of the product or the right of use of the product have been transferred to the buyer and there is a binding contract between the parties, the delivery has taken place in accordance with the contract, the amount of revenue can be measured reliably, and it is probable that the economic benefits associated with the transaction will accrue to the Group.

Maintenance fees are recognized evenly on an accrual basis throughout the contract period. Revenues from services are recognized when the service has been delivered

and it is probable that the economic benefits associated with the transaction will accrue to the Group.

The revenue of the royalties from licenses is recognized according to the actual content of the contract.

### **Government Grants**

Grants received from the government for a purchase of tangible assets, are entered as a deduction of the book value of the asset when there is reasonable assurance that the company will receive the grant and will comply with the conditions attaching to the grant. Grants are recognized as income over the life of a depreciable asset by way of a reduced depreciation. Government grants that are intended to compensate costs are recognized as income over the same period as the related costs are recognized. These government grants are presented under other operating income.

### **Property, Plant, and Equipment**

The property, plant, and equipment of Group companies are measured in the balance sheet at cost less accumulated straight-line depreciation and eventual impairment losses. When a part of a current assets item is treated as a separate asset, expenses related to its replacement are capitalized and any remaining book value is written off. Expenses incurring at a later date are included in the class of property, plant, and equipment only if it is probable that the property will provide future economic benefits to the Group and that the acquisition cost can be reliably determined. Other repair and maintenance expenses are recognized in profit/loss as and when incurred.

Depreciation is calculated on a straight-line basis to reduce the purchase value of each asset item to its residual value over its estimated useful life.

- Machinery and equipment: 5 years from month of acquisition.
- Computer hardware: 3 years from month of acquisition.
- Leasehold improvements of rental premises: According to the lease term, though no more than 7 years from year of acquisition.

The residual value and useful life of assets are reviewed for each financial statement and, if necessary, adjusted to indicate changes expected in the assets' economic benefits.

The depreciation on property, plant, and equipment is ceased when the asset is classified as held for sale in accordance with standard IFRS 5 Non-current Assets Held for Sale and Discontinued Operations.

Capital gains and losses are determined by comparing proceeds received with the book value of sold assets. Impairment losses incurred through transfer are recognized under other operating costs.

### **Intangible Assets**

#### **Research and Development Costs**

Research costs are recognized as costs in the income statement. Development costs (related to the design and testing of new or improved products) are recognized as intangible assets if capitalization criteria are fulfilled and if it is probable that their economic benefits will flow to the company. The most significant development costs to be capitalized constitute R&D personnel costs and sub-contracting costs. Other development costs are recognized directly as costs. Development costs once recognized as costs are not capitalized in subsequent financial periods.

Incomplete assets are tested annually for impairment. After initial recognition, capitalized development costs are measured at cost less accumulated depreciation and impairment losses. Capitalized development costs are depreciated on a straight-line basis over their economic lifetime, estimated at 3–5 years.

### **Software**

Software includes acquired software licenses. These assets are entered in the balance sheet at cost and depreciated on a straight-line basis over their economic lifetime. The residual value and useful life of assets are reviewed for each financial statement and, if necessary, adjusted to indicate changes expected in the assets' economic benefits. The economic lifetime does not generally exceed 5 years. The depreciation period for software acquired for internal use is 3–5 years.

### **Other Immaterial Rights**

Immaterial rights include obtained technology patents, trademarks, customer registers, and technology rights. These are entered in the balance sheet at cost and depreciated on a straight-line basis over their economic lifetime. The residual value and useful life of assets are reviewed for each financial statement and, if necessary, adjusted to indicate changes expected in the assets' economic benefits. The economic lifetime does not generally exceed 5 years.

### **Impairment of Tangible and Intangible Assets**

The Group will review on each balance sheet date whether there is any indication of an impaired asset. Whenever indicators of impairment exist, the book value of such an asset is compared with its recoverable amount. The recoverable amount is the fair value of the asset less the costs of its sale, or its value in use, whichever is higher. The value in use is the present value of the future cash flows expected to be derived from an asset or cash-generating unit. The discount rate used to calculate the above is pre-tax rate that reflects the current market assessments of the time value of money and the risks specific to the asset.

Whenever the book value of an asset exceeds its recoverable amount, an impairment loss will be recognized for that asset. The impairment loss is recognized immediately in the income statement. After the recognition of an impairment loss, the economic lifetime of an asset subject to depreciation is re-evaluated. An impairment loss recognized in pri-

or period for an asset other than goodwill will be reversed if there is a change in the estimates that have been used in assessing the recoverable amount of that asset.

### **Financial Assets and Liabilities**

#### **Financial Assets**

The Group has classified its financial assets into the following categories: financial assets at fair value through profit or loss, loans and receivables. The assets are classified at initial recognition. The assets are initially recognized at fair value. Transaction costs are included in the original book value of an asset if the asset is not to be recognized at fair value through profit or loss. Financial assets are written off from the balance sheet when the contractual right to cash flows from an asset included in financial assets ends or when the significant risks and rewards related to the asset are transferred outside the Group. All asset purchases and sales are recognized on the date of the transaction.

Financial assets through profit or loss include derivatives unless they are designated as effective hedging instruments or warrants such as currency derivatives, and fund investments. Changes in fair values of derivative financial instruments and realized and unrealized gains and losses are recognized in the income statement during the period when they incur. The Group did not have any derivatives during 2017 or 2016.

Loans and receivables are assets other than derivative assets and with a fixed or definite series of payments. These assets are unlisted and not held for trading. They are measured at amortized acquisition cost. They are recognized under current or non-current financial assets in the balance sheet depending on their nature: assets expiring in more than 12 months are recognized under non-current assets.

#### **Cash and Cash Equivalents**

Cash and cash equivalents include cash on hand, short-term deposits at banks, and other short-term liquid investments with a maturity of three months or less at the time of acquisition.

#### **Impairment of Financial Assets**

The Group assesses at each balance sheet date whether there is any objective evidence that a financial asset or group of financial assets is impaired. If there is, the impairment will immediately be recognized in the income statement. If an impairment on an interest instrument is later reversed, this will be recognized in profit/loss.

The Group recognizes an impairment loss on trade receivables when there is objective evidence that the receivable is not fully collectible. Significant financial difficulties, likelihood of bankruptcy, neglect of payments or delay of payment by more than 90 days on part of a debtor may be considered to constitute such evidence for an impairment loss on trade receivables. The impairment loss recognized in the income statement is the difference between the book value and current value of estimated future cash flows of a receivable discounted at the effective interest rate. If impairment loss is decreased during any later period and the basis for this can objectively be related to an event occurred after the original impairment, the reversal will be recognized in profit/loss in the income statement.

#### **Financial Liabilities**

The Group's financial liabilities are classified into financing liabilities recognized at fair value through profit/loss and other financial liabilities (financing liabilities recognized at amortized acquisition cost). A financial liability is classified as current if the Group does not have the absolute right to postpone repayment to at least 12 months from the end of the period under review. A financial liability (or part thereof) will not be written off the balance sheet until it has ceased to exist, i.e. when the obligation specified in the agreement has been discharged or reversed and its period of validity has expired. In the SSH Communications Security Group, financial liabilities recognized at fair value through profit/loss include the derivative instruments which do not fulfill the criteria for hedging accounting and which are not warrants (currency derivatives). Unrealized and realized gains/losses

due to changes in the fair value of these derivatives are recognized in profit/loss in the financial period during which they are generated. The Group did not have any derivative contracts during 2017 or 2016.

Other financial liabilities (financing liabilities recognized at amortized cost) include, most significantly, trade payables. They are initially recognized at fair value. After the original recognition, other financial liabilities are measured at amortized acquisition cost using the effective interest rate method.

### Leases

Leases on property, plant and equipment which expose the Group to significant risks and rewards incidental to ownership are classified as finance leases. Finance lease agreements are capitalized at the commencement of the lease at the fair value of the leased asset or the present value of the minimum lease payments, whichever is lower. Finance lease asset is depreciated over its useful life or within the lease term, whichever is shorter. Lease payments are apportioned between the finance charge and repayment on the outstanding liability over the lease period so as to produce a constant periodic rate of interest on the remaining balance of the liability.

Lease liabilities are included in interest-bearing liabilities. The Group did not have any finance leases at the end of 2017 or 2016.

Leases where a significant portion of the risks and rewards of ownership are retained by the lessor are classified as operating leases. Operating lease payments are recognized as other operating expenses in the income statement on a straight-line basis over the lease term.

### Earnings per Share

The earnings per share is calculated by dividing the net profit/loss for the financial year by the weighted average number of ordinary shares outstanding during the financial year. Earnings per share is impacted by unpaid interest of hybrid capital securities.

### Diluted Earnings Per Share

A dilutive effect caused by stock options exists when the subscription price of a share is lower than the fair value of the share. In the calculation of diluted earnings per share, stock options are only considered dilutive when their conversion to ordinary shares would decrease earnings per share or increase the loss per share from continuing operations. In other words, when the Group declares a loss, no dilutive effect will be calculated. Diluted earnings per share is impacted by unpaid interest of hybrid capital securities.

### Share Capital

Ordinary shares of the parent company are presented as share capital. Dividends paid on ordinary shares are deducted from equity in the period during which the decision to distribute dividends is made in the Annual General Meeting.

### Share Issue Costs

Costs directly related to an issue of new shares, other than costs attributable to a business combination, are deducted, net of tax, from the proceeds recognized under equity.

### Own Shares

If SSH Communications Security Corporation or its subsidiaries purchase parent company SSH Communications Security Corporation's shares, the compensation paid, including any related incremental external costs, net of tax, is deducted from total equity as own shares until the shares are canceled or transferred. If own shares are subsequently sold, any compensation received will be recognized under equity. The Group companies held no shares in the parent company at December 31, 2017 or December 31, 2016.

### Hybrid capital securities

Hybrid capital securities is an instrument that is subordinated to the Company's other debt obligations and is treated as equity in the Group balance sheet. Unpaid interest is cumulated but presented in the financial statements only after Board of Directors' interest payment decision.

### Gross Margin

Gross margin is equal to net sales less the acquisition costs of materials and services.

### Operating Profit/Loss

IAS 1 Presentation of Financial Statements does not define operating profit/loss. The Group uses the following definition: operating profit/loss is equal to earnings before interest and taxes.

### Income Tax

Tax expenses in the income statement comprise tax based on taxable income for the period and deferred tax. Income tax is recognized in the income statement except for taxes related to items recognized under comprehensive profit/loss or directly under equity, in which case the tax impact will be incorporated in the aforementioned items. Tax based on taxable income for the period is calculated using the corporate income tax rate (and tax laws) effective in each country, adjusted for any tax from previous periods.

Deferred taxes are calculated on all temporary differences between the book value and taxable value. The largest temporary differences arise from unused tax losses which are deductible at a later date.

Deferred taxes are calculated using the statutory tax bases or the tax bases whose confirmed content has been announced by the closing date. Deferred tax assets are recognized to the extent that it is probable that taxable income against which the temporary difference can be applied will materialize in the future. Deferred tax liabilities are recognized at full value in the balance sheet.

## Employee Benefits

### Pensions

The Group's pension schemes comply with the relevant regulations and practices in each relevant country. Pension security for the Group personnel is handled through external pension insurance companies. The Group applies defined contribution pension plans, in which the Group pays fixed contributions to an outside unit. The Group has no obligation to make additional payments in case the recipient of the aforementioned contributions cannot discharge its pension payment obligations. Contributions under the defined contribution plan are recognized in the income statement for the financial period during which the contributions were made.

### Share-Based Payments

Option rights have been issued to the Group management and personnel. Option rights are issued with a fixed subscription price determined in the terms and conditions of the option plan.

Option rights are measured at fair value on their date of issue and recognized as a cost in the income statement on a straight-line basis over the vesting period. The expense determined at the time of issuing the stock options is based on the Group's estimate of the number of stock options to which it is assumed that rights will vest by the end of the vesting period. The fair value is determined using the Black-Scholes pricing model. The non-market criteria are not included in the fair value of the option but taken into account in the number of stock options that are assumed to vest at the end of the vesting period. On the date of each financial statement, the Group updates its estimate of the final amount of the stock options that will vest, and changes in this estimate are recognized in the income statement. When the option rights are exercised, the proceeds received, net of any transaction costs, are recognized under share capital and unrestricted invested equity fund.

## Provisions

Provisions are recognized when the Group has a present legal or constructive obligation as a result of past events, when it is probable that expenditure will be required to settle the obligation, and when a reliable estimate of the amount can be made. If the Group expects an obligation to be partly reimbursed by a third party, the reimbursement is recognized as a separate asset but only when the reimbursement is certain in practical terms. The Group recognizes a provision on loss-making agreements when the expected benefits of an agreement are less than the unavoidable costs of meeting the obligations under the agreement.

Provisions are measured at the current value of the costs required to discharge the obligation. The discount rate is determined to reflect current market assessments of the time value of money and the risks specific to the obligation.

## Use of estimates

Preparation of the consolidated financial statements in accordance with IFRS requires management to make estimates and assumptions affecting the reported amounts of assets, liabilities, income and expenses, as well as the disclosure of contingent assets and liabilities. The estimates and assumptions are based on historical experience and other factors that are believed to be reasonable under the circumstances, which form the basis of making the judgments about carrying values. These estimates and assumptions are reviewed on an ongoing basis and possible effect of the changes in estimates and assumptions are recognized during the period they are changed.

The estimates and assumptions that have a significant risk of causing adjustment to the carrying value of assets within next financial year relate to restructuring plans, impairment testing, claims, onerous contracts, pending patent litigations, and the probability of deferred tax assets being recovered against future taxable profits.

## Adoption of new and amended standards and interpretations applicable in future financial years

The Group adopts the following new and amended standards and interpretations already issued by the IASB. The Group will adopt them as of the effective date or, if the date is other than the first day of the financial year, from the beginning of the subsequent financial year.

- **IFRS 9 Financial Instruments** (effective for 2018 annual period). IFRS 9 will replace current IAS 39 Financial Instruments: Recognition and measurement. The standard introduces new requirements for classification and measurement, impairment, and hedge accounting. The amendment is not expected to have impact on the consolidated financial statements.
- Amendments to **IFRS 10 Consolidated Financial Statements and IAS 28 Investments in Associates and Joint Ventures**. The amendment addresses sale or contribution of assets between an investor and its associate or joint venture, more specifically transactions involving a business. The amendment is not expected to have impact on the consolidated financial statements.
- **IFRS 15 Revenue from Contracts with Customers** (effective for 2018 annual period). IFRS 15 establishes a new comprehensive framework that will apply to revenue arising from contracts with customers. Under IFRS 15, revenue is recognized at an amount that reflects the consideration to which an entity expects to be entitled in exchange for transferring goods or services to a customer.

The Group has assessed the impacts of IFRS 15 on its revenue recognition. The performance obligations in the new standard are principally similar to the transfer of risks and rewards in the current practice. In this respect there will not be any changes in revenue recognition. Consideration of the time value of money incorporated in the new

standard will slightly change the revenue recognition. In case of major advance payment received, the Group will increase revenue with the amount of the interest component and recognize corresponding interest expense over the duration of the advance payment. It is estimated that deferred revenue will increase and retained earnings will decrease by approximately 87 thousand euros on 1 January 2018.

The group intends to adopt the standard using the modified retrospective approach which means that the cumulative impact of the adoption will be recognized in retained earnings on 1 January 2018 and that comparatives will not be restated.

- **IFRS 16 Leases** (effective for 2019 annual period with early adoption permitted at the same time with IFRS 15). New standard replaces IAS 17 standard and related interpretations. The new standard requires a lessee to recognize leasing contract in the balance sheet as a lease liability and related asset. There are optional exemptions for short-term leases with a lease term of 12 months or less and leases of low-value assets. The company has not yet assessed the impact of the standard to the financial statements. At the end of the financial period the Group has non-cancellable lease agreements for office facilities with 602 thousand euros (note 21. Operating lease agreements) which forms the basis for the asset and financial liability to be recognized. Possible new lease agreements or extensions of the contracts may change the amount that is recognized.

At this stage, the Group does not intend to adopt the standard before its effective date.

- **Amendments to IFRS 2 Share-based Payment Transactions** – Clarification and Measurement of share-based Payment Transactions (effective for 2018 annual period). The amendments clarify the measurement for certain arrangements. The following three areas are affected: cash-settled share-based payments, share-base payments settled net

of tax withholdings and modifications of share-based payment transactions from cash-settled to equity-settled. The standard has not yet been endorsed by the EU.

### 3. NET SALES

EUR	2017	2016
<b>BY OPERATION</b>		
Software fees	4,047,914	6,123,352
Professional services and other	3,924,684	1,111,011
Recurring revenue	8,260,381	7,887,439
<b>Total</b>	<b>16,232,979</b>	<b>15,121,803</b>

EUR	2017	2016
<b>BY GEOGRAPHICAL SEGMENT</b>		
AMERICAS	8,269,950	8,152,221
APAC	2,323,968	1,955,359
EMEA	3,539,062	5,014,223
Global royalty income	2,100,000	0
<b>Total</b>	<b>16,232,979</b>	<b>15,121,803</b>

In the financial year 2017, revenue share from one customer was EUR 2.1 million, which was 13 % of the net sales of the Group.

### 4. OTHER OPERATING COSTS

EUR	2017	2016
<b>Employee benefit expenses</b>		
Wages and salaries	-8,314,707	-10,872,448
Pensions, defined contribution plan	-824,637	-1,051,029
Other social security costs	-484,134	-622,704
Stock options issued	-344,805	-353,615
<b>Total</b>	<b>-9,968,283</b>	<b>-12,899,796</b>

Information on the employee benefits of the management is presented in the note 23. Related party transactions and information on the options granted is presented in the note 17. Share-based payments.

Number of personnel	2017	2016
Average during the financial period	82	111
At the end of the financial period	80	84

Personnel distribution by function on 31 Dec	2017	2016
Sales, marketing, and customer support	29	31
Research and development	35	38
Administration	16	15
<b>Total</b>	<b>80</b>	<b>84</b>

Research and development costs, EUR	2017	2016
<b>Total</b>	<b>-5,571,580</b>	<b>-9,456,568</b>

Other operating costs, EUR	2017	2016
External services	-3,890,688	-8,690,575
Depreciation	-2,037,801	-1,915,896
Other costs	-1,602,575	-1,940,489
<b>Total</b>	<b>-7,531,064</b>	<b>-12,546,960</b>

## Auditor's fees

EUR	2017	2016
<b>Principal auditor (Ernst &amp; Young Oy)</b>		
Statutory auditing	-36,000	-35,000
Other auditing	-12,900	-
Tax guidance	-800	-
Other services	-5,131	-
<b>Other auditing firms:</b>		
Statutory auditing	-17,779	-10,000
Other auditing	-4,109	-5,833
Tax guidance	-19,113	-17,740
Other services	-685	-4,413
<b>Total</b>	<b>-96,518</b>	<b>-72,986</b>

## 5. DEPRECIATIONS

EUR	2017	2016
<b>By asset category</b>		
Machinery and equipment	141,653	155,043
Software & other intangible assets	232,039	199,795
Capitalized development costs	1,664,109	1,561,057
<b>Total</b>	<b>2,037,801</b>	<b>1,915,896</b>

By function	2017	2016
Sales and marketing	135,463	135,176
Research and development	1,827,599	1,730,028
Administration	74,738	50,691
<b>Total</b>	<b>2,037,801</b>	<b>1,915,896</b>

## 6. FINANCIAL INCOME

EUR	2017	2016
Interest revenue	54	1,285
Exchange rate gains, loans and other receivables	0	0
<b>Total</b>	<b>54</b>	<b>1,285</b>

## 7. FINANCIAL COSTS

EUR	2017	2016
Exchange rate losses, loans and other receivables	-510,155	-264,821
Other interest costs	-665	0
<b>Total</b>	<b>-510,820</b>	<b>-264,821</b>

## 8. TAXES

EUR	2017	2016
Income tax	-25,907	-36,860
<b>Total</b>	<b>-25,907</b>	<b>-36,860</b>

The Group's unrecognized tax losses on deferred tax assets, which have not been booked based on the principle of prudence, are EUR 15.2 million (EUR 10.2 million). EUR 8.3 million (EUR 2.3 million) of the tax losses are in Finland, and EUR 6.9 million (EUR 7.9 million) in the USA. The tax losses expire in Finland between the years 2018–2027, and in the USA between the years 2021–2035. The amount of unrecognized deferred tax assets from the tax losses is EUR 4.0 million (EUR 3.2 million). Year 2017 losses, which have not yet been confirmed in taxation, are included in the figures.

In addition, the parent company has EUR 24.6 million (EUR 20.5 million) research and development expenses and depreciations not deducted in taxation and the amount of unrecognized deferred tax assets resulting from those is EUR 4.9 million (EUR 4.1 million).

The Group's subsidiaries do not have earnings that would cause tax consequences when repatriated.

## Reconciliation of income taxes and taxes calculated at Finnish tax rate (20 %):

EUR	2017	2016
Loss before taxes	-2,219,679	-11,017,005
Tax at Finnish tax rate 20 %	443,936	2,203,401
Effect of foreign subsidiaries' differing tax rates	-27,862	6,796
Non-deductible expenses	-48,222	71,961
Tax exempt revenue	3,545	-80,757
Use of previously unrecognized tax losses	477,973	0
Tax assets not recognized for reported losses	-29,149	-2,238,262
Tax assets not recognised for unused tax depreciations	-830,455	
Income taxes from previous years	-13,466	
Other direct taxes	-2,206	
<b>Tax in income statement</b>	<b>-25,907</b>	<b>-36,860</b>

## 9. EARNINGS PER SHARE

EUR	2017	2016
Loss attributable to shareholders of the parent company	-2,245,586	-11,053,865
Hybrid loan interest expense	-900,000	-900,000
Weighted average number of shares in issue, 1,000	36,570	32,983
Earnings per share	-0.09	-0.36
Adjusted average number of shares considering dilution effect, 1,000	41,169	38,492
Earnings per share, diluted	-0.09	-0.36

## 10. PROPERTY, PLANT AND EQUIPMENT

EUR	2017	2016
<b>Machinery and equipment</b>		
Acquisition cost 1 Jan	1,891,296	1,789,365
Exchange rate effect	-30,094	7,620
Increase	17,860	94,311
Decrease	-1,748	0
Acquisition cost 31 Dec	1,877,315	1,891,296
Accumulated depreciation 1 Jan	1,655,387	1,495,579
Exchange rate effect	-28,432	7,027
Depreciation for the financial period	138,896	152,781
Accumulated depreciation on decrease	-519	0
Accumulated depreciation 31 Dec	1,765,331	1,655,387
Book value 31 Dec	111,984	235,909

EUR	2017	2016
<b>Other tangible assets</b>		
Acquisition cost 1 Jan	19,538	18,917
Exchange rate effect	-2,366	621
Increase	0	0
Decrease	0	0
Acquisition cost 31 Dec	17,173	19,538
Accumulated depreciation 1 Jan	15,143	11,934
Exchange rate effect	-1,994	392
Depreciation for the financial period	2,758	2,817
Accumulated depreciation on decrease	0	0
Accumulated depreciation 31 Dec	15,906	15,143
Book value 31 Dec	1,267	4,395
<b>Balance sheet value of property, plant and equipment 31 Dec</b>	<b>113,250</b>	<b>240,304</b>

## 11. INTANGIBLE ASSETS

EUR	2017	2016
<b>Software</b>		
Acquisition cost 1 Jan	2,078,841	2,040,082
Exchange rate effect	-25,925	5,756
Increase	0	33,002
Decrease	0	0
Acquisition cost 31 Dec	2,052,916	2,078,841
Accumulated depreciation 1 Jan	2,024,100	1,956,156
Exchange rate effect	-20,506	3,041
Depreciation for the financial period	20,714	64,903
Accumulated depreciation on decrease	0	0
Accumulated depreciation 31 Dec	2,024,308	2,024,100
Book value 31 Dec	28,608	54,740

EUR	2017	2016
<b>Immaterial rights</b>		
Acquisition cost 1 Jan	9,615,897	8,364,859
Increase	1,527,329	2,312,283
Decrease	0	-1,061,244
Acquisition cost 31 Dec	11,143,227	9,615,897
Accumulated depreciation 1 Jan	4,453,975	3,820,178
Depreciation for the financial period	1,875,434	1,683,986
Accumulated depreciation on decrease	0	-1,050,190
Accumulated depreciation 31 Dec	6,329,408	4,453,975
Book value 31 Dec	4,813,818	5,161,922
<b>Book value of intangible assets 31 Dec</b>	<b>4,842,426</b>	<b>5,216,663</b>

## Impairment testing

At the end of the year, the company has tested the value of Intangible assets using a moderate growth rate compared to year 2017 net sales and year 2017 cost structure. The cash flow forecasts of the new products to be launched in the market are based on year 2018 budget. The discount rate used in the testing was 15 %. As a result of the testing, no impairment risk was detected. According to the made sensitivity analyses, any other reasonably possible change in key variables (net sales, profitability and discount rate) would not create a situation where the carrying value of an asset would exceed its recoverable amount.

## 12. TRADE RECEIVABLES

EUR	2017	2016
<b>Total</b>	<b>3,876,814</b>	<b>6,928,563</b>
<b>Trade receivable by currency, EUR</b>		
	<b>2017</b>	<b>2016</b>
EUR	367,023	1,221,429
USD	2,995,568	5,432,189
JPY	0	12,133
GBP	253,598	262,811
CHF	260,625	0
<b>Total (EUR)</b>	<b>3,876,814</b>	<b>6,928,563</b>

Trade receivable by age, EUR	2017	Impairment losses	Net value 2017	2016	Impairment losses	Net value 2016
Non-matured	2,792,449		2,792,449	4,284,997		4,284,997
Matured						
< 30 days	369,131		369,131	1,717,334		1,717,334
30-60 days	627,194		627,194	272,301		272,301
> 60 days	88,040		88,040	653,930		653,930
<b>Total</b>	<b>3,876,814</b>	<b>0</b>	<b>3,876,814</b>	<b>6,928,563</b>	<b>0</b>	<b>6,928,563</b>

## 13. OTHER RECEIVABLES

EUR	2017	2016
VAT receivable	200,202	104,952
Other current receivables	396,956	1,002,097
<b>Total</b>	<b>597,158</b>	<b>1,107,048</b>

## 14. FAIR VALUES OF FINANCIAL ASSETS AND LIABILITIES

The book value of trade receivables and trade payables equals their fair value because the impact of discounting is not significant considering the maturity of these items.

## 15. NOTES TO EQUITY

According to the Articles of Association, SSH Communications Security Corporation has a minimum share capital of EUR 600,000 and a maximum share capital of EUR 2,400,000, within which limits the share capital may be raised or lowered without amending the Articles of Association. The nominal value of one share is EUR 0.03; hence, the minimum number of shares is 20 million and maximum number is 80 million. The company has one series of shares; each share entitles its holder to one vote at the shareholders' meeting. The share capital of the company, registered in the Trade Register and fully paid up as of 31 December 2017 was EUR 1,153,226.49 (EUR 1,036,824.99), and the number of shares was 38,440,883 (34,560,833).

Changes in the share capital:	Number of shares	Share capital, EUR
<b>31 Dec 2016</b>	<b>34,560,833</b>	<b>1,036,825</b>
Subscriptions under stock option plans	480,050	14,402
Subscriptions under share issue	3,400,000	102,000
<b>31 Dec 2017</b>	<b>38,440,883</b>	<b>1,153,226</b>

## Description of the equity reserves:

### Share capital

The share capital includes the share subscription prices unless conditions of share issues. Expenses related to share issue are deducted from retained earnings.

### Translation differences

The translation differences fund comprises the exchange rate differences arising from the translation of the financial statements of the foreign subsidiaries.

### Fair value and other reserves

The item 'Fair value and other reserves' consists of two different funds: a fair value reserve for available-for-sale investments and a hedging reserve for changes in the fair value of cash flow hedging instruments. In the 2017 and 2016 financial periods, SSH Communications Security had no available-for-sale financial assets and did not apply hedge accounting.

### Unrestricted invested equity fund

The unrestricted equity fund consists of the dissolved share premium fund formed by share subscriptions under option rights and includes share subscription prices insofar as not registered as share capital.

### Hybrid capital securities

Hybrid capital securities is an instrument that is subordinated to the Company's other debt obligations and does not have maturity date (i.e. it is perpetual). It is treated as equity in the IFRS financial statements. Hybrid capital securities do not confer to their holders the right to vote at shareholders' meetings and do not dilute the holdings of the current shareholders.

The other equity fund consists of hybrid capital securities of EUR 12 million issued in March 2015, subscribed by institu-

tional investors. The principal owner and the Chief Executive Officer of the parent company, Tatu Ylönen, subscribed EUR 500,000 of the hybrid capital securities. The capital securities bear a fixed interest rate of 7.5 per cent until 30 March 2020, after which the interest rate will increase by four percentage points. The capital securities have no maturity date, but the issuer has the right to redeem them after 3 but before 5 years from the issue date, upon certain conditions, or after 5 years from the issue date. The investors have the right to convert the capital loan into the Company's shares at EUR 4.76 per share until 30 March 2020.

## 16. CAPITAL MANAGEMENT

The objective in managing Group capital is to secure the ability to continue operating. The structure of the capital can be managed, for instance, through decisions concerning dividends and other distribution of assets, purchase of the company's own shares, and share issues. Capital management concerns equity recognized in the balance sheet. There are no requirements imposed by outside parties on the Group's capital management. Balance sheet was strengthened by hybrid capital securities in March 2015 and a directed share issue in June 2016 and in June 2017.

The indicators depicting the capital structure are the equity ratio and gearing.

<b>Gearing</b>		
<b>EUR</b>	<b>2017</b>	<b>2016</b>
Interest-bearing financial liabilities	0	0
Interest-bearing receivables	0	0
Cash and cash equivalents	13,476,582	7,844,754
<b>Net liabilities</b>	<b>-13,476,582</b>	<b>-7,844,754</b>
<b>Equity total</b>	<b>12,893,498</b>	<b>8,270,895</b>
Equity ratio	82.9 %	63.1 %
Gearing	-104.5 %	-94.8 %

## 17. SHARE-BASED PAYMENTS

In the company's industry, it is common practice internationally that incentives are provided to employees in the form of equity-settled share-based instruments, like options. Personnel of the company belong to options plans. If no longer working for the company, one loses one's options.

On the balance sheet date, SSH Communications Security had 4,599,050 stock options outstanding (5,509,800), representing 10.7 % of shares and 10.7 % of votes. The weighted average exercise price of outstanding stock options was EUR 2.79 (EUR 2.44). The weighted average of the remaining subscription period was 1.6 years (2.3 years). The exercise price varies from EUR 1.66 to EUR 3.45, and the remaining subscription period from 0.7 years to 2.4 years.

The cost of option plan I/2016 has been calculated with an exercise price of 3.45 €, an interest rate of 0.39 % and a volatility of 30 %. The recognized cost of options issued in the 2017 income statement was EUR 344,805 (EUR 353,615). A person holding option rights is entitled to subscribe shares if employed by SSH at the beginning of the subscription period.

### SSH COMMUNICATIONS SECURITY SHARE-BASED PAYMENTS CONSIST OF THE FOLLOWING OPTION PLANS:

Option plan	Option certificate	Release date	Subscription period		Subscription price, EUR	Options not exercised
			Begin	End		
I/2013	I/2013 A	4 Jun 2013	1 Jun 2015	1 Sep 2018	1.66	192,550
	I/2013 B	4 Jun 2013	1 Jun 2017	1 Sep 2018	1.66	460,350
	I/2013 C	4 Jun 2013	1 Jun 2018	1 Sep 2018	1.66	481,100
	I/2013 D	4 Jun 2013	15 Feb 2015	1 Sep 2018	1.66	35,000
	I/2013 E	4 Jun 2013	15 Feb 2016	1 Sep 2018	1.66	21,000
	I/2013 F	4 Jun 2013	15 Feb 2017	1 Sep 2018	1.66	14,000
						1,204,000
I/2014	I/2014 A	17 Sep 2014	17 Sep 2016	1 Dec 2018	2.55	311,850
	I/2014 B	17 Sep 2014	17 Sep 2017	1 Dec 2018	2.55	316,800
	I/2014 C	17 Sep 2014	17 Sep 2018	1 Dec 2018	2.55	326,400
	I/2014 D	17 Sep 2014	1 Jan 2016	1 Dec 2018	2.55	40,000
						995,050
I/2015	I/2015 A	4 Feb 2015	15 Mar 2018	30 May 2020	3.45	660,000
	I/2015 B	4 Feb 2015	15 Mar 2019	30 May 2020	3.45	660,000
	I/2015 C	4 Feb 2015	15 Mar 2020	30 May 2020	3.45	680,000
						2,000,000
I/2016	I/2016 A	26 May 2016	15 Mar 2017	30 May 2020	3.45	400,000
						400,000

## CHANGES IN OUTSTANDING STOCK OPTIONS AND IN WEIGHTED AVERAGE SUBSCRIPTION PRICE:

	2017		2016	
	Weighted average exercise price EUR	Number of stock options	Weighted average exercise price EUR	Number of stock options
At the beginning of the financial period	2.44	5,509,800	2.29	5,350,350
Stock options granted	0.00	0	3.45	400,000
Stock option forfeited	0.65	430,700	0.00	0
Stock options canceled	0.00	0	0.00	0
Stock options exercised	0.68	480,050	0.85	240,550
At the end of the financial period	2.79	4,599,050	2.44	5,509,800
<b>Exercisable option rights at the end of the financial period</b>	<b>2.79</b>	<b>4,599,050</b>	<b>2.44</b>	<b>5,509,800</b>

The trade-weighted average share price of SSH Communications Security for the period was EUR 2.11 (EUR 2.84).

## 18. ACCRUED EXPENSES AND DEFERRED INCOME

EUR	2017	2016
Personnel related	1,240,185	2,688,511
Accruals	140,402	108,085
Other accrued expenses and deferred income	0	528,053
<b>Total</b>	<b>1,380,586</b>	<b>3,324,649</b>

## 19. OTHER LIABILITIES

EUR	2017	2016
Personnel related	148,286	149,621
VAT liabilities	17,290	17,750
Other current liabilities	277,373	107,320
<b>Total</b>	<b>442,949</b>	<b>274,690</b>

## 20. FINANCIAL RISK MANAGEMENT

The Group is exposed to financial risks in its normal business. The purpose of the Group's risk management is to minimize negative impacts of changes on financial markets to Group income.

### Foreign Exchange Risk

The Group operates internationally and is exposed to foreign exchange risk, the most significant currency being the U.S. dollar. The company reduces risk by using net position when feasible. Currently the U.S. dollar position is not hedged, and the company decides on the hedging of the U.S. dollar-based contracts case by case. At the moment, the Group is not using hedging accounting. Any gains or losses realized through hedging actions are thus recognized in profit/loss. Impact of the U.S. dollar change on profits as per December 31, 2017: +-10 % = +40/ -40 EUR in thousands.

### Interest Rate Risk

The Group has no interest-bearing debt from financial institutions and therefore no need for debt protection. The Group's money market investments expose its cash flow to interest-rate risks, but the exposure is not significant as a whole.

### Market Risk Related to Investments

The Group's cash reserves have been invested in accordance with the policy approved by the Board of Directors. At the end of the financial reporting period, all the assets are invested in cash in financial institutions with high credit ratings.

### Credit Risk

The Group has no significant concentrations of credit risk. The Group has policies in place to ensure that sales of products and services are made to customers with an appropriate credit history. The Group has not recognized significant impairment losses on 2017 or 2016. The aging distribution of trade receivables is presented in note 12. Trade receivables.

## Liquidity Risk

The Group has no liquidity risks, since invested funds which are substantial compared to the Group's cash flows are available on a one-day notice.

The Group has trade payables and other short-term liabilities on 31 December 2017 totaling to EUR 1,273,784 with following maturity structure:

EUR	
<1 month :	955,338
<3 month :	191,068
<6 month :	127,378
<b>Total</b>	<b>1,273,784</b>

## 21. OPERATING LEASE AGREEMENTS

The item 'Operating lease agreements' includes lease agreements not classified as finance leasing agreements. SSH Communications Security Group acts as lessee.

THE GROUP AS LESSEE		
EUR	2017	2016
<b>Non-cancellable lease agreements for office facilities – minimum rents</b>		
Within one year	316,788	485,201
Within more than one year but no more than 5 years	285,603	378,728
<b>Total</b>	<b>602,391</b>	<b>863,930</b>

The Group rents the office facilities it uses. The duration of the rental agreements is usually 3 to 5 years, and normally the agreements include options to renew past the original termination date. The index, renewal, and other terms and

conditions differ from agreement to agreement. The income statement for 2017 includes rents based on rental agreements totaling EUR 515,225 (EUR 536,544).

The income statement for 2017 includes vehicle leasing costs totaling EUR 4,271 (EUR 9,979). At the end of the financial period, the Group did not have any vehicles rented.

## 22. GUARANTEES GIVEN AND OTHER COMMITMENTS

EUR	2017	2016
Rental guarantees (pledged)	80,846	110,535
Hybrid Loan, Interest	675,000	675,000

## 23. GROUP COMPANIES AND RELATED PARTY TRANSACTIONS

SSH Communications Security Corporation, its subsidiaries, the Board and CEO belong to related party of the Group. The Group management team is not considered as part of related party as they do not have direct decision making authority.

Group companies	Domicile	Group holding, %	Votes, %
SSH Communications Security Corporation, Helsinki	Finland		
SSH Communications Security Inc., Waltham	USA	100	100
SSH Operations Oy, Helsinki	Finland	100	100
SSH Communications Security Ltd., Hong Kong	Hong Kong	100	100
Kyberleijona Oy, Helsinki	Finland	100	100
SSH Government Solutions Inc., Waltham	USA	100	100
SSH Technology Oy, Helsinki	Finland	100	100
SSH Communications Security UK Ltd, London	United Kingdom	100	100

## Employee benefits of the management

The key management personnel of the Group is defined consisting of the CEO of the parent company. The employee benefits of the CEO are presented in the table below. The sums of employee benefits are shown in accrual basis. The CEO of SSH Communications Security Corporation has been Kaisa Olkkonen as of 1 January 2017.

<b>Remuneration and fees – CEO</b>		
<b>EUR</b>	<b>2017</b>	<b>2016</b>
Salary and other short-term employee benefits	259,866	348,706
Share-based payment	0	0
<b>Total</b>	<b>259,866</b>	<b>348,706</b>

<b>Fees Paid to Members of the Board of Directors</b>		
<b>EUR</b>	<b>2017</b>	<b>2016</b>
Manner Jukka (Chairman of the Board as of 29 Dec 2016)	28,500	18,000
Olkkonen Kaisa (until 29 Mar 2017, Chairman of the Board as of 20 Apr 2016, until 29 Dec 2016, CEO as of 1 Jan 2017)	4,500	16,571
Kuivala Petri (as of 29 March 2017)	15,000	-
Syrjälä Timo (Chairman of the Board as of 25 March 2015, until 20 Apr 2016)	19,500	17,857
Vänttinen Ari (as of 29 Mar 2017)	15,000	-
Ylönen Tatu (CEO as of 17 Feb 2016, until 31 Dec 2016)	19,500	18,000
Koponen Harri (as of 20 Apr 2016, until 29 Mar 2017, CEO until 17 Feb 2016)	4,500	12,429
Hautamäki Päivi (until 20 Apr 2016)	-	5,571
<b>Total</b>	<b>106,500</b>	<b>88,428</b>

## Notes to the Consolidated Financial Statements

Share and stock option holdings of Board members	31 Dec 2017 Shares	31 Dec 2017 Options	31 Dec 2016 Shares	31 Dec 2016 Options
Manner Jukka	12,000	0	12,000	0
Kuivala Petri	0	0	-	-
Syrjälä Timo	3,559,131	0	2,830,631	0
Vänttinen Ari	0	0	-	-
Ylönen Tatu	18,317,123	0	18,073,623	0
<b>Total</b>	<b>21,888,254</b>	<b>0</b>	<b>20,916,254</b>	<b>0</b>

Share and stock option holdings of the key management	31 Dec 2017 Shares	31 Dec 2017 Options	31 Dec 2016 Shares	31 Dec 2016 Options
Olkkonen Kaisa (CEO as of 1 Jan 2017)	10,000	300,000	-	-
Ylönen Tatu (CEO as of 17 Feb 2016, until 31 Dec 2016)	18,317,123	0	18,073,623	0
Karkkulainen Simo	0	0	-	-
Kukkonen Helena	0	115,000	0	100,000
Löppönen Jussi	0	35,000	-	-
Mononen Jussi	0	100,000	0	100,000
Raulas Rami	0	35,000	-	-
Rossi Markku	0	140,000	0	100,000
Scaff Joe	40,000	20,000	-	-
<b>Total</b>	<b>18,367,123</b>	<b>745,000</b>	<b>18,073,623</b>	<b>300,000</b>

### Compensation of the key management personnel

EUR	2017	2016
Wages and other short-term employee benefits	1,479,812	1,420,184
Share-based payments	0	0

On 31 December 2017, the CEO and members of the Board of Directors of SSH Communications Security owned 56.9 % (60.5 %) of the shares and votes in the company, either directly or indirectly through companies they own. Management group members including the CEO directly or indirectly held about 47.8 % (52.3 %) of company shares and have a total of 745,000 (300,000) option rights. The general conditions of the option right arrangements are described in note 17. Share-based payments.

### Related Party Transactions

In the directed share issue issued by the company in June, Member of the Board Tatu Ylönen subscribed for 243,500 shares and Member of the Board Timo Syrjälä through his controlled company for 728,500 shares.

SSH entered into a patent cross license agreement with a global technology company including a one-time license fee payment. According to the agreement between SSH and Clausal Computing Ltd, SSH will pay to Clausal Computing EUR 462,000 of the license revenue as a royalty fee in January 2018.

In January 2018, SSH entered into marketing service agreement with Ari Vänttinen, whereupon Ari Vänttinen is no longer an independent board member.

During the reporting period, there have not been any other significant transactions with related parties.

### Dividend and Other Distribution of Assets

The SSH Communications Security's Board of Directors will propose to the Annual General Meeting on March 28th, 2018 that no dividend or return of capital shall be distributed. It is proposed that the loss of the financial year shall be entered to the shareholders' equity in the profit/loss account.

### 24. EVENTS AFTER THE BALANCE SHEET DATE

SSH Communications Security has entered into a patent cross license and settlement agreement with Sony on 5 February 2018. The agreement resolves all disputes between the parties. SSH estimates that after taxes, costs and royalty fee paid to Clausal Computing Ltd, this patent license and settlement agreement will have a moderate positive impact in SSH's net profit for the first quarter of 2018.



**PARENT COMPANY  
FINANCIAL  
STATEMENTS**

## PARENT COMPANY INCOME STATEMENT

EUR	Note	1 Jan–31 Dec 2017	1 Jan–31 Dec 2016
<b>NET SALES</b>	1	<b>8,147,301.26</b>	<b>6,775,505.70</b>
Purchasing and production costs		-580,939.46	-1,098,899.35
<b>GROSS MARGIN</b>		<b>7,566,361.80</b>	<b>5,676,606.35</b>
Research and development costs	2, 3, 6	-5,575,287.13	-10,004,929.98
Sales and marketing costs	2, 3, 6	-2,507,056.52	-4,179,558.77
Administrative costs	2, 3, 6	-1,129,907.15	-2,125,042.10
<b>OPERATING LOSS</b>		<b>-1,645,889.00</b>	<b>-10,632,924.51</b>
Financial income and costs	7		
Interest income and other financing income		434,710.09	517,651.11
Interest costs and other financing costs		-942,075.04	-475,076.93
<b>LOSS BEFORE APPROPRIATIONS AND TAXES</b>		<b>-2,153,253.95</b>	<b>-10,590,350.33</b>
Appropriations	8		
Group contribution received		9,143.64	135,000.00
<b>LOSS BEFORE TAXES</b>		<b>-2,144,110.31</b>	<b>-10,455,350.33</b>
Taxes		-	-
<b>LOSS FOR THE FINANCIAL PERIOD</b>		<b>-2,144,110.31</b>	<b>-10,455,350.33</b>

## PARENT COMPANY BALANCE SHEET

<b>ASSETS</b>				
<b>EUR</b>	<b>Note</b>	<b>31 Dec 2017</b>	<b>31 Dec 2016</b>	
<b>NON-CURRENT ASSETS</b>				
<b>Intangible assets</b>	9			
Immaterial rights		4,813,818.26		5,161,922.36
<b>Intangible assets, total</b>		<b>4,813,818.26</b>		<b>5,161,922.36</b>
Tangible assets	9			
Machinery & equipment		99,142.67		222,303.93
<b>Tangible assets, total</b>		<b>99,142.67</b>		<b>222,303.93</b>
Investments				
Shares in Group companies	9, 17	577,666.15		499,126.88
Other shares		11,000.00		11,000.00
<b>Investments, total</b>		<b>588,666.15</b>		<b>510,126.88</b>
<b>NON-CURRENT ASSETS, TOTAL</b>		<b>5,501,627.08</b>		<b>5,894,353.17</b>
<b>CURRENT ASSETS</b>				
<b>Current receivables</b>				
Trade receivables		361,729.44		1,313,571.27
Receivables from Group companies	10	1,938,870.51		4,554,822.69
Prepaid expenses and accrued income	11	176,319.95		281,322.17
Other receivables	12	306,045.07		1,022,844.84
<b>Current receivables, total</b>		<b>2,782,964.97</b>		<b>7,172,560.97</b>
Cash and cash equivalents		11,209,229.09		4,631,223.60
<b>CURRENT ASSETS, TOTAL</b>		<b>13,992,194.06</b>		<b>11,803,784.57</b>
<b>ASSETS, TOTAL</b>		<b>19,493,821.14</b>		<b>17,698,137.74</b>

## PARENT COMPANY BALANCE SHEET

<b>EQUITY AND LIABILITIES</b>			
<b>EUR</b>	<b>Note</b>	<b>31 Dec 2017</b>	<b>31 Dec 2016</b>
<b>EQUITY</b>			
	13		
Share capital		1,153,226.49	1,036,824.99
Unrestricted invested equity fund		22,131,155.35	14,952,192.35
Hybrid capital securities	14	12,000,000.00	12,000,000.00
Retained earnings		-16,460,788.44	-5,105,438.11
Loss for the financial period		-2,144,110.31	-10,455,350.33
<b>EQUITY, TOTAL</b>		<b>16,679,483.09</b>	<b>12,428,228.90</b>
<b>LIABILITIES</b>			
<b>CURRENT LIABILITIES</b>			
Advances received		970,301.67	1,718,223.09
Trade payables		758,100.85	912,165.81
Payables to Group Companies		103,543.13	207,412.24
Accrued expenses and deferred income	15	856,802.69	2,432,107.70
Other liabilities		125,589.71	0.00
<b>CURRENT LIABILITIES, TOTAL</b>		<b>2,814,338.05</b>	<b>5,269,908.84</b>
<b>LIABILITIES, TOTAL</b>		<b>2,814,338.05</b>	<b>5,269,908.84</b>
<b>EQUITY AND LIABILITIES, TOTAL</b>		<b>19,493,821.14</b>	<b>17,698,137.74</b>

## PARENT COMPANY CASH FLOW STATEMENT

EUR	1 Jan-31 Dec 2017	1 Jan-31 Dec 2016
<b>Cash flow from business operations</b>		
Receipts from customers	10,495,889.97	7,340,910.21
Payments to suppliers and employees	-8,670,442.83	-15,419,005.55
<b>Cash flow from business operations before financial items and taxes</b>	<b>1,825,447.14</b>	<b>-8,078,095.34</b>
Interest paid and other financial costs	-257,108.74	-251,426.93
Interest received and other financial revenue	504,691.44	517,651.11
<b>Cash flow from business operations</b>	<b>2,073,029.84</b>	<b>-7,811,871.16</b>
<b>Cash flow from investing activities</b>		
Investments in tangible and intangible assets	-1,537,329.45	-2,417,350.51
Other investments	-100,000.00	-308,800.66
<b>Cash flow from investing activities</b>	<b>-1,637,329.45</b>	<b>-2,726,151.17</b>
<b>Cash flow from financing activities</b>		
Interest on hybrid capital securities	-900,000.00	-900,000.00
Proceeds from shares subscribed with option rights	325,364.50	204,092.00
Proceeds from share issue	6,970,000.00	8,024,000.00
Expenses from share issue	-253,059.40	-223,650.00
Group contribution received	0.00	50,000.00
<b>Cash flow from financing activities</b>	<b>6,142,305.10</b>	<b>7,154,442.00</b>
<b>Change in cash and cash equivalents</b>	<b>6,578,005.49</b>	<b>-3,383,580.33</b>
<b>Cash and cash equivalents at beginning of period</b>	<b>4,631,223.60</b>	<b>8,014,803.93</b>
Change in cash and cash equivalents	6,578,005.49	-3,383,580.33
<b>Cash and cash equivalents at end of period</b>	<b>11,209,229.09</b>	<b>4,631,223.60</b>

# Notes to the Parent Company Financial Statements

## ACCOUNTING PRINCIPLES

The financial statement of the parent company, SSH Communications Security Corporation, is drawn up in accordance with the Finnish Accounting Standards. Figures are given to an accuracy of one cent (EUR 0.01). All items in the balance sheet are recognized at original acquisition cost. Information on financial risk management is presented in the consolidated financial statements (Note 20. Financial Risk Management).

## Principles of Revenue Recognition

Revenue is principally recognized in net sales once delivery has occurred or services have been rendered, an agreement has been signed with the customer or the customer has submitted a written order, and it has been assured that the customer is solvent.

Revenue from services rendered under maintenance agreements are amortized across the agreement period.

The revenue of the royalties from licenses is recognized according to the actual content of the contract.

## Apportioning of Costs to Functions

Costs are apportioned to functions according to the matching principle.

## Leases

The parent company has rental agreement for office premises at Kornetintie 3, Helsinki and minor other assets. Leasing payments paid pursuant to these agreements are recognized as costs over the rental or leasing period under agreements.

## Income Tax

The income tax in the income statement comprises direct taxes based on the taxable profit for the financial period and adjustments to taxes on previous financial periods. The parent company does not recognize deferred tax receivables

or liabilities in its financial statement. The parent company has confirmed tax losses of EUR 8.9 million (3.0 million). In addition, the parent company has EUR 24.6 million (EUR 20.5 million) research and development expenses and depreciations not deducted in taxation, whereof no deferred tax asset has been recognized.

## Fixed Assets

Fixed assets are recognized in the balance sheet at acquisition cost less planned depreciation and any impairment. Planned depreciations are calculated on a straight-line basis according to the economic life of each asset category.

The asset categories and their depreciation periods are:

Machinery and equipment	5 years from month of acquisition
Computer hardware	3 years from month of acquisition
Immaterial rights	5 years from year of acquisition
Development costs	5 years from month of capitalization
Other capitalized expenditure	5 years from year of capitalization
Leasehold improvements of rental premises	Length of the rental agreement, though no more than 7 years, from year of capitalization

## Research and Development Costs

Research and development costs are recognized as costs in the financial period in which they occurred except for those product development costs which are capitalized once certain criteria have been met. Capitalized development expenses are depreciated systematically over their useful lives.

## Foreign Currency Transactions

Transactions denominated in foreign currencies are recognized at the exchange rate on the transaction date. Outstanding receivables and liabilities in foreign currencies are recognized using the exchange rates on the balance sheet date. Exchange rate gains and losses on actual business operations are considered sales adjustment items or adjustment items to materials and services. Exchange rate gains and losses on financing activities are recognized under financing income and costs.

## Option Rights

Employees of the parent company and its subsidiaries have been granted option rights. The option rights entitle their holders to subscribe shares in the parent company at a fixed subscription price specified in the terms of the option plan. No costs are recognized in the income statement or balance sheet regarding the granting of option rights.

## Hybrid capital securities

Hybrid capital securities is an equity-related instrument that is presented as a separate item in equity. Unpaid interest accumulated at the balance sheet date is presented in note 16. Other commitments.

## 1. NET SALES BY MARKET AREA

EUR	2017	2016
Finland	166,256.23	702,698.41
Rest of Europe	5,842,036.51	6,045,145.53
Other	2,139,008.52	27,661.76
<b>Total</b>	<b>8,147,301.26</b>	<b>6,775,505.70</b>

## 2. OPERATING COSTS

EUR	2017	2016
<b>Other operating costs</b>		
External services	-2,279,847.16	-7,200,336.95
Depreciation	-2,008,594.81	-1,843,588.26
Other	-1,284,737.54	-747,528.98
<b>Total</b>	<b>-5,573,179.51</b>	<b>-9,791,454.19</b>

### Auditor's fees

EUR	2017	2016
<b>Principal auditor (Ernst &amp; Young Oy)</b>		
Statutory auditing	-36,000	-35,000
Other auditing	-12,900	-
Tax guidance	-800	-
Other services	-5,131	-
<b>Other auditing firms:</b>		
Statutory auditing	-	-10,000
Other auditing	-	-5,833
Tax guidance	-	-1,000
Other services	-	-4,000
<b>Total</b>	<b>-54,831</b>	<b>-55,833</b>

## 3. PERSONNEL COSTS AND AVERAGE NUMBER OF EMPLOYEES

Personnel costs		
EUR	2017	2016
Wages and salaries	-3,671,374.61	-6,327,071.02
Pension costs	-794,332.24	-1,051,029.07
Other ancillary personnel costs	-214,387.34	-346,176.03
<b>Total</b>	<b>-4,680,094.19</b>	<b>-7,724,276.12</b>

Average number of employees	2017	2016
	53	79

## 4. PERSONNEL DISTRIBUTION BY FUNCTION AT THE END OF THE FINANCIAL PERIOD

	2017	2016
Research and development	34	37
Sales and marketing	6	6
Administration	13	13
<b>Total</b>	<b>53</b>	<b>56</b>

## 5. SALARIES AND FEES PAID TO MANAGEMENT AND MEMBERS OF THE BOARD OF DIRECTORS

See note 23 in the consolidated financial statements.

## 6. DEPRECIATION AND IMPAIRMENT

EUR	2017	2016
Immaterial rights	211,324.53	138,969.67
Capitalized development costs	1,664,109.02	1,561,057.30
Machinery and equipment	133,161.26	143,561.29
<b>Total</b>	<b>2,008,594.81</b>	<b>1,843,588.26</b>

In the financial year 2016, SSH Communications Security has recognized a write-off of EUR 11,054.56 from capitalized development costs.

## 7. FINANCIAL INCOME AND COSTS

EUR	2017	2016
Interest income	80,300.36	114,274.14
Received payment of impaired internal loan	424,391.08	403,784.33
Impairment on investments and internal receivables	-239,343.87	0.00
Exchange rate gains and losses (net)	-518,968.98	-251,904.39
Interest, expenses and other financial costs	-253,743.54	-223,579.90
<b>Total</b>	<b>-507,364.95</b>	<b>42,574.18</b>

## 8. APPROPRIATIONS

EUR	2017	2016
Group contribution from SSH Operations Oy	0.00	135,000.00
Group contribution from SSH Technology Oy	9,143.64	0.00
<b>Total</b>	<b>9,143.64</b>	<b>135,000.00</b>

**9. INTANGIBLE AND TANGIBLE ASSETS AND LONG-TERM INVESTMENTS**

EUR	2017	2016
<b>Intangible assets</b>		
Immaterial rights		
Acquisition cost 1 Jan	11,539,449.16	10,288,410.64
Increase	1,527,329.45	2,312,282.91
Decrease	0.00	-1,061,244.39
Acquisition cost 31 Dec	13,066,778.61	11,539,449.16

Accumulated depreciation 1 Jan	6,377,526.80	5,742,541.40
Depreciation for the financial period	1,875,433.55	1,685,175.23
Accumulated depreciation on decrease	0.00	-1,050,189.83
Accumulated depreciation 31 Dec	8,252,960.35	6,377,526.80
<b>Book value 31 Dec</b>	<b>4,813,818.26</b>	<b>5,161,922.36</b>

**Tangible assets**

Machinery and equipment		
Acquisition cost 1 Jan	1,648,011.36	1,557,795.46
Increase	10,000.00	90,215.90
Decrease	0.00	0.00
Acquisition cost 31 Dec	1,658,011.36	1,648,011.36

Accumulated depreciation 1 Jan	1,425,707.43	1,282,146.14
Depreciation for the financial period	133,161.26	143,561.29
Accumulated depreciation on decrease	0.00	0.00

Accumulated depreciation 31 Dec	1,558,868.69	1,425,707.43
<b>Book value 31 Dec</b>	<b>99,142.67</b>	<b>222,303.93</b>
<b>Investments</b>		
Book value 1 Jan	510,126.88	201,326.22
Increase	100,000.00	308,800.66
Decrease	-21,460.73	0.00
<b>Book value 31 Dec</b>	<b>588,666.15</b>	<b>510,126.88</b>

**10. RECEIVABLES FROM GROUP COMPANIES**

EUR	2017	2016
Trade receivables	1,929,726.87	4,419,822.69
Group contribution receivable	9,143.64	135,000.00
<b>Total</b>	<b>1,938,870.51</b>	<b>4,554,822.69</b>

**11. PREPAID EXPENSES AND ACCRUED INCOME**

EUR	2017	2016
Prepaid expenses	176,319.95	281,322.17
Other	-	-
<b>Total</b>	<b>176,319.95</b>	<b>281,322.17</b>

**12. OTHER RECEIVABLES**

EUR	2017	2016
Advances paid	-	-
VAT receivable	9,812.91	27,265.14
Other receivables	296,232.16	995,579.70
<b>Total</b>	<b>306,045.07</b>	<b>1,022,844.84</b>

## 13. EQUITY

EUR	2017	2016
Share capital 1 Jan	1,036,824.99	941,108.49
Increase in share capital	116,401.50	95,716.50
Share capital 31 Dec	1,153,226.49	1,036,824.99
Unrestricted invested equity fund	22,131,155.35	14,952,192.35
Hybrid capital securities	12,000,000.00	12,000,000.00
Retained earnings	-16,460,788.44	-5,105,438.11
Profit/loss for the financial period	-2,144,110.31	-10,455,350.33
<b>Total</b>	<b>16,679,483.09</b>	<b>12,428,228.90</b>

Statement on Distributable Funds	2017	2016
Retained earnings	-16,460,788.44	-5,105,438.11
Loss for the financial period	-2,144,110.31	-10,455,350.33
Unrestricted invested equity fund	22,131,155.35	14,952,192.35
Capitalised development costs	-4,084,206.92	-4,557,692.61
<b>Total</b>	<b>-557,950.32</b>	<b>-5,166,288.70</b>

## 14. HYBRID CAPITAL SECURITIES/ SHAREHOLDERS' EQUITY

Hybrid capital securities is an instrument that is subordinated to the Company's other debt obligations and it does not have maturity date (i.e. it is perpetual). It is treated as equity in the financial statements. Hybrid capital securities do not confer to their holders the right to vote at shareholders' meetings and do not dilute the holdings of the current shareholders.

Hybrid capital securities of EUR 12 million issued in March 2015 were subscribed by institutional investors. The capital securities bear a fixed interest rate of 7.5 per cent until 30 March 2020, after which the interest rate will increase by four percentage points. The capital securities have no maturity date, but the issuer has the right to redeem them after 3 but before 5 years from the issue date, upon certain conditions, or after 5 years from the issue date. The investors have the right to convert the capital loan into the Company's shares at EUR 4.76 per share until 30 March 2020.

Paid interest from hybrid capital securities reduce the amount of retained earnings. Unpaid interest from hybrid capital securities is presented in note 16. Other commitments. Paid interest in the financial year 2017 was EUR 900,000 (EUR 900,000).

## 15. ACCRUED LIABILITIES AND DEFERRED INCOME

EUR	2017	2016
Personnel related	804,617.69	2,197,222.28
Accruals	52,185.00	76,000.00
Other accrued liabilities and deferred income	0.00	158,885.42
<b>Total</b>	<b>856,802.69</b>	<b>2,432,107.70</b>

## 16. OTHER COMMITMENTS

EUR	2017	2016
<b>Non-cancellable lease agreements for office facilities – future rent payments</b>		
Within one year	168,939.96	281,430.12
Within more than one year but no more than 5 years	225,253.28	281,430.12
<b>Total</b>	<b>394,193.24</b>	<b>562,860.24</b>

EUR	2017	2016
<b>Guarantees given and other commitments</b>		
Rental guarantees (pledged)	52,281.40	75,010.08
Hybrid Loan, Interest	675,000.00	675,000.00

## 17. GROUP COMPANIES

Group companies 31 Dec 2017	Domicile	Holding, %	Votes, %
SSH Communications Security Oyj, Helsinki	Finland		
SSH Communications Security Inc., Waltham	USA	100	100
SSH Operations Oy, Helsinki	Finland	100	100
SSH Communications Security Ltd., Hong Kong	Hong Kong	100	100
Kyberleijona Oy, Helsinki	Finland	100	100
SSH Government Solutions Inc., Waltham	USA	100	100
SSH Technology Oy, Helsinki	Finland	100	100
SSH Communications Security UK Ltd, London	United Kingdom	100	100

# Signatures to the Board of Directors Report and Financial Statements

HELSINKI, 6 FEBRUARY 2018

JUKKA MANNER  
Chairman of the Board of Directors

TIMO SYRJÄLÄ  
Member of the Board of Directors

TATU YLÖNEN  
Member of the Board of Directors

ARI VÄNTTINEN  
Member of the Board of Directors

PETRI KUIVALA  
Member of the Board of Directors

KAISA OLKKONEN  
CEO

## AUDITOR'S NOTE

We have today issued an auditors' report based on our audit.

Helsinki, 6 February 2018

Ernst & Young Oy  
Authorized Public Accountant Firm

ERKKA TALVINKO  
Authorized Public Accountant

# Auditor's Report (Translation of the Finnish original)

To the Annual General Meeting of  
SSH Communications Security Oyj

## Report on the Audit of Financial Statements

### Opinion

We have audited the financial statements of SSH Communications Security Oyj (business identity code 1035804-9) for the year ended 31 December, 2017. The financial statements comprise the consolidated balance sheet, statement of comprehensive income, statement of changes in equity, statement of cash flows and notes, including a summary of significant accounting policies, as well as the parent company's balance sheet, income statement, statement of cash flows and notes.

In our opinion

- the consolidated financial statements give a true and fair view of the group's financial position as well as its financial performance and its cash flows in accordance with International Financial Reporting Standards (IFRS) as adopted by the EU.
- the financial statements give a true and fair view of the parent company's financial performance and financial position in accordance with the laws and regulations governing the preparation of financial statements in Finland and comply with statutory requirements.

Our opinion is consistent with the additional report submitted to the Board of Directors.

### Basis for Opinion

We conducted our audit in accordance with good auditing practice in Finland. Our responsibilities under good auditing practice are further described in the Auditor's Responsibilities for the Audit of Financial Statements section of our report.

We are independent of the parent company and of the group companies in accordance with the ethical requirements that are applicable in Finland and are relevant to our audit, and we have fulfilled our other ethical responsibilities in accordance with these requirements.

In our best knowledge and understanding, the non-audit services that we have provided to the parent company and group companies are in compliance with laws and regulations applicable in Finland regarding these services, and we have not provided any prohibited non-audit services referred to in Article 5(1) of regulation (EU) 537/2014. The non-audit services that we have provided have been disclosed in note 4 to the consolidated financial statements.

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

### Key Audit Matters

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

We have fulfilled the responsibilities described in the Auditor's responsibilities for the audit of the financial statements section of our report, including in relation to these matters. Accordingly, our audit included the performance of proce-

dures designed to respond to our assessment of the risks of material misstatement of the financial statements. The results of our audit procedures, including the procedures performed to address the matters below, provide the basis for our audit opinion on the accompanying financial statements.

We have also addressed the risk of management override of internal controls. This includes consideration of whether there was evidence of management bias that represented a risk of material misstatement due to fraud.

Key Audit Matter	How our audit addressed the Key Audit Matter
<p><b>Revenue Recognition</b>  <i>We refer to the Group's accounting policies and the notes 2 and 3</i></p> <p>The Group has multiple revenue sources including licenses, maintenance contracts, and consulting services. Since sales contracts include many different terms, there is a risk of incorrect timing of revenue recognition due to fraud or misstatements. Due to this the revenue recognition was determined to be a key audit matter and a significant risk of material misstatement referred to in EU Regulation No 537/241, point (c) of Article 10(2).</p>	<p>Our audit procedures included, among others:</p> <ul style="list-style-type: none"> <li>• We evaluated the revenue recognition principles applied by the Group towards applicable accounting standards</li> <li>• We evaluated the revenue recognition of different sources of revenue in the relation to the terms of the sales agreements</li> <li>• We tested the timing of the revenue recognition</li> <li>• We evaluated the appropriateness of the notes related to Group's revenue</li> </ul>
<p><b>Valuation of Intangible Assets</b>  <i>We refer to the Group's accounting policies and the notes 2 and 11</i></p> <p>Capitalized R&amp;D expenses aggregated to 4,842 k€ representing a material amount of the consolidated assets (21 %) and equity (38 %). As the impairment test contains estimates, the audit procedures related to the test prepared by the management were material in respects of the audit. The Group Management exercises judgment determining the assumptions related to future market conditions and economic trends as the general economic growth and sales and margin trends. Due to this the valuation of intangible assets was determined to be a key audit matter and a significant risk of material misstatement referred to in EU Regulation No 537/241, point (c) of Article 10(2).</p>	<p>Our audit procedures included, among others:</p> <ul style="list-style-type: none"> <li>• Use of valuation experts in assisting our evaluation of the methods and assumptions, particularly the discount rate used, applied by the Group</li> <li>• Evaluation of the relevant assumptions used in the impairment testing of the intangible assets, focusing on the reasonableness of the forecasted economic information and the estimation and allocation of the revenue and costs related to each R&amp;D asset</li> <li>• Estimating the accuracy of the management's earlier estimates</li> <li>• Evaluation of the notes representing the impairment test of the intangible assets</li> </ul>

### Responsibilities of the Board of Directors and the Managing Director for the Financial Statements

The Board of Directors and the Managing Director are responsible for the preparation of consolidated financial statements that give a true and fair view in accordance with International Financial Reporting Standards (IFRS) as adopted by the EU, and of financial statements that give a true and fair view in accordance with the laws and regulations governing the preparation of financial statements in Finland and comply with statutory requirements. 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 financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, the Board of Directors and the Managing Director are responsible for assessing the parent company's and the group's ability to continue as going concern, disclosing, as applicable, matters relating to going concern and using the going concern basis of accounting. The financial statements are prepared using the going concern basis of accounting unless there is an intention to liquidate the parent company or the group or cease operations, or there is no realistic alternative but to do so.

### Auditor's Responsibilities for the Audit of Financial Statements

Our objectives are to obtain reasonable assurance on whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with good auditing

practice will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of the financial statements.

As part of an audit in accordance with good auditing practice, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the parent company's or the group's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Conclude on the appropriateness of the Board of Directors' and the Managing Director's use of the going concern basis of accounting and based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the parent company's or the group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion.

Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the parent company or the group to cease to continue as a going concern.

- Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events so that the financial statements give a true and fair view.
- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the group to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinion.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide those charged with governance with a statement that we have complied with relevant ethical requirements regarding independence, and communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

From the matters communicated with those charged with governance, we determine those matters that were of most significance in the audit of the financial statements of the current period and are therefore the key audit matters. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, we determine that a matter should not be communicated in our report because

the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

### Other Reporting Requirements

#### Information on our audit engagement

We were first appointed as auditors by the Annual General Meeting on 20.4.2016, and our appointment represents a total period of uninterrupted engagement of 2 years.

#### Other information

The Board of Directors and the Managing Director are responsible for the other information. The other information comprises the report of the Board of Directors and the information included in the Annual Report, but does not include the financial statements and our auditor's report thereon. We have obtained the report of the Board of Directors prior to the date of this auditor's report, and the Annual Report is expected to be made available to us after that date.

Our opinion on the financial statements does not cover the other information.

In connection with our audit of the financial statements, our responsibility is to read the other information identified above and, in doing so, consider whether the other information is materially inconsistent with the financial statements or our knowledge obtained in the audit, or otherwise appears to be materially misstated. With respect to report of the Board of Directors, our responsibility also includes considering whether the report of the Board of Directors has been prepared in

accordance with the applicable laws and regulations.

In our opinion, the information in the report of the Board of Directors is consistent with the information in the financial statements and the report of the Board of Directors has been prepared in accordance with the applicable laws and regulations.

If, based on the work we have performed on the other information that we obtained prior to the date of this auditor's report, we 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.

Helsinki 6.2.2018

Ernst & Young Oy  
Authorized Public Accountant Firm

Erkka Talvinko  
Authorized Public Accountant

# CORPORATE GOVERNANCE

## CORPORATE GOVERNANCE

SSH Communications Security aims for transparent and responsible corporate governance through compliance with laws, regulations, and best practices as well as high ethical standards applied in its governance and decision-making. SSH Communications Security's corporate governance practices are subject to its articles of association, Finnish Limited Liability Companies Act, securities market legislation, including the market abuse regulation, rules of Nasdaq Helsinki, and Finnish Corporate Governance Code 2015 adopted by the Securities Market Association. The Corporate Governance Code is available at [www.cgfinland.fi](http://www.cgfinland.fi).

More information on the governance practices of the company is available under the Corporate Governance section of the company web site at [www.ssh.com/investors](http://www.ssh.com/investors). Corporate Governance Statements, prepared in accordance with the Finnish Corporate Governance Code and published as separate statements, can also be found on the same page.

SSH implements a one-tier governance model, in which the management of the SSH Group is a responsibility of the General Meeting of shareholders, the Board of Directors, and the CEO. Duties are defined by the Finnish Limited Liability Companies Act and the company's articles of association.

SSH Communications Security's highest decision-making body is the General Meeting, which is composed of the company's shareholders. The General Meeting takes decisions on matters falling within its competence as stipulated by the Finnish Limited Liability Companies Act and the company's articles of association. The Annual General Meeting elects the Board of Directors and auditors. The Board of Directors is responsible for strategic management and decides on the SSH Group's administrative systems and ensures compliance with good governance principles. The Board appoints the CEO, who is in charge of the operative, day-to-day management of the company. CEO is assisted in his/her work by the Executive Management Team.

More information can be found from the annual Corporate Governance Statement and from the company website.



# BUSINESS ETHICS AND SOCIAL RESPONSIBILITY

## BUSINESS ETHICS AND SOCIAL RESPONSIBILITY

SSH Communications Security operates in a socially and ethically responsible manner, respects the environment and society, promotes internationally proclaimed human rights, and ensures ethical business practices at all times.

SSH has set out a clear Anti-Bribery & Anti-Corruption Policy which prohibits all forms of bribery and corruption. The policy is communicated to all employees during new employee training. Any allegations of bribery or corruption will be investigated thoroughly. The Anti-Bribery & Anti-Corruption Policy is available on our web site at [www.ssh.com/investors/anti-bribery-policy](http://www.ssh.com/investors/anti-bribery-policy). SSH has also established a whistle-blower process which is initiated when someone reports suspected internal or external misconduct or violation of law, regulations, human rights, labor practices or similar within the operations of SSH Group or by its personnel.

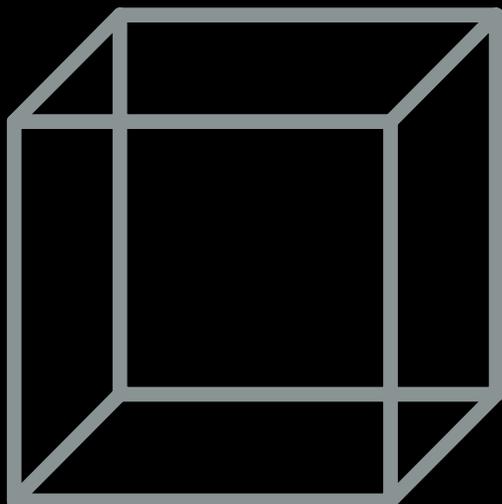
SSH respects the surrounding environment and aims to ensure that all of its offices are energy-efficient, and environmental impact is as low as possible. Most of the company's environmental impact comes from the energy consumption of its offices, which is minimized by reusing supplies and recycling. Travel emissions from employee commuting and business travelling are minimized by supporting remote working and online conferencing options.

All SSH employees have the right to a safe and healthy working environment where personal well-being is promoted, and any form of discrimination or harassment is prohibited. Every employee is treated with equal consideration and fairness. All decisions concerning employment are determined by the employee's performance, not on any discriminatory grounds, such as gender, age, nationality, ethnicity, religion, political affiliation, disability, or sexual orientation. In 2017, all full-time employees had individual development discussions and were part of the performance management program.

SSH considers diversity as a strength and actively encourages diversity throughout the organization, including top management and the Board of Directors. The principles of diversity are always taken into account when considering nominations to the Board of Directors. SSH aims to have board members representing both genders, as well as different professional and educational backgrounds.

At the end of 2017, SSH Communications Security personnel consisted of 80 employees in total. 17.5 % of the personnel were women and 82.5 % were men. The average age of the company's employees was 40.8 years. 13.8 % of employees were under 30-years-old, 31.2 % between 30-40, 32.5 % between 40-50, and 22.5 % over 50. 47.5 % of employees had been working at SSH for less than 2 years, 28.8 % for 2-5 years, 11.2 % for 5-10 years, and 12.5% for over 10 years.

# INFORMATION FOR SHAREHOLDERS



All published investor information, including annual reports, interim reports and stock exchange releases are available on the company's website at [www.ssh.com/investors](http://www.ssh.com/investors). All investor information is published in English. Stock exchange releases are also published in Finnish.

Subscriptions to the emailing list for stock exchange releases can be made by sending your contact details to [investor-relations@ssh.com](mailto:investor-relations@ssh.com). SSH follows a silent period starting 30 days before the publication of its financial reports, during which company refrains from contact with representatives of the capital markets and financial media.

## ANNUAL GENERAL MEETING

The company's Annual General Meeting 2018 will be held at Taitotalon Kongressikeskus, Valimotie 8, Helsinki, Finland on Wednesday 28th of March 2018 at 10:00 a.m.

## FINANCIAL CALENDAR 2018

The company will publish the following financial reports during 2018:

Financial Statements Bulletin	February 7, 2018
Annual Report	Week 9
Interim Report, First quarter	April 19, 2018
Interim Report, First two quarters	July 17, 2018
Interim Report, First three quarters	October 23, 2018

## SSH COMMUNICATIONS SECURITY SHARE FACTS

Listing since 2000    Nasdaq Helsinki Ltd.  
Trading symbol        SSH1V  
Number of shares      38,440,883

## INVESTOR RELATIONS CONTACTS

For any inquiries, please contact: [investor-relations@ssh.com](mailto:investor-relations@ssh.com)



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