F-SECURE

ANNUAL REPORT 2018

F-Secure

Nobody knows cyber security like F-Secure. For three decades, F-Secure has driven innovations in cyber security, defending over 100,000 companies and millions of people. With unsurpassed experience in endpoint protection as well as detection and response, F-Secure shields enterprises and consumers against everything from advanced cyber attacks and data breaches to widespread ransomware infections.

WE ARE F-SECURE

F-Secure's sophisticated technology combines the power of machine learning with the human expertise of its world-renowned security labs. F-Secure's security experts perform incident response and forensic investigations on four continents, and its products are sold all over the world by around 200 broadband and mobile operators and thousands of resellers.

Founded in 1988, F-Secure is listed on the Nasdaq Helsinki.

F-SECURE 2018

BOARD OF DIRECTORS' REPORT

FINANCIAL STATEMENTS

NON-FINANCIAL INFORMATION

CORPORATE GOVERNANCE

INFORMATION FOR SHAREHOLDERS

KEY FIGURES 2018

Revenue & profitability

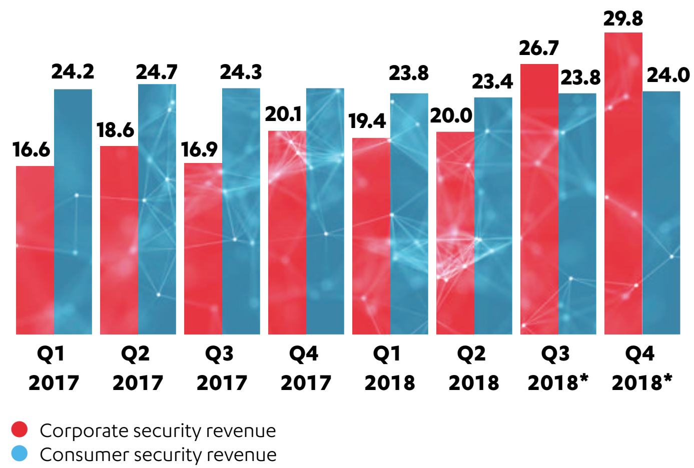
Revenue
190.7
MEUR

Adjusted EBITDA
17.4
MEUR

In 2018 our corporate security revenue grew by 33%*

* Including acquisition of MWR InfoSecurity

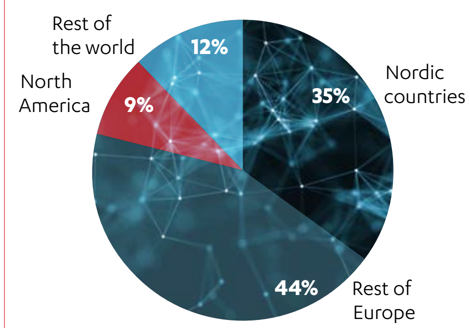
Revenue growth driven by corporate security, MEUR



100,000+
Corporate customers

Tens of millions of consumer customers

Revenue by region, %



Sales in
100+
countries

Operations in
29
locations

>1,600
employees

WHY INVEST IN F-SECURE?

A FRONT RUNNER IN A RAPIDLY GROWING INDUSTRY

The demand for cyber security products and services is in rapid growth, driven by the growing number of cyber attacks, the growing number of connected devices, increasing complexity of IT systems, tightening regulations, and increasing significance of geopolitics. In total, the information security sector is a USD 100+ billion industry, growing by around 10% annually with many segments in strong double-digit growth.

EXPANDING PORTFOLIO FUELS CROSS-SELLING AND NEW SALES

F-Secure provides a broad range of cyber security products, managed detection and response services and cyber security consultancy. Our focus in on the fastest growing segments in the industry, such as Endpoint Detection & Response (EDR) and Managed Detection & Response (MDR). Our expanding portfolio continues to offer us opportunities to expand our sales to both new and existing customers.

UNIQUE CAPABILITIES COMBINING EXPERTISE & TECHNOLOGY

F-Secure's sophisticated technology combines the power of machine learning with the human expertise of our world-renowned security labs into award-winning solutions. We are also one of the world's leading cyber security consulting providers with feet on the ground on four continents, offering us unique visibility into real-life cyber attacks.

A STRONG SCALABLE BUSINESS MODEL SUPPORTED BY A GLOBAL NETWORK OF PARNERS

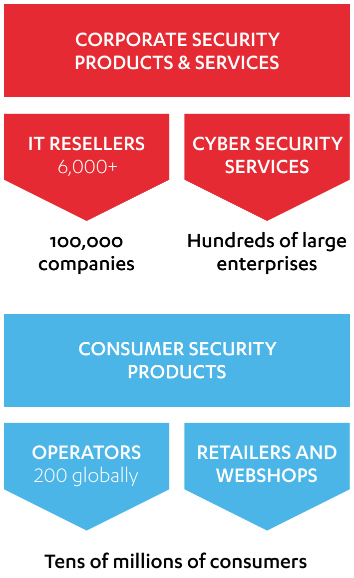
F-Secure's DNA is in highly-scalable cyber security software business. By leveraging our extensive network of partners we can compete in both corporate and consumer markets all over the world. We work with 6000+ IT resellers, and have built the industry's largest network of around 200 telecommunications operator partners.

STRONG VALUES, DEDICATED TO OUR CUSTOMERS

F-Secure has been a front-runner in cyber security for 30 years. We have always put an emphasis on strong core values, and we are committed to helping people and businesses fight cyber threats. Improving our customers' security and resilience, as well as the sustainability of their digital lives or businesses, is what drives our work.

"F-Secure's DNA is in highly-scalable cyber security software business. In addition to award-winning products, we also have a comprehensive offering of managed detection and response services as well as cyber security consulting."

Scalability through our partners



PRODUCTS AND SERVICES

CORPORATE SECURITY

In corporate security F-Secure provides a broad range of cyber security products, managed detection and response services and cyber security consultancy to companies globally with a focus on the mid-market and local enterprises. The majority of revenue comes from product sales through a large network of solution and service provider partners.

Prediction solutions

F-Secure Radar – Vulnerability scanning and management platform
phishd – Anti-phishing behavior management platform

Prevention solutions

F-Secure Protection Service for Business – Cloud-hosted endpoint security
F-Secure Business Suite – On-site deployed endpoint security
F-Secure Cloud Protection for Salesforce – Content level security for Salesforce's customers

Detection & Response solutions

F-Secure Rapid Detection & Response – Customer- or partner-managed EDR solution for detecting and responding to targeted attacks
F-Secure Rapid Detection & Response Service – Managed detection and response service (MDR) providing 24/7 monitoring, alerts within minutes, and gives clear guidance on how to respond
Countercept – Advanced threat hunting and continuous response capabilities against targeted attacks delivered as a managed service (MDR)

Cyber security services

F-Secure provides premium consultancy services for all areas of cyber security on four continents, including services such as:

- F-Secure Cyber Incident & Resilience Services
- F-Secure Security Assessments
- F-Secure Red Team Testing
- F-Secure Cyber Risk Management

CONSUMER SECURITY

In consumer security the company provides a comprehensive range of endpoint protection, privacy and password management solutions, and security for all the connected devices at home, both separately and as a bundled premium offering (**F-Secure TOTAL**). The majority of consumer sales comes from the sale of endpoint protection products through the operator channel, but the company also sells consumer products through various online and retail partners, as well as the company's own web shop.

F-Secure SAFE – Easy to use antivirus and internet security, including Family rules to let you set healthy boundaries for your children's device use.

F-Secure FREEDOME – VPN that hides your online activity to ensure anonymous and secure internet browsing.

F-Secure KEY – A light and easy password manager, allowing you to store your passwords securely and access them from any device.

F-Secure SENSE – Protects every device in your connected home while serving as a fast, technologically advanced wireless router. The required router is sold separately or provided by the operator.

THE MAJORITY OF OUR B2B BUSINESS IS NOW IN RAPIDLY GROWING MARKETS

In 2018, we made the largest acquisition in F-Secure's history. It was a very significant step for our company. MWR InfoSecurity was a perfect match for us in terms of strategy, capabilities and culture. Combining both companies' industry-leading technologies and world-renowned expertise has made F-Secure stronger than ever. This is especially true in the important and rapidly growing detection and response market, but also applies to cyber security consulting as companies are facing a global and widening expertise gap. As a result, the majority of our corporate security footprint is now in growth markets.

CEO LETTER

Samu Konttinen

The acquisition of MWR InfoSecurity, announced in June, was a logical step in the implementation of our corporate security growth strategy. In a number of ways F-Secure and MWR are perfect partners for each other. We have matching strategies, complementary technologies, a shared deep passion for safeguarding our customers and a culture of trust. Our experts have already cooperated for years before the acquisition, and hence knew each other's strengths. F-Secure has developed world-class AI powered detection technologies, and MWR has innovated industry-leading threat hunting and remote incident response platforms. MWR was also one of the leading providers of cyber security consulting in the world, with hundreds of enterprise customers. By bringing these capabilities together, we have created an extremely competitive detection and response offering as we aim for leadership in this market.

We intend to be a leader in the detection and response market

The fastest growth is now seen in detection and response solutions, and we strengthened our offering with two new solutions during the year: The acquired Countercept for managed detection and response (MDR) – which we plan to integrate with our own MDR solution (RDS), as well as our new endpoint detection and response (EDR) solution. The last six months of the year saw us sign a record number of MDR deals in several countries, and in many industry verticals such as finance, media, energy, defense and critical infrastructure. Our sales pipeline has continued to develop well. I was particularly pleased with the very high customer satisfaction and renewal rates. These serve as strong proof that we are on the right track.

We also significantly expanded our cyber security consultancy capabilities, both in terms of expertise and geographical reach. We are now one of the leading providers of cyber security advisory in the world, with a presence on four continents. We work with hundreds of large enterprises in the most demanding sectors. We have a particularly strong footing in the finance industry, serving most of the top banks in key markets around the globe. The continued trust our customers place in our products and services, is a strong sign of our competitiveness.

Our man & machine approach offers unique competitive advantage

Working with the most demanding customers is important because it supports product development, but especially because it gives us unique visibility into real-life attacks worldwide. We can see attacks that no one else does.

Overall, detection and response solutions are a key driver of F-Secure's growth, and complement our preventative endpoint protection (EPP) solutions. Going forward, these two equally important aspects of security will continue to merge, as companies strive to simplify their IT systems and integrate their solutions. A good example of this trend is our new EDR solution, which can be integrated with the customers' existing EPP solution. Furthermore, through the solution our partners also have access to our world-leading response teams with a click of a button ("Elevate to F-Secure"). Alongside the expanding endpoint security solution market, we can also see a continued demand for managed detection and response services with more emphasis on the human expertise.

I am convinced that F-Secure's man and machine approach – a combination of technology and human expertise at the frontlines – gives us significant competitive advantage in this market. Advanced attacks are not relying purely on technology, they are orchestrated. A similar approach is crucial to successful defense. The war cannot be won without technology, but machines cannot yet fully replace humans. With a comprehensive offering of cyber security products and services, F-Secure can offer its customers the best of both worlds.

Consumers awaken to secure their digital lives

While threats continue to mount within corporate security, the consumer security market is also evolving quickly. People are becoming increasingly aware that cyber security is not just about having an anti-virus solution installed or using a VPN. It is something much more holistic. We are talking about digital lives and how to protect them. How to prevent the misuse of personal data, and stolen passwords. How to protect the user's privacy at a time when companies and various apps collect more data on consumers than ever before.

F-Secure is the chosen cyber security partner for almost 200 telecommunications operators globally – far more than any other cyber security company. In 2018, we expanded this ecosystem further including several new partners like SoNet, Japan's third largest Internet Service Provider. Today, operators are committed to protecting their customers' whole digital home, not just their PCs and smart phones. Installing security on many of the modern IoT devices is difficult or impossible, so home routers are becoming a crucial element for security. And most existing routers are far from secure.

Our F-Secure TOTAL offering provides consumer customers with comprehensive security and privacy for all their connected devices, both at home and on the move. This continues to provide us with short-term opportunities to increase cross-selling and upselling. With the launch of F-Secure SENSE as-software, we also enable operators and global router manufacturers to install security features directly into their routers.

F-Secure has been a front runner in cyber security for 30 years, and we continue to break new ground with our innovations. With corporate security now delivering over half of our revenue, our growth is increasingly driven by this rapidly growing market. Following the acquisition of MWR InfoSecurity, our company is now stronger than ever. I'm looking forward to another exciting year in 2019!

Samu Konttinen

"It's imporant to work with the most demanding customers."

BOARD OF DIRECTORS' REPORT 2018

In 2018, F-Secure strengthened its position in the corporate security market. The company accelerated its growth strategy significantly with the acquisition of MWR InfoSecurity, increasing its competitiveness in the rapidly growing detection and response market. F-Secure is now also one of the world's leading providers of cyber security consulting, with a unique visibility into a real-life attacks and an ability to support enterprises around the globe.

F-Secure's DNA is in highly-scalable cyber security software business. During the year, the company particularly focused on expanding the sales of detection and response solutions. Addressing a rapidly increasing demand from companies around the globe, these solutions are regarded as a key driver for F-Secure's revenue growth going forward.

During the second half of the year, in corporate security order intake from new products and services exceeded that of endpoint protection solutions for the first time in the company's history, highlighting the rapid change F-Secure has experienced over the past few years. The company's expanding portfolio continues to offer significant sales expansion opportunities to both new and existing customers together with its global network of partners.

In consumer security, business developed as expected. Direct sales to consumers were in slight growth driven by high renewal rates and increased cross-selling. Revenue through operators remained almost at the previous year's level, confirming the company's view of the overall stability of the consumer business.

F-Secure used its strong balance sheet to finance the acquisition of MWR InfoSecurity. The financial position of the company remains solid, and we are in a good position to continue the execution of our strategy.

Financial performance and key figures

In January–December, total revenue grew by 12% year-on-year to EUR 190.7 million (169.8m), driven by corporate security.

Corporate security

Revenue from corporate security increased by 33% year-on-year to EUR 95.9 million (72.2m), and represented 50% (43%) of F-Secure's total revenue. The growth was driven by the increased contribution from the acquired MWR InfoSecurity, as well as continued organic growth. The revenue contribution from MWR InfoSecurity was EUR 16.8 million during the second half of 2018.

Products

During the year, F-Secure significantly strengthened the company's offering of detection and response solutions. In July, the acquired Countercept was added to the Managed Detection and Response (MDR) offering, and in November F-Secure's first Endpoint Detection and Response (EDR) solution was successfully launched. During the year, order intake[1)] for MDR solutions (RDS, Countercept) was in strong growth compared to the previous year. Order intake increased significantly especially towards the end of the year, and a large number of deals for MDR solutions were signed in July-December in several countries, and in demanding industry verticals. Customer satisfaction and renewal rates with existing MDR installations remained very high. EDR sales begun in November, and the solution was well-received by resellers and customers, with first deals signed in eight countries. Overall, the sales pipeline with both MDR and EDR solutions continued to develop positively supported by strong demand in the detection and response market. That said, the quarterly order intake continued to reflect significant seasonality typical to new solutions, and sales cycles especially for MDR solutions remained long.

Order intake from endpoint protection (EPP) solutions was at previous year's level. Renewal rates with existing EPP installations were at a high level. New customer acquisition improved towards the end of the year, but was below previous year's level, as the EPP market continued to be in transition. Customers are increasingly seeking to supplement their existing EPP solutions with new EDR capabilities.

Order intake from other corporate solutions, (F-Secure Radar, phishd, F-Secure Cloud Protection for Salesforce) continued to show good growth.

Cyber security consulting

During the year, F-Secure significantly increased its cyber security service capacity, expertise and go-to-market capabilities with the acquisition of MWR InfoSecurity. F-Secure now has hundreds of cyber security consultants operating on four continents making the company one of the leading consultancy providers in the world. Overall, F-Secure continued to see strong demand in the cyber security services market, and successfully recruited new consultants to meet the demand.

Order intake from cyber security consulting increased significantly from the previous year driven by the increased contribution from the acquired MWR InfoSecurity. Consultancy order intake increased in the UK, the US, South Africa and Singapore, and was at the previous year's level in the Nordics against a tough comparison period. During the third quarter, F-Secure signed a large project deal in the Nordics, which was a continuation of a similarly significant deal signed in 2017.

Consumer security

Revenue from consumer security decreased by –3% year-on-year to 94.9 million (97.5m), and represented 50% (57%) of F-Secure's total revenue.

Operators

Operator revenue decreased slightly compared to the previous year, because the comparison period's figures included revenue related to an operator customer in Latin America lost in Q3/2017. Overall, business developed as expected, and F-Secure continued to work closely with its broad global network of partners to increase product activation rates. During the year, F-Secure signed several new or extended operator contracts in Europe, the United States and Latin America. In October, the company signed its first F-Secure SENSE-as-software (an innovative security solution for connected home devices) deals with Elisa (Finland), as well as with Zyxel and Actiontec, leading global router manufacturers. At the end of the year, negotiations with several operators and router manufacturers to include F-Secure SENSE's capabilities into their router offering were on-going.

Direct sales

Order intake in direct sales to consumers increased slightly compared to the previous year, and renewals remained at a good level. In September, F-Secure expanded the company's flagship consumer offering, F-Secure TOTAL, to include F-Secure KEY (password manager) and F-Secure SENSE as well – for which the hardware is sold separately – in addition to the existing bundle of F-Secure SAFE (endpoint protection) and F-Secure FREEDOME (VPN and privacy). Overall, consumers are increasingly seeking to buy bundled solutions in order to secure their digital lives. Similarly, F-Secure continued to focus on pushing the sales of the company's broad consumer portfolio to increase average revenue per customer.

Deferred revenue

Deferred revenue increased by 11% (year-on-year) to EUR 72.9 million (65.7m), driven by the inclusion of MWR InfoSecurity and increasing order intake from corporate security products and services with long-term contracts.

[1)] Order intake is recognized as revenue according to IFRS 15. See Accounting principles to consolidated financial statements, section, Revenue recognition

Gross margin

Gross margin increased by EUR 6.6 million to EUR 151.4 million (144.8m), and was 79% of revenue (85%). Relative gross margin decreased as the share of cyber security consultancy business increased due to the acquisition of MWR InfoSecurity.

Operating expenses

Operating expenses increased by EUR 14.0 million (year-on-year) to 149.1 million (135.1m) due to the inclusion of MWR InfoSecurity in the company's financials. Operating expenses include EUR 3.6 million of acquisition and integration related costs and EUR 2.5 million of amortization of intangible assets from business combinations (PPA, purchase price allocation, related amortizations).

Profitability

Adjusted EBITDA was EUR 17.4 million and 9.1% of revenue (18.2m, 10.7%), excluding EUR 3.6 million of acquisition and integration related costs. Adjusted EBIT was EUR 10.6 million and 5.6% of revenue (12.3m, 7.3%), excluding acquisition and integration related costs, and PPA related amortizations.

EBIT was EUR 4.5 million and 2.4% of revenue (11.5m, 6.8%).

Cash flow

Cash flow from operating activities before financial items and taxes was EUR 13.8 million (29.5m). Cash flow decrease from previous year was due to decline in EBIT and change in net working capital, especially in non-interest bearing liabilities. Acquisition and integration related costs also impacted cash flow negatively.

Cash flow from operations was EUR 6.8 million (26.0m). Acquisition increased the amount of financial expenses, and income taxes had negative impact on cash flow in the first half with advances being paid whereas refunds were received during comparison period. Also, a long-term incentive plan related cash-settlement (–2.3m) during the first quarter impacted cash flow negatively.

Acquisitions and financing arrangements

On July 2, F-Secure acquired 100% of the share capital of MWR InfoSecurity Ltd, a privately held cyber security company operating globally from its main offices in the UK, the US, South Africa and Singapore. The acquisition is a significant milestone in the execution of F-Secure's growth strategy, and makes it the largest European single source of cyber security services and detection and response solutions. With close to 400 employees, MWR InfoSecurity is among the largest cyber security service providers serving enterprises globally, and their threat hunting platform (Countercept) is one of the most advanced in the market and an excellent complement to F-Secure's existing technologies.

To finance the acquisition F-Secure sold its financial assets at fair value through profit and loss (available-for-sale assets) and entered into a bilateral EUR 60.0 million five-year financing agreement with Nordea Bank. In July the company withdrew a term loan of EUR 37.0 million, for which repayments will start in June 2019. A revolving credit limit of EUR 23.0 million has not been used during the reporting period.

The financing agreement includes conventional loan covenants related to ratio of net debt to EBITDA and equity ratio. F-Secure complied with the covenant throughout the reporting period.

Capital structure

F-Secure's financial position remained solid although there was a significant transition due to the acquisition of MWR InfoSecurity. As the acquisition was partially financed by external term loan, equity ratio on 31 December 2018 was 42.7% (61.9%) and gearing ratio was 13.9% (127.8% negative).

Capital expenditure

Capital expenditure including acquisitions totaled EUR 99.8 million (9.3m). The impact of the acquisition of MWR InfoSecurity net of acquired cash was EUR 91.3 million. Capitalized development expenses were EUR 4.7 million (3.9m).

Research and development

F-Secure's sophisticated technology combines the power of machine learning with the human expertise of our world-renowned F-Secure Labs. In 2018, the company's research and development activities focused on the development of new products and product enhancements to improve protection capabilities, and boost usability both for corporate and consumer customers.

F-Secure's research and development expenditure amounted to EUR 35.7 million in 2018, representing 19% of revenue (EUR 34.1m, 20%). The capitalized development expenses amounted to EUR 4.7 million (EUR 3.9 million).

In corporate security, F-Secure launched the new endpoint detection and response (EDR) solution (F-Secure Rapid Detection & Response) to protect customers' business and data against advanced cyber security attacks. As part of the MWR InfoSecurity acquisition, F-Secure also extended and strengthened the company's Managed Detection and Response (MDR) offering for enterprises with Countercept – an industry leading managed threat hunting platform, with unique capabilities to remotely respond to on-going targeted cyber attacks in real-time. F-Secure also added a new anti-phishing behavioral management solution called Phishd to the company's portfolio due to the acquisition. During the second half of the year, a process was started to integrate the best capabilities of Countercept and F-Secure's own MDR solution (RDS, Rapid Detection & Response Service). Finally, F-Secure introduced single sign-on for corporate customers (F-Secure Business Account) to enable them to access and manage different F-Secure solutions with a single user account, and increase cross-selling potential.

In consumer security, the most significant development was the launch of the new F-Secure SENSE-as-software solution to router manufacturers and service providers as a Software Development Kit (SDK). The solution allows them to embed F-Secure SENSE's cloud and AI protection capabilities in any router. After the launch, F-Secure also further expanded the SDK's protection capabilities, and integrated the SDK with several router manufacturer platforms. Moreover, F-Secure continued work on the technological integration of consumer security (F-Secure SAFE) and privacy application (Freedome) in order to simplify the user experience and create a more competitive offering with higher average revenue per user (ARPU) potential for the company, as well as service providers. Furthermore, business support systems for operator partners were expanded with AI-based churn prediction capabilities.

On a more general level, F-Secure continued to further simplify and streamline its product and service architecture, and the internal operational transition from on-premise to cloud continued. The company also increased the use of common services across products and common core components for product clients. All previously described activities were aimed to improve product scalability, stability, and speed of development, while reducing time spent on maintenance. F-Secure strives to become a truly data-driven company by investing more in processing data than before.

Organization and leadership

Personnel

At the end of the quarter, F-Secure had 1,666 employees, which shows a net increase of 562 employees (51%) since the beginning of the year (1,104 on 31 December 2018), and an increase of 30 employees (2%) compared with end of September in 2018 (1,636). The acquisition of MWR InfoSecurity (July 2018) was the main reason behind the significant growth in personnel from the previous year, but F-Secure also continued recruitment in corporate security.

Leadership team

At the end of the year, the composition of the Leadership Team was the following:

Samu Konttinen (CEO), Kristian Järnefelt (Consumer Cyber Security), Juha Kivikoski (Enterprise & Channel Sales), Jyrki Rosenberg (Marketing & Communications), Ian Shaw (Cyber security), Jari Still (Information & Business Services), Mika Ståhlberg (Security Research & Technologies), Eriikka Söderström (CFO, and acting HR & Offices services as of 1 October) and Jyrki Tulokas (Cyber Security Products & Services).

In March 2019, Eva Tuominen will start as Executive Vice President for People Operations and Culture, and Antti Hovila as the Executive Vice President for Strategy and Corporate Development.

Shares, Shareholders' Equity, Own Shares

The total number of company shares is currently 158,798,739. The company's registered shareholders' equity is EUR 1,551,311.18. The company currently holds 1,308,444 of its own shares.

The company holds its own shares to be used in the incentive compensation plans, for making acquisitions or implementing other arrangements related to the company's business, to improve the company's financial structure, or to be otherwise assigned or cancelled.

The company currently has performance-based long-term share-based incentive programs for key employees. Additionally, F-Secure has established a matching share plan available for all employees (Stock exchange release 15 December 2017). The matching share plan was extended in November 2018 to cover people whose employment has started after the first retention period had ended (7 November 2018).

In accordance with the decision by the Annual General Meeting, 40% of the fees paid to the Members of the Board of Directors in 2018 were paid in F-Secure shares. In total, 26 941 of F-Secure shares were assigned to the Members of the Board. The shares were purchased on the Board members' behalf from the market.

Risks and uncertainties

Risks are defined as uncertainties which can impact the achievement of the Company's short and long term objectives. Risks are assessed as a combination of probability and impact. The most significant risks are:

Endpoint protection market disruption

Endpoint security market is highly competitive. Operating system manufacturers have increased their focus to built-in security features and at the same time new vendors and technologies have emerged. F-Secure has to succeed in maintaining in-depth understanding of cyber security threat landscape, hacker techniques and technologies used as well as continue to innovate in defense technologies.

Market consolidation and failure to successfully complete acquisitions or divestments

The cyber security market is consolidating due to economies of scale. F-Secure has to succeed in choosing the right acquisition targets, as well as successfully integrate target companies. F-Secure is now focused on the integration of MWR InfoSecurity, acquired in July 2018.

Failure to innovate and launch new technologies

In a rapidly evolving industry it is vital to keep the products and services relevant to the customers while introducing new technologies to the market on-time. F-Secure is driving technology simplification and R&D effectivization initiatives as well as investments to artificial intelligence to ensure a competitive product portfolio.

Failure to attract and retain talent

Competition for capable personnel is increasing and there is structural undersupply of talent in the security industry. F-Secure is continuously developing and adopting new ways of recruitment, building its own talent and knowledge pools and investing to training and development of personnel.

Other notable risks

Other risks that affect the F-Secure business include but are not limited to:

- Increased exposure outside the Eurozone has increased risk related to currency fluctuations

- Credit risk due to regional political or financial climate and regulation
- Tax risk relating to changing laws and regulations and interpretations of said regulations by the relevant authorities
- Interest rate risk exposure through increased lending
- Risk exposure from contractual liability requirements
- Potential security threats related to F-Secure's products and services
- Impact of a potential BREXIT to F-Secure's business

Corporate Governance

F-Secure's corporate governance practices comply with Finnish laws and regulations, F-Secure's Articles of Association, the rules of Nasdaq Helsinki Oy and the Finnish Corporate Governance Code 2015 issued by the Securities Market Association of Finland. The code is publicly available at http://cgfinland.fi/en/. F-Secure's Corporate Governance Statement for 2018 is part of this Annual Report and up-to-date information about the Company's governance are available on the Company website.

The Annual General Meeting

The Annual General Meeting of F-Secure Corporation was held on 4 April 2018. The Meeting confirmed the financial statements for the financial year 2017. The members of the Board and the President and CEO were discharged from liability. In addition, the Annual General Meeting made the following decisions:

The Annual General Meeting decided to distribute a dividend of EUR 0.04 per share, which was paid to those shareholders that on the record date of 6 April 2018 were registered in the Register of Shareholders held by Euroclear Finland Ltd. The dividend was paid on 18 April 2018.

It was decided that the annual compensation for the Board members is as follows: for the Chairman EUR 80,000, for the Chairmen of the Personnel and Audit Committees EUR 48,000, members EUR 38,000 and for the member employed by F-Secure Corporation EUR 12,667. Approximately 40% of the annual remuneration will be paid as company shares.

It was decided that the number of Board members is six (6). The following current members were re-elected: Pertti Ervi, Matti Heikkonen, Bruce Oreck, Päivi Rekonen and Risto Siilasmaa. Christine Bejerasco was elected as a new member of the Board. The Board elected in its organizational meeting Siilasmaa as the Chairman of the Board. The Board nominated Siilasmaa as the Chairman of the Personnel Committee and Bruce Oreck and Päivi Rekonen as members of the Personnel Committee. Pertti Ervi was nominated as the Chairman of the Audit Committee and Päivi Rekonen, Matti Heikkonen and Christine Bejerasco were nominated as members of the Audit Committee. It was decided that the Auditor's fee will be paid against approved invoice. PricewaterhouseCoopers Oy was elected the Group's auditor. APA, Mr. Janne Rajalahti acts as the responsible partner.

It was decided that the Board of Directors may pass a resolution to repurchase a maximum of 10,000,000 own shares of the company in one or multiple tranches with the company's unrestricted equity. The authorization entitles the Board of Directors to decide on the repurchase also in deviation from the proportional holdings of the shareholders (directed repurchase). The authorization covers the repurchase of shares either in trading at the regulated market organized by Nasdaq Helsinki Ltd in accordance with its rules and guidelines, in which case the shares must be purchased at the prevailing market price at the time of repurchase, or through a public tender offer to the shareholders, in which case the price offered must be the same for all shareholders. The repurchased shares will be used for making acquisitions or implementing other arrangements related to the company's business, for improving the company's financial structure, for use as part of the company's incentive scheme or otherwise for further assigning or cancelling the shares. The authorization includes the right for the Board of Directors to decide upon all other terms and conditions related to the repurchase of the company's own shares. The authorization is valid until the next Annual General Meeting however not longer than until June 30, 2019 and the previous authorization granted to the Board of Directors by the 2017 Annual General Meeting regarding the repurchase of the company's own shares expired upon the new authorization.

The Annual General Meeting authorized the Board of Directors to decide on the issuance of a maximum of 31,000,000 shares, representing 19.5 per cent of the company's shares entered in the Trade Register, or the issuance of special rights entitling to shares referred to in Chapter 10, Section 1 of the Finnish Limited Liability Companies Act in one or multiple tranches. The authorization concerns both the issuance of new shares as well as the transfer of treasury shares. The authorization includes the right for the Board of Directors to decide upon all terms and conditions related to the issuance of shares and special rights. The issuance of shares may be carried out in deviation from the shareholders' pre-emptive rights (directed issue). The authorization can be used for implementing potential acquisitions, other arrangements or equity-based incentive plans or for other purposes decided by the Board of Directors. The Board of Directors also has the right to decide on the sale of company shares at the regulated market in accordance with Nasdaq Helsinki Ltd's rules and regulations. The authorization is valid until the next Annual General Meeting however no later than until June 30, 2019, and the previous authorization granted to the Board of Directors by the 2017 Annual General Meeting regarding the issuance of shares and transfer of own shares expired upon the new authorization.

Market overview

The growing number and variety of connected devices as well as digital services continues to create security challenges for both businesses and individuals. Combined with the increasing complexity of IT systems, tightening regulation and increasing significance of geopolitics, these trends are driving demand for security products and services. While advanced cyber-attacks are becoming more common and persistent, criminals are targeting companies of all sizes along with consumers by taking advantage of vulnerabilities in popular software, traditional and new connected devices as well as online services. Apart from pure criminal activity, governments and hacktivists use vulnerabilities and malware e.g. for espionage and surveillance.

Attacks against corporations often go undetected for months. As most companies lack relevant capabilities, it is estimated that the demand for both Endpoint Detection and Response (EDR) solutions as well as Managed Detection and Response (MDR) will continue to rapidly increase. The new detection and response features are also being integrated into existing endpoint protection (EPP) solutions, causing the EPP market to be in transition. Overall, organizations are increasingly adopting cloud services, and seek managed security services and cloud-based delivery to help them maintain control of their security.

The consumer security software market continues to be impacted by the changing device landscape, app stores and online sales overall. Overall, the number of connected smart home devices is growing very rapidly, and as a result telecommunications operators are investing heavily in upgrading connectivity and introducing new security related services into their offerings. As consumers are increasingly aware of privacy and security threats, they seek to buy comprehensive solutions in order to secure their digital lives. This creates opportunities for innovative new security products.

Strategy 2018–2021

The world is becoming digitalized and connected. Due to this, cyber-attacks and cyber-crime continue to be among the most critical challenges the world is facing. While the complexity and magnitude of problems increases, expertise is concentrating into a limited number of specialized security companies.

For three decades, F-Secure has driven innovations in cyber security, defending tens of thousands of companies and millions of people. We have transformed from an endpoint protection company to a cyber security leader with a broader set of products and services.

F-Secure's competitiveness is based on extensive experience in cyber security, and a unique combination of man and machine. Our extensive experience, knowledge and insight in cyber security, combined with our global intelligence network, smart software and cutting edge artificial intelligence makes us the perfect trusted cyber security partner for companies of all sizes as well as individuals. We are the proud security advisor to many of the world's largest and demanding organizations e.g. in the banking, automotive and airline industries as well as the military and law enforcement sector. Our expertise is continuously developed, as we take on the toughest of assignments.

As F-Secure seeks to accelerate growth, we continue to focus growth investments in corporate security. We provide best-in-class services and solutions to the mid-market, especially for customers seeking to buy prevention, detection and response. We foresee the market moving towards managed endpoint security, and see especially strong growth in detection and response solutions. As we expand our product and service offering, we are also making it more integrated in order to offer efficient and comprehensive turn-key solutions to our customers and partners.

F-Secure's corporate security products and services are sold through the channel. Our growing network of thousands of partners are key to our strategic expansion. F-Secure's products are designed to be delivered from the cloud, and to support partners as they develop managed service provider business models. Ease of use both for end-customers as well as partners is critical aspect of all product design.

F-Secure also provides a comprehensive set of security and privacy solutions to consumers, protecting their information, identities, devices, smart homes and families. F-Secure is the world's leading provider of consumer security solutions through telecommunications operators. Together, we protect tens of millions of consumers and their digital lives. In consumer security, F-Secure continues with its existing sales channels aiming at profitable growth.

Outlook

The company's outlook for 2019

- Revenue from corporate security is expected to grow by over 30% compared to 2018
- Revenue from consumer security is expected to stay approximately at the same level as in 2018
- Adjusted EBITDA is expected to be above EUR 15 million excluding the impact of IFRS 16

Outlook for the strategy period 2018–2021

The demand for cyber security products and services is expected to continue in strong growth and F-Secure aims to grow faster than the market. Revenue from corporate security is expected to grow above 15% annually during our strategy period 2018–2021.

Driven by the anticipated revenue growth and scalable business model, profitability is expected to improve significantly in the long-term. The management continuously seeks to balance the growth investments and profitability to optimize long-term growth and value creation for the shareholders.

Proposal for dividend distribution

The company's dividend policy is to pay approximately half of its profits as dividends. Subject to circumstances, the company may deviate from this policy.

During the year 2018, the company completed the acquisition of MWR InfoSecurity, which was financed partially with an external loan. In addition to the costs related to the acquisition and integration, the company's profitability was impacted by the continued growth investments in corporate security. Considering these aspects, the Board of Directors has exceptionally decided to propose no dividend to be paid for year 2018.

Events after period-end

Court decision related to a claim in France

In February 2019, F-Secure received a French appeal court decision related to the claim which was related to a contract regarding the purchasing of services, and which was originally disclosed in the Annual Report for 2017. F-Secure is assessing whether grounds for an appeal to supreme court exist. However, the decision will be implemented and F-Secure's subsidiary is required to pay approximately EUR 1.3 million, for which a similar provision has been booked earlier.

No other material changes regarding the Company's business or financial position have occurred after the end of the year.

Helsinki, 13 February 2019

F-Secure Corporation
Board of Directors

Risto Siilasmaa
Christine Bejerasco
Pertti Ervi
Matti Heikkonen
Bruce Oreck
Päivi Rekonen

President and CEO
Samu Konttinen

KEY FIGURES

F-Secure has applied new IFRS 15 and IFRS 9 standards from January 1, 2018 onwards and 2017 financials are restated retrospectively. Figures for 2014–2016 are not restated and thus not fully comparable.

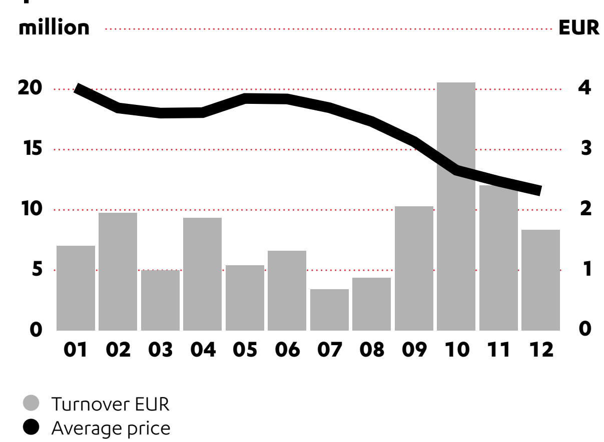
Economic indicators	IFRS 2018	IFRS 2017	IFRS 2016	IFRS 2015	IFRS 2014
Revenue (MEUR) *	190.7	169.8	158.3	147.6	137.4
Revenue growth %	12%	7%	7%	7%	–11%
EBIT (MEUR) *	4.5	11.5	19.2	20.0	22.3
% of revenue	2.4%	6.8%	12.1%	13.6%	16.2%
Result before taxes *	1.7	12.4	20.8	20.7	23.4
% of revenue	0.9%	7.3%	13.1%	14.0%	17.0%
ROE (%)	1.2%	15.0%	19.9%	28.1%	20.7%
ROI (%)	7.9%	20.0%	28.6%	52.1%	26.7%
Equity ratio (%)	42.7%	61.9%	66.7%	64.1%	74.9%
Investments (MEUR)	99.8	9.3	6.9	14.6	5.8
% of revenue	52.3%	5.5%	4.4%	9.9%	4.2%
R&D costs (MEUR) *	35.7	34.1	28.4	26.9	30.1
% of revenue	18.7%	20.1%	17.9%	18.2%	21.9%
Capitalized development (MEUR)	4.7	3.9	3.2	2.3	2.3
Gearing %	13.9%	–127.8%	–122.1%	–122.4%	–76.6%
Wages and salaries (MEUR)	84.9	70.1	61.8	56.8	57.4
Personnel on average	1,364	1,067	981	894	937
Personnel on Dec 31	1,666	1,104	1,026	926	921

* For 2016, 2015, and 2014, only continuing operations.

Key ratios	IFRS 2018	IFRS 2017	IFRS 2016	IFRS 2015	IFRS 2014
Earnings / share (EUR)	0.01	0.07	0.10	0.14	0.10
Earnings / share (EUR) continuing operations	0.01	0.07	0.10	0.08	0.12
Earnings / share diluted	0.01	0.07	0.10	0.14	0.10
Earnings / share diluted continuing operations	0.01	0.07	0.10	0.08	0.12
Shareholders' equity per share	0.42	0.45	0.49	0.49	0.50
Dividend per share *	0.00	0.04	0.12	0.12	0.16
Dividend per earnings (%)	0.0%	57.1%	122.8%	85.7%	160.0%
Effective dividends (%)	0.0%	1.0%	3.4%	4.7%	7.1%
P/E ratio	431.4	55.2	35.6	18.2	22.2
Share price, lowest (EUR)	2.18	3.17	2.19	2.08	1.78
Share price, highest (EUR)	4.24	4.84	3.60	3.84	2.90
Share price, average (EUR)	3.03	3.94	2.87	2.71	2.03
Share price Dec 31	2.32	3.89	3.48	2.58	2.25
Market capitalization (MEUR)	367.6	617.7	552.6	409.7	357.3
Trading volume (millions)	33.7	27.8	35.9	61.2	44.3
Trading volume (%)	21.2%	17.5%	22.6%	39.3%	28.4%

* Board proposal

Turnover and average share price per month 2018



Adjusted number of shares	IFRS 2018	IFRS 2017	IFRS 2016	IFRS 2015	IFRS 2014
average during the period	157,224,137	156,502,983	156,022,774	155,801,466	155,756,751
average during the period, diluted	157,224,137	156,502,983	156,022,774	155,801,466	155,756,751
Dec 31	158,798,739	158,798,739	158,798,739	158,798,739	158,798,739
Dec 31, diluted	158,798,739	158,798,739	158,798,739	158,798,739	158,798,739

CALCULATION OF KEY RATIOS

Equity ratio, %	$\frac{\text{Total equity}}{\text{Total assets – advance payments received}} \times 100$
ROI, %	$\frac{\text{Result before taxes + financial expenses}}{\text{Total assets – non-interest bearing liabilities (average)}} \times 100$
ROE, %	$\frac{\text{Result for the period}}{\text{Total equity (average)}} \times 100$
Gearing, %	$\frac{\text{Interest bearing liabilities – cash and bank and financial assets at FVTPL}}{\text{Total equity}} \times 100$
Earnings per share, EUR	$\frac{\text{Profit attributable to equity holders of the company}}{\text{Weighted average number of outstanding shares}}$
Shareholders' equity per share, EUR	$\frac{\text{Equity attributable to equity holders of the company}}{\text{Number of outstanding shares at the end of period}}$
P/E ratio	$\frac{\text{Closing price of the share, end of period}}{\text{Earnings per share}}$
Dividend per earnings, %	$\frac{\text{Dividend per share}}{\text{Earnings per share}} \times 100$
Effective dividends, %	$\frac{\text{Dividend per share}}{\text{Closing price of the share, end of period}} \times 100$
Operating expenses	Sales and marketing, research and development and administration costs
EBITDA	EBIT + depreciation, amortization and impairment

Reconciliation between adjusted EBITDA, EBITDA, adjusted EBIT and EBIT

EUR 1,000	Consolidated, 2018	Consolidated, 2017
Adjusted EBITDA	17.4	18.2
Adjustments to EBITDA		
Costs related to business acquisitions	−2.6	−0.4
Costs related to integration	−1.0	
EBITDA	13.8	17.8
Depreciation, amortization and impairment losses	−9.3	−6.3
EBIT	4.5	11.5
Adjusted EBIT	10.6	12.3
Adjustments to EBIT		
Costs related to business acquisitions	−2.6	−0.4
Costs related to integration	−1.0	
PPA amortization	−2.5	−0.4
EBIT	4.5	11.5

Classification of adjusted costs in operating expenses

EUR 1,000	Operating Expenses 2018	M&A expenses	Expenses for adjusted EBIT	Depreciation	PPA amortization	Operating Expenses for Adjusted EBITDA 2018
Sales and marketing	−95.0	0.5	−94.5	3.9		−90.7
Research and development	−35.7	0.0	−35.7	2.1		−33.6
Administration	−18.3	3.1	−15.2	0.8	2.5	−11.9
Operating expenses	**−149.1**	**3.6**	**−145.5**	**6.8**	**2.5**	**−136.2**

EUR 1,000	Operating Expenses 2017	M&A expenses	Expenses for adjusted EBIT	Depreciation	PPA amortization	Operating Expenses for Adjusted EBITDA 2017
Sales and marketing	−86.7		−86.7	4.0		−82.7
Research and development	−34.1		−34.1	1.6		−32.5
Administration	−14.3	0.4	−13.9	0.3	0.4	−13.2
Operating expenses	**−135.1**	**0.4**	**−134.7**	**5.9**	**0.4**	**−128.4**

STATEMENT OF COMPREHENSIVE INCOME JAN 1–DEC 31, 2018

EUR 1,000	Note	Consolidated, IFRS 2018	RESTATED Consolidated, IFRS 2017
REVENUE	(2)	190,731	169,754
Cost of revenue	(5)	−39,351	−24,991
GROSS MARGIN		151,379	144,763
Other operating income	(3)	2,258	1,895
Sales and marketing	(4, 5)	−95,037	−86,697
Research and development	(4, 5)	−35,741	−34,091
Administration	(4, 5)	−18,320	−14,321
EBIT		4,539	11,549
Financial income	(7)	2,311	3,213
Financial expenses	(7)	−5,123	−2,383
PROFIT (LOSS) BEFORE TAXES		1,727	12,379
Income tax	(9)	−883	−1,316
RESULT FOR THE FINANCIAL YEAR		844	11,063
Other comprehensive income			
Other comprehensive income to be reclassified to profit or loss in subsequent periods			
Exchange difference on translation of foreign operations		−1,288	−839
Available-for-sale financial assets	(8)		−117
Taxes related to components of other comprehensive income	(9)		23
COMPREHENSIVE INCOME FOR THE YEAR		−444	10,131
Result of the financial year is attributable to: Equity holders of the parent		844	11,063
Comprehensive income for the year is attributable to: Equity holders of the parent		−444	10,131
Earnings per share – basic and diluted	(10)	0.01	0.07

STATEMENT OF FINANCIAL POSITION DEC 31, 2018

EUR 1,000	Note	Consolidated, IFRS 2018	RESTATED Consolidated, IFRS 2017
ASSETS			
NON-CURRENT ASSETS			
Tangible assets	(13)	5,175	3,214
Intangible assets	(13)	38,381	14,733
Goodwill	(11, 12, 13)	90,677	10,070
Deferred tax assets	(21)	3,961	4,177
Other receivables	(16)	485	666
Total non-current assets		138,679	32,860
CURRENT ASSETS			
Inventories	(14)	607	588
Trade and other receivables	(15,16)	56,662	50,061
Income tax receivables	(16)	4,228	1,435
Available-for-sale financial assets	(15, 20)		53,924
Financial asset at FVTPL	(15)	58	
Cash and bank accounts	(15, 20)	27,806	36,300
Total current assets		89,361	142,309
TOTAL ASSETS		228,040	175,169

EUR 1,000	Note	Consolidated, IFRS 2018	RESTATED Consolidated, IFRS 2017
SHAREHOLDERS' EQUITY AND LIABILITIES			
SHAREHOLDERS' EQUITY	(17)		
Share capital		1,551	1,551
Share premium		165	165
Treasury shares		−2,772	−4,575
Fair value reserve			983
Translation differences		−1,838	−550
Reserve for invested unrestricted equity		6,082	5,378
Retained earnings		63,092	67,630
Equity attributable to equity holders of the parent		66,279	70,582
NON-CURRENT LIABILITIES			
Interest bearing liabilities, non-current	(19, 20)	31,000	
Deferred tax liabilities	(21)	4,094	1,386
Other non-current liabilities	(22)	33,746	19,893
Provisions	(22)	1,173	1,173
Total non-current liabilities		70,013	22,452
CURRENT LIABILITIES			
Interest bearing liabilities, current	(19, 20)	6,058	
Trade and other payables	(20, 22)	29,544	31,853
Income tax liabilities	(22)	821	1,945
Other current liabilities	(22)	55,325	48,338
Total current liabilities		91,748	82,135
TOTAL SHAREHOLDERS' EQUITY AND LIABILITIES		228,040	175,169

STATEMENT OF CASH FLOWS JAN 1–DEC 31, 2018

EUR 1,000	Note	Consolidated, IFRS 2018	RESTATED Consolidated, IFRS 2017
Cash flow from operations			
Result for the financial year		844	11,063
Adjustments			
Depreciation and amortization		9,270	6,296
Profit / loss on sale of fixed assets		−41	45
Other adjustments		2,187	1,938
Financial income and expenses		2,812	−830
Income taxes		883	1,181
Cash flow from operations before change in working capital		15,954	19,693
Change in net working capital			
Current receivables, increase (–), decrease (+)		692	−3,153
Inventories, increase (–), decrease (+)		−19	−457
Non-interest bearing debt, increase (+), decrease (–)		−2,827	13,576
Provisions, increase (+), decrease (–)			−158
Cash flow from operations before financial items and taxes		13,800	29,501
Interest expenses paid		−353	−74
Interest income received		56	1,032
Other financial income and expenses		−580	−376
Income taxes paid		−6,149	−4,046
Cash flow from operations		6,774	26,036

EUR 1,000	Note	Consolidated, IFRS 2018	RESTATED Consolidated, IFRS 2017
Cash flow from investments			
Investments in intangible and tangible assets		−7,454	−7,106
Proceeds from sale of intangible and tangible assets		329	46
Other investments	(15)	0	−7,742
Proceeds from sale of other investments	(15)	53,470	18,410
Acquisition of subsidiaries, net of cash acquired	(11)	−91,948	−2,205
Cash flow from investments		−45,602	1,402
Cash flow from financing activities			
Repayments of interest-bearing liabilities		−511	
Increase in interest-bearing liabilities		37,000	
Own shares		−99	
Dividends paid		−6,281	−18,751
Cash flow from financing activities		30,108	−18,751
Change in cash		−8,720	8,687
Cash and bank at the beginning of the period		36,300	29,050
Effects of exchange rate changes		226	−1,437
Cash and bank at period end		27,806	36,300

STATEMENT OF CHANGES IN EQUITY

Attributable to the equity holders of the parent

EUR 1,000	Share capital	Share premium fund	Treasury shares	Available-for-sale	Transl. diff.	Unrestricted equity reserve	Retained earnings	Total equity
Equity December 31, 2016	1,551	165	−5,741	1,077	284	5,211	73,365	75,912
Impact of IFRS 15 restatement					5		806	810
Equity (restated) January 1, 2017	1,551	165	−5,741	1,077	289	5,211	74,171	76,722
Available-for-sale financial assets, net				−93				−93
Translation difference					−839			−839
Result of the financial year (restated)							11,063	11,063
Total comprehensive income for the year				−93	−839		11,063	10,131
Dividends							−18,751	−18,751
Cost of share based payments			1,166			167	1,147	2,480
Equity (restated) December 31, 2017	1,551	165	−4,575	984	−550	5,378	67,630	70,582
Impact of IFRS 9 restatement				−984			1,144	160
Equity (restated) January 1, 2018	1,551	165	−4,575	0	−550	5,378	68,773	70,742
Translation difference					−1,288			−1,288
Result of the financial year							844	844
Total comprehensive income for the year					−1,288		844	−444
Dividends							−6,281	−6,281
Cost of share based payments			1,803			704	−243	2,263
Equity December 31, 2018	1,551	165	−2,772	0	−1,838	6,082	63,092	66,279

More information in note 17. Shareholders' equity

NOTES TO THE FINANCIAL STATEMENTS

ACCOUNTING PRINCIPLES FOR THE CONSOLIDATED FINANCIAL STATEMENTS

Basic information

F-Secure provides cyber security products and services globally for consumers and businesses.

The parent company of the Group is F-Secure Corporation incorporated in Finland and domiciled in Helsinki. Company's registered address is Tammasaarenkatu 7, 00180 Helsinki. A copy of consolidated financial statements can be downloaded on www.f-secure.com or can be received from the parent company's registered address.

These financial statements were authorized for issue by the Board of Directors on 13 February 2019. According to the Finnish Companies Act, the Annual General Meeting can confirm or reject the consolidated financial statements after publication. The Annual General Meeting can also decide to change the financial statements.

ACCOUNTING PRINCIPLES

The consolidated financial statements of F-Secure Corporation of 2018 have been prepared in accordance with International Financial Reporting Standards (IFRS), applying the IAS and IFRS standards as well as SIC and IFRIC interpretations that were in force and had been approved by the EU by 31 December 2018.

Principles of consolidation

The consolidated financial statements incorporate the financial statements of F-Secure Corporation and entities controlled by F-Secure Corporation. Consolidation is done using the acquisition method and begins when control over the subsidiary is obtained. The consolidation stops when the control ceases. The Group does not have any associated companies nor is there any non-controlling interest in the Group.

All intra-group transactions and balances, including unrealized profits arising from intra-group transactions, have been eliminated on consolidation. Where necessary, accounting policies of the subsidiaries have been adjusted to ensure consistency with the policies adopted by the Group.

Transactions in foreign currency

The consolidated financial statements are presented in euros, which is F-Secure Corporation's functional currency. At each reporting date for the purpose of presenting consolidated financial statements the income statements of foreign Group companies are translated at the average exchange rates for the reporting period and the balance sheets are translated using the European Central Bank's exchange rates prevailing on the reporting date. Translation differences are recognized in shareholders' equity and the change in other comprehensive income.

Foreign currency transactions are translated using the exchange rates prevailing at the dates of the transactions. On the reporting date, assets and liabilities denominated in foreign currencies are translated using the European Central Bank's exchange rates prevailing at that date. Exchange rate gains and losses from sales transactions are recognized in revenue and other exchange rate gains and losses are recognized in financial items in the income statement.

NEW AND AMENDED IFRS STANDARDS THAT ARE EFFECTIVE FOR 2018

Impact of application of IFRS 15 *Revenue from Contracts with Customers*

In the current year, the Group has applied IFRS 15 Revenue from Contracts with Customers which is effective for an annual period that begins on or after 1 January 2018. F-Secure has applied full retrospective method in transition to IFRS 15 which means that the cumulative effect of all the modifications that occurred before 1 January 2017 have been recognized in opening balance of retained earnings as of 1 January 2017.

The new standard introduces a 5-step approach to revenue recognition and has an impact on how revenue from customer contracts is recognized. For F-Secure mainly customer contracts with upfront revenue recognition were impacted. The impact is considered immaterial for one reporting period due to the fact that for majority of the customer contracts revenue recognition has already been deferred over time prior to application of IFRS 15 and due to the offsetting effect of the historical recognized revenue and deferral of the new sales.

Also deferred revenue and growth rate of deferred revenue were impacted by the adoption of IFRS 15.

The recognition of incremental costs of obtaining contracts with customers (sales commissions) has also been deferred under IFRS 15. The impact on sales commissions is immaterial for one reporting period due to the offsetting effect of historical costs and deferral of the new costs.

Impact of the new standard to retained earnings in opening balance as at 1 January 2017 is EUR 0.8 million. Deferring revenue and sales commissions in 2017 financials increased net result by EUR 0.3 million divided between increase in result before taxes of EUR 0.4 million and increase in income taxes of EUR 0.1 million.

Impact to retained earnings in opening balance as at 1 January 2018 is EUR 1.1 million. Impact on deferred income in opening balance as at January 1 2017 is EUR 4.7 million and in opening balance as at 1 January 2018 EUR 4.6 million.

Impacts of IFRS 15 adoption to 2017 financials have been presented in detail in a separate document "Restated Information on 2017 Financials as a Result of Adoption of New IFRS 15 Accounting Standard and Revision of Cost of Revenue" published on 3 May 2018. All comparative information in this annual report has been adjusted according to the restatement.

The Group's accounting policies for its revenue streams are disclosed in section *Revenue recognition*. Apart from providing more extensive disclosures for the Group's revenue transactions, the application of IFRS 15 has not had a significant impact on the financial position and financial performance of the Group. The amount of adjustment for each financial statement line item affected by the application of IFRS 15 is illustrated after section *Revision of Cost of Revenue*.

Revision of Cost of Revenue (CoR)

F-Secure has revised the allocation of costs between Cost of Revenue (CoR) and Operating Expenses (OPEX). Prior year financials have been restated according to the new accounting principle to maintain comparability.

In previous reporting, F-Secure's Cost of Revenue included mainly Royalties, Freights and Material. The revised Gross Margin captures in addition costs of providing cloud-based services to customers, customer support and cyber security services related direct expenses. The impact for comparative 2017 financial statements is a decrease of Gross Margin from 96% to 85%. Net result was not impacted. The revision aimed at identifying costs directly linked to the delivery of F-Secure's software products and services and reporting a Gross Margin that is more comparable in content with other similar companies in the industry and worldwide.

Impacts of the revision to 2017 financials have been presented in detail together with IFRS 15 impacts in a separate document "Restated Information on 2017 Financials as a Result of Adoption of New IFRS 15 Accounting Standard and Revision of Cost of Revenue" published on 3 May 2018. All comparative information in this annual report has been adjusted according to the restatement.

Impacts of IFRS 15 and revision of Cost of Revenue

Profit for the year 2017

Revenue	
Increase of revenue due to IFRS 15	59
Cost of Revenue	
Increase of Cost of Revenue due to revision	−18,391
OPEX	
Decrease in Sales and Marketing costs due to deferral of commissions under IFRS 15	339
Decrease in Sales and Marketing costs due to revision of Cost of Revenue	17,978
Decrease in Research and Development costs due to revision of Cost of Revenue	409
Income taxes	
Increase of income taxes due to IFRS 15	−130
Profit for the financial year	264

Assets, equity and liabilities in 2017	Reported 1 Jan 2017	Change due to IFRS 15	Restated 1 Jan 2017
Assets			
Deferred tax assets	2,734	583	3,317
Equity	75,912	851	76,763
Liabilities			
Deferred tax liabilities	361	826	1,187
Deferred revenue, non-current	13,737	1,207	14,944
Trade and other payables, current	32,088	−5,820	26,268
Deferred revenue, current	40,514	3,537	44,051

	Reported 31 Dec 2017	Change due to IFRS 15	Restated 31 Dec 2017
Assets			
Deferred tax assets	3,528	649	4,177
Equity	69,468	1,114	70,582
Liabilities			
Deferred tax liabilities	357	1,029	1,386
Deferred revenue, non-current	15,006	2,392	17,398
Trade and other payables, current	37,950	−6,097	31,853
Deferred revenue, current	46,126	2,212	48,338

Impact of initial application of IFRS 9 *Financial Instruments*

F-Secure has adopted the new standard IFRS 9 on the required effective date 1 January 2018. The comparatives were not restated. The cumulative effect EUR 0.2 million from the transition has been recognized in opening balance as at 1 January 2018.

The new standard has impact on classification and valuation of financial assets and financial liabilities, and includes a new model for estimating impairment of financial assets, which is based on expected credit losses.

Classification and valuation of financial assets and financial liabilities

F-Secure had significant investment in fixed income funds which were classified as available-for-sale under IAS 39. Under IFRS 9 these investments were classified as fair value through profit and loss. Due to the nature of these investments the impact on Group's income statement remained immaterial and the assets were sold during second quarter of the financial year to finance the acquisition of MWR InfoSecurity. In opening balance 1 January 2018 fair value fund of EUR 1.0 million was reclassified to retained earnings.

In July 2018 F-Secure entered into a financing agreement with Nordea Bank to finance the acquisition of MWR InfoSecurity. The loan facilities are valued at amortized cost under IFRS 9.

Impairment of financial assets

IFRS 9 requires an expected credit loss model (ECL) to be used for impairment of financial assets. The expected credit loss model requires the Group to account for expected credit losses and changes in those expected credit losses at each reporting date to reflect changes in credit risk since initial recognition of the financial assets. It is no longer necessary for a credit event to have occurred before credit losses are recognized.

For F-Secure IFRS 9 has an impact on measuring impairment of trade receivables and thus the model for recognizing impairment provisions has been renewed based on expected credit losses. A simplified approach allowed in the new standard is applied. Transition to new standard had EUR 0.2 million impact on trade receivables and retained earnings in opening balance 1 January 2018.

The changes in IFRS 9 do not influence Group's consolidated cash flow.

Amendment to IFRS 2 Share-based payments

The amendments to IFRS 2 are intended to eliminate diversity in the measurement and classification of cash settled share-based payment transactions and accounting when share-based payment transaction changes its classification from cash-settled to equity-settled. The amendments have had no effect on the Group's incentive plans launced prior to 1 Jan. The amendment to the standard has been applied to the new matching share plans launched during 2018.

Management judgement on significant accounting principles and use of estimates

The preparation of consolidated financial statements requires the use of estimates and assumptions as well as the use of judgment when applying accounting principles. These affect the contents of the financial statements and it is possible that actual results may differ from estimates.

Estimates made in connection with the preparation of financial statements are based on management's best knowledge at the reporting date. Estimates build upon past experience as well as assumptions of the future development of the economic environment of the Group. Revisions in estimates and assumptions are recognized in the period they occur and in future periods if the revision affects both current and future periods.

Key sources where estimation uncertainty arises at the reporting date are:

- **Deferred consideration from acquisition of MWR InfoSecurity**: The booked deferred consideration of EUR 14.8 million is an estimate and is based on historical economic performance for period 2 July, 2018 – 31 December, 2018 and forecast for 1 January – 31 December 2019. The final amount of deferred consideration to be paid depends on achievement of the forecast and thus includes management judgment and estimation uncertainty. The final deferred consideration can vary from EUR 0.0 to EUR 27.9 million. The net present value of the deferred consideration is assessed at each reporting date based on updated forecasts.
- **Impairment testing:** Recoverable amount of goodwill (EUR 81.9 million) from acquisition of MWR InfoSecurity is most sensitive to the achievement of future budget and forecasts. The sensitivity analysis is presented in note 12. In addition to goodwill the intangible assets that are not yet ready for use (EUR 2.1 million) are tested annually for impairment. The recoverable amount of these assets is based on estimated future cash flows from sales and/or use of the asset.
- **Deferred tax assets from tax losses:** The Group has recognized deferred tax assets from tax losses in the US (EUR 0.6 million), in the UK (EUR 0.7 million) and in the Brazil (EUR 0.5 million). The amount of deferred tax assets is based on management estimation about future recoverability of these tax losses.
- **Provision for claim against F-Secure:** Provision for a claim by a French service provider against F-Secure (EUR 1,2 million) has been recognized in balance sheet on reporting date using management's best estimation about future outcome of the dispute. The legal process related to the claim was on-going on the reporting date and thus there was uncertainty related to the outcome. Court decision was received after the period end and F-Secure 's subsidiary is required to pay approximately EUR 1.3 million. Further details are disclosed in note 22.

Revenue recognition

Revenue is derived from corporate and consumer businesses. Corporate security business revenue includes cyber security products, managed services, and cyber security consulting. Cyber security products comprise endpoint protection solutions (Protection Service for Business, PSB; Business Suite, Cloud Protection for Salesforce), as well as solutions targeted at detecting and responding to advanced attacks (Rapid Detection Service, RDS; Rapid Detection and Response, RDR and Countercept) and vulnerability management (F-Secure Radar and phishd). Consumer security business revenue comes through operator and direct consumer channels, and the main products include F-Secure SAFE, F-Secure FREEDOME, F-Secure SENSE and F-Secure KEY.

Endpoint protection solutions and vulnerability management products

Endpoint protection security solutions (such as PSB, Business Suite for corporate and RDR) are sold to corporate customers by granting the customer access to use the intellectual property during the license period or as Security-as-a-Service. F-Secure delivers the product and provides continuous automated updates against new threats. The software and the accompanied services are highly interdependent and therefore treated as one performance obligation for which revenue is recognized over time on a straight-line basis for the license period. Prior to IFRS 15 adoption the license fee revenue was recognized at point in time of the initial delivery and the maintenance and support were recognized as revenue over the contract period.

F-Secure SAFE and F-Secure FREEDOME for consumer customers and vulnerability management products for corporate customers (Radar and phishd) are treated as Security-as-a-Service as they do not include a license of intellectual property. Revenue is accounted for as a single performance obligation and recognized over time on a straight-line basis for the contract period.

When there is a hardware component to the solution (SENSE) the hardware is considered as a distinct performance obligation and revenue for hardware is recognized separately at point in time of delivery.

Cyber security consulting services and managed detection and response solutions

Cyber security consulting services are recognized as revenue based on the delivery of the work. For F-Secure managed detection and response solutions (RDS, Countercept) the software and the service are considered as single performance obligation. The customer is granted access to use the intellectual property and the service is provided by F-Secure continuously throughout the contract period. Revenue for managed services is recognized on a straight-line basis for the contract period.

Pensions

All of F-Secure Group's pension arrangements are in accordance with local statutory requirements, and they are defined contribution plans. Contributions to defined contribution plans are recognized in the income statement in the period to which the contributions relate.

Leases

Leases where the lessor retains substantially all the risks and benefits of ownership of the asset are classified as operating leases. Operating lease payments are recognized as an expense in the income statement on a straight-line basis over the lease term.

Income taxes The income tax expense in income statement represents the sum of current taxes and deferred taxes. Current taxes are calculated on the taxable income for all Group companies in accordance with the local tax rules. Deferred taxes, resulting from temporary differences between the financial statement and the income tax basis of assets and liabilities, use the enacted tax rates in effect in the years in which the differences are expected to reverse. Deferred tax assets are recognized to the extent that it is probable that future taxable profit will be available. Deferred tax liabilities are recognized for all temporary differences.

Deferred tax assets and liabilities are offset when there is a legally enforceable right to set off current tax assets against current tax liabilities and when they relate to the same taxation authority and the Group intends to settle the assets and liabilities on a net basis.

Business combinations

Acquisition method is used for accounting the acquisitions of businesses. The consideration transferred in a business combination is measured at fair value, which is calculated as the sum of the acquisition-date fair values of assets transferred by the Group and liabilities incurred by the Group to the former owners of the acquiree. Contingent considerations related to business combinations are measured at fair value at acquisition date and included as part of the consideration transferred. Costs related to the acquisition are recognized in profit and loss statement.

The identifiable assets acquired and the liabilities assumed are recognized at fair value at the acquisition date except for deferred tax assets or liabilities which are measured in accordance with IAS 12 Income taxes. Goodwill is measured as the excess of the transferred consideration over the net amount of the acquired identifiable assets and assumed liabilities.

Changes in fair value of the contingent consideration that do not arise within one year from the acquisition from facts and circumstances that existed at the acquisition date are recognized in profit or loss.

Goodwill

Goodwill is initially recognized and measured in business combinations as set out above. Goodwill is not amortized but is instead tested for impairment at least annually and whenever there is an indication that it may be impaired. For the purpose of impairment testing goodwill has been allocated to cash-generating units expected to benefit from the synergies of the combination. If the recoverable amount of the cashgenerating unit is less than the carrying amount of the unit, the impairment loss is allocated first to reduce the carrying amount of any goodwill allocated to the unit and then to the other assets of the unit. If an impairment loss for goodwill is recognized it will not be reversed in the subsequent periods. Goodwill is recorded at historical cost less accumulated impairment losses.

INTANGIBLE ASSETS

Research and development expenditure

Research expenditure is recognized as an expense at the time it is incurred. Development expenditure on new products or product versions with significant new features are recognized as intangible assets when they fulfill the requirements set out in IAS 38. Amortization is recorded on a straight-line basis over the estimated useful life, which is 3–8 years for these assets.

Intangible assets acquired in business combinations

Intangible assets acquired in business combinations and recognized separately from goodwill are initially recognized at fair value on the acquisition date. Subsequent to initial recognition these assets are reported at initial value less accumulated amortization and accumulated impairment losses.

Intangible assets acquired in business combinations include technology, trademarks and customer relationships, which all have a finite useful life. Initial valuation for technology and trademarks is done based on Relief from royalty method and for customer relationships based on Excess earnings method. The estimated useful lives for intangible assets acquired in business combinations are:

Technology	10 years
Trademark	2 years
Customer relationships	6–10 years

Other intangible assets

Other intangible assets include intangible rights and software licenses, all with a finite useful life. Other intangible assets are recorded at historical cost less accumulated amortization and possible impairment. Amortization is recorded on a straight-line basis over the estimated useful life of an asset. The estimated useful lives of other intangible assets are as follows:

Intangible rights	3–8 years
Other intangible assets	5–10 years

Tangible assets

Tangible assets are recorded at historical cost less accumulated depreciation and possible impairment. Depreciation is recorded on a straight-line basis over the estimated useful life of an asset. The estimated useful lives of tangible assets are as follows:

Machinery and equipment	3–8 years
Other tangible assets	5–10 years

Other tangible assets include renovation costs of rented office space.

Gains or losses on disposal of tangible assets are shown in other operating income or expense.

Impairment of assets

At each reporting date, the Group assesses whether there is any indication that an asset may be impaired. Where an indicator of impairment exists, the Group makes a formal estimate of recoverable amount. The recoverable amount of goodwill and intangible assets that are not ready for use are estimated annually for regardless of whether any indication of impairment exists.

Where the carrying amount of an asset exceeds its recoverable amount the asset is considered impaired and the carrying amount is reduced to its recoverable amount. The recoverable amount is the fair value of an asset less costs of disposal or value in use, whichever is higher. An impairment loss is recorded in the income statement.

A previously recognized impairment loss is reversed only if there has been a change in the estimates used to determine the asset's recoverable amount since the last impairment loss was recognized. The maximum reversal of an impairment loss amounts to no more than the carrying amount of the asset if no impairment loss had been recognized, net of depreciation. Impairment losses relating to goodwill cannot be reversed in future periods.

Inventories

Inventories are valued at the lower of cost and net realizable value. Cost is determined by first-in first-out method. Net realizable value is the estimated selling price that is obtainable, less estimated costs of completion and the estimated costs necessary to make the sale.

Financial assets

All Group's financial assets are currently measured at fair value through profit or loss (FVTPL). An expected credit loss is recognized for trade receivables according to IFRS 9. The amount of expected credit loss is updated at each reporting date to reflect changes in credit risk since initial recognition of the respective financial instrument. The expected credit loss is estimated using a provision matrix where trade receivables are grouped based on historical credit loss experience and characteristics that depict the credit risk of receivables (e.g. geographical area and days past due).

Financial liabilities

F-Secure classifies loans from financial institutions, trade payables and other payables as other financial liabilities which are measured at amortized cost. Transaction costs, such as arrangement fees, are deferred over the maturity of the liability. Contingent considerations arising from acquisitions are classified as financial liabilities measured at fair value and changes in fair value are accounted through profit and loss. Contingent considerations are measured at fair value at the end of each reporting period. Financial liabilities are classified as current unless F-Secure has unconditional right to postpone their repayment by at least 12 months from the end date of the reporting period.

Derivative financial instruments and hedging

The Group uses derivative financial instruments such as forward currency contracts to hedge its risks associated with foreign currency fluctuations. Derivatives are valued at fair value. The fair value of forward currency contracts is calculated based on current forward exchange rates at the reporting date for contracts with similar maturity profiles. The gains and losses arising from the change of fair value are booked through the income statement as the Group does apply hedge accounting.

Provisions

Provisions are recognized when the Group has a present obligation (legal or constructive) as a result of a past event, the outflow of resources is probable, and a reliable estimate of the amount of the obligation can be made. The amount recognized is a best estimate of the consideration required to settle the obligation at each reporting date. Risks and uncertainties are taken into account when making the estimate.

Treasury shares

Parent company has acquired treasury shares in 2008–2011. The purchase price of the shares has been deducted from equity.

Share-based payment transactions

F-Secure provides incentives to employees in the form of equity-settled share-based instruments. The Company has two kinds of incentive programs; a synthetic warrant-based program and share-based programs.

F-Secure's synthetic option-based program ended on 31 December 2018 and resulted in no payment. The program covered Group's key personnel and the liability has been presented at fair value at each reporting date. In the end of the financial year 2018 the remaining liability was written off to zero through income statement.

F-Secure's share-based incentive programs are targeted to the Group's key personnel. The programs are divided into equity-settled and cash-settled part. The equity-settled part is valued at fair value at grant date, and the expense is recognized evenly in the income statement over the vesting period with the counter-entry in retained earnings. Fair value is determined using the market value of the share of F-Secure Corporation. The cash-settled part is initially valued at fair value at grant date. At each reporting date the cash-settled part is revalued to fair value and the expense is recognized in the income statement over the vesting period with the counter-entry in liabilities. The cumulative expense recognized at grant date is based on the Group's estimate of the number of shares that will ultimately vest at the end of the vesting period. If a person leaves the company before vesting, the reward is forfeited. The Group updates its estimate of the ultimate number of shares at each reporting date. These changes in the estimate are recorded in the income statement.

Corrections to previous' year's financial information

During 2018 Group received further information related to recoverability of tax losses in the US and a deferred tax asset of EUR 0.8 million was recognized. Remaining deferred tax asset at period end is EUR 0.6 million.

Due to suspected fraud in India a correction of EUR –0.2 million was booked to revenue in 2018 related to financial years 2016 and 2017. Bad debt provision of EUR 0.2 million related to this revenue was reversed. Net impact on income statement is immaterial. A write-off from accounts receivables totaled EUR 1.0 million and from deferred revenue EUR 0.8 million.

These corrections are booked through income statement in 2018 as the management assesses that corrections together or separately are not material to the financial statements.

Presentation of expenses

Classification of the functionally presented expenses has been made by presenting direct expenses in their respective functions and by allocating other expenses to operations on the basis of average headcount in each function.

Operating result

IAS 1 Presentation of Financial Statements standard does not define the concept of Earnings before interest and taxes (EBIT). The Group has defined it as follows: EBIT is the net amount, which consists of revenue and other operating income less cost of revenue which is adjusted for changes in inventories, employee benefit costs, depreciation and amortization, possible impairment losses, and other operating expenses.

New standards and interpretations not yet effective

The Group has not yet adopted the following new and amended standards and interpretations already issued by the IASB:

– **IFRS 16 – Leases** (effective for financial year beginning on or after 1 January 2019). IFRS 16 will result in almost all leases being recognized on the balance sheet, as the distinction between operating and finance leases is removed. Under the new standard, an asset (the right-to-use the leased item) and a financial liability to pay rentals are recognized. The only exceptions are short-term and low-value leases. Initial application for the new standard for the Group is 1 January 2019. F-Secure has chosen the modified approach to IFRS 16 and comparatives will not be restated.

  Under IAS 17 F-Secure has had only operating leases, which consist mainly of rented office premises and leased cars. IFRS 16 will change the definition of a lease to mainly relate to the concept of control. Leases and service contracts are distinguished on the basis of whether the use of an identified asset is controlled by the customer. Control is considered to exist if the customer has:
  - The right to obtain substantially all of the economic benefits from the use of an identified asset; and
  - The right to direct the use of that asset.

As part of the implementation project F-Secure has materially carried out the analysis of recognizing right-to-use assets. Lease definition under IFRS 16 is met by most of the rented office premises and leased cars. A contract will be excluded from leases if the contract period is less than 12 months or the value of an asset is low. For these assets (such as some short-term office premise and car lease contracts and coffee machines), the Group will opt to recognize a lease expense on a straightline basis as permitted by IFRS 16.

On initial application of IFRS 16, for all leases (except as noted above), the Group will:

a) Recognize right-of-use assets and lease liabilities in the consolidated statement of financial position, initially measured at the present value of the future lease payments;

b) Recognize depreciation of right-of-use assets and interest on lease liabilities in the consolidated statement of profit or loss;

c) Separate the total amount of cash paid into a principal portion (presented within operating activities) and interest (presented within financing activities) in the consolidated cash flow statement.

Under IFRS 16, right-of-use assets will be tested for impairment in accordance with IAS 36 Impairment of Assets.

As at the reporting date, the group has non-cancellable operating lease commitments of EUR 14.1 million, see note 23 Operating lease commitments. A preliminary assessment indicates that EUR 13.5 million of these arrangements relate to leases other than short-term leases and leases of low-value assets, of which the Group will recognize a right-of-use asset and a corresponding lease liability. The preliminary assessment indicates that EUR 0.6 million of these arrangements relate to short-term leases and leases of low-value assets.

In addition to having an impact on the Group's balance sheet the new standard will slightly improve Group's operating profit as part of the lease-related expense will be reported as financial costs.

Other new or amended standards or interpretations are not expected to have an impact on the consolidated financial statements.

1. SEGMENT INFORMATION

The Group has one segment, data security. Segment reporting is consistent with the internal reporting submitted to the chief operating decision-maker. The Leadership Team has been appointed the chief operating decision-maker, responsible for allocating resources and assessing performance as well as making strategic decisions. For the geographical information revenue is presented based on the location of the customer and the long-term assets based on the location of the assets.

Geographical information

Geographical information about revenue is presented in note 2.

EUR 1,000	Consolidated 2018	Consolidated 2017
Long-term assets		
Nordic countries	25,857	24,170
Rest of Europe	73,105	3,321
North America	1,296	114
Rest of world	38,422	413
Total	138,680	28,017

2. REVENUE

Principles of revenue recognition are stated in accounting principles to consolidated financial statements, section *Revenue recognition*.

Disaggregation of revenue

EUR 1,000	Consolidated 2018	Consolidated 2017
Sales channels		
Revenue from external customers		
Consumer security	94,870	97,531
Corporate security	95,861	72,223
Total	190,731	169,754
Geographical information		
Revenue from external customers		
Nordic countries	67,049	62,938
Rest of Europe	84,610	69,429
North America	17,197	16,431
Rest of world	21,875	20,956
Total	190,731	169,754

3. OTHER OPERATING INCOME

EUR 1,000	Consolidated 2018	Consolidated 2017
Government grants	1,606	1,423
Rental revenue	169	390
Other	483	81
Total	2,258	1,895

Government grants are recognized as income over those periods in which the corresponding expenses arise.

Other operating income includes e.g. gain on sale of fixed assets.

4. DEPRECIATION, AMORTIZATION, AND IMPAIRMENT

EUR 1,000	Consolidated 2018	Consolidated 2017
Depreciation and amortization of non-current assets		
Other intangible assets	−2,374	−1,575
Capitalized development	−4,918	−3,234
Intangible assets	−7,293	−4,809
Machinery and equipment	−1,488	−1,371
Other tangible assets	−353	−116
Tangible assets	−1,842	−1,487
Impairment		
Capitalized development	−135	
Total impairment	−135	
Total depreciation, amortization, and impairment	−9,270	−6,296
Depreciation, amortization, and impairment by function		
Sales and marketing	−3,857	−3,978
Research and development	−2,125	−1,616
Administration	−3,288	−701
Total depreciation, amortization, and impairment	−9,270	−6,296

5. PERSONNEL EXPENSES

EUR 1,000	Consolidated 2018	Consolidated 2017
Personnel expenses		
Wages and salaries	−84,948	−70,141
Pension expenses – defined contribution plan	−10,358	−9,236
Share-based payments	256	−3,717
Other social expenses	−7,186	−5,574
Total	−102,237	−88,669

Employee benefits of the management are stated in disclosure 25. Related party transactions. Share-based payments are stated in disclosure 18. Share-based payment transactions.

Average number of personnel	1,364	1,067
Personnel by function December 31		
Sales and marketing	1,045	636
Research and development	437	360
Administration	184	108
Total	1,666	1,104

6. AUDIT FEES

EUR 1,000	Consolidated 2018	Consolidated 2017
Group auditor		
Audit fees, PricewaterhouseCoopers	−170	−178
Audit related fees, PricewaterhouseCoopers	−22	−9
Other consulting, PricewaterhouseCoopers	−26	−97
Total	−218	−284

PricewaterhouseCoopers Oy has provided non-audit services to entities of F-Secure Group in total 48 thousand euros during the financial year 2018, of which 7 thousand are related to auditor's statements and 39 thousand to other services.

Other auditors		
Audit fees	−76	−79
Total	−76	−79

7. FINANCIAL INCOME AND EXPENSES

EUR 1,000	Consolidated 2018	Consolidated 2017
Financial income		
Dividends from financial assets at FVTPL (available-for-sale)	0	7
Other financial income from financial assets at FVTPL (available-for-sale)		872
Interest income from loans and receivables	56	997
Exchange gains	2,241	1,171
Other financial income	14	165
Total	2,311	3,213
Financial expenses		
Interest expense from loans and liabilities	−353	−72
Exchange losses	−3,445	−2,332
Other financial expenses	−1,325	21
Total	−5,123	−2,383

Other financial expenses in 2018 include EUR 0.7 million from discounting MWR InfoSecurity deferred consideration to present value and EUR 0.4 million sales loss from financial assets presented ar fair value through profit and loss.

Interest income in 2017 includes EUR 0.9 million refund of late payment interest related to withholding taxes from 2009–2011.

8. FINANCIAL INCOME AND EXPENSES IN OTHER COMPREHENSIVE INCOME

EUR 1,000	Consolidated 2018	Consolidated 2017
Components of other comprehensive income		
Available-for-sale financial assets		
Gains/(losses) arising during the year		677
Reclassification to profit or loss		−793
Total		−117

9. INCOME TAX

EUR 1,000	Consolidated 2018	Consolidated 2017
Current income tax for the year	–2,444	–2,159
Adjustments for current tax of prior periods	126	54
Change in deferred tax	1,435	789
Total	–883	–1,316
Components of other comprehensive income		
Available-for-sale financial assests		23

A reconciliation of income tax expense in the income statement and income tax calculated at the parent company's country of residence income tax rate (20%):

Result before taxes	1,727	12,379
Income tax at Finnish tax rate of 20%	–345	–2,476
Effect of overseas tax rates	112	–270
Effect of changes in tax rates	–173	41
Non-deductible expenses/tax-exempt revenue	–710	–225
Recognised tax losses	650	253
Unrecognised tax losses	110	
Adjustments for prior period tax	126	54
Other	–652	1,306
Total	–883	–1,316

During 2018 Group received further information related to recoverability of tax losses in the US and a deferred tax asset of EUR 0.8 million was recognized.

Other taxes in 2017 mainly consist returned withholding taxes EUR 2.1 million by offsetting EUR 0.5 million non-creditable withholding taxes.

10. EARNINGS PER SHARE

Basic earnings per share amounts are calculated by dividing net profit for the year attributable to ordinary equity holders of the parent by the weighted average number of ordinary shares outstanding during the year. Diluted earnings per share amounts are calculated by dividing the net profit attributable to ordinary shareholders by the weighted average number of ordinary shares outstanding during the year adjusted for the effects of dilutive options.

EUR 1,000	Consolidated 2018	Consolidated 2017
Net profit attributable to equity holders from continuing operations	844	11,063
Weighted average number of ordinary shares (1,000)	157,224	156,503
Adjusted weighted average number of ordinary shares for diluted earning per share	157,224	156,503
Basic and diluted earnings per share (EUR/share), continuing operations	0.01	0.07

The weighted average number of shares take into account the effect of change in treasury shares.

11. ACQUISITIONS

On 2 July 2018 F-Secure acquired 100% of the share capital of MWR InfoSecurity Ltd, a privately held cyber security company operating globally from its main offices in the UK, the US, South Africa and Singapore. The acquisition is a significant milestone in the execution of F-Secure's growth strategy, and makes it the largest European single source of cyber security services and detection and response solutions. With close to 400 employees, MWR InfoSecurity is among the largest cyber security service providers serving enterprises globally, and their threat hunting platform (Countercept) is one of the most advanced in the market and an excellent complement to F-Secure's existing technologies.

Purchase consideration

The purchase consideration comprises of cash payment of EUR 93,817 thousand and a contingent consideration subject to the achievement of agreed business targets for the period from 2 July 2018 until 31 December 2019. The maximum level of contingent consideration is EUR 27,948 thousand. At acquisition the management estimated that the fair value of contingent consideration is EUR14,231 thousand.

Preliminary consideration	
Paid in cash	93,817
Fair value of contingent consideration	14,231
Provisional estimate of the fair value of the purchase consideration	108,048
Preliminary cash flow from the acquisition	
Consideration paid in cash	−93,817
Cash and cash equivalents of the acquired company	2,362
Total cash flow from the acquisition	−91,455

Provisional fair values of the assets and liabilities arising from the acquisition	
Tangible assets	1,892
Intangible assets	25,912
Deferred tax assets	465
Trade and other receivables	8,281
Cash and cash equivalents	2,362
Total assets	38,912
Other non-current liabilities	45
Interest bearing liabilities, current	570
Trade and other payables	7,007
Deferred tax liabilities	5,171
Total liabilities	12,792
Total net assets	26,120
Preliminary goodwill	81,928

The preliminary goodwill of EUR 81,928 thousand reflects the value of expertise in cyber security and strong R&D know-how obtained in the acquisition as well as synergies available for combining operations in providing corporate cyber security services.

Provisional fair values of acquired identifiable intangible assets at the date of acquisition	
Technology and trademarks	20,248
Customer relations	5,664

Amortization of the intangible assets during the period are EUR 2,048 thousand.

Expenses related to the acquisition	
Other expenses	2,573

Impact on F-Secure's comprehensive income statement

The acquired business contributed revenues of EUR 16,815 thousand and EBIT of EUR −2,499 thousand to F-Secure for the period from 2 July to 31 December 2018.
Had the acquisition occurred on 1 January 2018, management estimates that consolidated revenue would have been EUR 206,000 thousand and consolidated EBIT would have been EUR 650 thousand including amortization of acquired intangible assets (EUR −4,120 thousand). Fair values of acquired net assets are assumed to have been the same on 1 January 2018 as at acquisition on 2 July 2018 when determining these amounts.

12. GOODWILL

For impairment testing goodwill is allocated to cash-generating units (CGUs). CGU is typically a group of legal units expected to benefit from the synergies of the business combination. The carrying amount of goodwill EUR 90,677 thousand is allocated to two CGUs:

	Consolidated 2018	Consolidated 2017
Cyber Security Service	8,321	10,070
MWR InfoSecurity	82,356	
	90,677	10,070

Goodwill from the acquisition of Digital Assurance has been reallocated to MWR InfoSecurity CGU during reporting period due to combining advisory consulting services in the UK.

Goodwill is tested for impairment annually, or more frequently if there are indications that goodwill might be impaired. The recoverable amount for each CGU is determined based on a value in use calculation which uses cash flows for four years based on financial budgets and forecasts approved by the Board of Directors. Discount rate for Cyber Security Service is 12.4% before taxes (2017: 8.5%) and for MWR InfoSecurity 12.0% before taxes.

Cash flows beyond four-year forecast period have been extrapolated using steady 2% per annum growth rate for both CGUs. Markets where CGUs operate are expected to grow significantly faster than the terminal growth rate used in impairment testing. Managed detection and response (MDR) market is expected to grow at 31.6% annually and Cyber Security consulting at 9.9% annually by 2022.

Sensitivity analysis

The Group has prepared a sensitivity analysis of the impairment tests to changes in the key assumptions which are profitability, growth rate and discount rate. Any reasonably possible changes in the key assumptions in Cyber Security Service impairment test would not cause the aggregate carrying amount exceeding the recoverable amount.

In MWR InfoSecurity impairment test a 1.3 percentage point increase in WACC or a 16% underperformance against budgeted revenue or 2 percentage point lower relative profitability throughout forecast period would reduce the headroom to zero but would not result in impairment.

13. NON-CURRENT ASSETS

	INTANGIBLE ASSETS					TANGIBLE ASSETS			
	Other Intangible	Capitalized development	Goodwill	Advance payments & incomplete development	Total	Machinery & equipment	Other tangible	Advance payments	Total
Acquisition cost Jan 1, 2017	18,064	14,654	7,632	4,104	44,454	27,800	3,165		30,965
Translation difference	−6		−14		−20	−376	−41		−418
Acquisitions and divestments	467		2,453		2,920	25	11		36
Additions	499	68		5,011	5,578	1,068	470	2	1,540
Transfers	3,555	3,458		−7,013		−74	74		0
Disposals	−8,930	−1,453			−10,383	−15,590	−2,048		−17,638
Acquisition cost Dec 31, 2017	13,650	16,727	10,070	2,102	42,549	12,853	1,631	2	14,486
Translation difference	−8	−4	−37		−48	76	23		99
Acquisitions and divestments	6,562	19,249	80,644		106,455	1,053	798		1,852
Additions	555	416		4,301	5,272	1,618	575	14	2,207
Transfers	−3	4,125		−4,122		11	5	−16	
Disposals	−118			−135	−254	−2,402	−841		−3,243
Acquisition cost Dec 31, 2018	20,638	40,514	90,677	2,145	153,973	13,209	2,192	0	15,401
Acc. depreciation Jan 1, 2017	−15,694	−7,728			−23,423	−24,703	−2,930		−27,633
Translation difference	5				5	311	34		345
Transfers	153	−153				−136	136		
Depreciation for the period	−1,478	−3,233			−4,711	−1,357	−133		−1,491
Depreciation of disposals	8,929	1,453			10,382	15,485	2,021		17,506
Acc. depreciation Dec 31, 2017	−8,085	−9,661			−17,747	−10,400	−873		−11,272
Translation difference	−1				−1	−62	−16		−78
Depreciation for the period	−2,375	−4,913			−7,288	−1,476	−354		−1,830
Depreciation of disposals	118				118	2,304	652		2,955
Acc. depreciation Dec 31, 2018	−10,342	−14,573			−24,915	−9,635	−591		−10,226
Book value as at Dec 31, 2017	5,565	7,066	10,070	2,102	24,803	2,453	759	2	3,214
Book value as at Dec 31, 2018	10,296	25,941	90,677	2,145	129,058	3,574	1,601	0	5,175

14. INVENTORIES

EUR 1,000	Consolidated 2018	Consolidated 2017
Inventories	607	588

No impairment was recognized for inventories in years 2018 and 2017.

15. FINANCIAL ASSETS

EUR 1,000	Consolidated 2018	Consolidated 2017
Cash at bank and in hand	27,806	36,300
Trade receivables	44,268	41,365
Loan receivables	34	10
Financial assets at FVTPL	58	53,924
Total	72,166	131,599

Trade receivables

Ageing of trade receivables		
Not fallen due	31,694	27,329
1–90 days past due	10,578	10,840
Over 90 days past due	4,600	5,014
Less provision for bad debt	–2,603	–1,818
Total	44,268	41,365

Movements in the provision for impairment of trade receivables		
Book value as at Jan 1	1,818	1,090
IFRS 9 impact	–108	
Restated book value as at Jan 1	1,710	1,090
Change for the year	1,320	983
Receivables written off during the year	–426	–256
Book value as at Dec 31	2,603	1,818

Financial assets at FVTPL

On 1 January 2018 the Group has reclassified financial assets into appropriate IFRS 9 categories. Reclassification was made according to managements' assessment about which IFRS 9 business models apply to the financial assets held by the Group.

As a result the Group reclassified its available-for-sale investments to be presented at fair value through profit and loss. The impacts of this reclassification remained immaterial as the Group sold the assets during June 2018 to finance the acquisition of MWR InfoSecurity.

EUR 1,000	Consolidated 2018	Consolidated 2017
Fair value as at Jan 1	53,924	63,671
Additions	32	7,742
Decreases	–53,523	–18,403
Gain/loss on sale in the income statement	–375	1,030
Change in fair value		–117
Fair value as at Dec 31	58	53,924
Shares – unlisted	26	26
Funds	32	53,898
Fair value as at Dec 31	58	53,924

16. OTHER RECEIVABLES

EUR 1,000	Consolidated 2018	Consolidated 2017
Non-current receivables		
Other receivables	485	666
Current receivables		
Other receivables	1,271	829
Prepaid expenses and accrued income	10,475	7,531
Accrued income tax	5,346	1,761
Total	17,092	10,121
Material items included in prepaid expenses and accrued income		
Prepaid royalty	2,799	2,507
Grant receivables	987	1,637
Other prepaid expenses	6,688	3,388
Total	10,475	7,532

17. SHAREHOLDERS' EQUITY

Issued and fully paid

EUR 1,000	Number of shares	Share capital	Share premium fund	Unrestricted equity reserve	Treasury shares
Dec 31, 2016	156,258,200	1,551	165	5,211	−5,741
Deferred payment	455,510			167	1,166
Dec 31, 2017	156,713,710	1,551	165	5,378	−4,575
Deferred payment	776,585			704	1,803
Dec 31, 2018	157,490,295	1,551	165	6,082	−2,772

The share capital amounted to 1,551,311 euro and the number of shares was 158,798,739 (including own shares 1,308,444) at the end of 2018. A share has no nominal value. Accountable par value is EUR 0.01.

Share premium fund

Proceeds from exercised warrants were recognized under the share capital and share premium fund until March 26, 2008.

Unrestricted equity reserve

On March 20, 2007, the shareholders' meeting decided to decrease the share premium fund. The decreased amount of 33,582 thousand euro was transferred to unrestricted equity reserve. On March 26, 2008, the shareholders' meeting decided that the total amount of the subscription prices paid for new shares issued after the date of the meeting, based on stock options under the F-Secure Stock Option Plan 2005, be recorded in Companys' unrestricted equity reserve. Any excess after settling treasury shares as share based incentive and as board compensation is recorded in unrestricted equity reserve.

Translation differences

The translation difference is used to record exchange difference arising from the translation of the financial statements of foreign subsidiaries.

Dividends proposed and paid

Proposed for approval at AGM for financial year 2018 is that no dividend will be paid. Final dividend for financial year 2017 was 0.04 euro per share, paid during 2018 (6,268,548.40 euro in total). Final dividend for financial year 2016 was 0.12 euro per share, paid during 2017 (18,750,984.00 euro in total).

Treasury shares

Treasury shares contains the purchase value of own shares owned by the Group. The cost of acquisition is reported as a deduction in shareholders' equity. The shares were acquired through public trading on NASDAQ OMX Helsinki. The parent company has not acquired treasury shares during the period.

The parent companys' treasury shares were used in a deferred payment of the 2015 and 2017 acquisition.

The total number of acquired treasury shares was 1,308,444 at the end of 2018. This represents 0.8% of the Company's voting power on December 31, 2018.

Fair value reserve

The reserve is used to record increments and decrements in the fair value of available-for-sale financial assets.

	Before tax	Tax	After tax	Total
Fair value reserve Dec 31, 2016	1,346	−269	1,077	1,077
Available-for-sale, net	677	−135	541	541
Fair value gains/losses to PL	−793	159	−634	−634
Fair value reserve Dec 31, 2017	1,229	−246	983	983
Available-for-sale, net	−1,229	246	−983	−983
Fair value gains/losses to PL				
Fair value reserve Dec 31, 2018	0	0	0	0

18. SHARE-BASED PAYMENT TRANSACTIONS

During the period Group has had four different incentive plans covering the key personnel of the Group and matching share plan available for all employees.

Synthetic option-based incentive program

The synthetic option-based incentive program was established on and April 2015 as part of the key employee incentive and retention system within F-Secure Group. As no options were granted during 2017 the program ended on December 31, 2018 and resulted in no payment. During 2018 the liability was written off to zero through income statement.

Options outstanding

EUR 1,000	2018
Outstanding Jan 1	**670,000**
Granted	0
Forfeited	−25,000
Exercised	0
Expired	−645,000
Outstanding Dec 31	**0**

	2017
Outstanding Jan 1	**1,480,000**
Granted	0
Forfeited	−210,000
Exercised	−600,000
Expired	0
Outstanding Dec 31	**670,000**

Deduction in expenses arising from share-based payment transactions during the period was 462 thousand euro (1,001 thousand euro in 2017). The carrying amount of liability at December 31, 2018 was zero.

Share-based incentive programs

During the period the Group had three share-based incentive programs. The share-based incentive programs has been established as part of the key employee incentive and retention system within F-Secure Group. The program will offer for the participants a possibility to receive shares of F-Secure Corporation as an incentive reward if the Company's financial targets set for the earning period have been achieved. No reward can be given to any participating employee, whose employment has terminated before the end of the lock-up period.

The share-based incentive program 2014–2016 has been established in March 2014. The program will last five years. It comprises three earning periods. Each earning period lasts three years. The program ended on December 31, 2018. The rewards will be settled in two phases so that one part is settled as equity-settled payment and one part as cash-settled payment. On the basis of the program maximum total of 10,000,000 shares and a cash payment corresponding to the registration date value of the shares shall be given as reward. The Board approves the metrics, targets and participants on annual basis for each earning period.

The share-based incentive program 2017–2019 has been established in October 2017. The program will last five years. It comprises three earning periods. Each earning period lasts three years. The program ends on December 31, 2021. The rewards will be settled in two phases so that one part is settled as equity-settled payment and one part as cash-settled payment. On the basis of the program maximum total of 10,000,000 shares and a cash payment corresponding to the registration date value of the shares shall be given as reward. The Board approves the metrics, targets and participants on annual basis for each earning period.

The restricted share-based incentive program 2017–2019 has been established in April 2017. The program is divided into individual restricted share plans. The program includes individual earning periods for each plan. Earning periods will commence based on the decision of the Board of Directors. The program ends on December 31, 2019. The rewards will be settled in two phases so that one part is settled as equity-settled payment and one part as cash-settled payment. On the basis of the program maximum total of 600,000 shares and a cash payment corresponding to the registration date value of the shares shall be given as reward. The Board of Directors shall determine the amount of the maximum reward for each individual plan and participant.

The participating employee shall be entitled to the shareholder rights of the reward shares (e.g. dividend) from the moment the shares have been entered into the participating employee's book-entry account.

Expense arising from the share-based payment transactions during the period was –70 thousand euro (2,793 thousand euro in year 2017). The costs of equity-settled transactions are measured by reference to the fair value of the F-Secure Corporation share at the date on which they are granted. The costs of cash-settled transactions are measured by reference to the fair value of the F-Secure Corporation share on date of balance sheet.The Group updates the estimate of the number of equity instruments that will ultimately vest at each reporting date.

Matching share plan

During the period Group launched a matching share plan which is available to all employees. The first retention period began in February 2018 and the matching share plan was extended in November 2018 with a new retention period. Every participant was eligible to acquire shares worth maximum of 10,000 euros and after first quarter of 2020 F-Secure will give each participant one extra share for each two shares acquired through the plan. Dividends paid to the shares during the retention period will be invested in new shares.

Expense arising from matching share plan during the period was 276 thousand euros. The cost is measured by the fair value of F-Secure Corporation share at the date on which they are granted net of employee's tax obligation.

19. FINANCIAL LIABILITIES

Interest-bearing liabilities

EUR 1,000	Consolidated 2018	Consolidated 2017
Unsecured liabilities at amortized cost		
Bank loans	37,000	
Total	37,000	
Secured liabilities at amortized cost		
Factoring	58	
Total	58	
Total interest-bearing liabilities	**37,058**	
Amount due for settlement within 12 months	6,058	
Amount due for settlement after 12 months	31,000	

Borrowings by currency	EUR	GBP	Total
Bank loans	37,000		37,000
Factoring		58	58
	37,000	58	37,058

Bank loan of EUR 37,000 thousand was withdrawn on July 2, 2018. Repayments will commence on June 30, 2019 and continue until June 30, 2023. The bank loan carries variable interest rate.

The weighted average interest rates paid during the year were as follows:

Bank loans	1.6%

The financing agreement is subject to conventional loan covenants related to ratio of net debt to EBITDA and equity ratio. Group complied with the covenants throughout the reporting period.

Other financial liabilities

EUR 1,000	Consolidated 2018	Consolidated 2017
Contingent consideration, non-current	14,813	286
Contingent consideration, current		430
Total	14,813	716

Contractual maturities of financial liabilities	Fair value hierarchy level	Less than 1 year	1 to 2 years	2 to 3 years	3 to 4 years	Over 5 years	Total contractual cash flows	Carrying amount
Interest bearing financial liabilities	2	6,058	6,000	6,000	6,000	13,000	37,058	37,058
Contingent considerations	3		16,769				16,769	14,813
Total financial liabilities		6,058	22,769	6,000	6,000	13,000	53,827	51,871

Fair value hierarchy

Level 1: Fair values of financial instruments are based on quoted prices in active markets for identical assets and liabilities
Level 2: Financial instruments are not subject to trading in active and liquid markets. The fair values of financial instruments can be determined based on quoted market prices and deduced valuation.
Level 3: Measurement of financial instruments is not based on verifiable market information, and information on other circumstances affecting the value of the instruments is not available or verifiable.

20. FINANCIAL ASSETS AND LIABILITIES

Classes and categories of financial assets and liabilities and their fair values

Fair value hierarchy levels 1 to 3 are based on the degree to which the fair value is observable:
Level 1: Fair values of financial instruments are based on quoted prices in active markets for identical assets and liabilities
Level 2: Financial instruments are not subject to trading in active and liquid markets. The fair values of financial instruments can be determined based on quoted market prices and deduced valuation.
Level 3: Measurement of financial instruments is not based on verifiable market information, and information on other circumstances affecting the value of the instruments is not available or verifiable.

		Carrying value					Fair value			
		Financial assets		Financial liabilities			Hierarchy level			
	Note	FVTPL	Amortized cost	FVTPL	Amortized cost	Total	1	2	3	Total
Cash and bank	15		27,806			27,806	27,806			27,806
Trade and other receivables	15		46,058			46,058	46,058			46,058
Financial assets at FVTPL	15	58				58		58		58
Interest bearing financial liabilities	19				37,058	37,058		37,058		37,058
Trade and other payables	22				6,480	6,480	6,480			6,480
Contingent considerations	19				14,813	14,813			16,769	16,769

General

The goal of risk management is to identify risks that may hinder the Group from achieving its business objectives. The responsibility for the Company's risk management lies with the CEO, the management and ultimately with the Board of Directors. The risks related to the Group's financial instruments are mainly related to credit risks, currency risk and interest rate risk.

Credit risk

The Group trades only with recognized, creditworthy third parties. Receivable balances are monitored and collected on an ongoing basis. The maximum exposure to credit risk at the reporting date is the carrying value of financial assets. There are no significant concentrations of credit risk within the Group. See note 15. Financial assets.

Liquidity risk

Group's liquidity was changed significantly due to acquisition of MWR InfoSecurity as financial assets at fair value through profit and loss (EUR 53.9 million in 2017) were sold to finance the acquisition. Additionally a term loan of EUR 37.0 million was withdrawn. Cash and bank balance remained at solid level and at the end of reporting period the Group held EUR 27.8 million in it's bank accounts (EUR 36.3 million euro in 2017). Repayment of the term loan starts in June 2019 and a contingent consideration (estimated at 16.8 million euro at fair value) is to be paid in the beginning of 2020. Financial management prepares cash flow forecasts regularly to ensure the financial needs of the business operations are met. The management has not identified any significant concentrations of liquidity risks in sources of finance.

Foreign currency risk

The Group's exposure to foreign currency risk has increased after the acquisition of MWR InfoSecurity. While majority of sales invoicing is still in Euros, higher amount of invoicing is done in other currencies. Respectively purchasing in other currencies has increased. Other main measurement currencies are USD, GBP, JPY and SEK. In order to minimize the impact of the fluctuation of the exchange rates, the goal is to use forward currency contracts to eliminate the currency exposure of the estimated cash flow of these currencies for a period of three months.

Derivatives
Currency instruments – Currency forward contracts

EUR 1,000	Consolidated 2018	Consolidated 2017
Nominal value	452	448
Fair value	5	5

F-Secure Corporation has hedged receivables denominated in GBP with forward rate contracts. The forward rate contracts expire on January 23, 2019. The company does not have other derivatives.

According to current policy F-Secure Corporation does not hedge investments made in its subsidiaries.

Sales in different currencies	Consolidated 2018 %	Consolidated 2017 %
EUR	67	69
USD	10	10
GBP	8	2
JPY	6	6
SEK	4	5
Other currencies	5	7
	100	100

The risk involved in the sales in foreign currency is notably diminished by the operational expenses in subsidiaries that use the same currency.

The carrying Euro amounts of the Group's financial assets and liabilities at the reporting date are as follows:

Financial assets		%		%
EUR	40,628	55	96,065	71
USD	11,670	16	10,360	8
GBP	7,295	10	2,142	2
JPY	4,736	6	7,609	6
Other currencies	9,592	13	16,918	13
	73,921	100	133,094	100

Financial liabilities		%		%
EUR	42,417	73	6,560	94
GBP	15,259	26	77	1
Other currencies	675	1	299	5
	58,351	100	6,936	100

The table below demonstrates how sensitive the Group's profit before taxes and equity is to foreign exchange rate fluctuations when all other variables are held constant. The open exposure against USD, GBP, JPY and SEK arises from Group treasury, trade receivables and trade payables. In addition, the contingent consideration from the acquisition of MWR InfoSecurity is measured in GBP. The sensitivity calculation is based on a change of 10% in the Euro exchange rate against the functional currencies the Group operates in.

USD	+/−1,221	+/−482
GBP	+/−2,359	+/−140
JPY	+/−440	+/−190

Interest rate risk

The Group is exposed to interest rate risk due to the term loan withdrawn in July 2018 to finance the acquisition of MWR InfoSecurity. The loan carries a variable interest rate. To manage the risk of interest rate changes the Group is regularly evaluating the need for hedging. The table below demonstrates the sensitivity of Group's profit before taxes and equity to 1% change in interest rate when all other variables are held constant.

Interest bearing liabilities	+/– 185

Capital management

The Group's shareholders' equity is managed as capital. Also, Group's financing agreement has a covenant term related to equity ratio of the Group. The objective of the Group's capital management is to maintain an efficient capital structure that ensures the functioning of business operations and promotes shareholder value and meets with the requirements set in financing agreement. The Group's capital structure is reviewed regularly as a part of financial performance monitoring.

The capital structure can be adjusted among other things by distribution of dividends, share repurchase or capital repayment. The dividend policy of F-secure Corporation is to pay approximately half of its annual profit as dividend. Subject to circumstances, the Company may deviate from its policy.

21. DEFERRED TAX

EUR 1,000	Consolidated 2018	Consolidated 2017
Deferred tax assets relate to following:		
Fixed assets	613	735
Accruals and provisions	3,322	3,724
Tax losses carried forward	2,335	67
Total	6,270	4,525
Offset against deferred tax liabilities	–2,309	–349
Net deferred tax assets	3,961	4,177
Change in deferred tax assets:		
Recognized in profit or loss	–1,745	–1,307
Deferred tax liabilities relate to the following:		
Fixed assets	5,068	460
Accruals and provisions	1,336	1,029
Available-for-sale financial assets		246
Total	6,403	1,735
Offset against deferred tax assets	–2,309	–349
Net deferred tax liabilities	4,094	1,386
Change in deferred tax liabilities:		
Recognized in profit or loss	–4,669	–890
Recognized in other comprehensive income		23

At December 31, 2018 the Group had 10.7 million euro losses carried forward that are available.

22. OTHER LIABILITIES

EUR 1,000	Consolidated 2018	Consolidated 2017
Non-current liabilities		
Deferred tax liability	4,094	1,386
Deferred revenue	17,565	17,398
Contingent consideration	14,813	286
Other non-current liability	1,368	2,209
Provisions	1,173	1,173
Total	39,013	22,452
Current liabilities		
Deferred revenue	55,325	48,338
Trade payables	6,480	6,220
Contingent consideration		430
Other liabilities	5,473	4,867
Accrued expenses	17,591	20,336
Income tax liabilities	821	1,945
Total	85,690	82,135
Material amounts shown under accrued expenses		
Accrued personnel expenses	11,544	11,175
Deferred royalty	1,119	1,695
Other accrued expenses	4,928	7,467
Total	17,591	20,336
Provisions		
Book value as at 1 Jan	1,173	158
Arising during the year		
Used during the year		−158
Transfer from discontinued operations		1,173
Book value as at 31 Dec	1,173	1,173

Court decision related to claim in France

In February 2019, F-Secure received a court ruling related to the claim in France which has been disclosed in prior financial reporting. The ruling will be implemented and F-Secure 's subsidiary is required to pay approximately total of EUR 1.3 million. A provision in the financial statements is EUR 1.2 million. F-Secure is assessing whether grounds for an appeal to supreme court exists.

23. OPERATING LEASE COMMITMENTS

The Group has entered into commercial leases on office space and on motor vehicles. Motor vehicle leases have an average life of three years and office space between two and six years with renewal terms included in the contracts.

Future minimum rentals payable under non-cancellable operating leases as at 31 December are as follows

As lessee

EUR 1,000	Consolidated 2018	Consolidated 2017
Within one year	6,956	5,924
After one year but not more than five years	7,164	7,777
Total	14,120	13,702
Rents during the period	5,666	5,180

24. CONTINGENT LIABILITIES

EUR 1,000	Consolidated 2018	Consolidated 2017
Other liabilities		
Others	301	173

25. RELATED PARTY DISCLOSURES

The Group's related parties include Parent Company and subsidiaries, as well as members of the Board, CEO and members of the Leadership Team.

Compensation of key management personnel of the Group

EUR 1,000	Consolidated 2018	Consolidated 2017
Wages and other short-term employee benefits	2,710	2,319
Share-based payments	116	883
Total	2,826	3,202

Wages and other short-term employee benefits

EUR 1,000	Consolidated 2018	Consolidated 2017
CEO	490	407
Leadership Team	1,965	1,687
Members of the Boards of Directors	255	225
	2,710	2,319

Board of Directors 2018 and Managing Director

EUR 1,000	Wages	Fees	Share-based payment
Samu Konttinen, CEO	490		143
Risto Siilasmaa, Chairman of the Board		80	
Pertti Ervi		48	
Matti Heikkonen		38	
Päivi Rekonen		38	
Bruce Oreck		38	
Christine Bejerasco		13	
Total	490	255	143

Share-based payments granted to the CEO are presented at the IFRS 2 expense of the share plans. The equity-settled part is measured at the fair value of the F-Secure Corporation share on the date it was granted and cash-settled part at the fair value of the share on the reporting date. The cost is recognized over the period in which the performance conditions are fullfilled (earning period).

The CEO's retirement age and the determination of his pension conform to the standard rules specified by Finland's Employee Pension Act (TYEL). The pension cost of the CEO during the period was 87 thousand euro (73 thousand euro in year 2017). The period of notice for the CEO is six (6) months both ways and CEO is entitled to severance payment equivalent of six (6) months' salary.

26. SUBSIDIARIES

Company	Country of incorporation	Group (%)
Parent F-Secure Corporation, Helsinki	Finland	
DF-Data Oy, Helsinki	Finland	100
F-Secure Inc., Palo Alto	United States	100
F-Secure (UK) Ltd, London	United Kingdom	100
F-Secure KK, Tokyo	Japan	100
F-Secure GmbH, Munich	Germany	100
F-Secure eStore GmbH, Munich	Germany	100
F-Secure SARL, Maisons-Laffitte	France	100
F-Secure SDC SAS, Bordeaux	France	100
F-Secure BVBA, Heverlee-Leuven	Belgium	100
F-Secure AB, Stockholm	Sweden	100
F-Secure Srl, Milano	Italy	100
F-Secure SP z.o.o.,Warsaw	Poland	100
F-Secure Corporation (M) Sdn Bhd, Kuala Lumpur	Malaysia	100
F-Secure Pvt Ltd, Mumbai	India	100
F-Secure Pte. Ltd., Singapore	Singapore	100
F-Secure B.V., Utrecht	The Netherlands	100
F-Secure Limited, Hong Kong	Hong Kong	100
F-Secure Pty Limited, Sydney	Australia	100
F-Secure Iberia SL, Barcelona	Spain	100
F-Secure do Brasil Tecnol. da Informãcao Ltda, Saõ Paulo	Brazil	100
F-Secure Informatica S de RL de CV, Mexico City	Mexico	100
F-Secure Software (Shanghai) Co Ltd, Shanghai	China	100
F-Secure Danmark A/S, Copenhagen	Denmark	100
F-Secure Cyber Security Services Oy, Helsinki	Finland	100
nSense Polska Sa, Poznan	Poland	100
nSense Estonia OÛ, Tartu	Estonia	100
F-Secure Norge AS, Baerum	Norway	100
F-Secure Argentina S.R.L., Buenos Aires	Argentina	100
F-Secure Digital Assurance Consulting Ltd, London	United Kingdom	100
MWR InfoSecurity Limited, Basingstoke	United Kingdom	100
MWR InfoSecurity Pte. Ltd., Singapore	Singapore	100
MWR InfoSecurity (Pty) Ltd, Johannesburg	South Africa	100
MWR InfoSecurity Inc, Newark	United States	100
MWR InfoSecurity SP z.o.o., Warsaw	Poland	100
Bytegeist GmbH, Oldenburg	Germany	100

27. SHARES AND SHAREHOLDERS

Shares and share ownership distribution, December 31, 2018

Shares	Number of shareholders	% of share-holders	Total shares	% of shares
1–100	5,088	20.43%	283,041	0.18%
101–1,000	15,036	60.39%	5,690,978	3.58%
1,001–50,000	4,700	18.88%	18,478,676	11.64%
50,001–100,000	35	0.14%	2,379,672	1.50%
100,001–	40	0.16%	131,966,372	83.10%
Total	24,899	100.00%	158,798,739	100.00%

Shareholders by category, December 31, 2018	Total shares	% of shares
Corporations	5,508,753	3.47%
Financial and insurance institutions	49,395,519	31.11%
General government	17,317,624	10.91%
Non-profit organizations	401,311	0.25%
Households	84,813,406	53.41%
Other countries and international organizations	1,362,126	0.86%
Total	158,798,739	100.00%

Largest shareholders and administrative register

Owner	Shares	% of shares	% of votes
Risto Siilasmaa	59,978,359	37.77%	38.08%
Nordea Bank Abp	11,966,792	7.54%	7.60%
Nordea Nordic Small Cap Fund	9,110,856	5.74%	5.79%
Skandinaviska Enskilda Banken	8,582,089	5.40%	5.45%
Mandatum Life Insurance Company	6,791,936	4.28%	4.31%
Elo Mutual Pension Insurance Company	6,000,000	3.78%	3.81%
Ilmarinen Mutual Pension Insurance Company	4,300,769	2.71%	2.73%
The State Pension Fund	3,500,000	2.20%	2.22%
Varma Mutual Pension Insurance Company	3,470,660	2.19%	2.20%
OP-Suomi Investment Fund	2,590,163	1.63%	1.64%

Administrative register	Shares	% of shares	% of votes
Nordea Bank Abp	11,966,792	7.54%	7.60%
Skandinaviska Enskilda Banken	8,582,089	5.40%	5.45%
Other registers	3,287,012	2.07%	2.09%
Other shareholders	17,362,778	10.93%	11.02%
Total	157,490,295	99.18%	100.00%
Own shares F-Secure Corporation	1,308,444	0.82%	
Total	158,798,739	100.00%	

Ownership of management

Board of Directors	Shares	% of shares
Risto Siilasmaa	59,978,359	37.77%
Pertti Ervi	56,114	0.04%
Matti Heikkonen	27,585	0.02%
Bruce Oreck	12,143	0.01%
Päivi Rekonen	6,850	0.00%
Christine Bejerasco	2,732	0.00%
Total	60,083,783	37.84%

Executive team	Shares	% of shares
Jari Still	120,341	0.08%
Samu Konttinen	101,787	0.06%
Ian Shaw	62,500	0.04%
Eriikka Söderström	52,639	0.03%
Mika Ståhlberg	29,263	0.02%
Kristian Järnefelt	19,684	0.01%
Jyrki Tulokas	15,490	0.01%
Juha Kivikoski	2,639	0.00%
Jyrki Rosenberg	2,639	0.00%
Total	406,982	0.26%

Ownership of management

The Board of Directors owned a total of 60,083,783 shares on December 31, 2018. This represents 37.8 percent of the Company's shares and 38.2 percent of votes.

INCOME STATEMENT JAN 1–DEC 31, 2018

EUR 1,000		FAS 2018	RESTATED FAS 2017
REVENUE	(1)	142,425	135,924
Cost of revenue	(4)	−17,629	−13,641
GROSS MARGIN		124,797	122,283
Other operating income	(2)	4,360	3,907
Sales and marketing	(3, 4)	−77,067	−73,605
Research and development	(3, 4)	−32,006	−30,890
Administration	(3, 4)	−11,521	−12,330
EBIT		8,563	9,365
Financial income and expenses	(6)	1,924	1,039
PROFIT (LOSS) BEFORE APPROPRIATIONS AND TAXES		10,487	10,404
Appropriations	(7)	4,005	542
Income taxes	(8)	−1,783	−596
RESULT FOR THE FINANCIAL YEAR		12,709	10,349

BALANCE SHEET DEC 31, 2018

EUR 1,000		FAS 2018	RESTATED FAS 2017
ASSETS			
NON-CURRENT ASSETS			
Intangible assets	(9)	14,892	14,735
Tangible assets	(9)	1,494	1,610
Investments in group companies	(10)	136,668	23,353
Total non-current assets		153,054	39,698
CURRENT ASSETS			
Inventories	(12)	607	588
Long-term receivables	(13)		69
Short-term receivables	(13)	58,939	52,901
Deferred tax assets	(11)	170	698
Short-term investments	(14)	26	53,924
Cash and bank accounts	(15)	16,689	16,071
Total current assets		76,432	124,252
TOTAL ASSETS		229,485	163,949

EUR 1,000		FAS 2018	RESTATED FAS 2017
SHAREHOLDERS' EQUITY AND LIABILITIES			
SHAREHOLDERS' EQUITY	(16, 17)		
Share capital		1,551	1,551
Share premium		165	165
Treasury shares		−2,772	−4,575
Fair value reserve			983
Reserve for invested unrestricted equity		6,082	5,378
Retained earnings		47,696	42,428
Profit for the financial year		12,709	10,349
Total shareholders' equity		65,430	56,279
APPROPRIATIONS			
Depreciation reserve		510	514
LIABILITIES			
Deferred tax liabilities	(11)		246
Long-term liabilities	(19)	69,482	15,292
Short-term liabilities	(19)	94,063	91,618
Total liabilities		163,546	107,156
TOTAL SHAREHOLDERS' EQUITY AND LIABILITIES		229,485	163,949

CASH FLOW STATEMENT JAN 1–DEC 31, 2018

EUR 1,000	FAS 2018	RESTATED FAS 2017
Cash flow from operations		
Result for the financial year	12,709	10,349
Adjustments		
Depreciation and amortization	6,030	5,597
Profit / loss on sale of fixed assets	–26	–49
Other adjustments	–3,491	–260
Financial income and expenses	–1,924	–1,039
Income taxes	1,783	568
Adjustments	2,373	4,817
Cash flow from operations before change in working capital	15,081	15,166
Change in net working capital		
Current receivables, increase (–), decrease (+)	2,654	–5,580
Inventories, increase (–), decrease (+)	–19	–479
Non-interest bearing debt, increase (+), decrease (–)	5,892	13,138
Cash flow from operations before financial items and taxes	23,608	22,245
Interest expenses paid	–296	–13
Interest income received	44	996
Other financial income and expenses	–547	167
Income taxes paid	–5,510	–2,642
Cash flow from operations	17,300	20,753

EUR 1,000	FAS 2018	RESTATED FAS 2017
Cash flow from investments		
Investments in intangible and tangible assets	–6,338	–6,536
Investments in subsidiary shares	–96,386	–4,939
Other investments		–7,742
Proceeds from sale of intangible and tangible assets	294	46
Proceeds from sale of other investments	53,502	18,397
Intercompany loans granted	–2,705	–80
Dividends received	4,090	7
Cash flow from investments	–47,545	–847
Cash flow from financing activities		
Increase in interest-bearing liabilities	37,000	
Own shares	–99	
Dividends paid	–6,281	–18,751
Cash flow from financing activities	30,620	–18,751
Change in cash	375	1,155
Effect of exchange rate changes on cash	243	–226
Cash and bank at the beginning of the period	16,071	15,141
Cash and bank at period end	16,689	16,071

NOTES TO THE PARENT COMPANY FINANCIAL STATEMENTS

Basic information

F-Secure provides cyber security products and services globally for consumers and businesses.

F-Secure Corporation is the parent company of F-Secure Group, incorporated in Finland and domiciled in Helsinki. Company's registered address is Tammasaarenkatu 7, 00180 Helsinki. Copy of consolidated financial statements can be downloaded from www.f-secure.com or can be received from the Company's registered address.

ACCOUNTING PRINCIPLES

The financial statement of F-Secure Corporation has been prepared in accordance with Finnish Accounting Standards (FAS).

Foreign currency translation

Foreign currency transactions are translated using the exchange rates prevailing at the dates of the transactions. On the reporting date, assets and liabilities denominated in foreign currencies are translated using the European Central Bank's exchange rates prevailing at that date. Exchange rate gains and losses from sales transactions are recognized in revenue and other exchange rate gains and losses are recognized in financial items in the income statement.

Amended accounting principles effective for 2018

Revenue recognition has been standardized with the Group's accounting principles and the comparative figures has been restated. Allocation of costs between Cost of Revenue and Operating expenses (OPEX) has also been standardized with the Group's accounting principles and has been described in Accounting principles for the consolidated financial statements, Revision of Cost of revenue (CoR).

Impact of changes in accounting principles

Profit for the year 2017	
Revenue	
Increase of revenue	192
Cost of Revenue	
Increase of Cost of Revenue	−6,965
OPEX	
Decrease in Sales and Marketing costs	6,338
Decrease in Research and Development costs	627
Income taxes	
Increase of income taxes	−38
Profit for the financial year	153

Assets, equity and liabilities in 2017	Reported 1 Jan 2017	Change of accounting principle	Restated 1 Jan 2017
Assets			
Deferred tax assets		737	737
Equity	66,390	−2949	63,442
Liabilities			
Deferred revenue, non-current	10,224	872	11,096
Deferred revenue, current	30,647	2,814	33,461

	Reported 31 Dec 2017	Change of accounting principle	Restated 31 Dec 2017
Assets			
Deferred tax assets		698	698
Equity	59,075	−2,796	56,280
Liabilities			
Deferred revenue, non-current	9,567	1,768	11,335
Deferred revenue, current	36,427	1,726	38,153

Revenue recognition

Revenue is derived from corporate and consumer businesses. Corporate security business revenue includes cyber security products, managed services, and cyber security consulting. Cyber security products comprise endpoint protection solutions (Protection Service for Business, PSB; Business Suite, Cloud Protection for Salesforce), as well as solutions targeted at detecting and responding to advanced attacks (Rapid Detection Service, RDS; Rapid Detection and Response, RDR and Countercept) and vulnerability management (F-Secure Radar and phishd). Consumer security business revenue comes through operator and direct consumer channels, and the main products include F-Secure SAFE, F-Secure FREEDOME, F-Secure SENSE and F-Secure KEY.

Endpoint protection solutions and vulnerability management products

Endpoint protection security solutions (PSB, Business Suite for corporate and RDR) are sold to corporate customers by granting the customer access to use the intellectual property during the license period or as Security-as-a-Service. F-Secure delivers the product and provides continuous automated updates against new threats. The software and the accompanied services are highly interdependent and therefore treated as one performance obligation for which revenue is recognized over time on a straight-line basis for the license period. Previously the license fee revenue was recognized at point in time of the initial delivery and the maintenance and support were recognized as revenue over the contract period.

F-Secure SAFE and F-Secure FREEDOME for consumer customers and vulnerability management products for corporate customers (Radar and phishd) are treated as Security-as-a-Service as they do not include a license of intellectual property. Revenue is accounted for as a single performance obligation and recognized over time on a straight-line basis for the contract period.

When there is a hardware component to the solution (SENSE) the hardware is considered as a distinct performance obligation and revenue for hardware is recognized separately at point in time of delivery.

Cyber security consulting services and managed detection and response solutions

Cyber security consulting services are recognized as revenue based on the delivery of the work. For F-Secure managed detection and response solutions (RDS, Countercept) the software and the service are considered as single performance obligation. The customer is granted access to use the intellectual property and the service is provided by F-Secure continuously throughout the contract period. Revenue for managed services is recognized on a straight-line basis for the contract period.

Pensions

Pension arrangement is a local statutory arrangement, which is a defined contribution plan. Contributions to defined contribution plans are recognized in income statement in the period to which the contributions relate. The Company recognizes the disability commitment of TyEL pension plan when disability appears.

Leases

Leases where the lessor retains substantially all the risks and benefits of ownership of the asset are classified as operating leases. Operating lease payments are recognized as an expense in the income statement on a straight-line basis over the lease term. The Company has only operating leases.

Income taxes

Current income taxes are calculated in accordance with the local tax and accounting rules. Deferred taxes, resulting from temporary differences between the financial statement and the income tax basis of assets and liabilities, use the enacted tax rates in effect in the years in which the differences are expected to reverse.

Tangible and intangible assets

Intangible assets include intangible rights and software licenses. Intangible assets recognized on merger consist of technology-based intangible assets. Tangible and intangible assets are recorded at historical cost less accumulated depreciation, amortization, and possible impairment. Depreciation and amortization is recorded on a straight-line basis over the estimated useful life of an asset. The estimated useful lives of tangible and intangible assets are as follows:

Machinery and equipment	3–8 years
Capitalized development costs	3–8 years
Intangible rights	3–8 years
Intangible assets	5–10 years

Ordinary repairs and maintenance costs are charged to the income statement during the financial period in which they are incurred. The cost of major renovations is included in the assets' carrying amount when it is probable that the Company will derive future economic benefits in excess of the originally assessed standard or performance of the existing asset. Any gain or loss arising on derecognition of the asset (calculated as the difference between the net disposal proceeds and the carrying amount of the asset) is included in the income statement in the year the asset is derecognized.

Research and development expenditure

Research expenditure is recognized as an expense at the time it is incurred. Development expenditures incurred on individual projects of totally new products or product versions with significant new features are capitalized.

Inventories

Inventories are valued at the lower of cost and net realizable value. Cost is determined by first-in first-out method. Net realizable value is the estimated selling price that is obtainable, less estimated costs of completion and the estimated costs necessary to make the sale.

Financial assets and liabilities

All financial assets are currently measured at fair value through profit or loss (FVTPL). Cash and cash equivalents in the balance sheet comprise cash at bank and in hand and other highly liquid short-term investments.

F-Secure classifies loans from financial institutions, trade payables and other payables as other financial liabilities which are measured at amortized cost. Financial liabilities are classified as current unless F-Secure has unconditional right to postpone their repayment by at least 12 months from the end date of the reporting period.

Treasury shares

The company has acquired treasury shares in 2008–2011. The purchase price of the shares has been deducted from equity.

Share-based payment transactions

F-Secure provides incentives to employees in the form of equity-settled share-based instruments. The Company has two kinds of incentive programs; a synthetic warrant-based program and share-based programs.

F-Secure's synthetic option-based program ended on 31 December 2018 and resulted in no payment. The program covered Group's key personnel and the liability has been presented at fair value at each reporting date. In the end of the financial year 2018 the remaining liability was written off to zero through income statement.

F-Secure's share-based incentive programs are targeted to the Group's key personnel. The programs are divided into equity-settled and cash-settled part. The cash-settled part is initially valued at fair value at grant date. At each reporting date the cash-settled part is revalued to fair value and the expense is recognized in the income statement over the vesting period with the counter-entry in liabilities. The cumulative expense recognized at grant date is based on the company's estimate of the number of shares that will ultimately vest at the end of the vesting period. If a person leaves the company before vesting, the reward is forfeited. F-Secure updates its estimate of the ultimate number of shares at each reporting date. These changes in the estimate are recorded in the income statement.

Presentation of expenses

Classification of the functionally presented expenses has been made by presenting direct expenses in their respective functions and by allocating other expenses to operations on the basis of average headcount in each function.

1. REVENUE

EUR 1,000	FAS 2018	FAS 2017
Geographical information		
Nordic countries	46,789	44,160
Rest of Europe	74,422	68,497
North America	9,472	9,371
Rest of the world	11,742	13,896
Total	142,425	135,924

2. OTHER OPERATING INCOME

EUR 1,000	FAS 2018	FAS 2017
Rental revenue	239	65
Government grants	1,587	1,423
Other	2,534	2,419
Total	4,360	3,907

Government grants are recognized as income over those periods in which the corresponding expenses arise.

Other operating income includes e.g. gain on sale of fixed assets and Group management fees.

3. DEPRECIATION, AMORTIZATION, AND IMPAIRMENT

EUR 1,000	FAS 2018	FAS 2017
Depreciation and amortization of non-current assets		
Other intangible assets	−1,302	−1,582
Capitalized development	−3,789	−3,021
Intangible assets	−5,091	−4,603
Machinery and equipment	−803	−994
Tangible assets	−803	−994
Total depreciation	−5,894	−5,597
Impairment		
Capitalized development	−135	
Total impairment	−135	
Total depreciation, amortization, and impairment	−6,030	−5,597
Depreciation, amortization, and impairment by function		
Sales and marketing	−2,712	−3,437
Research and development	−2,388	−1,502
Administration	−930	−658
Total depreciation, amortization and impairment	−6,030	−5,597

4. PERSONNEL EXPENSES

EUR 1,000	FAS 2018	FAS 2017
Personnel expenses		
Wages and salaries	−38,540	−37,873
Pension expenses	−6,786	−6,272
Other social expenses	−1,519	−1,558
Total	−46,845	−45,703
Compensation of key management personnel		
Wages and other short-term employee benefits	−2,446	−2,129
Wages and other short-term employee benefits		
Managing Directors	−490	−407
Members of the Board of Directors	−255	−225

Wages and other short-term employee benefits of the Board of Directors and Managing Director: see group disclosure 25. Related party disclosures.

The Managing Director's retirement age and the determination of his pension conform to the standard rules specified by Finland's Employee Pension Act (TYEL). The pension cost of the Managing Director over the period was 87 thousand euro (73 thousand euro in year 2017). The period of notice for the Managing Director is six (6) months both ways and Managing Director is entitled to severance payment equivalent of six (6) months' salary.

	FAS 2018	FAS 2017
Average number of personnel	591	541
Personnel by function Dec 31		
Sales and marketing	259	244
Research and development	271	258
Administration	79	50
Total	609	552

5. AUDIT FEES

EUR 1,000	FAS 2018	FAS 2017
Audit fees, PricewaterhouseCoopers	−164	−173
Audit related fees, PricewatehouseCoopers	−22	−9
Other consulting, PricewaterhouseCoopers	−26	−97
Total	−212	−279

6. FINANCIAL INCOME AND EXPENSES

EUR 1,000	FAS 2018	FAS 2017
Interest income	44	996
Interest expense	−296	−13
Other financial income	3	1,025
Dividends	4,090	7
Exchange gains and losses	−1,223	−1,050
Other financial expenses	−694	74
Total	1,924	1,039

7. APPROPRIATIONS

EUR 1,000	FAS 2018	FAS 2017
Change in depreciation difference	5	542
Group contribution	4,000	
Total	4,005	542

8. INCOME TAXES

EUR 1,000	FAS 2018	FAS 2017
Income tax for the year	−1,811	−525
Adjustments for income tax of prior periods	28	−71
Total	−1,783	−596
Result before appropriations and tax	10,487	10,404

9. NON-CURRENT ASSETS

	INTANGIBLE ASSETS				TANGIBLE ASSETS		
	Other intangible	Capitalized development	Advance payments & incomplete development	Total	Machinery & equipment	Other tangible	Total
Acquisition cost Jan 1, 2017	19,723	12,639	4,104	36,466	22,051	5	22,056
Additions	800	68	5,011	5,879	657		657
Transfers	2,966	4,047	−7,013				
Disposals	−10,045	−1,453		−11,498	−13,339		−13,339
Acquisition cost Dec 31, 2017	13,444	15,301	2,102	30,847	9,368	5	9,374
Additions	667	416	4,301	5,384	688		688
Transfers		4,122	−4,122				
Disposals			−135	−135	−268		−268
Acquisition cost Dec 31, 2018	14,111	19,840	2,145	36,095	9,788	5	9,794
Acc. depreciation Jan 1, 2017	−16,010	−7,001		−23,010	−20,108		−20,108
Depreciation for the period	−1,582	−3,021		−4,603	−994		−994
Acc. depreciation of disposals	10,048	1,453		11,501	13,339		13,339
Acc. depreciation Dec 31, 2017	−7,544	−8,569		−16,112	−7,763		−7,763
Depreciation for the period	−1,302	−3,789		−5,091	−803		−803
Acc. depreciation of disposals					267		267
Acc. depreciation Dec 31, 2018	−8,847	−12,358		−21,203	−8,299		−8,299
Book value as at Dec 31, 2017	5,900	6,734	2,102	14,735	1,605	5	1,610
Book value as at Dec 31, 2018	5,264	7,483	2,145	14,892	1,489	5	1,494

10. INVESTMENTS IN GROUP COMPANIES

EUR 1,000	Shares in group companies	Total
Book value as at Jan 1	23,353	23,353
Additions	113,326	113,326
Decreases	−11	−11
Book value as at Dec 31	136,668	136,668

Name	Country of incorporation	Share of ownership (%)
Parent F-Secure Corporation, Helsinki	Finland	
DF-Data Oy, Helsinki	Finland	100
F-Secure Inc., Palo Alto	United States	100
F-Secure (UK) Ltd, London	United Kingdom	100
F-Secure KK, Tokyo	Japan	100
F-Secure GmbH, Munich	Germany	100
F-Secure eStore GmbH, Munich	Germany	100
F-Secure SARL, Maisons-Laffitte	France	98
F-Secure SDC SAS, Bordeaux	France	100
F-Secure BVBA, Heverlee-Leuven	Belgium	100
F-Secure AB, Stockholm	Sweden	100
F-Secure Srl, Milano	Italy	100
F-Secure SP z.o.o.,Warsaw	Poland	100
F-Secure Corporation (M) Sdn Bhd, Kuala Lumpur	Malaysia	100
F-Secure Pvt Ltd, Mumbai	India	100
F-Secure Pte. Ltd., Singapore	Singapore	100
F-Secure B.V., Utrecht	The Netherlands	100
F-Secure Limited, Hong Kong	Hong Kong	100
F-Secure Pty Limited, Sydney	Australia	100
F-Secure Iberia SL, Barcelona	Spain	100
F-Secure Informática S. de R.L. de C.V, Mexico City	Mexico	99
F-Secure Danmark A/S, Copenhagen	Denmark	100
F-Secure Argentina SRL, Buenos Aires	Argentina	100
F-Secure Digital Assurance Consulting Ltd, London	United Kingdom	100
MWR InfoSecurity Limited, Basingstoke	United Kingdom	100

11. DEFERRED TAX

EUR 1,000	FAS 2018	FAS 2017
Deferred tax assets		
Accruals and provisions	170	698
Total	170	698
Deferred tax liability		
Change in fair value, available-for-sale		246
Total		246

12. INVENTORIES

EUR 1,000	FAS 2018	FAS 2017
Other inventories	607	588

13. RECEIVABLES

EUR 1,000	FAS 2018	FAS 2017
Non-current		
Other receivables		69
Total		69
Non-current receivables total		69
Current receivables		
Trade receivables	28,020	27,678
Loan receivables	14	6
Other receivables	142	89
Prepaid expenses and accrued income	10,869	7,742
Total	39,045	35,515
Receivables from group companies		
Trade receivables	12,801	16,851
Loan receivables	2,705	79
Other receivables	4,388	456
Total	19,894	17,386
Current receivables total	58,939	52,901
Material items included in prepaid expenses and accrued income		
Prepaid royalty	2,799	2,507
Grant receivables	987	1,637
Other prepaid expenses	7,083	3,598
Total	10,869	7,742

14. SHORT-TERM INVESTMENTS

Short-term investments consist of interest-bearing debt securities and shares in funds invested in similar instruments. For assets that are actively traded in organized financial markets, fair value is determined by reference to Stock Exchange quoted market bid prices at the close of business on the balance sheet date. Net asset value (NAV) is used as a practical expedient to measure fair value for the investments in non-listed funds. Assets, for which fair value cannot be measured reliably, are recognized at cost less impairment. The fair value changes of short-term investments are recognized in shareholders' equity under fair value reserve.

EUR 1,000	FAS 2018	FAS 2017
Fair value as at Jan 1	53,924	63,670
Additions	12,051	7,742
Decreases	−64,720	−17,372
Change in fair value	−1,229	−117
Fair value as at Dec 31	26	53,924
Shares – unlisted	26	26
Funds		53,898
Fair value as at Dec 31	26	53,924
Original purchase price as at Dec 31	26	52,695

15. CASH AND SHORT-TERM DEPOSITS

EUR 1,000	FAS 2018	FAS 2017
Cash at bank and in hand	16,689	16,071

16. STATEMENT OF CHANGES IN SHAREHOLDERS' EQUITY

Parent Company FAS

EUR 1,000	Share capital	Share premium fund	Treasury shares	Fair value reserve	Unrestricted equity reserve	Retained earnings	Total equity
Equity 31 Dec, 2016	1,551	165	−5,741	1,077	5,211	64,128	66,390
Impact of change in accounting principles						−2,949	−2,949
Equity (restated) 1 Jan, 2017	1,551	165	−5,741	1,077	5,211	61,180	63,442
Available-for-sale financial assets, net				−93			−93
Result of the financial year						10,349	10,349
Dividend						−18,751	−18,751
Other change			1,166		167		1,333
Equity (restated) 31 Dec, 2017	1,551	165	−4,575	985	5,379	52,778	56,280
Impact of change in accounting principles				−985		1,200	215
Equity (restated) 1 Jan, 2018	1,551	165	−4,575		5,379	53,977	56,496
Result of the financial year						12,709	12,709
Dividend						−6,281	−6,281
Other change			1,803		704		2,507
Equity 31 Dec, 2018	1,551	165	−2,772		6,082	60,404	65,430

17. SHAREHOLDERS' EQUITY

The Company's share capital amounted to 1,551,311 euro and the number of shares was 158,798,739 at the end of the year 2018. See group disclosure 17. Shareholders' Equity.

Treasury shares

See group disclosure 17. Shareholders' Equity.

Distributable shareholders' equity on December 31, 2018

EUR 1,000	
Unrestricted equity reserve	6,082
Retained earnings	47,696
Treasury shares	−2,772
Result of the financial year	12,709
Less capitalized development expense	−7,483
Distributable shareholders' equity on December 31, 2018	56,232

18. SHARE-BASED PAYMENT TRANSACTIONS

See group disclosure 18. Share-based payment transactions.

19. LIABILITIES

EUR 1,000	FAS 2018	FAS 2017
Non-current liabilities		
Deferred revenues	12,175	10,392
Interest bearing liabilities	31,000	
Other liabilities	18,602	3,217
Total	61,777	13,609
Liabilities to the group companies		
Cashpool	6,090	
Other liabilities	1,615	1,683
Total	7,705	1,683
Total non-current liabilities	69,482	15,292
Current liabilities		
Deferred revenues	39,531	39,096
Trade payables	5,369	5,236
Interest bearing liabilities	6,000	
Other liabilities	1,710	3,548
Accrued expenses	16,324	19,418
Total	68,934	67,297
Liabilities to the group companies		
Advance payments	8,662	7,984
Trade payables	16,399	16,236
Other liabilities	68	101
Total	25,129	24,320
Total current liabilities	94,063	91,618
Material amounts shown under accruals and deferred income		
Accrued personnel expenses	10,197	11,845
Deferred royalty	1,119	1,695
Accrued expenses	4,513	4,923
Accrued tax	495	956
Total	16,324	19,418

20. FINANCIAL RISK MANAGEMENT OBJECTIVES AND POLICIES

See Group disclosure 20. Financial assets and liabilities.

21. OPERATING LEASE COMMITMENTS

The Group has entered into commercial leases on office space and on motor vehicles. Motor vehicle leases have an average life of three years and office space between two and five years with renewal terms included in the contracts.

Future minimum rentals payable under non-cancellable operating leases as at 31 December are as follows:

As lessee

EUR 1,000	FAS 2018	FAS 2017
Within one year	2,982	3,106
After one year but not more than five years	2,979	5,406
Total	5,961	8,512

22. CONTINGENT LIABILITIES

EUR 1,000	FAS 2018	FAS 2017
Guarantees for other group companies	130	149
Other liabilities		
Others	171	24

Derivatives see Group disclosure 20. Financial assets and liabilities

23. SHARES AND SHAREHOLDERS

See Group disclosure 27. Shares and shareholders

SIGNATURES OF THE BOARD OF DIRECTORS

Helsinki, February 13, 2019

Risto Siilasmaa
Chairman of the
Board of Directors

Pertti Ervi

Bruce Oreck

Päivi Rekonen

Matti Heikkonen

Christine Bejerasco

Samu Konttinen
CEO

AUDITORS' NOTE

Our auditors' report has been issued today.

Helsinki, February 13, 2019

PricewaterhouseCoopers Oy
Authorized Public Accountants

Janne Rajalahti
Authorized Public Accountant

AUDITOR'S REPORT

To the Annual General Meeting of F-Secure Oyj

Report on the Audit of the Financial Statements

Opinion

In our opinion

- the consolidated financial statements give a true and fair view of the group's financial position and financial performance and 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 the financial statements in Finland and comply with statutory requirements.

Our opinion is consistent with the additional report to the Audit Committee.

What we have audited

We have audited the financial statements of F-Secure Oyj (business identity code 0705579-2) for the year ended 31 December 2018. The financial statements comprise:

- the consolidated statement of financial position, statement of comprehensive income, statement of changes in equity, statement of cash flows and notes, including a summary of significant accounting policies
- the parent company's balance sheet, income statement, cash flow statement and notes.

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 the Financial Statements section of our report.

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

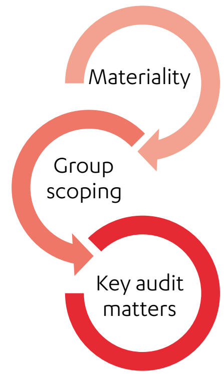
Independence

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.

To the best of our knowledge and belief, the non-audit services that we have provided to the parent company and to the group companies are in accordance with the applicable law and regulations in Finland and we have not provided non-audit services that are prohibited under Article 5(1) of Regulation (EU) No 537/2014. The non-audit services that we have provided are disclosed in note 6 to the Financial Statements.

Our Audit Approach

Overview



- Overall group materiality: €1,100,000, which represents 0.6% of consolidated revenue

- Audit scope: We have audited parent company and we have performed audit procedures related to the most significant subsidiary. In addition, we have performed group level procedures over specific consolidated accounts and analytical procedures to assess unusual movements across all entities.

- Revenue recognition
- Capitalization of R&D costs
- Business combinations

As part of designing our audit, we determined materiality and assessed the risks of material misstatement in the financial statements. In particular, we considered where management made subjective judgements; for example, in respect of significant accounting estimates that involved making assumptions and considering future events that are inherently uncertain.

Materiality

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

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

Overall group materiality	€1,100,000 (previous year €1,000,000)
How we determined it	0.6% of consolidated revenue
Rationale for the materiality benchmark applied	The groups profitability has been volatile during the last years due to business combinations related integration costs and amortization, significant investments in both product development and go-to-market strategy. Therefore, we chose revenue as the benchmark because, in our view, it is the benchmark against which the performance of the Group is commonly measured by users, and is a generally accepted benchmark. We chose 0.6% which is within the range of acceptable quantitative materiality thresholds in auditing standards.

How we tailored our group audit scope

We tailored the scope of our audit, taking into account the structure of the Group, the accounting processes and controls, and the industry in which the Group operates.

Group operates globally through several legal entities. Group's sales are mainly generated by the parent company and we have audited the parent company as part of our audit of the consolidated financial statements. In addition, we have performed audit procedures related to the most significant subsidiary. We have considered that the remaining subsidiaries don't present a reasonable risk of material misstatement for consolidated financial statements and thus our procedures have been limited to targeted audit procedures over significant balances and to analytical procedures performed at Group level.

By performing the procedures above at legal entities, combined with additional procedures at the Group level, we have obtained sufficient and appropriate evidence regarding the financial information of the Group as a whole to provide a basis for our opinion on the consolidated financial statements.

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.

As in all of our audits, we also addressed the risk of management override of internal controls, including among other matters consideration of whether there was evidence of bias that represented a risk of material misstatement due to fraud.

Key audit matter in the audit of the group

Revenue recognition

Refer to note 2 to the consolidated financial statements for the related disclosures.

Revenue is derived from corporate and consumer businesses. Corporate security business revenue includes cyber security products, managed services, and cyber security consulting. Consumer security business revenue comes through operator and direct consumer channels.

In the corporate and direct consumer businesses, license agreements consist of initial license agreements and periodic maintenance agreements. The software and the accompanied services are highly interdependent and therefore treated as one performance obligation for which revenue is recognized over time on a straight-line basis for the license period. In the operator business, most of the license sales are usage-based and booked based on usage reports, but there are also fixed price operator agreements. The terms of these agreements vary significantly and their revenue recognition is therefore defined case-by-case.

Service revenue, including cyber security consulting and managed services, is recognized at the time of delivery of the service.

Due to materiality and judgment associated with the timing of revenue recognition we have considered timing of revenue recognition as key audit matter in the audit of the Group.

This matter is a significant risks of material misstatement referred to in Article 10(2c) of Regulation (EU) No 537/2014.

How our audit addressed the key audit matter

We evaluated the design and tested the operating effectiveness of certain controls over revenue recognition.

We tested sample of revenue recognized during the year.

We assessed appropriateness of the company's revenue recognition policy and tested sample of revenue agreements to ensure those have been recognized based on contractual terms and based on the company's revenue recognition policy. We have also tested deferred revenue on a sample basis to assess appropriateness of revenue recognition.

In addition, we tested sample of fixed priced agreements.

Key audit matter in the audit of the group

Capitalization of R&D costs

Refer to note 13 to the consolidated financial statements for the related disclosures.

Company's research and development activities have increased due to focus on the development of new products and product amendments both for corporate and consumer customers.

Capitalization of R&D costs requires use of judgment as capitalization requires estimating technical and economical feasibility of the product developed. In addition, there is judgement involved in assessing recoverability of capitalized R&D costs as future cash flows generated by these intangible assets needs to be estimated.

Due to materiality and judgment associated with capitalization of R&D costs, we have considered capitalization of R&D as key audit matter in the audit of the Group.

How our audit addressed the key audit matter

We assessed appropriateness of the company's R&D capitalization policy.

We evaluated the design and operating effectiveness of controls over R&D capitalization.

We assessed whether capitalization criteria for R&D projects are met.

We tested a sample of invoices and personnel related costs capitalized during the year.

We evaluated the relevant assumptions used in the impairment testing of intangible assets, focusing on the reasonableness of the forecasted economic information.

We tested the accuracy of the management's earlier estimates by performing subsequent review.

Key audit matter in the audit of the group

Business combinations

Refer to note 11 to the consolidated financial statements for the related disclosures.

During 2018 F-Secure acquired MWR Infosecurity Ltd in the United Kingdom for a total consideration of €108.0 million. The acquisition is accounted for as a business combination and includes a number of significant and complex judgments in the determination of the fair value of the assets and liabilities acquired.

The primary element of the valuation and purchase price allocation process was to assess the fair value of intangible assets (€25.9 million) in the form of technology, customer relationships and trademarks. In addition, measurement of deferred contingent consideration (€14.2 million) required use of management judgment. Resulting goodwill amounted to €81.9 million.

The purchase price allocation is reported as preliminary in the consolidated financial statements.

Business combinations is a key audit matter in the audit due to the high level of management judgement used in determining the fair value of the net assets acquired and deferred contingent consideration.

How our audit addressed the key audit matter

For the intangible assets, we assessed the methodology adopted by management for calculating the fair value of technology, customer relationships and trademark related assets. We also tested the key assumptions in the valuation model, particularly in respect of the:

- cash flow forecasts used in the valuation process;
- royalty rates assumed for the acquired technology and trademark;
- assumed useful lives of the recognized intangible assets; and
- discount rate applied in the fair valuations.

Related to measurement of the deferred contingent consideration we have assessed the appropriateness of the methodology and key assumptions used by the management.

We have no key audit matters to report with respect to our audit of the parent company financial statements.

There are no significant risks of material misstatement referred to in Article 10(2c) of Regulation (EU) No 537/2014 with respect to the parent company financial statements.

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 a 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 to cease operations, or there is no realistic alternative but to do so.

Auditor's Responsibilities for the Audit of the Financial Statements

Our objectives are to obtain reasonable assurance about 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 the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these 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 to 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

Appointment

We were first appointed as auditors by the annual general meeting on April 7th 2016. Our appointment represents a total period of uninterrupted engagement of three 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 the 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
- 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 13 February 2019
PricewaterhouseCoopers Oy
Authorised Public Accountants

Janne Rajalahti
Authorised Public Accountant (KHT)

A FRONT RUNNER IN CYBER SECURITY

In the digital and connected world we currently live in, cyber attacks and malware have the ability to seriously damage global businesses, result in losses of hundreds of millions of euros, and even cause human suffering. For 30 years, F-Secure has been committed to helping people and businesses fight these cyber threats. Improving our customers' security, resilience, and the sustainability of their digital lives or businesses, is why we exist. We believe that through our core business and everyday actions we play a vital role in ensuring the functioning of modern society, and help to maintain trust between people and organizations. Internally, we emphasize the importance of a sense of fellowship among our employees, and we have always put a strong emphasis on shared core values.

2018:

There were several positive developments during the year. The number of employees increased significantly as a result of a major acquisition and continued active organic recruiting. The share of female managers increased, whereas the number of sick leaves decreased. From an environmental perspective, electricity consumption in both offices and IT servers decreased, as the Kuala Lumpur office was relocated to a more energy efficient building, and the on-going transition from co-location servers to the cloud continued. Emissions from air travel increased significantly, mostly as a result of the reporting scope being expanded to cover the acquired offices.

F-Secure is committed to sustainable practices in carrying out our business. Corporate responsibility is led by the CEO with the support of the Leadership Team, and with the Board of Directors approving the annual non-financial information review. To ensure that corporate responsibility is integrated into all business operations, governance and compliance processes have been established.

This statement lists key areas of responsibility that are considered most material in accordance with the Finnish Accounting Act. Corresponding aspects have been listed in the company's Code of Conduct, the summary of which is available on the company's website. Each employee of F-Secure is expected to know and comply with this code and report any suspected violations that they become aware of according to the applicable whistleblowing processes. F-Secure's subcontractors are also requested to act in compliance with this code or a corresponding code of their own.

F-SECURE'S BUSINESS MODEL AND VALUE CREATION

Every day, experts at F-Secure Labs analyze around 350,000 unique potential malware samples, equaling hundreds of potential new threats every minute. Our cyber security consultants help many of the world's leading companies to predict, prevent, detect and recover from the most advanced cyber attacks.

By combining sophisticated technology with machine learning and human expertise, F-Secure provides a comprehensive offering of security products and cyber security services for both corporate customers and consumers.

For businesses, we offer vulnerability scanning and management solutions, endpoint protection products, detection and response solutions, as well as comprehensive security and risk assessment services for top management, along with technical consulting. For consumers, we offer security and privacy solutions for all connected devices. Our products and services offer our customers best-in-class security as has been proven by several independent research institutions. For example, AV-TEST has given F-Secure the Best Protection award for superior technology five times during the past seven years – no other company has achieved this.

We offer our products and services to defend thousands of companies and millions of people around the world through our network of around 200 telecommunications operators and thousands of IT service and retail partners. With our partner-led business model, trust has always been a cornerstone of all our operations.

F-Secure strives to cooperate with authorities and law enforcement to investigate online crime, and to bring criminals to justice. In fact, our security experts have participated in more European cybercrime investigations than any other company in the industry. That said, our products are always developed independent of governmental direction.

In our industry, it is critical that appropriate care is taken when handling customer information. Respecting customer privacy is an integral part of our company culture, and F-Secure has published its privacy principles on the company website. When protecting our customers against cyber threats, we strive to do so with minimum risks to their privacy. All F-Secure employees commit to protecting the confidentiality of customer data.

2018:

F-Secure implemented processes to ensure compliance with General Data Protection Regulation (GDPR) when processing personal data.

Material aspects

While we view improved security of our customers as our key contribution to and impact upon society, this report concentrates on information regarding environmental matters, social and employee-related matters, respect for human rights as well as anti-corruption and anti-bribery matters. Risks, risk management, applicable policies and due diligence processes, outcomes of policies, and key performance indicators have been listed for each of these aspects.

Within each aspect, we have tried to identify topics most relevant for F-Secure. Unless otherwise stated, focus areas are material for the whole company.

	Focus area	Key aspects		Policies	Key performance indicator
CEO and the Leadership Team	SOCIAL AND EMPLOYEES: **We value our employees**	– Securing the right competencies – Ensuring equality, equal opportunity and diversity – Ensuring the wellbeing of employees	Code of Conduct	– Recruitment Policy – Development and training guidelines – Co-operation review policy – Harassment prevention policy – Equality plan	Employee NPS score
	ANTI-CORRUPTION AND HUMAN RIGHTS: **We operate responsibly**	– Fighting corruption and bribery – Being responsible in procurement		– Supplier Code of Conduct – Purchase order process – Anti-corruption policy	Number of reported violations
	ENVIRONMENT: **We respect the planet**	– Reducing energy consumption and waste in our offices – Reducing energy consumption from IT operations – Travelling sensibly		– Office Environmental policy – Travel policy	Total electricity consumption (kWh) in offices Electricity consumption (kWh), co-location servers

EMPLOYEE AND SOCIAL MATTERS:

WE VALUE OUR EMPLOYEES

F-Secure employs over 1,600 security experts, product developers, sales people and other employees globally. F-Secure's HR practices emphasize the importance of fellowship, and the company has always put an emphasis on shared values.

As a whole, the cyber security industry is facing increasing competition and there is structural undersupply of suitable experts. Due to this, the most significant risk related to employee and social matters is the company's ability to identify, attract, retain and develop talent to support the company's growth. Additionally, in a rapidly evolving industry, the company must also be able to ensure employees constantly update their competences according to market needs. Other important employee-related issues include employee well-being, a healthy work-life balance, and ensuring equality and equal opportunities.

F-Secure strives to:

- attract and retain the right competencies and enable people to develop themselves
- ensure everyone has an equal opportunity to achieve their maximum potential
- ensure the wellbeing of each employee, and that everyone is valued and treated with respect

To measure success, the company conducts an Employee Net Promoter Score (eNPS) survey among staff to measure employee loyalty biannually.

Human Resources is responsible for developing people management processes, tools, and ways of working. The company's Leadership Team is responsible for following up on the results of the eNPS survey and ensuring corrective action plans are developed.

Securing the right competencies and constant development

Successful recruitment is crucial for F-Secure's business success. Our aim is to ensure that we hire professionals with competencies that are in line with F-Secure's business objectives, culture and values. An internal global recruiting policy gives guidance to managers to ensure consistency and equal treatment of candidates, as well as to provide candidates a positive experience with the company.

After recruitment, the responsibility for competence development lies both with the individual employee and his or her manager, as well as with the company. An internal development and training guideline addresses the roles and responsibilities as well as practices related to learning and personal development.

F-Secure has a number of development programs and training available for both managers and employees including:

- Leadership development programs
- Network mentoring programs
- Cyber security competence development
- On-site coaching for employees working at headquarters

2018:

The number of employees continued to increase especially due to the acquisition of MWR Infosecurity, which grew the number of employees by about 400. Besides this, F-Secure continued to recruit sales persons, product developers, cyber security consultants and other experts to support the company's growth. In total, the company saw a net addition of 562 employees throughout 2018.

The company decided to implement a rolling objective setting where individual goals are set on a quarterly basis from 2019 onwards. Furthermore individual competence development will be discussed at least twice a year in Growth Discussions. The aim of the renewal is to concentrate on constant development, growth and feedback. An internal cooperation review policy addresses the responsibilities and practicalities of this process.

Ensure equality, equal opportunities and diversity

F-Secure is a very diverse workplace. In 2018, we employed 65 different nationalities by the end of 2018, a large part of which are also represented at the company headquarters. Our commitment to equality of opportunity is clearly explained in our Code of Conduct.

Employment is based solely upon individual merit and qualifications related to professional competence. We treat all of our employees, candidates, customers and business partners fairly and equally, without regard to sexual orientation, gender, race, religion and age, according to applicable laws and practices. We prohibit discrimination or harassment of any kind. An internal Harassment Prevention Policy gives instructions on how to manage potential violations.

Violations of any of the aforementioned policies are closely monitored. Violations may be reported either to the HR team, Compliance Team or to the Board of Directors according to instructions given. The Compliance Team reviews all reported cases and decides on further actions. Third-party experts are consulted if necessary. Decisions by the Compliance Team are presented to the Leadership Team or the Board of Directors for review. Violations are reported as part of non-financial reporting where such third-party expert needs to be consulted.

2018:

The share of female managers increased, and the share of female employees was almost at the previous year's level.

No violations passing the reporting threshold were reported to the Compliance Team or Board of Directors during 2018.

Ensure the wellbeing of employees

In ensuring the wellbeing of employees, F-Secure emphasizes the importance of good leadership in addition to a preventative approach to health care.

Every employee globally is entitled to basic health care services, but practices vary locally. In certain regions, employees are provided with additional sports benefits, and extended health care services according to local practices. Also, in some locations there are additional benefits such as the possibility to arrange a caretaker for a sick child. The company allows for flexible working hours and the possibility of working remotely. F-Secure offers voluntary wellbeing lectures and training for both employees and managers.

F-Secure closely monitors employee sick leaves. In case of longer sick leaves, the company supports employees, and assists them in returning back to work.

2018:

The number of sick leaves continued to decrease.

ANTI-CORRUPTION AND HUMAN RIGHTS:

WE OPERATE RESPONSIBLY

F-Secure transacts with approximately 4,000 suppliers every year. While the majority of F-Secure's business is considered to be in low-risk regions in terms of human rights violations, we acknowledge the need to stay alert for possible violations, and evaluate all new partnerships critically. Bribery and corruption are risks for all companies, and have a detrimental impact on business by undermining good governance and distorting free markets.

We are committed to applying the highest standards of ethical conduct and integrity in our business activities. Similarly, we strive to minimize risks associated with our suppliers.

F-Secure respects human dignity and promotes human rights, and requires respect for the same principles from every F-Secure employee, including freedom of association, freedom of thought, conscience and religion and freedom of opinion and expression. Also, we do not tolerate working conditions that are in conflict with international conventions or practices, and support Conventions of the International Labor Organization (ILO). This is clearly explained in our Code of Conduct.

Preventing corruption and bribery

Every employee and individual acting on F-Secure's behalf is responsible for conducting company business honestly and professionally. We do not tolerate any form of bribery by, or of, our employees or any persons or companies acting for it or on our behalf.

The Code of Conduct explains F-Secure's general commitment to ethical conduct. We have also issued a specific Anti-Bribery Policy that applies to all employees. It defines the rules to be applied related to gifts, hospitality, travelling and accommodation, specific terms concerning governmental officials, as well as the process for escalation as needed. The company expects suppliers, subcontractors and partners to comply with the policy or a policy of their own – of a similar or higher standard. Ethical practices are emphasized in contracts and the company engages in continuing dialogue with relevant stakeholders.

To evaluate success, F-Secure closely follows all reports of potential violations. Any suspected breaches must be reported, and each alleged violation is investigated in an appropriate and fair manner. Any breach will be dealt with according to relevant policies and laws.

Anti-corruption processes are managed by F-Secure's legal team.

2018:

No violations of Anti-Bribery Policy were reported in 2018.

Responsible supplier management

The majority of F-Secure's suppliers are considered to be low-risk. In terms of spending, the majority of suppliers provide operating services and marketing services, which represent over 50% of the total supplier spend. Operating services include outsourced sales and product development services, as well as royalties for third-party technology providers. Marketing services include local advertising, as well as search engine and social media advertising. Other significant suppliers include providers of production services, office space rental costs, management consulting, auditing, HR services, and IT equipment and licenses.

F-Secure has a Supplier Code of Conduct, which is a part of the F-Secure agreement template and sets the standard compliance requirements for new agreements. The Supplier Code of Conduct covers both anti-corruption and bribery as well as human rights issues.

When considering new suppliers, each function evaluates the need for supplier auditing together with F-Secure's procurement function. F-Secure offers training to employees who select suppliers and are involved with preparing requests for proposals (RFP) or drafting agreements to enable them to assess the possible risks and take appropriate precautions.

If deemed necessary, the supplier will be issued with a detailed survey focusing on key issues, including responsible business procedures. The supplier must have a process in place to verify compliance with the Supplier Code of Conduct and must participate in a self-assessment process organized by F-Secure if requested. F-Secure has the right to audit how suppliers and sub-contractors fulfill the Supplier Code of Conduct or corresponding requirements. For any identified non-compliances with the Code of Conduct, the supplier must provide a corrective action plan to be approved by F-Secure.

2018:

No violations of the Supplier Code of Conduct were reported in 2018.

During 2018 F-Secure initiated a process to ensure that the newly acquired MWR Infosecurity follows F-Secure processes and guidelines in future agreements. Significant existing agreements will also be reviewed for possible actions.

ENVIRONMENTAL MATTERS:

RESPECT FOR THE PLANET

The majority of F-Secure's business activities involve the development, production and delivery of software and professional services. Due to this, the company's direct environmental impact is limited, and associated risks to the environment are not considered significant. The company's environmental footprint derives primarily from the use of electricity for office activities – including heating and cooling – as well as the use of electricity from IT operations. Additionally CO_2-emissions are created by business travel, and a limited amount of waste is generated by office activities.

F-Secure acknowledges climate change and other environmental impacts are both global as well as local concerns, and the company strives to minimize its impact. F-Secure has a precautionary approach to environmental challenges, as stated in our Code of Conduct. We seek to ensure compliance with local legislation, and aim to continuously increase the energy efficiency of our operations and reduce the amount of waste. Where possible and practical, we give preference to ecologically sound suppliers' products and services Only a very limited amount F-Secure's sales involve physical products, and when they do, packages are made from recycled materials.

To evaluate our success in limiting our environmental impact, F-Secure conducts an annual energy review to estimate our total direct consumption of electricity at company level.

Reducing energy consumption and waste in our offices

F-Secure has offices in 29 locations globally. The majority of operations are concentrated in Helsinki and Oulu in Finland, London in the UK, Kuala Lumpur in Malaysia, Johannesburg in South Africa, Poznan in Poland as well as a number of smaller offices throughout Europe, Asia and the Americas.

The company rents office facilities from local real estate providers. Typically a lease agreement includes service charges for electricity and heating, as well as handling of a limited amount of waste generated by office activities. Paper, bio and energy waste are primarily recycled according to local practices. Hazardous waste consists solely of batteries, which are disposed of at suitable recycling points. Electronic waste is recycled carefully and, as appropriate, with careful attention to ensuring that confidential waste is specifically managed. Confidential paper waste is also managed with special care.

The company has an Office Environmental Policy, which sets out the principles of the company's approach to protecting the environment. The policy also sets out the steps the company and all employees should take to comply with the rule in detail, and improve the environmental efficiency of our operations.

Office processes are managed by F-Secure's HR & Office Services team.

2018:

F-Secure expanded the scope of the energy review to cover the acquired offices.

The company implemented a new Office Environmental Policy , created during the previous year.

Office services initiated a discussion at each company office about environmental best practices, with the aim of developing improvement plans. We continued to challenge our premises' owners to provide electricity from renewable sources. For example, in Malaysia, the company moved to a more energy efficient office, resulting in a significant decrease in electricity consumption.

During 2019, F-Secure will continue to roll out an environmental impact improvement program at each location to monitor and measure concrete steps taken.

Reducing the energy consumption of IT operations

F-Secure uses both private servers and third-party cloud platforms to develop and run its services.

Currently, approximately 40% of the computing capacity is in co-location facilities (2017: 70%), where F-Secure also operates the infrastructure. With third-party cloud platforms, F-Secure mainly partners with Amazon Web Services (AWS) as well as Microsoft Azure.

In co-location facilities, F-Secure is able to directly measure electricity consumption on a monthly basis. F-Secure utilizes server hardware with good energy efficiency (Energy Star), and in Finland the company's main data center vendor is 100% powered by wind energy.

For third-party providers, electricity consumption data is not available, as electricity costs are part of the overall service contract. That said, AWS, the main service partner, has publicly announced a goal of being 100% powered by renewable energy, and in January 2018 they reached 50%. Microsoft has also committed to reducing their carbon footprint by 75% by 2030 against a 2013 baseline.

Going forward, F-Secure plans to increase the use of third-party providers and decrease the amount of privately operated co-location servers. The transition is expected to increase the company's overall energy efficiency and lower total consumption, as third-party providers are running the more energy-efficient servers.

All computing capacity is centrally-managed by the Production & IT unit.

2018:

F-Secure continued to increasingly outsource the company's server activity. The transition is expected to increase the company's overall energy efficiency.

Travelling sensibly

As F-Secure's business grows and expands geographically, more travelling to customer premises is often required.

F-Secure has a Travel policy, which aims to reduce the environmental impact of travelling, minimizing energy consumption and emissions by choosing environmentally friendly means of travelling. The policy requires a pre-approval of employee travels, and the policy also encourages employees to use online conferencing tools when collaborating with our internal and external stakeholders. When travelling, the company recommends using public transport when feasible and train instead of flights.

In order to have better management of the overall travel and travel management, F-Secure is consolidating the company's travel agency agreements from country-specific solutions to a centralized solution.

2018:

The company's travelling emissions increased significantly in 2018 due to the inclusion of the acquired MWR InfoSecurity (as of the second half of 2018). Emissions figures also increased because the scope of reported travelling-related emissions was expanded to cover more F-Secure offices. Currently European offices are included, covering a clear majority of the company's employees. The company aims to include data from more offices, as data become available.

Table section

EMPLOYEE AND SOCIAL

Key perforce indicator	2018	Change	2017	Decription
Employee Net Promoter Score [1]	H1: 23 H2: 21[2]	+256% +161%	H1: 9 H2: 13	Key performance indicator of overall employee wellbeing.

[1] The Net Promoter Score measures employee satisfaction by asking people how likely it is that they would recommend F-Secure as an employer. The score is derived by deducting the share of employees giving low scores (0 to 6, "detractors") from the share of employees giving high scores (9 to 10, "promoters"). Scores from 7 to 8 are considered neutral.

[2] H2 also includes the employees of the acquired company.

2018:

During the year, F-Secure's overall Employee Net Promoter Score developed positively compared to the previous year.

Other metrics	2018	Change	2017
Number of employees	1,666	+51%	1,104
Share of women, of total employees	22.5%	−1%	22.7%
Share of women, of managers [2]	19.5%	+22%	15.9%
Sick leaves, % [3]	1.9%	−39%	3.11%

[3] Includes line managers

[4] Sick leave percentage is the average amount of sick days per employee. The figure includes personnel in Finland only, which represents 37% of total employees.

2018:

The number of employees increased significantly especially due to the acquisition in July, but also organically. During the year, F-Secure continued efforts to recruit more female managers in particular. The share of female managers increased significantly, and the share of female employees was almost at the previous year's level. That said, the industry continues to face a common challenge in the low availability of female experts in cyber security which originates from the skewed gender distribution among students in technology . The number of sick leaves continued to decline during 2018.

ENVIRONMENTAL

Key performance indicator	2018	Change	2017	Decription
Electricity consumption, co-location servers, MWh [1]	1,081MWh	−31%	1,564 MWh	Key performance indicator for the transition to more efficient computing.
Electricity consumption, offices, MWh [2]	1,236 MWh	−7%	1,322MWh	Key performance indicator for increasing energy efficiency in offices.

Other metrics	2018	Change	2017	
Travelling emission, CO_2, 1,000 kg [3]	897.5	+60%	559.5	

2018:

The emissions from travelling increased mainly due to the inclusion of the acquired MWR InfoSecurity's operations in the reporting, but also because the scope of reported emissions was expanded to cover more offices. Currently European offices are included, covering a clear majority of the company's employees. The company aims to include data from more offices, as the data become available.

The decreasing electricity consumption by offices was a result of the Kuala Lumpur office relocating itself into KL Eco City, resulting in significant electricity usage savings.

The decreasing electricity consumption by co-location servers was the results of closing down one of the data centers, as its operations were moved to a third-party cloud platform. The increasing cloudification is expected to increase the energy efficiency of IT operations.

[1] For 2017, the electricity consumption of co-location servers includes two server facilities at undisclosed locations. In September 2018, one of the server facilities was discontinued.

[2] The electricity consumption of offices includes approximately 90% of F-Secure's offices, as a percentage of total employees. Excluded offices are Oulu (Finland), Paris (France), St. Petersburg (Russia), Stockholm (Sweden), New Jersey (US), San Jose (US), Trieste (Italy), Berlin (Germany) and Utrecht (Netherlands).

[3] The CO_2 emissions from travelling include air travel only and are based on calculations provided by the company's travel agency. Reported emissions include flights of European based staff, which represents a clear majority of the company's staff.

F-SECURE'S CORPORATE GOVERNANCE STATEMENT 2018

CORPORATE GOVERNANCE AT F-SECURE

F-Secure's corporate governance practices comply with applicable Finnish laws as well as the rules, regulations and guidelines of Nasdaq Helsinki Oy and the Finnish Financial Supervisory Authority as well as with the company's Articles of Association. This statement has been prepared in accordance with the Finnish Corporate Governance Code (publicly available at http://cgfinland.fi/en/) issued by the Securities Market Association of Finland in 2015.

Up-to-date information about F-Secure's governance is available on the company's website at www.f-secure.com/investors.

GOVERNING BODIES

F-Secure's highest decision-making body is the General Meeting of Shareholders which elects the members of the Board of Directors. The Board of Directors is responsible for the administration of F-Secure Corporation and appropriate organization of its operations. The Board of Directors appoints the CEO. The CEO, assisted by the Leadership Team, is responsible for managing the company's business and implementing its strategic and operational targets.

General Meeting of Shareholders

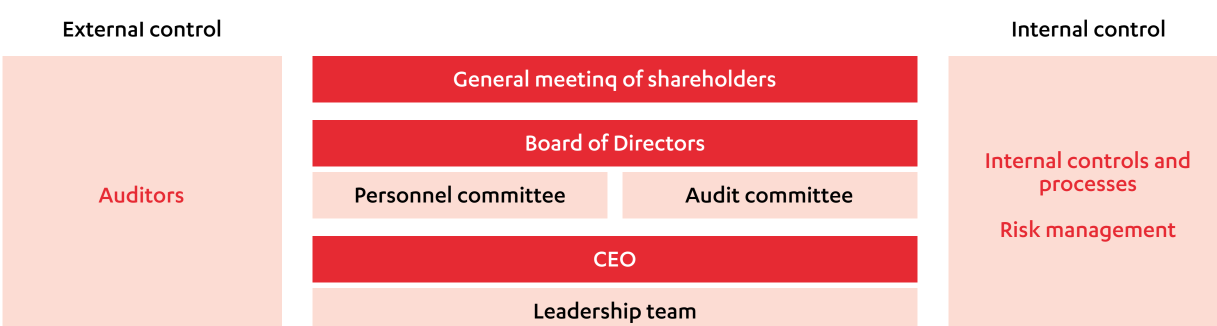
Under the Limited Liability Companies Act, shareholders exercise their decision-making power at the General Meeting.

The General Meeting is normally held once a year as an Annual General Meeting (AGM). The AGM decides on matters stipulated by the Articles of Association and the Limited Liability Companies Act, including:

- the adoption of the Financial Statements
- the distribution of profit for the year
- discharging the members of the Board of Directors and the CEO from liability
- the selection of members of the Board and the decision on their remuneration
- the election of the auditor and the decision on the auditor's remuneration, and
- other proposals made by the Board or shareholders

Each share carries one vote in the General Meeting.

A shareholder may propose items to be included on the agenda provided they are within the authority of the meeting, and the Board of Directors has received the request in advance within the set schedule. The invitation to the AGM is published as a stock exchange release and is made available on the company's website.



2018:

The AGM was held on 4 April 2018 at F-Secure premises in Helsinki.

The resolutions and the meeting minutes of the AGM are available on F-Secure website.

Board of Directors

The Board of Directors is responsible for the administration of F-Secure Corporation and appropriate organization of its operations. The Board's operations, responsibilities and duties are based on the Finnish Companies Act and other applicable legislation and are supplemented by the Board Charter. These cover the following main areas:

- approving the strategy of F-Secure, overseeing its operations and annual budgets
- appointing and dismissing the CEO
- approving any major investments, acquisitions, changes in corporate structure or other significant decisions
- ensuring that the supervision of the company's accounting and financial management is duly organized
- ensuring that internal control and risk management systems are in place
- approving personnel policies and rewards systems
- preparing matters to be handled at the General Meeting

The Board of Directors meets as frequently as necessary and according to the Board Charter at least five times during its term. The Board of Directors has quorum when more than half of the members are present. An annual self-assessment is carried out by the Board to evaluate its operations. The Board of Directors primarily strives at unanimous decisions. If a decision cannot be made unanimously, the decision will be made by voting and with single majority. If the votes are even, the Chairman's vote is decisive.

In accordance with F-Secure's Articles of Association, the Board of Directors comprises three to seven members, who are

Members of the Board of Directors

Members	Independence of the Company	Independence of major shareholders	Board (Meeting attendance)	Audit Committee (Meeting attendance)	Personnel Committee (Meeting attendance)
Risto Siilasmaa	Yes	No [1]	Chairman (16/16)		Chairman (5/5)
Pertti Ervi	Yes	Yes	Vice Chairman (16/16)	Chairman (4/4)	
Matti Heikkonen	Yes	Yes	Member (13/16)	Member (3/4)	Member until 4 April 2018 (1/2)
Bruce Oreck	Yes	Yes	Member (15/16)		Member (5/5)
Päivi Rekonen	Yes	Yes	Member (16/16)	Member (4/4)	Member (5/5)
Christine Bejerasco	No [3]	Yes	Member (11/11)	Member as of 4 April 2018 (1/1)	
Sofie Nystrøm (until of 4 Apr 2018)	Yes	Yes	Member (3/7)	Member until April 2018 (1/1)	
Ari Inki (until of 4 Apr 2018)	No [2]	Yes	Member (7/7)		

[1] Risto Siilasmaa is the founder of F-Secure and on 31 December 2018 owned 37.77% of F-Secure shares.
[2] Ari Inki was elected from among F-Secure Corporation's personnel, according to the process described above in 2017. Christine Bejerasco was elected according to the same process in 2018.
[3] Christine Bejerasco was elected from among F-Secure Corporation's personnel according to the same process in 2018

elected at the Annual General Meeting for a period of office that extends to the subsequent AGM. The Board of Directors represents all shareholders.

Diversity is an essential part of F-Secure's success. According to Diversity Principles established by the Board of Directors, an optimal mix of diverse backgrounds, expertise and experience strengthens the Board's performance and promotes creation of long-term shareholder value. The Board of Directors' Diversity Principles strive towards appropriately balanced gender distribution. Both genders are represented in the Board of Directors.

To create openness, one member of the Board of Directors is elected from among F-Secure's personnel. An election is arranged annually for F-Secure personnel and each permanent F-Secure employee based in Finland is eligible to stand as a candidate. The Personnel Committee interviews three persons who have obtained the highest number of votes in the elections, and chooses a candidate from amongst them to be proposed for election as a member of the Board by the Annual General Meeting. Christine Bejerasco was appointed to the Board of Directors through this process in 2018.

The majority of Board members are independent from the company and from its major shareholders. For a detailed description of the members of the Board of Directors and their shareholdings see the end of this statement.

2018:

In 2018 the Board of Directors convened 16 times, the Audit Committee 4 times and the Personnel Committee 6 times.

Board Committees

In 2018, the Board established committees: the Audit Committee and the Personnel Committee (nomination and remuneration matters). The Board of Directors shall appoint from among itself the members and the Chairman of the committee. Each committee must have at least three members. The Board of Directors shall confirm the main duties and operating principles of each committee. The duties of the Committees are defined in their charters.

Audit Committee

The Audit Committee reviews, instructs and evaluates risk management, internal controls, IT strategy and practices, financial reporting as well as auditing of the accounts. The Audit Committee also prepares a proposal for the election of auditor to the Board of Directors and regularly considers the need for a separate internal audit function. Members of the Audit Committee must have broad business knowledge, as well as an adequate knowledge of and experience in financial and supervisory matters. The majority of members of the Audit Committee shall be independent from F-Secure Corporation and from major shareholders in the company. Minutes and materials of the Audit Committee meetings are distributed to all members of the Board of Directors.

The Audit Committee convenes at least four (4) times a year as notified by the Chairman of the Committee. Members of the Audit Committee are listed in the table.

Personnel Committee

The Personnel Committee prepares material and instructs with issues related to the composition and compensation of the Board of Directors and the remuneration and incentives of key managerial personnel. The Committee also prepares the proposals for the Board composition and remuneration for the Annual General Meeting of Shareholders. Minutes and materials of the Personnel Committee meetings are distributed to all members of the Board of Directors

The Personnel Committee convenes at least two (2) times a year as notified by the Chairman of the Committee. Members of the Personnel Committee are listed in the table.

President and CEO

The Board of Directors appoints and may dismiss the CEO and decides upon the CEO's remuneration and other benefits. The CEO is responsible for the day-to-day management of the company. The CEO's duties include:

- managing the business according to the instructions issued by the Board of Directors

- presenting the matters to be handled in the Board of Directors' meetings
- implementing the decisions made by the Board of Directors
- other duties determined in the Limited Liability Companies Act

Samu Konttinen has been F-Secure's President and CEO since 2016.

The biographical details of the CEO including the shareholdings are specified at the end of this statement. The remuneration of the CEO is specified in the F-Secure Remuneration Statement 2018.

Leadership Team

The Leadership Team supports the CEO in the daily operative management and development of the company.

2018:

Members of the company's Leadership Team on 31 December 2018 were:

- Samu Konttinen, President and CEO
- Eriikka Söderström, Chief Financial Officer
- Jari Still, Chief Information Officer
- Mika Ståhlberg, Chief Technology Officer
- Kristian Järnefelt, Executive Vice President, Consumer Security
- Jyrki Tulokas, Executive Vice President, Cyber Security Products & Services
- Jyrki Rosenberg, Chief Marketing Officer
- Juha Kivikoski, Executive Vice President, Enterprise & Channel Sales
- Ian Shaw, Executive Vice President, Cyber Security

Current information on the F-Secure Leadership Team can be found on our website: www.f-secure.com/investors.

For descriptions of all members of the Leadership Team during 2018 their roles, respective membership periods and shareholdings see the end of this statement.

INTERNAL CONTROL AND RISK MANAGEMENT

Risk Management

Risk management and internal control processes at F-Secure seek to ensure that risks related to the business operations of the company are properly identified, evaluated, monitored and reported in compliance with the applicable regulations.

Roles & Responsibilities

F-Secure's Board of Directors defines the principles of risk management and internal controls which are followed within the company. The Audit Committee assists the Board in the supervision of F-Secure's risk management function.

The CEO is accountable to the Board for ensuring that the risk management principles are implemented and applied constantly and consistently across the organization. The Risk Management Steering Committee has been appointed by the CEO to ensure the effective implementation of risk management at F-Secure.

Risk Management Principles

The primary goal of F-Secure's risk management principles is to empower the organization to identify and manage risks more effectively through the adoption of risk modelling and quantification methods. The potential negative impact and probability of different situations arising from our business operations on the company, its customers, or its partners are constantly monitored.

F-Secure promotes continuous risk evaluation by the company's personnel appointed as risk owners. The relevant operational risks identified through the risk management process are regularly reviewed by the CEO and Leadership Team, the Risk Management Steering Committee and the company's statutory auditor. Risk Management is an integrated part of F-Secure's governance and management and the risk management process is aligned with the ISO-31000 standard.

The Audit Committee regularly conducts a review of top operational risk and evaluates the effectiveness of the risk management system.

Internal Control

The purpose of Internal Control is to ensure that operations are effective and aligned with the strategy, and that financial reporting and management information is reliable and in compliance with applicable regulations and operating principles.

Internal control consists of all the guidelines, policies, processes, practices and relevant information about organizational structure that help ensure that the business conduct is in compliance with all applicable regulations. The purpose of internal control is also to ensure that accounting and financial information provides a true and accurate reflection of the activities and financial situation of the company. Actual performance is monitored against sales and cost targets by operative reporting systems on a daily, weekly, or monthly basis.

The company constantly monitors its key financial processes linked to sales, revenue, costs and profitability as well as incoming and outgoing payment transactions. If any inconsistencies appear, the issues are handled without delay. The Company's finance department is responsible for the consistency and reliability of internal control methods. The finance team works in close cooperation with the CFO and businesses, providing relevant data for business planning purposes and sales estimates. The team also regularly assesses and monitors the reliability of estimates and revenue recognition.

Internal audit

F-Secure's Audit Committee considers the need for and appropriateness of a separate Internal Audit function on a regular basis. To date, the Audit Committee has concluded that, due to the size, organizational structure and largely centrally controlled financial management of the company, a separate Internal Audit function is not necessary.

In the absence of an Internal Audit function, attention is paid to periodical review of the written guidelines and policies concerning accounting, reporting, documentation, authorization, risk management, internal control and other relevant matters in all departments. Related controls are also tested from time to time. The guidelines and policies are coordinated by the company's finance department with active involvement by the legal department.

The absence of a separate Internal Audit function is considered when defining the scope of the company's external audit. Where necessary, the Board may also purchase Internal Audit services from an external service provider.

To facilitate transparency and exchange of information on Internal Audit related matters, the financial management team has frequent meetings with the auditors. The Audit Committee also meets regularly with the auditors and the head of the company's legal team to discuss related matters regarding their areas of responsibility.

The company has taken into use two direct lines for all employees to notify the Board and Leadership Team of any unethical activity or abuse.

Insider issues

In insider matters, F-Secure complies with the applicable legislation (including Market Abuse Regulation "MAR"), the standards of the Finnish Financial Supervisory Authority as well as Nasdaq Helsinki's Guidelines for Insiders. Inside information means information of a precise nature, which has not been made public, relating, directly or indirectly, to F-Secure's financial instruments, and which, if it were made public, would be likely to have a significant effect on the prices of such financial instruments.

Insiders

According to MAR, an issuer must draw up a list of all persons who have access to inside information. MAR separates between: 1) project insiders (who have access to inside information from time to time during a specific project); 2) permanent insiders (who have access to inside information at all times).

F-Secure has decided not to include any persons as permanent insiders. All persons with inside information regarding a project will be included in the project specific insider list.

Managers' transactions

Persons discharging managerial responsibilities ("Managers") comprise the Board of Directors, the CEO, the CFO and other members of the Leadership Team. These persons have a duty to notify F-Secure and the Finnish Financial Supervisory Authority of every transaction in their own account relating to Financial Instruments of F-Secure within three business days. The company publishes these notifications as a stock exchange release, as specified by MAR. All releases published on managers' transactions are available on the company's website.

Closed Period

Due to the sensitive nature of financial information, persons having access to financial information before publication of an interim financial report or a year-end report shall be subject to a thirty (30) day trading restriction prior to publication of such a report. F-Secure keeps a list of such persons and notifies them in writing about the trading restriction.

Auditors

The auditor is elected by the Annual General Meeting for a term of service ending at the close of the next Annual General Meeting. The auditor is responsible for auditing the consolidated and parent company financial statements and accounting. The auditor reports to the Board of Directors or the Audit Committee at least once a year.

2018:

F-Secure has been audited by PricewaterhouseCoopers with Janne Rajalahti, Authorized Public Accountant, as the responsible auditor.

F-Secure paid the auditor EUR 164 000 in audit fees (2017: EUR 173,000), and EUR 48 000 (2017: EUR 106,000 for non-audit services.

DETAILED DESCRIPTIONS

BOARD OF DIRECTORS

In this section are the biographies of the Members of the Board of Directors during 2018. Shareholdings are listed as of 31 December 2018 unless otherwise stated.

RISTO SIILASMAA

Chairman of the Board of Directors since 2006,
Born 1966, M.Sc. (Engineering)
Main employment history:
Currently Chairman of the Board, F-Secure Corporation, 2006–
Founder, President and CEO, Member of the Board, F-Secure Corporation, 1988–2006
Interim CEO, Nokia Corporation, 2013–2014
Chairman of the Board, Elisa Corporation, 2008–2012
Vice-Chairman of the Board 2017–2018, Member of the Board 2013–2016, Confederation of Finnish Industries (EK)
Current board memberships and public duties: Chairman of the Board 2012–, Member of the Board 2008–2012, Nokia Corporation
Member of the Board 2007–, Chaiman of the Board 2016–2018, Vice-Chairman of the Board 2013–2015, The Federation of Finnish Technology Industries
Member of the Board, Futurice Corporation, 2018–,
Member of ERT European Round Table of Industrialists, 2013–,
Member, Global Tech Panel, an initiative of EU High Representative Federica Mogherini, 2018
Holdings: number of shares 59,978,359, holding 37.77%

PERTTI ERVI

Board member since 2003,
Chairman of the Audit Committee
Born 1957, B.Sc. (Electronics)
Main employment history:
Currently an independent management consultant and professional board member
Co-CEO, Member of the Executive Board, Computer 2000 AG, 1995–2000
Co-founder, Managing Director, Computer 2000 Finland Oy, 1983–1995
Has worked at international management levels with major IT vendors such as Cisco, IBM, Intel, HP, and Microsoft.
Current board memberships and public duties:
Chairman of the Board 2011–, Member of the Board 2008–, Efecte Corporation,
Chairman of the Board 2017–, Member of the Board 2009–, Teleste Corporation
Chairman of the Board, Mintly, 2017–
Holdings: number of shares 56,114

MATTI HEIKKONEN

Board member since 2013
Born 1976, M.Sc. (Eng.)
Main employment history:
CEO, Benemen Oy 2019–
Senior Executive Vice President, Global Operations and Partner, QuestBack AS, 2010–2018
Entrepreneur and CEO, Digium Ltd, 2007–2010
Head of Nokia-Cisco Systems Global Alliance, Nokia Corporation, 2004–2007
Entrepreneur and CEO, Triple Check Ltd, 2002–2004
Researcher, Aalto University, Finland, 2002–2004
Group Marketing Director, Business Unit Manager and Partner, Done Solutions Corp, 2000–2002
Entrepreneur and CEO, Identia Ltd, 1998–2000
Board memberships and public duties:
Chairman of the Board, Benemen Oy, 2018
Board member of Mobile Wellness MWS Oy, 2017–2018
Holdings: number of shares 27,585

BRUCE ORECK

Board member since 2016
Born 1953, LL.M. (Taxation)
Main employment history:
CEO, The Train Factory Oy, 2018–
Executive in Residence, Aalto University, 2016–
Ambassador to Finland, United States, 2009–2015
Founding and managing partner, Oreck, Bradley, Crighton, Adams & Chase, 2005–2009
Executive Vice-President and General Counsel, Oreck Corporation, 1993–2003
Board memberships and public duties:
Member of the Board, U.S. Green Building Council (USGBC), 2016–
Holdings: number of shares 12,143

PÄIVI REKONEN

Member of the Board since 2017
Born 1969, M. Sc. (Economics), M.Sc. (Social Sciences)
Main employment history:
Currently an independent strategy advisor and professional board member, 2018–
Managing Director, Group Technology, UBS, 2014–2018
Senior Vice President, Global Head of Digital Strategy, Adecco Group, 2011–2012
Head of IT, Credit Suisse, 2007–2009
Various leadership roles, Cisco Systems, 1998–2007
Various leadership roles, Nokia, 1990–1998
Current board memberships and public duties:
Member of the Board, Alma Media Oyj, 2018–
Member of the Board, Arantio Oy, 2018–
Member of the Board, Efecte Oyj, 2018–
Member of the Board, Konecranes Oyj, 2018–
Member of the Strategy Advisory Board, UNOPS, 2018–
Holdings: number of shares 6,850

CHRISTINE BEJERASCO

Member of the Board since 2018
Born 1982, B.Sc. (Computer Science)
Main employment history:
Director, Consumer BU Desktop R&D, F-Secure Oy, 2018–
Senior Manager, Consumer BU R&D, F-Secure Oy, 2017–2018
Senior Manager & Service Lead, Labs, F-Secure Oy, 2015–2017
Manager & Service Owner, Labs, F-Secure Oy, 2010–2015
Malware Analyst & Shift Manager, Labs, F-Secure Oy, 2008–2010
Independent Contractor, PC Tools Pty. Ltd., 2006–2008
Threat Analyst, Trend Micro, Inc., 2003–2006
Board memberships and public duties:
Chairman of the Board, Titas of Espoo Oy, 2018–
Holdings: number of shares 2,732

NON-CURRENT MEMBERS

ARI INKI

Board member since April 2017 until April 2018
Born 1974, B. Sc. (Computer Engineering), MBA
Main employment history:
Chief Architect and Vice President of Architecture & Platforms, F-Secure, 2017–
Chief Architect and Head of Technology Office, F-Secure, 2011–2017
Various research and development roles, F-Secure, 2008–2017
Information Security Specialist, TietoEnator, 2007–2008
Architect, Technical Product Manager and Software Developer, F-Secure, 1999–2007
Holdings: number of shares, 6,856

SOFIE NYSTRØM

Board member since April 2017 until April 2018
Born 1978, Ms. Sc. (Computer Science)
Main employment history:
Director, NTNU Center for Cyber and Information Security, 2015–
Vice President, Head of Group Security, Telenor Group, 2014–2015
Executive Vice President, Chief Information Security Officer, DNB Bank, 2008–2013
Director, Symantec Norway, Consulting services, 2006–2008
Manager, National Security Authority, Norway, 2004–2006
Holdings: number of shares 2,830

LEADERSHIP TEAM

In this section are the biographies of all the members of the Leadership Team during 2018. Shareholdings are listed as of 31 December 2018 unless otherwise stated.

SAMU KONTTINEN

President and CEO
Born 1973, MBA
Member of the Leadership Team since 2009
Main employment history:
President and CEO, F-Secure, 2016–
Executive Vice President, Corporate Security, F-Secure, 2016
Executive Vice President, Consumer Security, F-Secure 2014–2016
Executive Vice President, Customer and Market Operations, F-Secure, 2012–2014
Vice President, Sales and Marketing, F-Secure, 2011–2012
Vice President, Sales and Geographical Operations, F-Secure, 2009–2011
Vice President, Mobile Business Unit, F-Secure, 2007–2009
Various leadership roles in sales and channel management, F-Secure, 2005–2007
Vice President, Sales, Valimo Wireless, 2001–2005.

Board Memberships:
Chairman of the Board, Finnish Information Security Cluster (FISC), 2017–
Member of the Board, European Cyber Security Organization (ECSO), 2018–
Member of the Board, Information Technology branch group, Technology Industries of Finland, 2016–
Member of the Board, Digitalist Plc, 2011–2018
Member of the Board, Viria 2018–
Holdings: number of shares 101,787

JUHA KIVIKOSKI

EVP, Enterprise & Channel Sales – as of 1 March 2018
Born 1970, M.Sc. (Econ.)
Member of the Leadership Team since 2018
Main employment history:
Executive Vice President, Enterprise & Channel Sales, F-Secure, 2018–
Managing Director, Dustin Finland, 2015–2017
Vice President, Sales, McAfee/Intel Security, 2013–2015
Chief Operating Officer, Stonesoft, 2009–2013
Several senior leadership positions at large technology companies including Siemens and Cisco systems.
Holdings: number of shares 2,639

KRISTIAN JÄRNEFELT

Executive Vice President, Consumer security
Born 1965, M.Sc (Economics)
Member of the Leadership Team since 2016
Main employment history:
Executive Vice President, Consumer security, F-Secure, 2016–
Director, Sales, Fujitsu Finland Oy , 2014–2015
CEO and partner, Miradore Oy, 2010–2014
CEO and partner, Concilio Networks Oy, 2006–2009
Various senior leadership roles, Hewlett-Packard, 1994–2006
Holdings: number of shares 19,684

JYRKI ROSENBERG

Chief Marketing Officer
Born 1971, M.Sc. (Communication), MBA
Member of the Leadership Team since 2016
Main employment history:
Chief Marketing Officer, F-Secure, 2018–
Executive Vice President, Corporate Security, F-Secure, 2016–2018
CEO and a member of the Board, MixRadio Ltd 2015–2016
Vice President, Entertainment Businesses, Microsoft Devices Group , Nokia Corporation, 2012–2015
Various of senior roles in marketing, sales, product development and general management, Nokia, 1996–2012
Holdings: number of shares 2,639

IAN SHAW

EVP Cyber Security
Born 1971
Member of the Leadership Team since 2018
Main employment history:
CEO, MWR InfoSecurity, 2003–2018
Holdings: number of shares 62,500

JARI STILL

Chief Information Officer
Born 1965, B.Sc
Member of the Leadership Team since 2012
Main employment history:
Chief Information Officer, F-Secure, 2016–
Vice President, R&D Operations, F-Secure, 2012–2016
Head of Research and Development, Mobile Business Unit, F-Secure, 2000–2012
Co-founder and CEO, Modera Point Oy, 1991–2000
Various product development and management roles in Finnish telecommunication and software companies, 1987–1991
Board Memberships:
Member, Innovation Working Group, Technology Industries of Finland, 2018–
Holdings: number of shares 120,341

MIKA STÅHLBERG

Chief Technology Officer
Born 1973, M.Sc. (Engineering), Officer's degree
Member of the Leadership Team since 2016
Main employment history:
Chief Technology Officer, F-Secure, 2016–
Director, Strategic Threat Research, F-Secure, 2014–2016
CTO, Security, F-Secure, 2012–2014
Vice President, Labs, F-Secure, 2009–2012
Director of Security Research, F-Secure, 2008–2009
Various position, F-Secure, 2004–2008
Various positions, Finnish Defense Forces, 1998–2004
Holdings: number of shares 29,263

ERIIKKA SÖDERSTRÖM

Chief Financial Officer
Born 1968, M.Sc. (Econ.)
Member of the Leadership Team since 2017
Main employment history:
CFO, KONE Corporation, 2013–2016
CFO, Vacon Corporation, 2009–2012
CFO, Oy Nautor Ab, 2008
Various senior finance leader roles, Nokia Networks and Nokia Siemens Networks, 1994–2007
Board memberships:
Member of the Board, Valmet, 2017–
Holdings: number of shares 52,639

JYRKI TULOKAS

Executive Vice President, Strategy and Corporate Development
Born 1975, M.Sc. (Economics)
Member of the Leadership Team since 2016
Main employment history:
Executive Vice President, Cyber Security Products & Services, F-Secure, 2018–
Executive Vice President, Strategy and Corporate Development, F-Secure, 2016–2018
Various leadership roles in product management, marketing, strategy and business development operations, F-Secure, 2007–2016
Head of Business Development, Suunto, 2005–2007
Holdings: number of shares 15,490

NON-CURRENT MEMBERS

MARI HEUSALA

Executive Vice President, Human Resources and Office services – until September 2018

JENS THONKE

Executive Vice President, Cyber Security Services– until March 2018

REMUNERATION STATEMENT

DECISION MAKING PROCESS ON REMUNERATION

F-Secure's general meeting of shareholders decides on the remuneration of the Board of Directors and members of board committees. Board of Directors' personnel committee prepares proposals on the Board of Directors remuneration. Based on the personnel committees proposal the Board of Directors proposes remuneration for the general meeting of shareholders.

F-Secure's general meeting of shareholders also decides on authorizations for the Board of Directors to issue shares or special rights entitling to shares or to repurchase F-Secure shares for remuneration and incentive purposes.

Authorizations of the Board of Directors

The annual general meeting of F-Secure on 4 April 2018 resolved on the Board of Directors' authorization to decide on repurchase of a maximum of 10,000,000 own shares of the company. The board is authorized to deviate from the proportional holdings of the shareholders (directed repurchase). The repurchased shares may be used on the Board of Directors' decision as part of the company's incentive scheme or otherwise further assigned. The authorization is proposed to be valid until next Annual General meeting however not longer than until June 30, 2019.

The annual general meeting of F-Secure on 4 April 2018 resolved on the Board of Directors' authorization to decide on the issuance of a maximum of 31,000,000 shares or special rights entitling to shares under Finnish Companies Act. The Board of Directors is authorized to deviate from the pre-emptive rights of shareholders (directed issue). The issuance of shares or special rights may be used on the Board of Directors' decision as part of the company's incentive scheme or for other purposes decided by the Board of Directors. The authorization is proposed to be valid until next Annual General meeting however not longer than until June 30, 2019.

REMUNERATION OF THE BOARD OF DIRECTORS

Remuneration of the Board of Directors proposal to the company's annual general meeting is based on among other things benchmarking data reviewed on board compensation reviewed by the Personnel Committee. When reviewing benchmarking data and other market trends the Personnel Committee considers among other things the company's ability to attract and retain highly skilful members to the Board of Directors. For the purposes of further aligning the interests of members of the Board of Directors and the shareholders of the company a significant part of each board members' remuneration is paid in shares of the company.

Approximately 40% of the annual remuneration will be paid in F-Secure's shares. The company will purchase such shares under the name of each member of the Board of Directors directly from the Nasdaq Helsinki stock market where F-Secure shares are publicly traded. No additional meeting fees are paid to members of the Board of Directors. The company will pay any applicable asset transfer tax arising from remuneration paid in shares on board members' behalf.

For Members of the Board of Directors, changes in the holdings of the company shares and rewards paid in shares are reported according to the Market Abuse Regulation. Related stock exchange releases are available on the company web pages. Full ownership details are reported in connection with the biographical details of the members.

Position	Remuneration Paid in Cash	Remuneration Paid in Shares	Total
Chairman of the Board	48,000 EUR	32,000 EUR	80,000 EUR
Committee Chairmen	28,800 EUR	19,200 EUR	48,000 EUR
Members of the Board	22,800 EUR	15,200 EUR	38,000 EUR
Member belonging to the personnel of the Company	7,600 EUR	5,067 EUR	12,667 EUR

COMPENSATION OF THE CEO AND THE LEADERSHIP TEAM

The Board of Directors nominates the Chief Executive Officer and decides on his/her remuneration and benefits. Mr. Samu Konttinen has acted as the Chief Executive Officer since 1 August 2016.

Key principles of rewarding considering the CEO and Leadership Team members

Compensation of the CEO and other members of the Leadership Team are decided by the Board of Directors. Personnel committee prepares materials and otherwise advises the Board of Directors on remuneration related matters. Changes to Leadership Team members' salaries are proposed by the CEO and changes to CEO's salary are proposed by the Personnel Committee. The compensation of the CEO and other members of the Leadership Team consists of base salary, benefits, short-term incentives and long-term incentives.

The CEO and other members of the Leadership Team are entitled to receive performance based rewards which are paid based on achievements in specific financial and operative criteria set by the Board of Directors . About half of the total compensation of the CEO and other members of the Leadership Team is paid as fixed monthly salary and the rest consists of short and long term incentives and fringe benefits.

F-Secure's compensation systems in general are based on rewarding for performance and competencies. Compensation is designed to be competitive compared to relevant reference markets, increase commitment and work engagement and be consistent across the organization. F-Secure aims to pay at least market level base salaries to attract and retain talent.

F-Secure's Short-term incentives are intended to share company's success with employees and increase commitment to company performance. Long-term incentives are a part of F-Secure's key employee incentive and retention program to is to support company´s strategy by aligning the interests of the shareholders and the key employees and to recognize and reward selected employees for strong performance and of future potential for F-Secure. Employee benefit plans are at least on market practice levels to attract talent and increase employee wellbeing.

Fixed Remuneration of the CEO and the Leadership Team

The fixed remuneration on the CEO and other members of the Leadership Team consists of base salary and fringe benefits. The CEO and other members of the Leadership Team do not receive any additional compensation for their work in the Leadership Team or for acting in other decision making bodies of the Corporation.

Base Salary (Monthly Fixed Pay)

Base salary is the core part of the fixed remuneration for the CEO and other members of the Leadership Team. The payments to CEO and other members of the Leadership team are done with the same monthly schedule as for other employees.

Fringe Benefits

CEO and other members of the Leadership team have same taxable (car, mobile phone and lunch benefit) and non-taxable fringe benefits which the company offers to its employees.

Pensions

Pension accumulation and retirement age of the CEO and other members of the Leadership Team are determined by the terms of the applicable law in each country. Pension payment for the CEO and the Leadership Team members in Finland is based on the Finnish Pension Act (TEL).

Terms of notice for the CEO

The period of termination notice for the CEO is six (6) months on CEO's and on the Company's side. Possible termination of CEO's contract does not include any other compensation.

Variable Compensation and Performance Based Rewarding

The variable compensation of the CEO and other members of the Leadership Team consists of short term incentives and long term incentive programs. The Board of Directors decides on the terms and conditions, the earning criteria and the payment of the rewards from the plans.

Short Term Performance Based Incentive programs (STI)

The target reward for the CEO is 50% of his annual base salary and 30% for the other members of the Leadership Team. The maximum reward from the short term incentive program for the CEO is 100% of his annual base salary. The maximum reward for other Leadership Team members is 60% of their annual base salary.

Long-term Performance Based Incentive programs (LTI)

F-Secure has currently a Share based Incentive Program 2017–2019 with two active earning periods 2017–2019 and 2018–2020.

The target reward from the current active LTI programs for the CEO is 100% of his annual base salary and 75% for the other members of the Leadership Team. The CEO is a participant in the 2017–2019 and 2018–2020 earning periods.

Performance Based Share programs (Long-term Share Based Incentive Programs)

F-Secure Corporation has a share based incentive program for 2017–2019 in force for its key employees. Participants in the program may earn shares of F-Secure Corporation based on Corporation level business targets set by the Board of Directors separately for each three year earning period.

Share Based incentive program 2017–2019

The share based incentive program 2017–2019 was established in February 2017. The total duration of the program is five years and it comprises of three annually (1st Jan 2017, 1st Jan 2018 and 1st Jan 2019) commencing earning periods each lasting three years. Program ends 31st December 2021.

The possible gross rewards from the programs are paid as 50% in shares and 50% in cash to cover taxes. The rewards are paid using company's own shares. The maximum total reward of the entire program is 10,000,000 shares. Possible payments based on the program are done separately for each earning period after each earning period ends. Payments are based on performance against a revenue target set by the Board of Directors.

There are no restrictions set for the shares received from the share based incentive programs. The participants in share-based incentive programs are recommended hold at least 50% of the received shares and to cumulate the shares from the incentive programs until the value of the shares received from

Period	2017	2018	2019	2020	2021
2017–2019	Earning Period I				
2018–2020		Earning Period II			
2019–2021			Earning Period III		

the share programs equals the annual gross base salary of the employee.

Matching Share Plan

The Board of Directors has decided to introduce a matching share plan for F-Secure personnel. Purpose of the program is to incentivize personnel to become shareholders in the company and increase their commitment as well as reward them through the potential increase of share value.

Participation was offered for all employees to take part in the retention period 2018–2020. Participation was voluntary, and every participant was eligible to acquire shares worth a maximum of 10 000 euros.

F-Secure will give participants one extra share (gross) for each two shares acquired through the plan in spring 2020. Dividends paid to the invested shares during the retention period will be reinvested in shares, thus, entitling the participants to additional matching shares.

Some members of the Leadership Team (and Christine Bejerasco as the member of the Board of Directors and the CEO) have chosen to participate this incentive program.

Position	Number of Shares
CEO and President	2,639
Other Leadership Team members in total	15,834
Christine Bejerasco (Board Member belonging to the personnel of the Company)	792

REWARDING OF THE CEO AND THE LEADERSHIP TEAM IN 2018

Leadership Team Compensation in 2018

Position	Fixed payments	Benefits	Short term incentives and bonuses	Long-Term incentives	Total
CEO and President Konttinen Samu	294,000 EUR	240 EUR	196,431 EUR	125,690 EUR	616,361 EUR
Other Leadership Team members in total*	1,388,111 EUR	97,112 EUR	479,573 EUR	529,083 EUR	2,493,879 EUR
Total	1,682,111 EUR	97,352 EUR	676,004 EUR	654,773 EUR	3,110,240 EUR

BOARD COMPENSATION IN 2018

Position	Reward paid in Cash	Reward paid as shares	Total
Siilasmaa Risto	48,003 EUR	31,997 EUR	80,000 EUR
Ervi Pertti	28,801 EUR	19,199 EUR	48,000 EUR
Heikkonen Matti	22,801 EUR	15,199 EUR	38,000 EUR
Oreck Bruce	22,801 EUR	15,199 EUR	38,000 EUR
Rekonen Päivi	22,801 EUR	15,199 EUR	38,000 EUR
Bejerasco Christine	7,601 EUR	5,066 EUR	12,667 EUR
Total	170,808 EUR	101,859 EUR	254,667 EUR

CURRENT SHAREHOLDINGS OF THE CEO AND OTHER MEMBERS OF THE LEADERSHIP TEAM

According to the Market Abuse Regulation (MAR) stock exchange releases are published of all share transactions of the CEO and other members of the Leadership Team, including all rewards paid to them as F-Secure financial instruments. Stock exchange releases are available on the Company web-pages. The total amounts of company shares held by the Board of Directors and the Leadership Team members is published in the Corporate Governance Statement.

INFORMATION FOR SHAREHOLDERS

The main goal of F-Secure's investor communications is to make available correct, up-to-date information about F-Secure and its operations – impartially and simultaneously to all interest groups.

All published investor information including annual reports, interim reports, as well as stock exchange and press releases are available on the Group's website www.f-secure.com/investors.

Subscriptions for the emailing list for stock exchange releases can be made by sending your contact details to investor-relations@f-secure.com.

F-Secure publishes a financial statement release, a half year report and two interim reports during 2019 and arranges news conferences for media and analysts at the time of publishing of the quarterly reports. F-Secure observes a three-week silent period before the publishing of each quarterly report. During this time, F-Secure neither arranges meetings nor phone conferences with investors or analysts.

Annual General Meeting

The Annual General Meeting of F-Secure Corporation is scheduled to be held on Tuesday, 19 March 2019. More information on how to attend as well as the documents for the meeting are available on the Group's webpage www.f-secure.com/agm.

Financial calendar for 2019

Q1 Interim Report	8 May
Q2 Half year report	19 July
Q3 Interim Report	30 October

F-Secure share facts

Listing since (1999) NASDAQ OMX Helsinki Ltd.
Trading symbol FSC1V
Number of shares 158,798,739

IR Contacts

For any inquiries on F-Secure as an investment target, please contact:

Tapio Pesola,
Investor Relations Manager
investor-relations@f-secure.com
+358 44 3734693

F-Secure Corporation
Corporate Headquarters
Tammasaarenkatu 7
P.O. Box 24
00181 Helsinki, Finland
Tel. +358 9 2520 0700
www.f-secure.com

AT YOUR SIDE, WATCHING YOUR BACK.

F-Secure Corporation
Tammasaarenkatu 7
P.O. Box 24, 00181 Helsinki
Tel. +358 9 2520 0700
helsinki@f-secure.com
www.f-secure.com