Studsvik

ANNUAL REPORT 2019

INFORMATION TO SHAREHOLDERS

ANNUAL GENERAL MEETING OF SHAREHOLDERS, APRIL 29, 2020

The Annual General Meeting will be held in Stockholm, World Trade Center, Klarabergsviadukten 70 / Kungsbron 1, on Wednesday, April 29, 2020, at 4 p.m.

Notification

Shareholders wishing to participate must be registered in the share register kept by Euroclear Sweden AB by Thursday, April 23, 2020, and must give notification of their intention to attend by Thursday, April 23, 2020.

- via Studsvik's website, www.studsvik.se.
- by telephone, + 46 155 22 16 42,
- by mail to Studsvik AB, SE-611 82 Nyköping, Sweden
- by email to studsvik@studsvik.com, or
- by fax, +46 155 26 30 70

The shareholder's notification should state

- name
- personal/corporate identity number
- address and telephone number
- number of shares

For entitlement to vote at the Annual General Meeting, shareholders with nominee-registered holdings must apply to the bank or broker managing their shares for temporary re-registration a couple of banking days before Thursday, April 23, 2020.

FORTHCOMING FINANCIAL INFORMATION 2020

• Interim Report January-March 2020	April 29 , 2020
• Interim Report January–June 2020	July 21, 2020
• Interim Report January–September 2020	October 23, 2020
• Year-end report 2020	February 2021
• Annual Report 2020	April 2021

The reports will be available at www.studsvik.com on the publication dates.

CONTENTS

Studsvik stands for safe and effective solutions

We offer specialized services in materials testing, software and waste management methods to companies, mainly in nuclear technology, but are also engaged as experts in other radiological areas.

SALES	ADJUSTED OPERATING MARGIN	ADJUSTED OPERATING PROFIT
654	0.7	4.4
MILLION KRONOR	PER CENT	MILLION KRONOR

Studsvik's vision is to making it easy to benefit from clean nuclear energy.

Studsvik's mission is to create effective, customer-focused solutions to complex problems, through Studsvik's proven ability to innovate.

Nuclear power is one of several types of energy that reduce greenhouse gases and our 70-years' experience contributes to even safer solutions and higher efficiency in the nuclear power industry and to the production of medical isotopes for hospitals.

NET DEBT/EQUITY RATIO

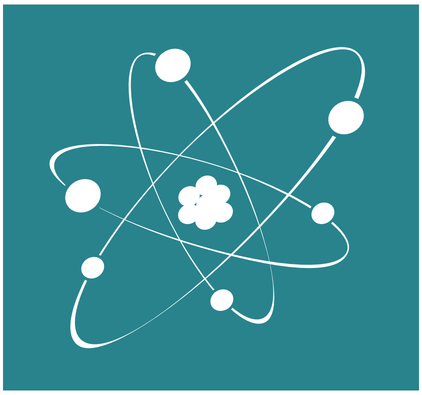
27.4

PER CENT

NUMBER OF EMPLOYEES

552

IN SEVEN COUNTRIES



FREE CASH FLOW

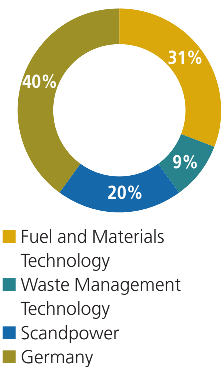
-38.8

MILLION KRONOR

2019 IN REVIEW

Radical changes have been implemented in the Waste Management Technology and Germany business areas. During the year Scandpower developed as expected, while Fuel and Materials Technology was affected by delays associated with starting deliveries to Elekta. In the latter part of the year the effects of changes made started to make an increasing impact on the Group's earnings. As a consequence of poor profitability and major investments in production equipment, the Group's free cash flow was weakened.

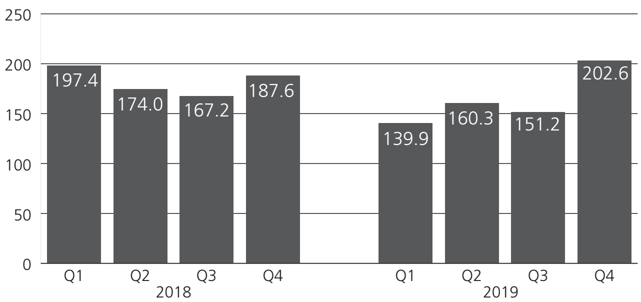
Sales by area of operation



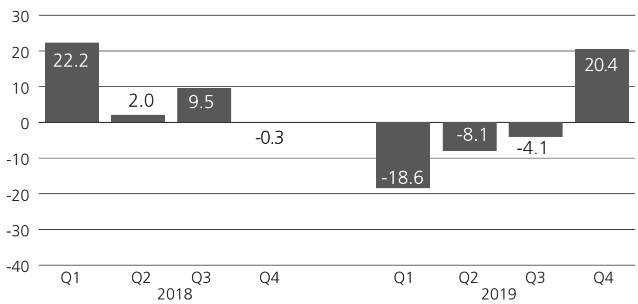
Key ratios

	2019	2018
Sales, SEK million	654.0	726.1
Operating profit, SEK million	–10.4	33.5
Profit/loss after net financial items, SEK million	–22.8	18.7
Earnings per share, SEK	–3.41	1.06
Operating margin, %	–1.6	4.6
Free cash flow, SEK m	–38.8	54.2
Net debt-equity ratio, %	27.4	14.0
Equity per share, SEK	36.84	38.47
Average number of employees	552	624

Sales in SEK million



Adjusted operating profit in SEK million



EVENTS IN 2019

RESTRUCTURING OF WASTE MANAGEMENT TECHNOLOGY

The business area Waste Management Technology (formerly Consultancy Services) was restructured. The business area focuses on our technical platforms for conditioning and volume reduction of radioactive waste. The restructuring means that only engineering services linked to the sale of licenses in this area will be retained. The operations in England will continue to only include partnership in and services related to the storage of low-level waste in Cumbria.

ELEKTA

Two deliveries of packaged medical isotopes were made in the fourth quarter. The production rate in 2020 is expected to increase.

OFFICE ESTABLISHMENT IN CHINA

The establishment of the legal entity in China was an important strategic step to get closer to Chinese customers and may give us the opportunity to grow in the Chinese market.

FINANCING

Studsvik has bank financing totaling SEK 150 million. Of this, SEK 50 million is a corporate loan with a maturity of five years and the remaining SEK 100 million is an overdraft facility. The financing was extended in autumn 2019 and applies to the year-end 2020/2021.

CHANGES IN THE EXECUTIVE GROUP MANAGEMENT

Claes Engvall was appointed as Chief Financial Officer and member of the Executive Group Management. He took up the position at the beginning of June 2019.

IMPORTANT STEPS TAKEN FOR 2020

Towards the end of the year we saw positive effects of the improvements made.

Several license transactions were completed in the last quarter in Scandpower for software negotiated in the past year. In the second half of 2019 the effects were more apparent in Waste Management Technology and Germany due to cost savings, a more profitable customer and project mix and reduced sickness absence for the German operations. Fuel and Materials Technology delivered two sets of packaged medical isotopes to Elekta with groundbreaking technology in a hot-cell environment and other project activities are now back to a more normal status. Cost adjustments are ongoing within administration.

A total analysis was made of the German operations, which have been a disappointment in terms of earnings. New operative management, cutbacks in administration and renegotiated customer contracts resulted in a more profitable operation.

During the year we also faced challenges in the former consulting operations, which reported very negative development with an unprofitable business model and far too sprawling an organization. It was therefore necessary to restructure the operations. The business has a forward focus on our waste management technology platforms. In connection with these changes, the operations changed name to Waste Management Technology to better describe the new focus. The adjustment has meant cost savings through discontinuing operations in the Middle East and staff cutbacks in the United Kingdom and Sweden. The Elekta project has been a challenge for us and many resources in the organization have been devoted to managing the customer commitment.

We are in a dynamic market that is spread globally, and an industry characterized by complex decision-making and regulation. Studsvik has a strong market position in the global nuclear power industry, where we offer innovative solutions that support reactors in operation and in process of decommissioning for safe and effective nuclear power. A good example is qualification of a new fuel, where customers are offered software-driven hot-cell testing and optimization of fuel that is unique in the world. Other good examples of the broadening of the Fuel and Materials Technology business area are offering material studies for lifetime extension and concepts for preparing and repackaging of fuel before final disposal. Another example is our offers in decommissioning and dismantling where our operations in Germany are strongly established and are now seeing increased demand for our services. There is a greater political drive today to take care of radioactive waste, calling for effective solutions. The Waste Management Technology business area offers licensing business with associated engineering services to stabilize and reduce the volume of radioactive waste.

We have three principles that are crucial for the company's profitability and that function as guidelines for Studsvik's sustainability work. These principles are to develop environmentally sustainable solutions for the nuclear industry, be an attractive employer for our potential and existing employees and take responsible and long-term economic decisions.

The challenges in 2019 have meant changes in our service offer and organization through discontinuing unprofitable consulting operations and developing a new segment for medical isotopes. With the experiences from adjustments in 2019 the organization is standing on firmer ground on which to build growth strategies as part of our sustainability principles.

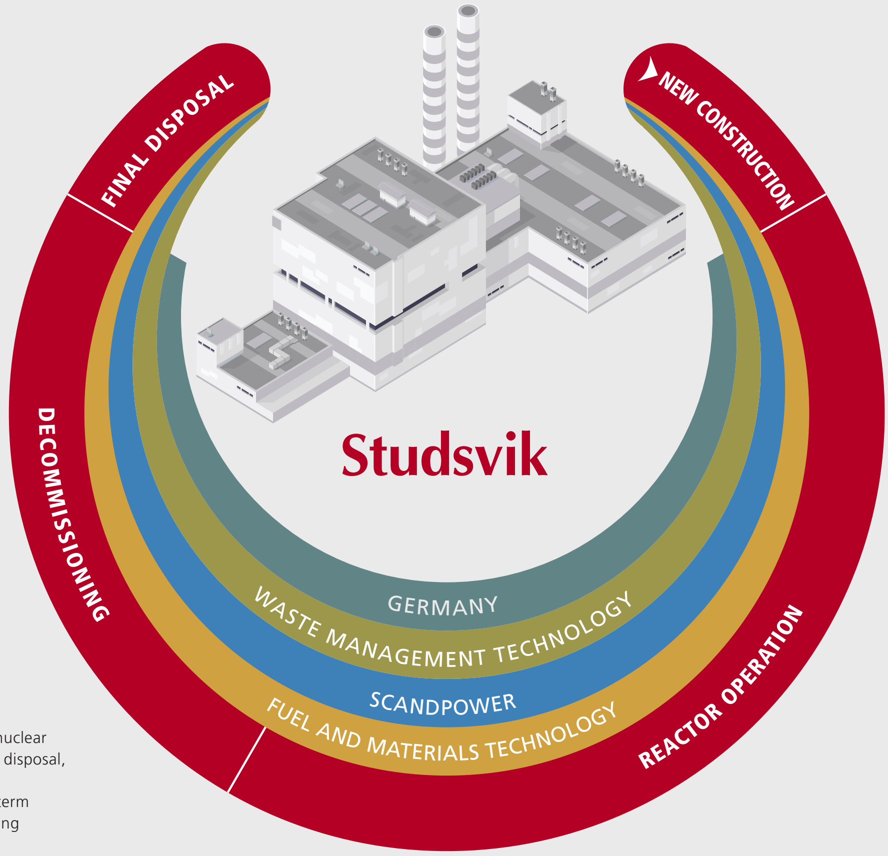
Some of our strengths for 2020 are:

- A competent organization that understands complex problems and creates pragmatic solutions
- Contacts and accessibility to global decision-makers and customers
- Well-known global brand

Important steps have been taken and I am looking forward with confidence to 2020!

Stockholm, February 2020
Camilla Hoflund

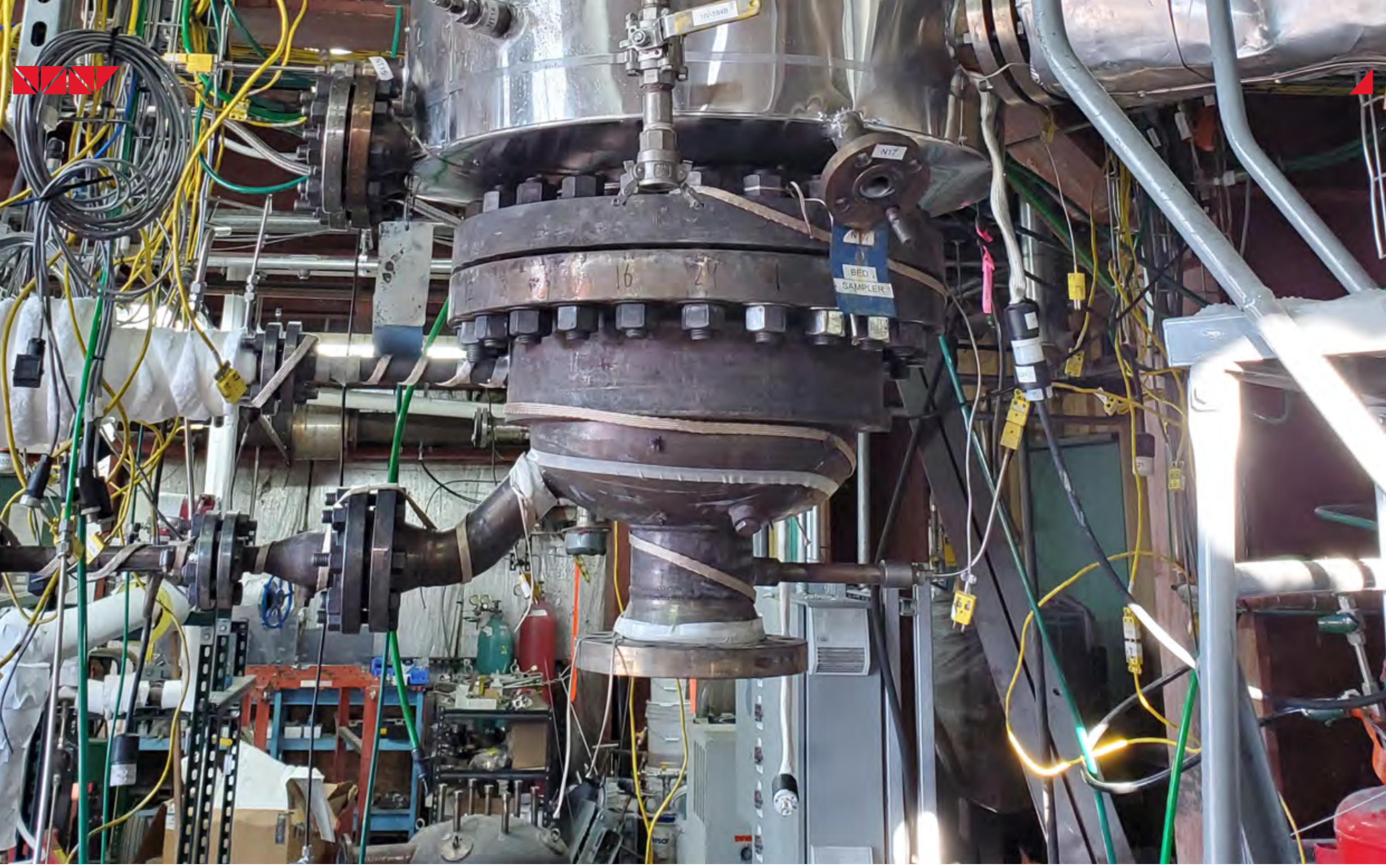
STRATEGIES AND GOALS



Studsvik offers services in various parts of the nuclear power lifecycle, from new construction to final disposal, as in the image. We continue to develop into a profitable and sustainable company. Our long-term financial target continues to be an 8 % operating margin (see page 11).

STRATEGIES FOR GROWTH IN THE NUCLEAR POWER INDUSTRY	EXAMPLES OF SERVICES	EXAMPLES OF MARKETS
New construction: Sell established services in markets for new construction	• Testing and licensing of fuel • Software for in-core fuel management • Waste strategies and optimization	*Asia, Middle East*
Reactor operation: Develop current areas of competence to support safe and effective operation	• Qualification of fuel (tests) • Software for safe and optimal use of fuel • Material studies for life extension • Qualified personnel in radiation protection	*Global*
Decommissioning: Broaden current service offer and support safe and effective decommissioning	• Preparation and repackaging of fuel for final disposal • Volume reduction and enabling final disposal of radioactive waste • Qualified staffing in radiation protection • Calculation models and staffing for effective and safe radiological clearance	*Europa*
Final disposal: Broaden current service offer and support safe and effective final disposal	• Software for safe management of fuel in interim storage and final disposal • SKB/EU research program	*Europe*

FURTHER STRATEGIES	
Develop new markets	• Development of automated production for packaging of isotopes
Develop partnerships	• Established service providers in markets new to us • Suppliers that complement our service offer



FROM IMPOSSIBLE TO POSSIBLE

There is material that cannot be sent for final disposal as it is. Ion exchange resins is an example of such material. Ion exchange resins are found for example in purification systems in atomic submarines and nuclear power plants. This is wet organic material and such material may not be sent for final disposal as it can result in various chemical reactions over time. This applies also to other types of fluid, sludge, gases or historical waste from nuclear or military facilities.

Studsvik has the solution to this problem.

By treating the material in a facility where it is oxidized at a controlled temperature, chemical and water steam environment (without incineration), the material reacts, and the result is a mineral product where radionuclides remain in the dry stable end product. An end product with perfect qualities for long-term final disposal and excellent embedding qualities if a physically stable material to treat and finally dispose of is what is required. Stable waste is environmentally very important.

Apart from the fact that the material can now be sent for final disposal, the process has also entailed volume reduction and about 10 % of the original amount needs to take up space in the final repository. Another advantage is that no or only minor pre-treatment is required and thus this technology can address a number of waste streams cost-effectively.

Our technology is specially developed for specific radiological, hazardous and environmentally impactful waste streams. It is a robust, tested and patented technology that has been in operation since 1999. The technology is well-suited to help countries with historical waste, as well as electricity producers with waste from commercial electricity generation. Studsvik sells the technology under license and there are a number of facilities in operation.

Facts about the technology

Our patented application of the technology is called Fluid Bed Steaming Reforming, or FBSR. We sell it under license, and it is available in three different capacity versions. For ion exchange resins for example there are – 500 tonnes/year, 3,600 tonnes/year or 15,000 tonnes/year.

FBSR handles ion exchange resins and other organic material. The waste can be low or high level.

FBSR reduces the volume up to about 90 per cent, which gives a cost-effective result for final disposal. We have patented FBSR in the USA, China, Japan and Europe. There are two established facilities in the USA and one under construction in France.

Studsvik's FBSR is based on well-established process technology (fluid bed, steaming reforming) widely used since the 1950s.

ADMINISTRATION REPORT

The Board of Directors and President of Studsvik AB (publ), corporate identity number 556501-0997, hereby submit the annual accounts and consolidated accounts for the 2019 financial year. This document also includes the sustainability report of Studsvik AB, corporate identity number 556501-0997, in accordance with the Annual Accounts Act, Chapter 6, Sections 10-14.

The report covers the company and underlying subsidiaries in the same Group.

Apart from the risks described in this report, the company has not identified any further non-financial risks that are relevant to the business and that are to be described in this report.

BUSINESS ACTIVITIES OF THE GROUP

Studsvik delivers services to the international nuclear power industry. Its customers are mainly nuclear power plants and suppliers to the nuclear industry. Studsvik's operations are conducted at its own facilities in Sweden and at customer sites. The services cover the entire life cycle of the nuclear power plants as regards waste management, engineering services and fuel optimization and issues related to fuel and construction materials.

The company’s share is listed on NASDAQ Stockholm.

MARKET

Demand in Europe is characterized by short-term cost savings at the plants in operation, while customers in Sweden and Germany prepare for future decommissioning. The American market is also characterized by restraint due to the “Nuclear Promise” efficiency-improvement program agreed on by the actors. In Asia market development continues to be positive, mainly driven by major initiatives in China at the same time as demand for our services in Japan is recovering. Global demand for electricity is still expected to grow by more than 30 per cent in the next 25 years, mainly in non-OECD countries where demand from Asia, and mainly China, makes up a considerable part. The positive development, with a growing percentage of renewable and nuclear electricity, is continuing at the expense of fossil fuels

With the prevailing low energy prices the market is focusing on continuing to reduce costs, extend lifespan and increase output while the work of planning for future decommissioning, especially in Sweden and Germany, is increasing. All in all, this means that demand for such services as fuel optimization, management of spent nuclear fuel and engineering services related to decommissioning and waste management is expected to increase.

STUDSVIK'S MARKET POSITION

Studsvik offers selective services to the global nuclear power industry in new construction, reactor operation, decommissioning and final disposal.

STUDSVIK’S AREAS OF OPERATION

Fuel and Materials Technology

Fuel and Materials Technology offers solutions by combining expertise, unique facilities and external networks. Our customers come to us for our customized solutions that are highly flexible, thus meeting their needs exactly.

Waste Management Technology

The Waste Management Technology offer focuses on advanced engineering services, technologies and services that optimize our customers’ radiological programs and management of waste.

Scandpower

Scandpower offers software and engineering services to support nuclear power plants, fuel manufacturers, authorities as well as researchers in next generation reactor developers and research establishments.

Germany

Germany operates in radiation protection, decommissioning, dismantling and decontamination. Its customers are nuclear power plants, research centers and other nuclear facilities in Germany, Switzerland, Belgium and the Netherlands. The services also include practical solutions for working with radiation and radiation protection training adapted to customer needs.

SALES AND EARNINGS

Net sales decreased by 13 per cent in local currencies to SEK 654.0 (726.1) million. The operating profit was SEK –10.4 (33.5) million, including non-recurring items of SEK –14.8 (4.7) million. Adjusted for non-recurring items the operating profit deteriorated to SEK 4.4 (28.8) million.

Fuel and Materials Technology sales decreased by 11 per cent in local currencies, to SEK 200.1 (224.3) million and the operating profit was SEK 25.3 (30.1) million.

Waste Management Technology sales decreased by 30 per cent in local currencies to SEK 56.8 (78.3) million, and the operating profit decreased to SEK –33.6 (–10.7) million.

Sales for Scandpower in local currencies decreased by 10 per cent to SEK 130.1 (137.2) million, and the operating profit to SEK 13.0 (26.8) million.

Sales for Germany in local currencies decreased by 11 per cent to SEK 263.0 (285.4) million, and the operating profit improved to SEK –1.0 (–9.3) million. The business areas' operations and performance are described in more detail on pages 12–19.

PROFITABILITY

The operating margin for the Group was –1.6 (4.6) per cent. Adjusted for non-recurring items the operating margin was 0.7 (4.0) per cent. Return on capital employed was –0.2 (7.4) per cent.

CASH FLOW

Cash flow from operating activities was SEK –13.5 (80.3) million and the free cash flow was SEK –38.8 (54.2) million.

FINANCING

Studsvik has financing with Danske Bank totaling SEK 150 million. Of this, SEK 50 million is a corporate loan with a maturity of five years and the remaining SEK 100 million is an overdraft facility, which during the year was extended to the turn of the year 2020/2021.

FINANCIAL TARGETS

Studsvik's overall financial targets are an average annual growth of 10 per cent, achieving an operating margin of 8 per cent and an equity/assets ratio of at least 40 per cent. During the year sales in local currencies decreased. Adjusted for non-recurring items, the operating margin was 0.7 (4.0) per cent. The equity-assets ratio has increased to 37.5 (35.1) per cent.

INVESTMENTS

The Group's capital expenditure investments amounted to SEK 32.6 (32.1) million.

Investments are mainly related to the order from Elekta.

RESEARCH AND DEVELOPMENT

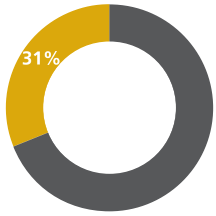
Development projects are initiated and implemented both in partnership with customers in the form of consultancy contracts and within the framework of Studsvik's own product development. Research expenditure is expensed as it is incurred. Identifiable expenditure for the development of new processes and products is capitalized to the extent it is expected to bring economic benefits.

In 2019 total costs of company-funded research and development amounted to SEK 8,8 (9,0) million. The greatest resources were allocated to Studsvik's in-core fuel management codes and reactor operation. Within software development the expenditure is a combination of further development of existing software and new development.

FUEL AND MATERIALS TECHNOLOGY

The business area offers services in materials and fuel technology for nuclear power plants, reactor and fuel manufacturers and authorities, organizations and industrial actors that use irradiated substances. The offer includes fuel qualification, analysis of material, research relating to final disposal, packaging of medical isotopes and advanced consultancy services. Testing and analysis operations are conducted at Studsvik's facility in Sweden and sometimes in collaboration with other international partners. The customer-value based sales are continuing with the objective of maintaining long-term growth through addressing new markets such as China, Russia and Korea as well as an extended range of products and services related to isotopes for industrial and medical use.

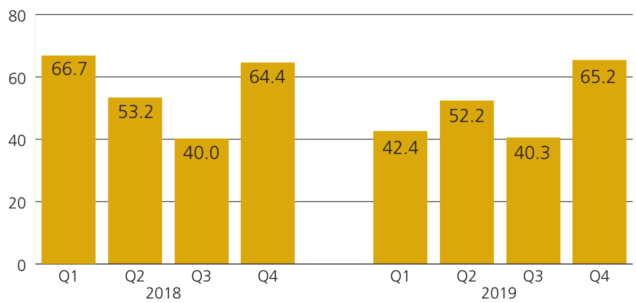
Share of Group sales



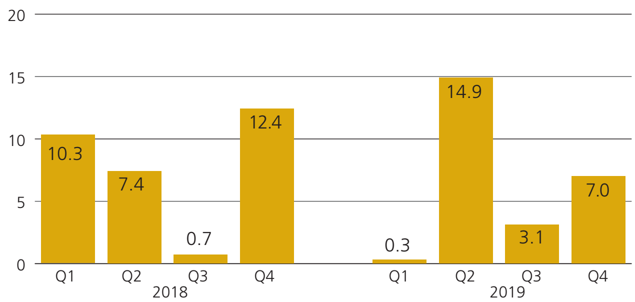
Key ratios

Amounts in SEK million	2019	2018
Sales	200.1	224.3
Operating profit/loss	25.3	30.1
Operating margin, %	12.6	13.4
Items affecting comparability	0.0	0.7
Adjusted operating profit	25.3	30.8
Adjusted operating margin, %	12.6	13.7
Investments	22.9	23.2
Average number of employees	104	98

Sales in SEK million



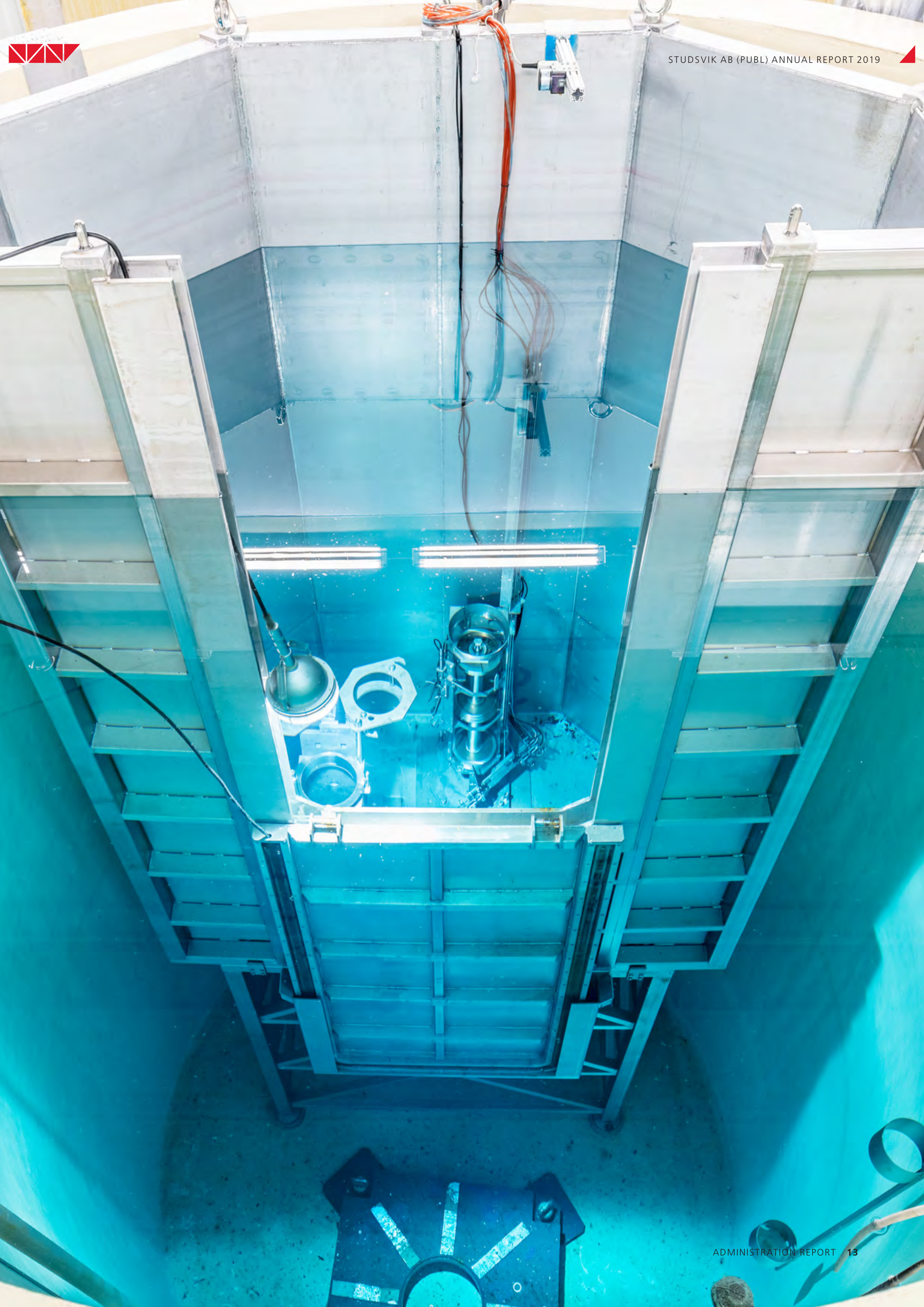
Adjusted operating profit in SEK million



Sales decreased to SEK 200.1 (224.3) million and operating profit to SEK 25.3 (30.1) million. Sales in local currencies decreased by 11 per cent. Items affecting comparability reduced earnings for the year by SEK 0.0 (0.7) million. The operating margin decreased to 12.6 (13) per cent. The operations contribute to improved operating economy and increased security in the nuclear power industry.

During the year the business area has used considerable resources to build up production equipment for packaging isotopes for medical use. At the end of the year the first deliveries of packaged medical isotopes were made to Elekta and ramping up is in progress to manage increased deliveries in 2020. The workload has been high during the year due to delays in the Elekta project, which also impacted other projects but in the past quarter business has returned to a more normal situation.

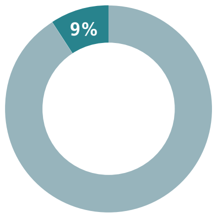
The order situation also gradually strengthened towards the end of the year and a number of major tenders are currently under consideration.



WASTE MANAGEMENT TECHNOLOGY

Studsvik provides licensing of technical solutions to stabilize and reduce the volume of radioactive waste from commercial and non-commercial activities before final disposal. The technical solutions are delivered with associated engineering services to customers in Europe, North America, and Asia, who build and operate their own facilities. In addition specialist services are offered to optimize customers' treatment of waste. The range of services covers the lifecycle from initial waste planning for facilities to management and final disposal of waste, safety analyses and services related to radioactive classified waste arising from decommissioning.

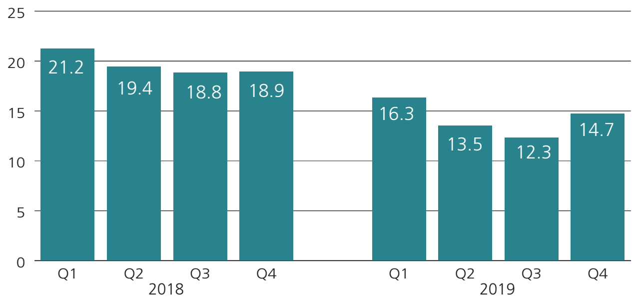
Share of Group sales



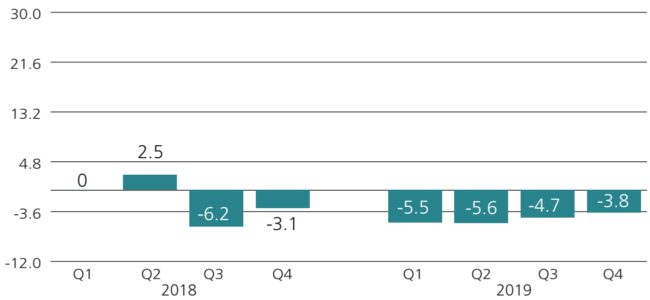
Key ratios

Amounts in SEK million	2019	2018
Sales	56.8	78.3
Operating profit/loss	–33.6	–10.7
Operating margin, %	–59.2	–13.7
Items affecting comparability	14.0	3.9
Adjusted operating profit	–19.6	–6.8
Adjusted operating margin, %	–34.5	–8.7
Investments	4.2	2.4
Average number of employees	46	51

Sales in SEK million



Adjusted operating profit in SEK million



Sales in local currencies decreased by 30 per cent to SEK 56.8 (78.3) million, and the operating profit decreased to SEK –33.6 (–10.7) million. Items affecting comparability reduced earnings for the year by SEK 14.0 (3.9) million. Adjusted for items affecting comparability, the operating margin was –34.5 (–9) per cent.

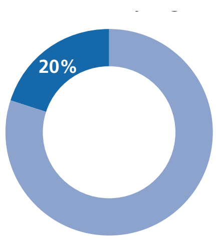
During the year the business area underwent major changes, where focus has moved from consultancy services to licensing of technologies for processing radioactive waste. The restructuring means that staff levels in Sweden and the United Kingdom have been reduced considerably, the Middle East initiative has been discontinued and only activities directly linked to the sale of licenses have been retained. In addition, the operations in England will only include partnership in and services related to the storage of low-level waste in Cumbria.

On a full-year basis, the efficiencies achieved give an earnings improvement to the adjusted operating profit of SEK 10 million as of 2020.

SCANDPOWER

Scandpower is a global leader in software for in-core fuel management and is independent of fuel vendors. The operations are conducted at offices in Europe, the USA, Japan and China. The software development is based in the USA. Scandpower's software is used in half of the world's nuclear power plants. Further development is being undertaken, for example to adapt software for management of fuel in interim storage and final disposal Apart from license fees for software sales, Scandpower receives maintenance fees and consultancy services from customers where the software is installed. Scandpower also sells consultancy services related to fuel analysis.

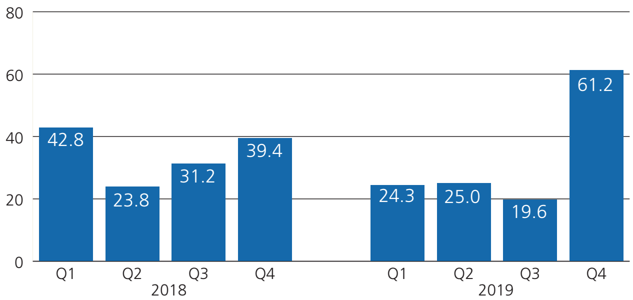
Share of Group sales



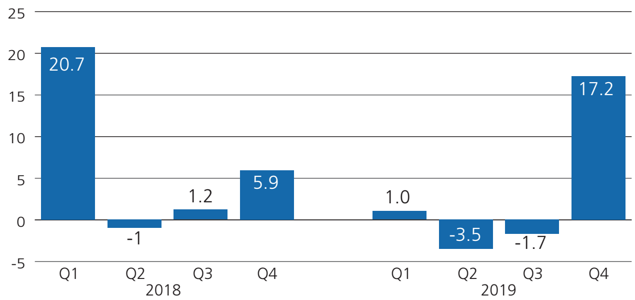
Key ratios

Amounts in SEK million	2019	2018
Sales	130.1	137.2
Operating profit/loss	13.0	26.8
Operating margin, %	10.0	19.5
Items affecting comparability	0.0	0.0
Adjusted operating profit	13.0	26.8
Adjusted operating margin, %	10.0	19.5
Investments	1.3	0.5
Average number of employees	35	33

Sales in SEK million



Adjusted operating profit in SEK million



Sales in local currencies decreased by 10 per cent to SEK 130.1 (137.2) million, and the operating profit decreased to SEK 13.0 (26.8) million. The operating margin was 10.0 (19.5) per cent. Sales mainly consist of software licenses, maintenance agreements and consultancy services linked to the software. Software is sold both as one-time licenses and annual fee subscriptions.

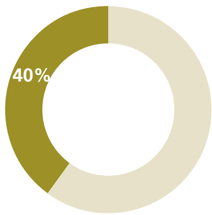
During the year a large number of orders were signed with customers in the USA, Europe and China. Interest in Scandpower's software and upgrades is growing in the USA and in the fourth quarter several business transactions took place in the USA. A detailed investigation by the US export controls of our software resulted in a reclassification of our products. This provides greater opportunities, for example for the Chinese market, which is the third largest with about 45 reactors in operation and another dozen under construction and about 88 operating units in 2025.

With our software exempted from the more extensive export controls and establishment of the new office in China, business opportunities for all our software are facilitated in the vigorously expanding nuclear market in China.

GERMANY

Studsvik Germany operates in radiation protection, maintenance, decommissioning, dismantling and decontamination. Its customers are nuclear power plants, research centers and other nuclear facilities in Germany, Switzerland, Belgium and the Netherlands. Studsvik's decommissioning services cover the entire process from feasibility studies, planning and project management to practical work on radiological assessment, disassembly, dismantling and subsequent waste management and recycling. The projects integrate the use of traditional decommissioning methods together with advanced tools and calculations for materials management, decontamination, and technology for monitoring and radiological clearance. The staff are experienced in waste characterization, sorting, packaging, transport and processing contaminated material, which optimizes the decommissioning process and saves time and money for customers.

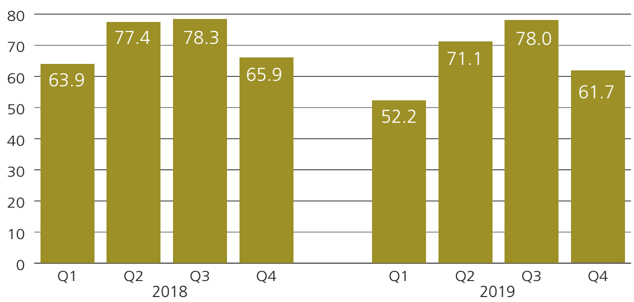
Share of Group sales



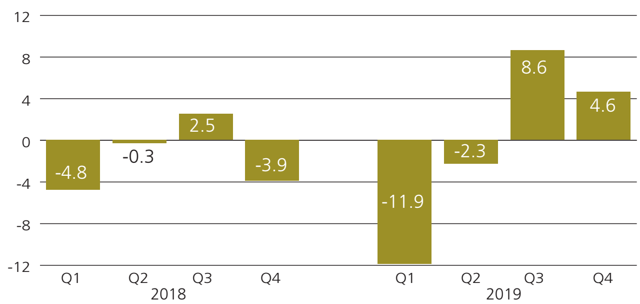
Key ratios

Amounts in SEK million	2019	2018
Sales	263.0	285.4
Operating profit/loss	–1.0	–9.3
Operating margin, %	–0.4	–3.2
Items affecting comparability	0.0	2.9
Adjusted operating profit	–1.0	–6.4
Adjusted operating margin, %	–0.4	–2.2
Investments	1.7	0.3
Average number of employees	349	417

Sales in SEK million



Adjusted operating profit in SEK million



Sales in local currencies decreased by 11 per cent to SEK 263.0 (285.4) million, and the operating profit improved to SEK –1.0 (–9.3) million. Items affecting comparability reduced earnings for the year by SEK 0.0 (2.9) million. The operating margin after items affecting comparability increased to –0.4 (–2.2) per cent.

Demand is high in several specialist areas and the organization is investing in skills development of existing staff and new recruitment, mainly of radiation protection staff and engineers.

Savings made, mainly in administration, and renegotiations of some major customer contracts, will have an impact on earnings on a full-year basis of SEK 10 million as of 2020.

PARENT COMPANY

Operations in the parent company consist of coordination of the Group. The parent company's sales increased to SEK 13.9 (12.8) million and the operating profit decreased to SEK –15.2 (–12.7) million, of which items affecting comparability SEK 0.0 (–1.3) million related to restructuring of the Executive Group Management and administration. The loss after financial items was SEK –64.7 (–67.2) million. The year's net financial income includes exchange rate effects of intra-group loans of SEK 6.8 (10.5) million. In addition, earnings were reduced by SEK 57.1 million in impairment loss on the shareholding in Studsvik Ltd. Cash and cash equivalents including current investments amounted to SEK 0.0 (21.2) million and interest-bearing liabilities to SEK 123.1 (199.9) million. In 2019 an appeal was lodged against the Land and Environment Court order to Studsvik to provide a bank guarantee for future waste costs of SEK 43 million. A decision on leave to appeal is expected from the Land and Environment Court of Appeal in the second quarter of 2020.

BENEFITS TO SENIOR MANAGEMENT

The principles for benefits to senior management were adopted by the Annual General Meeting held on April 29, 2019.

Senior management executives will be offered a commercially competitive fixed salary based on the individual executive's responsibilities and powers.

Salary will be fixed per calendar year. Senior management may be offered variable remuneration of a maximum of 50 per cent of fixed salary. Variable remuneration will be primarily based on the Group's financial targets. A plan for variable remuneration will be determined for the financial year.

Senior management can make an individual choice of pension solution in addition to what has been agreed. Thus they can convert salary and variable remuneration to extra pension payments, given that the cost to Studsvik is unchanged.

A maximum period of notice of 12 months from either senior management or Studsvik is applicable. Severance payment equivalent to a maximum of 9 months' salary may be made in addition to salary during the period of notice. There is more information concerning benefits to senior management in note 39.

The Board of Directors will propose amended principles for senior management to the 2020 Annual General Meeting. This will not, however, entail any significant change in substance.

EMPLOYEES

The average number of employees in the Group in 2019 was 552 (624). The decrease is due to a smaller number of employees in the United Kingdom, in administration and in the German operations. Demand is increasing for Waste Management Technology and Fuel and Materials Technology, which, together with the generational shift that the nuclear power industry is facing, further underlines the importance of creating attractive conditions for the Group's existing and potential employees.

SUSTAINABILITY REPORT

Studsvik's sustainability report is presented on pages 23–29.

SOCIAL COMMITMENT

Studsvik endeavors to maintain good and open communications with regions, municipalities, authorities and other stakeholders. We also aim to support the local community through cooperation with organizations and municipal administrations on matters that are strategically important for Studsvik.

DECOMMISSIONING OF STUDSVIK'S NUCLEAR FACILITIES

The operations at Studsvik's nuclear facilities in Sweden are conducted under license pursuant to the Swedish Act on Nuclear Activities and it is therefore Studsvik's responsibility to decommission the facilities. Under the Act the holder of the license has both the technical and the financial responsibility for decommissioning.

Previously, a large proportion of decommissioning costs was financed through payments from the nuclear power industry in accordance with the Studsvik Act (1988:1597). This Act was, however, abolished in 2018 and the funds transferred to the Nuclear Waste Fund, which is administered by the National Debt Office.

Studsvik's commitments are financially guaranteed through an annual fee to the Nuclear Waste Fund and through pledged collateral concerning performance. Cost estimates are made to determine the extent of Studsvik's commitment. These then form the basis for determining the fee to be paid by Studsvik to the Nuclear Waste Fund.

In 2019 the fee to the Nuclear Waste Fund was SEK 6,850,000 (6,850,000). The fee is revised by the National Debt Office every third year and is also affected by the expenditure development at the supervisory authorities. Studsvik estimates that the annual fee starting in 2021 will be at a slightly higher level than at present. The balance in the Nuclear Waste Fund is recorded as an asset in the accounts.

SUSTAINABILITY REPORT

The purpose of this report is to provide Studsvik's stakeholders with a deeper understanding of how we as a company create value for our customers, owners, employees and the communities where we operate. Consequently we want to be transparent with the social, economic and environmental risks and opportunities that characterize our activities and how they are handled within the company.

BUSINESS MODEL

We act to make all radiological and nuclear activities safer, and to make all projects we undertake value creating for our customers, employees, owners and for society as a whole. With a skills-based business model we can supply innovative technical solutions that reduce both risks and costs throughout the entire lifecycle of nuclear facilities and radioactive material.

With the help of our 552 employees in seven countries we can offer services in our four business areas: Fuel and Materials Technology, Scandpower, Waste Management Technology, and Germany. In all we do, our strategic focus is to develop sustainable solutions for the nuclear industry, be an attractive employer for our potential and existing employees and take responsible economic decisions that benefit our owners. This is to achieve our ambition of contributing to a more sustainable and safe nuclear industry, nuclear innovation, satisfied and healthy employees and economic return, and in that way contribute to four of the seventeen UN global goals for sustainable development. By taking responsibility for and focusing on the goals that are most significant for our business we can make the greatest difference.

OUR STAKEHOLDERS

As a large and global actor in a market that is critical to society there are high expectations from our stakeholders that we take responsibility for our activities and are transparent about what we do. Questions concerning nuclear technology are of public interest and various issues may be subject to expressions of opinion and debate. Consequently, we work consistently to maintain a high level of public confidence by conducting activities in line with our stakeholders' expectations. Its approach to the rest of the world is characterized by dialogue and open communication with regions, municipalities, authorities and other stakeholders. We also aim to support the local community through cooperation with organizations and municipal administrations on matters that are strategically important to us. By means of a structured stakeholder dialog we want to maintain transparency that challenges and develops us, and ensure that we make the right priorities in our strategic sustainability work.

Stakeholder group	Dialog method
Employees	Staff surveys are conducted annually*) **) Annual employee performance reviews
Customers	Regular physical customer meetings Annual customer satisfaction survey via questionnaire
Local community	Annual information meeting for people living near the Studsvik facility
Authorities	Frequent meetings with authorities Announced and unannounced regulatory controls are carried out at regular intervals to examine and ensure that we comply with the safety procedures set up.
Suppliers	Continual dialog Assessments for procurement Annual check of A suppliers***

* In 2019 there was no survey in Germany as the work of implementing a new specially adapted staff survey was started and will be implemented in March 2020.
** The next staff survey will be conducted in February 2020.
*** A suppliers are large and significant for our business, such as suppliers of services in the form of IT, building maintenance and security services.

OUR STRATEGIC FOCUS AND MATERIAL RISKS

Being an actor in the nuclear power industry entails specific risks that are regulated and supervised by national authorities and international organizations. We therefore have well-established procedures for systematic risk management. They are formulated together with relevant authorities that take a position on our risk assessment and on whether the management of these risks is adequate. Risk dialogs are frequent and documented, which is a necessity to be able to maintain and extend our licenses. Consequently, our systematic risk management is a fundamental condition for our operations. The responsibility for assessing operational and financial risks lies with the respective business area, whose risk assessments are reviewed, compared and followed up annual by the parent company.

An overall analysis of the Group's risks and how they are dealt with is presented annually to the Board of Directors of Studsvik AB and is followed up on a regular basis.

Our risk assessment includes all parts of the operations and resulted in eight sustainability areas in our strategic focus that addresses our most material risks. In the section below a description is given of why these areas are of material importance, how we deal with them in our operations and the outcome for the year in these areas. Financial risks are dealt with in the "Financial risk management" section, note 2.

Focus area	Identified risks
Develop sustainable solutions for the nuclear industry	Product development
	Quality and safety
	Climate impact
	Waste and water management
Be an attractive employer	Work environment
	Attract and retain personnel
Take responsible economic decisions	Stable economy
	Business ethics

DEVELOP SUSTAINABLE SOLUTIONS FOR THE NUCLEAR INDUSTRY

PRODUCT DEVELOPMENT

Studsvik endeavors to always be at the forefront as regards innovative solutions for the nuclear industry so as to contribute to more sustainable energy supply. With our services our customers can use existing assets longer, more safely and with less environmental impact. Our innovative technical solutions improve reactor performance and reduce both risks and costs over the entire lifecycle. We offer advisory services concerning fuel management and optimization as well as safety and fuel economy. We supply world-leading software for fuel optimizing and core monitoring. The aim is to help improve profitability, safety and sustainability for our customers and for society as a whole.

Innovation

Much of our business is based on proprietary technology that is challenged by competition. Consequently, it is crucial for us to always have an innovative approach to all our assignments and together with our customers to develop new, customized and effective services. Where it is considered possible and economically justifiable, we limit the risk of competition by patenting our in-house developed technology and constantly developing new solutions. Part of our strategy is to develop customer offers together with selected partners. This can result in a measure of natural dependence on these sub-contractors. To limit this risk, we work with contracts that enable close relationships based on trust, while keeping alternative partners available.

Research projects

The Studsvik Cladding Integrity Project (SCIP) was launched in 2004 to drive nuclear technology forward. SCIP is an international OECD project including experiments, studies, development of testing methods and knowledge transfer. The participants are from all over the world, as we believe that collaboration and exchange of experience and research findings are essential for development of the nuclear industry. Since the start, SCIP has developed into three separate projects (SCIP I, SCIP

II and SCIP III) all of which have been run in five-year periods. In July 2019 SCIP IV was launched as a continuation of research in the nuclear industry with a clearer focus on fuel. This year plans were started ahead of the new SMILE project (Studsvik Material Integrity Lite Extension) aimed at supporting operators of light water reactors and global authorities in testing the life of the material in nuclear reactors. The project is planned to start in 2020, where testing of various materials in Swedish nuclear power plants will be the starting point.

Digitalization

Our digital development is also essential for effective internal operation and delivery to our customers. Digital tools mean that we can make communication and information flows easier and more efficient. In the past three years we have therefore invested almost SEK 5 million in IT infrastructure that mainly relates to the internal use of Office 365 to enable digitalization of processes and facilitate interaction and exchange of information both internally and externally. In 2019 the target was achieved of 100 % of employees now having access to Office365.

QUALITY AND SAFETY

The Group has a high safety culture, which rests on a long tradition of clear routines for quality assurance and follow-up in the context of our ISO quality certification processes. We want to prevent accidents and operational disruptions by having competent and motivated staff and facilities of a high standard. Our policy for safety and quality applies to the entire Group and along with goals and regular follow-up of our action plans, creates a high level of safety and awareness among our employees. We apply a precautionary principle in all our assignments, by systematically assessing, managing and communicating environmental, economic and social risks that the company's operations entail. We also help our customers to apply the precautionary principle in their operations.

Quality

We are responsible for timely delivery of high quality services. If a service is delivered late or does not fulfill requirements that a customer can rightfully impose, we risk loss of income or costs incurred for replacement or damages. To limit this risk we conduct our systematic quality work actively and make regular assessments of potential exposures and provisions for identified risks. Our main quality work is linked to our ISO certifications including ISO 14001, ISO 9001 and ISO 18001. The ISO certifications cover the entire Group apart from operations in the USA, which hold specific certifications adapted to compliance with American laws and regulations. During the year the ISO certification was updated and we were approved on all points. Holding our certifications requires that we regularly review and ensure that the operations meet the associated quality requirements.

Licensing obligation

We handle radioactive material and waste, which means that some of the operations must be licensed and are subject to official supervision and approval. Consequently, there is a risk that the conditions governing operations may be changed through revised or cancelled official permits, changes in the regulatory framework or through political decisions. This may for example involve further protective measures that we may need to invest in to fulfill requirements. If it is alleged that we are infringing permits or regulations we may receive notification from authorities. We meet the requirements under these regulations and our culture of high safety standards means that the capacity to adapt to new rules and directives is high. A part of our operations, especially in the field of materials testing, involves the transportation of material to and from our facilities. This could be hindered by new legislation or amendments to international conventions.

Theft, burglary and sabotage

A company handling radioactive material can never completely exclude the possibility of theft of this material. Consequently we work actively on physical protection in close cooperation with the police and authorities to reduce the risk of theft and burglary. The level of physical protection is continually adjusted in line with the assessment of the threat picture made by the police and public authorities. We follow the plans drawn up by the licensing and supervisory authorities. Transportation of radioactive waste may also be subject to sabotage or other forms of attack. Transportation thus complies with high safety standards, is subject to frequent inspections by supervisory authorities and has a low risk of harmful consequences in the event of an accident, for example. By maintaining a high level of competence in our own transport organization and having access to our own transport packaging the risk is limited.

Insurance

Where the Group conducts nuclear activities subject to license, it is a licensing requirement that insurance has been taken out and maintained. This is regulated in the Nuclear Liability Act in Sweden and corresponding legislation in other countries. All our facilities have property insurance and consequential loss insurance has been taken out for all strategically important facilities. Apart from this, third party liability insurance has been taken out to protect Studsvik from economic risks and consequences of physical and/or financial loss for a contractual or third party. Nuclear liability insurance for the Swedish operations is provided by Nordic Nuclear Insurers (NNI) and European Liability Insurers Limited (ELINI). The amounts insured currently amount to SDR 360 million (special drawing rights) equivalent to SEK 4.6 billion. The non-nuclear operations are insured through a global liability insurance policy with the insurance company IF P&C Insurance Ltd.

Information security

As an actor in the nuclear market we handle confidential information. For us it is therefore of utmost importance to handle confidential and classified information securely and in a structured manner, for the safety of ourselves, our customers and society. A compulsory e-training in information security has been developed in Swedish during the year, where 94 per cent of employees have completed the training in Sweden. In 2019 the training was translated into English to reach the rest of the Group and the target is that all employees are to complete the training in 2020. Local instructions on how protected information should be dealt with as regards distribution, storage and destruction were also drawn up.

CLIMATE IMPACT

To offer sustainable solutions to the nuclear market, we must ensure that our own operations are environmentally defensible. Taking responsibility for our negative climate impact is therefore part of our strategy. The goal is to minimize the environmental impact of operations, both as regards emissions and use of resources. An important part of our climate impact is our energy consumption and our carbon dioxide emissions. In 2018 the Swedish operations defined targets for their energy consumption and a strategic plan for the period 2018–2020 was drawn up. The strategy plan for energy consumption was mainly intended for the Swedish operations, as we have the greatest potential for influencing the facilities we ourselves own.

Total emissions*	2019	2018	2017	Change 2017-2019
CO_2 emissions [tonnes]	347	*	*	*

The figures refer to emissions generated from electricity consumption, heat generation and company cars in Germany and Sweden.
*Total emissions were calculated for the first time in 2019.

Energy consumption

To reduce our energy consumption and our emissions we have conducted an energy survey in stages, in which specific facilities in Sweden have been studied in detail based on where potential is greatest to save energy. The survey identified a need for better equipment for measurement and automatic control engineering. Between 2018 and 2019 we replaced our measurement system at the Swedish facility to improve potential energy performance. This enabled new and deeper insights but above all the possibility of mapping about 95 per cent of our energy consumption, which is a great increase from earlier years (about 70 per cent). This has resulted in targeted measures in several parts of our facilities

In 2019 our CO_2- emissions from energy consumption decreased by 3,780 tonnes compared to the previous year. This was because we bought origin-labelled electricity, equally distributed between hydropower and nuclear power, with substantially lower climate impact. In 2018 we outsourced maintenance of our properties to an external party to enable improved heat generation efficiency and to reduce energy consumption at the facility. We also initiated a new partnership with external specialists that focus on making our energy use more effective. In the winter, heat generation is normally in a solid fuel boiler with bio based fuel (chips). In 2019 we burned 7.4 m^3 oil.

Electricity consumption	2019	2018	2017	Change 2017-2019
Total [MWh]	14,650	15,465	14,485	+1%
Sold to external customer [MWh]	9,203	9,459	10,063	–9%
CO_2 emissions [tonnes]	95	3,875	4,774	–98%

The table refers to the facility in Sweden.

Heat generation	2019	2018	2017	Change 2017-2019
Total production thermal power plant [MWh]	10,110	12,111	12,887	–22%
Sold to external customer [MWh]	3,149	4,595	5,216	–40%
CO_2 emissions [tonnes]	20	*	*	*

The table refers to the facility in Sweden.

*The climate impact of heat generation was calculated for the first time in 2019.

Emissions from company cars

Business travel is an important and necessary part of the work in our organization but it has some negative climate impact. We have therefore increased the incentives to choose cars with a smaller climate footprint by introducing a company car policy in 2016 for Sweden that promotes rechargeable vehicles. Consequently, 50 per cent of the Swedish company car fleet now consists of electric or hybrid cars. This has led to an average reduction in emissions from our passenger cars of 28 per cent from 132 g CO_2/km in 2016 to 95 g CO_2/km in 2019. In Germany emissions were 176 g CO_2/km in 2019. We have decided to focus on Sweden and Germany in this measurement, as the rest of the Group has very few company cars and thus has a lower climate impact. As regards other forms of transport, our travel policy makes it clear that it is important to take the environment and safety into consideration when we travel. Reducing the number of business trips and being cost effective does not need to mean compromising safety, the environment and quality.

Emissions from company cars	2019	2018	2017	Change 2017-2019
Sweden (CO_2- emissions [tonnes])	32	*	*	*
Sweden (CO_2 emissions [g/km])	95	107	110	–14 %
Germany (CO_2 emissions [tonnes])	200	*	*	*
Germany (CO_2 emissions [g/km])	176	179	254	–31 %
Total (CO_2 emissions [tonnes])	**232**	*****	*****	*****

*Calculated for the first time in 2019.

WASTE AND WATER MANAGEMENT

As a leading actor in the nuclear power industry there is naturally great focus on reducing and treating waste responsibly. We have therefore developed world-leading, rigorous processes for managing different types of radioactive waste, which considerably reduce our and our customers' waste volumes. Our solutions can also enable recovery of energy and raw materials such as steel.

Only small amounts of radioactive waste are generated by Studsvik's own operations. For this waste, and some waste from our customers, we have owner liability. All hazardous waste is categorized, packaged and managed on a continuous basis. The wastewater generated by the facility is purified in our own water treatment plant. The wastewater generated by the facility is purified in our own water treatment plant. Continual measurements are made, both in the form of analysis of bottom sediment and exploratory fishery that is regulated by the authorities. The Group aims to have agreements with sub-contractors on the conditions for final disposal of nuclear waste. Changes in regulatory or commercial conditions that necessitate amendments or supplements to these arrangements cannot be ruled out. The risk is managed through Studsvik periodically calculating the economic effects of these commitments, making provision for future costs of final disposal, paying in fees in accordance with local regulations and receiving remuneration from customers for Studsvik's commitments.

The radioactive releases from Studsvik are very small in relation to other sources of radiation in society. On average Studsvik's emissions to air and water are 0.000035 mSv/year, which can be compared with the average radiation dose of 3.0 mSv that an ordinary citizen of Sweden is exposed to in a year. Studsvik's internal target limit is lower: 0.0001 mSv person/year and we endeavor continually to limit all risk linked to radioactive radiation in operations.

Emissions of nutrients to water from sewage treatment plant	2019	2018	2017	Change 2017-2019
Phosphorus (kg)	12	15	14	–14%
Nitrogen [kg]	590	700	703	–16%
Biochemical oxygen consumption, 7 days (BOD7) [kg]	197	426	251	–22%
Organic carbon (kg)	530	746	552	–4%
Sludge (m3)	93	73	191	–51%

The table refers to the facility in Sweden.

BE AN ATTRACTIVE EMPLOYER

WORK ENVIRONMENT

Our employees' health and well-being is of great importance to us. We run our operations with a high standard of both physical and mental health in the work environment by means of efficient safety procedures and high requirements concerning our facilities. Under our management system every employee must also show personal commitment to the work environment in their day-to-day work. In our Group policy for safety, the environment, health and quality we clarify our active efforts to eliminate all risks of work-related injury and physical ill health. We also describe how we ensure the mental well-being of our employees, which is fundamental to our success. We offer our employees the opportunity for professional development in health and safety and we consider that all employees' contributions are important in working towards our overall vision and objective.

To reduce the number of work-related injuries we have developed a program where steps are taken to eliminate physical work environment risks both at the Group's and its customers' facilities. Improved knowledge of risks and influencing and changing attitudes and behavior are equally important. Part of this work in Sweden is to encourage all employees to identify improvements and to report potential risks and risk behaviors to Studsvik's non-conformance system. We also encourage our employees to have an ongoing dialog with their immediate superiors as well as the head of safety and security. We have a Safety Committee in Sweden that meets twice a year to document and follow up all injuries and accidents relating to the work environment and transport to and from work. According to plan, safety rounds are conducted at least once a year in Sweden. Specific working groups have also been appointed to carry out the task of investigating accidents and supporting the safety committee on a more current basis.

Every third year in Sweden all employees are offered training in cardio-pulmonary resuscitation, fire protection and safety. Every year compulsory health examinations are carried out for those who have radiological jobs, which is the majority of our employees.

Sickness absence (%)	2019	2018	2017	Change 2017-2019
Sweden	5	3	2	+150%
UK	1	1	0	+1%-point
USA	0,5	0	0	+0,5%-point
Germany	8	8	13	–38%
Total	**6,5**	**8**	**9**	**–28%**

Number of accidents during the year*	2019	2018	2017	Change 2017-2019
Sweden	1	1	4	–75%
UK	0	0	0	0%
USA	1	0	0	+1%-point
Germany	7	16	24	–71%
Total	**9**	**17**	**28**	**–68%**

*Refers to work-related accidents causing absence from work for more than three days.

Staff and health surveys

The latest staff survey was conducted in February 2019 and will be conducted every year from 2020. In that way we can develop and adapt the organization in accordance with our employees' well-being and job satisfaction.

We also decided to develop the survey, as the need emerged to carry out a more customized survey for the German operations. This is because the operations in Germany differ from the other countries in the Group, with employees that spend most of their time at our customers' facilities. Thus the 2019 survey does not include Germany. A customized survey will be sent out in March 2020, which we consider to be of great importance in creating positive change and a workplace where all employees in the Group can feel secure.

The response rate for the year's staff survey was 77 per cent (71 per cent) of the Group's employees, where it emerged that 82 per cent (71 per cent) of the employees are satisfied with their work situation, which is an increase from the previous year. The most important aspects for our employees were that the work environment should have zero tolerance of sexual harassment, discrimination and bullying. A policy and action plan against victimization is available to employees and describes the definition and the measures taken where victimization is suspected/ascertained. It also emerged that 4 per cent of the Group consider that they do not have a safe work environment and that the majority of them work on fuel and materials technology. As described in previous chapters, we work extensively with safety and will continue to do so. The survey shows that there are areas for development but we are pleased to see an overall improvement and we want to develop this on an ongoing basis.

In 2018 we also started to use the tool Howdy in the Swedish organization to frequently measure job satisfaction among our employees. Howdy is a tool in which every other week employees respond to five questions about their well-being. The results from Howdy are presented at least once a month at department meetings. The purpose is to create awareness of the tool, both to increase the response rate but also to gain knowledge of employees' well-being and the opportunity to act quickly on potential decline. In a situation where an employee's responses indicate a low level of well-being, Howdy has a function in which a third party telephones the employee to further discuss well-being. After one year's use of Howdy, 63 per cent participated and our target is to increase this figure so that all employees are included by the tool.

ATTRACT AND RETAIN PERSONNEL

As a knowledge-intensive service company, our employees are our most important asset. Without employees with the right skills we cannot deliver sustainable solutions for the nuclear industry and generate value for our shareholders. It is therefore of great importance to us to retain the competent staff we have and to attract new talent to the company. To limit the risk entailed in being dependent on key personnel and specialist skills, we are also systematizing the processes we develop and creating good and stable relations with our employees and trade union organizations.

In 2019 the organization in Sweden worked extensively on developing and updating our leadership training. We have chosen to focus on the leadership philosophy of "The 7 Habits of Highly Effective People" that strengthen development and provide a step-by-step, progressive and well-integrated approach to develop personal and interpersonal efficiency. Our managers have been trained in this and new managers will also undergo this training. We also realize that all employees should have insight into this to understand the leadership method we practice and to ensure consensus in the Group. We therefore arranged a conference for all employees within the framework.

Being an attractive employer also means that we attract the right skills to the company. Therefore, we must live up to the expectations our potential employees have of their future employer. As an employer Studsvik is a unique company with its international, innovative and research-heavy operations. For those who want to work in the nuclear industry it is attractive to have access to the long experience our specialists possess. However, we see that requirements of employers now and in the future will be different. Consequently, we must adapt our communication and what we as employers have to offer our potential employees accordingly.

To encourage a sustainable working life and freedom with responsibility employees throughout the Group have the possibility of working flexibly, which may mean working in another location or working at times outside normal working hours. However, there are duties at Studsvik where the work is performed at specific places such as the hot cell laboratory where it is a requirement to be on site.

Staff turnover by business area (%)	2019	2018	2017	Change 2017-2019
Fuel and Materials Technology	7	20	*	*
Waste Management	52**	65	*	*
Germany	23	4	*	*
Scandpower	9	13	*	*
Total	**19**	**11**	**17**	**+12%**
Average period of employment (years)	**11**	**11**	**11**	**0%**

*In 2017 staff turnover was calculated by country and not business area.
**The high staff turnover is due to restructuring of the business area. The restructuring means that only operations associated with license sales are retained and mean a reduction of personnel in the United Kingdom and Sweden. Negotiations under the Act on Co-Determination at Work were initiated during the year.

Gender equality and diversity

Studsvik values and encourages diversity in the organization in a way that reflects the diversity in our markets. Our employees' differences and backgrounds reflect our international and innovative business and ensure that we can tackle the global challenges we face. Consequently, it is important that we ensure that everyone, regardless of differences, has the same opportunities regarding employment, working conditions and development opportunities. To achieve this, we must take responsibility at all levels and we focus on the following aspects we consider to be important to achieve a gender equal and inclusive organization:

- Ensure that recruitment, promotion and pay increases are only based on qualifications and experience.
- Improve the opportunity to combine working life and family life.
- Encourage women to take leading positions.
- Clarify our zero tolerance for any form of discrimination or harassment.

Women are underrepresented in the nuclear industry and we therefore regard it as important to actively work on gender equality. During the year the share of women in leading positions has increased, which is reflected in the table below. We will continue to encourage women to take leading positions when they arise. A survey is made every year in Sweden of gender distribution and pay to assess whether pay differences between women and men performing the same or equivalent work have a gender correlation or not.

Gender distribution	2019		2018		2017		Change 2017-2019	
	Women	Men	Women	Men	Women	Men	Women	Men
Employees (number)	92	460	100	524	106	546	–13 %	–16 %
Managers with personnel responsibility (number)	8	23	5	28	11	25	–27 %	–8 %
Ratio of managers to employees (%)	9	5	5	5	10	5	–10 %	0 %

TAKE RESPONSIBLE ECONOMIC DECISIONS

STABLE ECONOMY

Studsvik has a long-term economic strategy and our aim is a sustainable business. We value long-term economic stability above decisions characterized by short-term profit. This is important for our stakeholders, not least our employees. The aim to be sustainable in all economic decisions.

Market development

Demand for Studsvik's services is dependent on the development of the nuclear power industry, which is affected by both political decisions and the price of other energy sources. This makes it difficult to predict future business. In some countries, including China and Russia, new nuclear power plants are being built, while nuclear power is being discontinued and decommissioned in other parts of the world. In most countries, both new construction and decommissioning require active participation by authorities through decisions concerning financing, decommissioning permits and rules for final disposal. In many markets these activities are funded through complex systems involving a combination of accumulated funds, income from the operations of nuclear power plants, and taxes. Political decisions therefore have a great impact on our business, above all in connection with our decommissioning services. Delays in processing by the authorities and resulting delay in completion of contracts cannot be ruled out. In that our services include all phases of the nuclear industry, the operations are only in the very long term dependent on the survival of the nuclear power industry. Our assessment is that more nuclear power contracts will develop in the long term and Studsvik is and will be an important actor in ensuring a future efficient, safe and sustainable nuclear power industry.

Decommissioning of facilities

The operations at our Swedish nuclear facilities are conducted under license pursuant to the Swedish Act on Nuclear Activities and it is therefore Studsvik's responsibility to decommission the facilities. Extensive analyses of the costs of demolition, restoration and decommissioning are therefore carried out regularly and every year provision is made for this purpose.

Fixed price contracts

In many major service contracts we make fixed price commitments. These contracts require effective risk management and project management. We therefore have special procedures that are integrated into the quality systems to ensure professional management of risks.

Sensitivity analysis

Variations in prices to customers and the Group's costs affect the Group's earnings. The Group's largest single cost item is personnel, which accounts for about 68 per cent of total costs. The Group's currency exposure is greatest against EUR, GBP and USD.

BUSINESS ETHICS

The business ethics we follow are based on current legal requirements and standards of business ethics, and we always comply with the laws applicable in the countries where we operate. The Group is characterized by responsible leadership with zero tolerance for bribery and corruption. When we want to establish ourselves in a new market a thorough analysis is made based on permits and possible risks such as an uncertain political climate. We want to work mainly in direct contact with our customers without intermediaries, to minimize risks, be able to maintain a high ethical standard and guarantee the best possible quality.

Code of Conduct

To ensure a sustainable value chain Studsvik has drawn up a Code of Conduct that applies to both the Group and its suppliers. The aim of the Code is to provide guidance to employees and business partners, minimize risks, strengthen the corporate culture and convey Studsvik's core values. The Code is based on the UN Global Compact and some of the common requirements defined through the Code of Conduct are as follows:

- That we comply with all local safety rules and laws
- That we have a sound financial position
- That we meet the requirements of our certification under ISO 9001, 14001 and 18001 for the European companies
- That we comply with legislation on bribery and corruption, where Swedish law constitutes the minimum level
- That we respect human rights in accordance with the UN Declaration through zero tolerance of harassment, work in high-risk environments, forced labor and child labor.

The Code of Conduct is presented to our employees in connection with new recruitment and is also sent to our partners. All white-collar workers in the Group must give annual confirmation that they have taken note of the policy. This is checked by accepting the terms via the intranet or email. In 2019 it was planned to implement system support to make other policy documents and the staff manual more accessible to our employees. This is still at the planning stage and the start has been moved to 2020.

Suppliers

Our suppliers receive the Code of Conduct in connection with procurement, when they also receive our anti-corruption policy and sign a cooperation agreement. Before selecting suppliers, a supplier assessment is made to ensure that they can comply with our business ethics standards. For our existing suppliers we have an audit program. Our aim is to make an annual audit of all our largest and most important suppliers, our "A" suppliers. This includes a review of their policies and management systems as regards quality, the environment and work environment as well as their creditworthiness. During the year all our nine A suppliers were audited and we consider that our collaboration continues to be sound and close. Every third year we also assess our B suppliers. During the year a cross section of thirty-five supplier assessments were made. The annual number of assessments varies from year to year depending on the addition or removal of suppliers.

Whistle-blower function

We have a whistleblower function, which means that our employees can safely and securely draw the management's attention to information about any suspected irregularities. The function is structured so that an email is sent to an external party that in turn contacts the Chairman of the Board, who can then take the case further to the Executive Group Management. No such reports were made during the year.

All new employees must take note of information about our whistleblower function as part of the policy documents they read and accept in the introduction

CORPORATE GOVERNANCE

The company has drawn up a corporate governance report separate from the administration report, which can be found in the Corporate Governance section.

PROPOSED TREATMENT OF LOSS

The Board of Directors proposes that no dividend be distributed for 2019. At the disposal of the Annual General Meeting is the parent company's non-restricted equity, SEK –121,849,316, consisting of accumulated loss, SEK –56,762,722 and loss for the year, SEK –65,086,594. The Board of Directors' proposal means the following treatment of loss:

To be carried forward	SEK –121,849,316
Total non-restricted equity in the parent	SEK –121,849,316

THE STUDSVIK SHARE

Share price and trading

The Studsvik share is listed on NASDAQ Stockholm. In 2019 the share price fell by 17 per cent from SEK 38.30 to SEK 31.80. At the close of the year the market value was SEK 261 million. During the year the price varied between a high of SEK 41.40 on April 26 and a low of SEK 22.70 on November 18.

In 2019, 1.6 million Studsvik shares were traded for a value of SEK 49 million. This corresponded to 39 per cent of the free float (the value of shares that are available for trading). The free float refers to shares held by shareholders with holdings of less than 10 per cent of the total number of shares.

Number of shares and share capital

On December 31, 2019 Studsvik AB (publ) had 8,218,611 shares in issue. Each share carries one vote and entitles the owner to share equally in the company's assets and earnings. The quotient value is SEK 1.0 and the share capital amounted to SEK 8.2 million.

Shareholders

On December 31, 2019 Studsvik had 3,110 shareholders. The percentage of shares registered abroad was 24 per cent. The three largest owners, the Karinen family, Briban Invest AB and Peter Gyllenhammar AB, held 49.1 per cent of the shares and the ten largest shareholders 75.4 per cent. The shareholdings of the Board and the Executive Group Management are presented in the sections Board of Directors and auditors and Executive Group Management.

Dividend policy and dividend

The Board's target is that on average the dividend should correspond to at least 30 per cent of the consolidated profit after tax. Decisions on dividend proposals will, however, take into consideration Studsvik's expansion potential, the strength of its balance sheet, liquid funds and financial position in general. The Board of Directors proposes that no dividend be distributed for 2019.

Market maker

ABG Sundal Collier has been appointed to act as market maker for the company's share.

ANALYSTS

The Studsvik share is monitored on a continuous basis by ABG Sundal Collier.

INFORMATION ON THE ARTICLES OF ASSOCIATION ETC.

There is no provision in Studsvik's Articles of Association that restricts the right to transfer shares. The company has not transferred any of its own shares or issued new shares during the financial year. The company is not aware of any agreements between shareholders that may result in restrictions on the right to transfer shares in the company. The company is not a party to any material agreement that is affected by any public take-over bid. The company's employees do not hold any shares for which the voting right cannot be exercised directly. The elected members of the Board of Directors are appointed by the Annual General Meeting. There is no provision in the Articles of Association concerning appointment and dismissal of Board members. The Board of Directors is not authorized to decide on the issue of new shares or acquisition of own shares.

SHAREHOLDERS DECEMBER 31, 2019	Number of shares	Holding, %
Karinen Family	1,769,552	21,5
Briban Invest AB	1,285,492	15,6
Peter Gyllenhammar AB	988,210	12,0
Avanza Pensionsförsäkring AB	581,882	7,1
Girell Family	403,800	4,9
Caceis Bank, Switzerland Branch	363,879	4,4
Malte Edenius	250,000	3,0
Nordnet Pensionsförsäkring AB	225,849	2,7
Leif Lundin	199,000	2,4
SIX SIS AG	128,113	1,6
Total of the 10 largest shareholders – holdings	**6,195,777**	**75,4**
Other shareholders	2,022,834	24,6
Total	**8,218,611**	**100,0**

CHANGE IN SHARE CAPITAL

Year	Transaction	Increase in the number of sharesr	Share capital SEK	Total Number of shares
1994	Formation	500,000	500,000	500,000
2001	Bonus issue	5,300,000	5,800,000	5,800,000
2001	Private placement	2,314,211	8,114,211	8,114,211
2004	New issue[1)]	2,400	8,116,611	8,116,611
2005	New issue[1)]	102,000	8,218,611	8,218,611

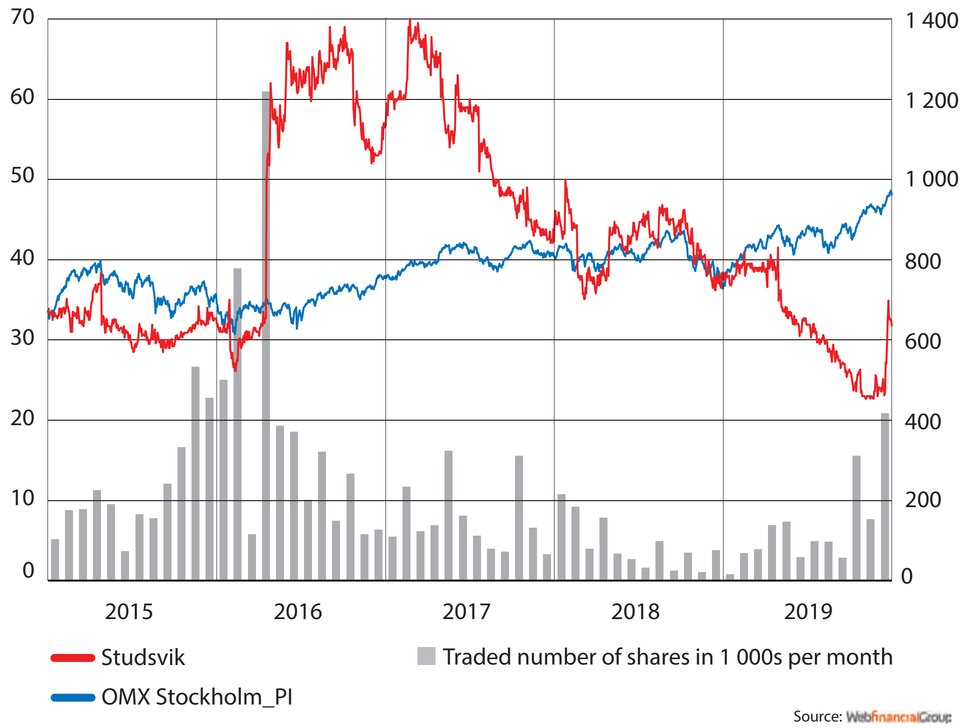
[1)] Conversion of warrants.

SHAREHOLDER STRUCTURE, DECEMBER 31, 2019

Shareholding	Number of shareholders	Number of shares	% of total shares
1–500	2,653	234,015	2.8
50–1,000	200	174,215	2.1
1,001–5,000	166	383,568	4.7
5,000–10,000	32	237,403	2.9
10,001–15,000	13	167,016	2.0
15,001–20,000	10	177,733	2.2
20,001–	36	6,847,501	83.3
Total	**3,110**	**8,218,611**	**100.0**

DATA PER SHARE

Amount, SEK	2015	2016	2017	2018	2019
Number of shares at close of period	8,218,611	8,218,611	8,218,611	8,218,611	8,218,611
Average number of shares	8,218,611	8,218,611	8,218,611	8,218,611	8,218,611
Price, December 31	32.70	59.50	46.10	38.30	31.80
Earnings per share from continuing operations before and after dilution	1.78	2.07	–5.47	1.06	–3.41
Earnings per share from operations held for sale before and after dilution	–1.49	5.60	–	–	–
Equity per share	36.30	42.41	35.09	38.47	36.84
P/E ratio	112	7.8	neg	36.1	neg



Source: WebfinancialGroup

CONSOLIDATED STATEMENT OF PROFIT OR LOSS AND OTHER COMPREHENSIVE INCOME

Amounts in SEK ’000

	Note	2019	2018
Sales revenues	4	654,014	726,111
Costs of services sold	7	–496,861	–551,151
Gross profit		**157,153**	**196,633**
Selling and marketing costs	7	–51,102	–39,894
Administrative expenses	7, 8	–101,994	–107,942
Research and development costs	7	–8,840	–9,042
Profit share from associated companies and joint ventures	17, 18	9,483	10,622
Other operating income	5	4,830	17,321
Other operating expenses	6	–19,982	–12,544
Operating profit/loss	4, 5, 6, 7, 8, 9	**–10,452**	**33,481**
Financial income	10	9,700	3,913
Financial expenses	10	–18,897	–18,317
Fair value gain/loss (realized and unrealized)	10, 12	–3,198	–343
Profit/loss before tax		**–22,847**	**18,734**
Income tax	11	–5,194	–10,019
Net profit/loss for the year		**–28,041**	**8,715**
NET PROFIT/LOSS FOR THE YEAR		**–28,041**	**8,715**
Other comprehensive income			
Items that may later be reversed in the income statement			
Translation differences on foreign subsidiaries	28	13,324	19,557
Cash flow hedges		1,613	–731
Income tax on items recognized in other comprehensive income		–345	161
Other comprehensive income for the year, net after tax		**14,592**	**18,987**
Total profit or loss and other comprehensive income for the year		**–13,449**	**27,702**
Income for the year attributable to			
Parent company’s shareholders	27	–28,041	8,715
Non-controlling interests		–	–
Total comprehensive income attributable to			
Parent company’s shareholders		–13,465	27,672
Non-controlling interests		16	30
Earnings per share calculated on income attributable to the parent company’s shareholders during the year (SEK)			
Earnings per share before and after dilution	13	**–3.41**	**1.06**

CONSOLIDATED STATEMENT OF FINANCIAL POSITION

Amounts in SEK '000

	Note	2019	2018
ASSETS			
Non-current assets			
Property, plant and equipment	15	143,263	124,335
Intangible assets	16	197,250	190,218
Holdings in associated companies and joint ventures	17, 18	17,789	12,531
Deferred tax assets	31	91,417	93,016
Financial assets at fair value through profit or loss	19, 23	32,851	29,186
Derivative financial instruments	19, 21	–	–
Trade and other receivables	19, 22	41,421	34,291
Total non-current assets		**523,991**	**483,577**
Current assets			
Inventories	24	1,238	534
Trade and other receivables	19, 20, 22	242,786	257,755
Financial assets at fair value through profit or loss	19	–	–
Derivative financial instruments	19, 20, 21	–	3,236
Cash and cash equivalents	19, 20, 25	40,226	155,539
Total current assets		**284,250**	**417,064**
TOTAL ASSETS		**808,241**	**900,641**
EQUITY			
Capital and reserves attributable to parent company's shareholders			
Share capital	26	8,219	8,219
Other contributed capital	26	225,272	225,272
Other reserves	28	38,364	23,772
Retained earnings	27	30,532	58,573
Equity attributable to the parent company's shareholders		**302,387**	**315,836**
Non-controlling interests		**385**	**369**
Total shareholders' equity		**302,772**	**316,205**
LIABILITIES			
Long-term liabilities			
Liabilities to credit institutions	19, 30	46,500	–
Derivative financial instruments	19, 21	–	53
Deferred tax liabilities	31	34,900	34,380
Pension obligations	32	10,388	9,719
Other provisions	33	82,893	107,960
Trade and other payables	29	27,774	14,568
Total long-term liabilities		**202,455**	**166,680**
Current liabilities			
Trade and other payables	29	221,091	208,578
Current tax liabilities		773	1,241
Liabilities to credit institutions	19, 30	76,595	199,850
Derivative financial instruments	19, 21	118	3,650
Other provisions	33	4,437	4,437
Total current liabilities		**303,014**	**417,756**
Total liabilities		**505,469**	**584,436**
TOTAL EQUITY AND LIABILITIES		**808,241**	**900,641**

CONSOLIDATED STATEMENT OF CHANGES IN EQUITY

Amounts in SEK '000

	Share capital	Other contributed capital	Other reserves	Retained earnings	Equity attributable to parent company shareholders	Non-controlling interests	Total equity
Opening balance at January 1, 2018	**8,219**	**225,272**	**4,785**	**49,858**	**288,134**	**339**	**288,473**
Other comprehensive income	–	–	18,987	–	18,987	30	19,017
– Dividends	–	–	–	–	–	–	–
– Net profit/loss for the year	–	–	–	8,715	8,715	–	8,715
Closing balance at December 31, 2018	**8,219**	**225,272**	**23,772**	**58,573**	**315,836**	**369**	**316,205**
Opening balance at January 1, 2019	**8,219**	**225,272**	**23,772**	**58,573**	**315,836**	**369**	**316,205**
Other comprehensive income	–	–	14,592	–	14,592	16	14,608
– Dividends	–	–	–	–	–	–	–
– Net profit/loss for the year	–	–	–	–28,041	–28,041	–	–28,041
Closing balance at December 31, 2019	**8,219**	**225,272**	**38,364**	**30,532**	**302,387**	**385**	**302,772**

GROUP STATEMENT OF CASH FLOW

Amounts in SEK '000

Total operations	**Note**	**2019**	**2018**
Cash flow from operating activities			
Operating profit/loss		–10,451	33,481
Adjustment for non-cash items	34	925	16,263
		–9,526	**49,744**
Interest received		9,700	3,913
Interest paid		–18,898	–18,317
Income tax paid		–9,719	–6,359
Cash flow from operating activities before changes in working capital		**–28,443**	**28,981**
Change in working capital			
– Current assets		14,581	5,621
– Other current liabilities		337	45,789
Cash flow from operating activities		**–13,525**	**80,391**
Cash flow from investing activities			
Sale of subsidiaries		–	–
Acquisition of non-current financial assets		–	–
Disposals of financial assets		–	–
Purchases of property, plant and equipment	15	–30,087	–27,730
Sale of property, plant and equipment	15	125	441
Purchases of intangible assets	16	–2,573	–4,349
Dividend from associated companies	17	7,277	5,455
Cash flow from investing activities		**–25,258**	**–26,183**
Free cash flow		**–38,783**	**54,208**
Cash flow from financing activities			
Loans raised	30	154,338	–
Amortization of loans	30	–235,316	–
Dividend	27	–	–
Cash flow from financing activities		**–80,978**	**–**
Change in liquid assets		–119,761	54,208
Cash and cash equivalents at start of year		155,539	98,672
Translation difference		4,448	2,659
Cash and cash equivalents at year-end	25	**40,226**	**155,539**

PARENT COMPANY INCOME STATEMENT

Amounts in SEK '000

	Note	2019	2018
Sales revenues	42	13,907	12,774
Costs of services sold		–	–
Gross profit		**13,907**	**12,774**
Administrative expenses	43, 44, 45, 47	–29,633	–25,050
Other operating income	46	788	996
Other operating expenses	46	–270	–1,376
Operating profit/loss	42, 43, 44, 45, 46, 47	**–15,208**	**–12,656**
Profit/loss from participations in group companies	48	–57,110	–65,687
Interest income and similar items	49	18,680	21,341
Interest expense and similar items	50	–19,693	–17,562
Profit/loss before tax		**–73,331**	**–74,564**
Appropriations	51	8,675	7,390
Income tax	52	–431	–1,836
NET PROFIT/LOSS FOR THE YEAR		**–65,087**	**–69,010**
Parent company statement of comprehensive income			
Net profit/loss for the year		**–65,087**	**–69,010**
Other comprehensive income		–	–
Total comprehensive income for the year		**–65,087**	**–69,010**

PARENT COMPANY BALANCE SHEET

Amounts in SEK '000

	Note	2019	2018
ASSETS			
Non-current assets			
Intangible assets	53	467	1,168
Property, plant and equipment			
– Equipment and tools		–	–
Financial assets	54		
– Deferred tax assets		14,997	15,428
– Shares in subsidiaries	54	269,134	318,053
– Participations in associated companies and joint ventures	54	12,072	12,072
– Receivables from subsidiaries	54	228,602	227,576
Financial assets at fair value through profit or loss	54	29,841	26,182
Derivative instruments		–	–
Total non-current assets		**555,113**	**600,479**
Current assets			
Inventories and goods for resale		463	425
Trade and other receivables		865	4,199
Derivative financial instruments		–	–
Receivables from group companies		11,638	21,476
Prepaid expenses and accrued income	55	365	325
Cash and cash equivalents		–	21,151
Total current assets		**13,331**	**47,576**
TOTAL ASSETS		**568,444**	**648,055**
EQUITY			
Equity			
Share capital		8,219	8,219
Restricted reserves		225,272	225,272
Total restricted equity		**233,491**	**233,491**
Non-restricted equity			
Non-restricted reserves		–56,763	12,247
Net profit/loss for the year		–65,087	–69,010
Total non-restricted equity		**–121,850**	**–56,763**
Total shareholders' equity		**111,641**	**176,728**
Untaxed reserves		–	–
LIABILITIES			
Long-term liabilities			
Amounts owed to credit institutions	57	46,500	–
Deferred tax liabilities		–	–
Liabilities to group companies		68,568	30,594
Other liabilities		15,138	12,233
Total long-term liabilities		**130,206**	**42,827**
Current liabilities			
Liabilities to group companies		246,055	217,391
Trade payables		509	599
Amounts owed to credit institutions	57	76,595	199,850
Derivative financial instruments		–	–
Other liabilities		970	2,860
Accrued expenses and deferred income	58	2,468	7,800
Total current liabilities		**326,597**	**428,500**
Total liabilities		**456,803**	**471,327**
TOTAL EQUITY AND LIABILITIES		**568,444**	**648,055**

PARENT COMPANY STATEMENT OF CHANGES IN EQUITY

Amounts in SEK '000

	Share capital	Other contributed capital	Retained earnings	Equity attributable to parent company shareholders	Total equity
Opening balance at January 1, 2018	**8,219**	**225,272**	**12,247**	**245,738**	**245,738**
Comprehensive income					
– Dividends	–	–	–	–	–
– Net profit/loss for the year	–	–	–69,010	–69,010	–69,010
Closing balance at December 31, 2018	**8,219**	**225,272**	**–56,763**	**176,728**	**176,728**
Opening balance at January 1, 2019	**8,219**	**225,272**	**–56,763**	**176,728**	**176,728**
Comprehensive income					
– Dividends	–	–	–	–	–
– Net profit/loss for the year	–	–	–65,087	–65,087	–65,087
Closing balance at December 31, 2019	**8,219**	**225,272**	**–121,850**	**111,641**	**111,641**

PARENT COMPANY CASH FLOW STATEMENT

Amounts in SEK '000

	Note	2019	2018
Cash flow from operating activities			
Operating profit/loss		–15,208	–12,656
Adjustment for non-cash items	61	–54	–209
		–15,262	
Interest received		1,708	3,019
Interest paid		–10,372	–14,084
Income tax paid		–937	–1,097
Cash flow from operating activities before changes in working capital		**–24,863**	**–25,027**
Change in working capital			
– Current assets		22,706	–12,300
– Other current liabilities		21,351	40,147
Cash flow from operating activities		**19,194**	**2,820**
Cash flow from investing activities			
Acquisition of subsidiaries		–1,081	–
Amortization of financial assets	54	10,119	9,604
Loans to group companies	54	–9,341	–16,113
Cash flow from investing activities		**–303**	**–6,509**
Cash flow from financing activities			
Loans raised		159,988	–
Amortization of loans		–199,850	–
Dividend paid		–	–
Cash flow from financing activities		**–39,862**	**–**
Change in liquid assets		–20,971	–3,689
Cash and cash equivalents at start of year		21,151	24,853
Translation difference		–180	–13
Cash and cash equivalents at year-end		**0**	**21,151**

NOTES

NOTES TO THE CONSOLIDATED ACCOUNTS

Amounts in SEK '000

NOTE 1 Accounting policies and valuation principles

The principal accounting policies applied in the preparation of these consolidated accounts are set out below. These policies have been applied consistently to all the years presented, unless otherwise stated.

1.1. BASIS OF PREPARATION

The consolidated accounts for the Studsvik Group have been prepared in accordance with the Annual Accounts Act, the Swedish Financial Reporting Board recommendation RFR 1, Supplementary accounting rules for groups, International Financial Reporting Standards (IFRS) and interpretations by the IFRS Interpretations Committee (IFRIC) as adopted by the EU. The consolidated accounts have been prepared in accordance with the historical cost method, except as regards financial assets and liabilities carried at fair value through profit or loss.

Preparing statements in accordance with IFRS requires the use of a number of important accounting estimates. Furthermore, the management must make certain judgements when applying the Group's accounting policies. The areas that entail a high degree of judgment, which are complex or of such a nature that assumptions and estimates are critical to the consolidated accounts are specified in note 3.

New and amended standards applied by the Group

The following standards will be applied by the Group for the first time for the financial year starting on January 1, 2019:

- IFRS 16 Leases
- Annual Improvements to IFRS Standards 2015–2017 Cycle
- Employee benefits: Plan amendment, curtailment or settlement of a defined benefit plan (Amendment to IAS 19)
- Investments in associates and joint ventures (Amendment of IAS 28)

The application of IFRS 16 is presented separately below, other changes have not had any impact on the Group's accounting policies or disclosures for the current financial year or the previous financial year and neither are they expected to have any impact on coming periods.

Implementation of new International Financial Reporting Standards

As of January 1, 2019 IFRS 16 Leases came into force. The Group has carried out an analysis to evaluate the effects of implementation of the new standard.

IFRS 16

IFRS 16 is the new standard for leases and replaces IAS 17 as of January 1, 2019. The new standard means that lessees must recognize all contracts that meet the definition of a lease as right-of-use assets and financial liabilities in the statement of financial position. For lessees the standard does not differentiate between operating and finance leases. Leases that previously constituted operating leases are now recognized in the balance sheet, with the consequence that what was previously recognized as an operating expense corresponding to the lease charge for the period, has now been replaced by depreciation and interest expense in the income statement.

The extended disclosure requirements that follow from the new standard mean changes in the Groups financial statements. Studsvik reports the transition to IFRS 16 under the simplified transition approach from January 1, 2019 and the Group will thus not restate previous periods.

The effect for Studsvik after introduction of IFRS 16 is described in Note 37.

1.2 CONSOLIDATED ACCOUNTS

Subsidiaries

Subsidiaries are all companies over which the Group has a controlling interest (note 56). The Group controls a company when it is exposed, or has rights, to variable returns from its involvement with the company and has the ability to affect those returns through its power over the company. Subsidiaries are fully consolidated from the date on which control is transferred to the Group. They are de-consolidated from the date that control ceases.

The acquisition method of accounting is used to account for the Group's business combinations. The purchase price for the acquisition of a subsidiary consists of the fair value of transferred assets, liabilities and shares issued by the Group. The purchase price also includes the fair value of all assets and liabilities that are a consequence of an agreement on contingent purchase price. Acquisition related costs are expensed as the arise. Identifiable assets acquired and liabilities and contingent liabilities assumed in a business combination are measured initially at their fair value at the acquisition date. For each acquisition the Group determines if all non-controlling interests in the acquired company are to be measured at fair value or at their proportionate share of the acquiree's identifiable net assets. The excess of the purchase price, any non-controlling interest and fair value on the acquisition date of prior shareholdings over the fair value of the Group's share of identifiable net assets acquired is recognized as goodwill. If the amount is less than the fair value for the acquired subsidiary's assets in the case of a "bargain purchase", the difference is recognized directly in the statement of comprehensive income.

Inter-company transactions, balances and unrealized gains on transactions between Group companies are eliminated. Accounting policies of subsidiaries have been changed where necessary to ensure consistency with the policies adopted by the Group.

Transactions with non-controlling interests

The Group treats transactions with non-controlling interests as transactions with the Group's shareholders. For acquisitions from non-controlling interests the difference between the purchase price paid and the actual acquired share of the carrying amount of the subsidiary's net assets is recognized directly in equity. Gains and losses on sales to non-controlling interests are also recognized in equity.

When the Group no longer has a controlling interest or significant influence, each remaining holding is revalued to fair value and the change in the carrying amount is recognized in the income statement. The fair value is used as the first carrying amount and forms the basis of continued accounting treatment of the remaining holding as an associated company, joint venture or financial asset. All amounts referring to the entity sold, which were previously recorded in other comprehensive income, are recorded as though the Group had sold the related assets or liabilities directly. This may mean that amounts previously recorded in other comprehensive income are reclassified to profit or loss.

If the participating interest in an associated company decreases, but a significant influence nevertheless remains, where relevant only a proportional share of the amounts previously recorded in other comprehensive income is reclassified to profit or loss.

Associated companies

Associated companies are all entities over which the Group has significant influence but not control, generally accompanying a shareholding of between 20 per cent and 50 per cent of the voting rights. Investments in associated companies are accounted for in accordance with the equity method and initially recorded at cost. The Group's carrying amount for investments in associated companies includes goodwill identified on acquisition, net of any impairment.

The Group's share of the post-acquisition profit or loss of an associated company is recognized in the income statement and its share of post-acquisition changes in other comprehensive income is recognized in other comprehensive income. The cumulative post-acquisition changes are adjusted against the carrying amount of the investment. When the Group's share of losses in an associated company equals or exceeds its interest in the associated company, including any unsecured receivables, the Group does not recognize further losses, unless it has incurred obligations or made payments on behalf of the associated company.

Unrealized gains on transactions between the Group and its associated companies are eliminated in relation to the Group's holding in the associated company. Unrealized losses are also eliminated, unless the transaction provides evidence of an impairment of the asset transferred. Accounting policies of associated companies have been amended where necessary to ensure consistency with the policies adopted by the Group. Dilution gains and losses on participations in associated companies are recognized in the income statement.

Joint ventures

For joint ventures, where there is a common controlling interest, the equity method is applied. Interests in a joint venture are initially recognized at cost at the time of acquisition and adjusted on a current basis by its share of changes in the equity of the entity under common control.

The Group's share of the profit from the entity under common control is recognized in the consolidated statement of comprehensive income. If the Group's share of accumulated losses is equal to or more than the Group's share of the equity of the entity under common control, the Group does not recognize further losses.

1.3 SEGMENT REPORTING

Operating segments must be reported in line with the internal reports submitted to the chief operating decision maker. The chief operating decision maker has been identified as the President.

1.4 FOREIGN CURRENCY TRANSLATION

Functional and presentation currency

Items included in the financial statements of each of the Group's entities are measured using the currency of the primary economic environment in which the entity operates (functional currency). The consolidated financial statements are presented in SEK, which is the parent company's functional and presentation currency.

Transactions and balances

Foreign currency transactions are translated into the functional currency using the exchange rates prevailing on the date of the transaction. Foreign exchange gains and losses resulting from the settlement of such transactions and from the translation at year-end exchange rates of monetary assets and liabilities denominated in foreign currencies are recognized in the income statement. An exception is when the transactions qualify as cash flow hedges, in which case the gains/losses are recognized in other comprehensive income.

Foreign exchange gains and losses attributable to loans and cash and cash equivalents are recognized in the income statement as financial income or expense. All other foreign exchange gains or losses, mainly on trade receivables and trade payables, are recorded in the items 'Other operating income' and 'Other operating expenses' in the income statement.

Translation differences for non-monetary financial assets and liabilities are recorded as part of fair value gains/losses. Translation differences for non-monetary financial assets and liabilities, such as shares recognized at fair value through profit or loss, are recorded in the income statement as part of fair value gains/losses.

Group companies

The results and financial position of all the Group companies (none of which has the currency of a hyperinflationary economy as functional currency) that have a functional currency different from the presentation currency are translated into the Group's presentation currency as follows:

- Assets and liabilities for each balance sheet presented are translated at the closing rate.
- Income and expenses for each income statement are translated at average exchange rates.
- All foreign exchange differences arising are recorded in other comprehensive income.

On consolidation, exchange differences arising from the translation of the net investment in foreign operations, and of borrowings and other currency instruments designated as hedges of such investments, are recognized in other comprehensive income. When a foreign business is sold, fully or partly, the currency differences reported in equity are transferred to the income statement and recognized as part of the capital gain/loss. Goodwill and fair value adjustments arising on the acquisition of a foreign entity are treated as assets and liabilities of the foreign entity and translated at the closing rate.

1.5 NON-CURRENT PROPERTY, PLANT AND EQUIPMENT

Property, plant and equipment is recorded at historical cost less depreciation. The Group applies depreciation of components, where each part of an item of property, plant and equipment with a cost of acquisition that is significant in relation to the total cost of the item is to be depreciated separately. The cost of acquisition includes expenses directly attributable to the acquisition of the asset. Expenditure for dismantling and restoration is added to the cost of acquisition and reported as a separate component. Dismantling and restoration costs during the useful life of the asset are calculated annually on the basis of the evaluation made on each date of estimate. Any adjustments of the future costs adjust the cost of acquisition of the asset.

Subsequent costs are included in the asset's carrying amount or recognized as a separate asset, as appropriate, only when it is probable that the future economic benefits associated with the item will flow to the Group and the cost of the item can be measured reliably. The carrying amount for the replaced part is removed from the balance sheet. All other repairs and maintenance are charged to the income statement during the financial period in which they are incurred.

Land is not depreciated. Depreciation on other assets is calculated using the straight-line method to allocate their cost or revalued amounts to their residual values over their estimated useful lives as follows:

• Buildings and land improvements	20–50 years
• Plant and machinery	3–20 years
• Equipment and tools	3–20 years

The assets' residual values and useful lives are reviewed, and adjusted if appropriate, at each balance sheet date. An asset's carrying amount is written down immediately to its recoverable amount if the asset's carrying amount is greater than its estimated recoverable amount.

Gains and losses on disposals are determined by comparing sales proceeds with the carrying amount and are recorded under 'Other operating income' and 'Other operating expenses' in the income statement.

1.6 INTANGIBLE ASSETS

Goodwill

Goodwill on acquisition of subsidiaries is included in intangible assets. Goodwill on acquisition of associated companies is included in the value of investments in associated companies and tested for impairment as part of the value of the total investment. Goodwill that is disclosed separately is tested annually for impairment and recognized at cost less accumulated impairment losses. Goodwill impairment loss is not reversed. Gains and losses on the disposal of an entity include the carrying amount of goodwill relating to the entity sold.

Goodwill is allocated to cash-generating units when tested for impairment. Allocation is to the cash-generating units or groups of cash-generating units that are expected to benefit from the business combination giving rise to the goodwill item.

Patents

The majority of Studsvik's patents refer to methods and techniques for treatment of radioactive waste. These capitalized costs are amortized over the estimated useful life.

Computer software

Acquired computer software licenses are capitalized on the basis of the costs incurred to acquire and bring to use the specific software. These capitalized costs are amortized over the estimated useful life (normally 10 years).

Costs associated with developing or maintaining computer software are recognized as an expense as incurred.

Development costs for software recognized as an asset are amortized over the estimated useful life.

Contractual customer relations and similar rights

Contractual customer relations and similar rights consist mainly of customer relations and contracts as well as some tenancy rights. Documents to verify their capitalization could be business plans, budgets or the company's assessments of future outcomes. An individual assessment is made for each item. Amortization starts when the asset is ready for use and subsequently continues over the estimated useful life. Contractual customer relations are amortized over 15 years. The amortization period for other rights varies.

1.7 IMPAIRMENT LOSSES ON NON-FINANCIAL ASSETS

Assets that have an indefinite useful life, such as goodwill, are not subject to amortization and are tested annually for impairment. Assets that are subject to amortization are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. An impairment loss is recognized for the amount by which the asset's carrying amount exceeds its recoverable amount. The recoverable amount is the higher of an asset's fair value less selling costs and value in use. For the purposes of assessing impairment, assets are grouped at the lowest levels for which there are separately identifiable cash flows (cash-generating units). Assets other than financial assets and goodwill for which an impairment loss has previously been recognized, are tested to establish if any reversal should be made.

1.8 FINANCIAL ASSETS

The Group classifies its financial assets in accordance with IFRS 9 in the following categories: financial assets at fair value through profit or loss and amortized cost. The classification depends on the purpose for which the financial asset was acquired. The management determines the classification of financial assets at the time of initial recognition.

Financial assets at fair value through profit or loss

Financial assets at fair value through profit or loss are financial assets held for trading. A financial asset is classified in this category if it is acquired mainly for the purpose of selling in the short term. Derivatives are classified as held for trading if they are not designated as hedging instruments. Assets in this category are classified as current assets if they are expected to be settled within 12 months. Otherwise they are classified as non-current assets.

The Group recognizes the following financial instruments at fair value through profit or loss:

- Investments in debt instruments that do not qualify for recognition at amortized cost or at fair value via other comprehensive income,
- Investments in equity instruments held for trading.

Investments in debt instruments

The Group classifies its investments in debt instruments in the measurement category Amortized cost, which is financial assets that have fixed or determinable payments that are not quoted in an active market. They are included in current assets, except for maturities greater than 12 months after the balance sheet date. These are classified as non-current assets. The Group's amortized cost consists of derivatives, trade and other receivables and cash and cash equivalents in the balance sheet (notes 21, 22 and 25).

Recognition and measurement

Purchases and sales of financial assets are recognized on the trade date – the date on which the Group commits to purchase or sell the asset Financial instruments are initially recognized at fair value plus transaction costs for all financial assets not carried at fair value through profit or loss. Financial assets recognized at fair value through profit or loss are initially recognized at fair value, while related transaction costs are recognized in the income statement. Financial assets are derecognized when the rights to receive cash flows from the instruments have expired or have been transferred and the Group has transferred substantially all risks and benefits of ownership.

Financial assets at fair value through profit or loss are subsequently carried at fair value after the date of acquisition. Investments in debt instruments are carried at amortized cost after the acquisition date, applying the effective interest method. Debt instruments with short maturities are recognized at nominal value.

Gains and losses arising from changes in the fair value of the 'financial assets at fair value through profit or loss' category, are presented in the income statement in the period in which they arise under the items 'Other operating income' and 'Other operating expenses'.

1.9 OFFSET OF FINANCIAL INSTRUMENTS

Financial assets and liabilities are offset and recognized net in the balance sheet only if there is a legally enforceable right to set off the recognized amounts and an intention to settle on a net basis, or to realize the asset and settle the liability simultaneously. The legal right may not be contingent on a future event and it must be legally enforceable on the company and the counterparty, both in the normal course of business or in the event of default, insolvency or bankruptcy.

1.10 IMPAIRMENT LOSSES ON FINANCIAL ASSETS

Assets carried at amortized cost

The Group assesses at the close of each accounting period whether there is objective evidence that a financial asset or group of financial assets is impaired. The Group applies the simplified method for calculating expected credit losses. The method means that expected losses during the entire life of the claim are used as the basis for trade receivables and contract assets. A financial asset or group of financial assets is impaired, and impairment losses are recognized, only if there is objective evidence as a result of one or more events that occurred after the initial recognition of the asset (a loss event) and this event (or events) has an impact on the estimated future cash flows of the financial asset or group of financial assets that can be reliably measured.

The Group first assesses whether there is objective evidence of impairment.

The impairment is estimated as the difference between the carrying amount of the asset and the present value of estimated future cash flows (excluding future credit losses that have not yet occurred), discounted at the original effective interest rate of the financial asset. The carrying amount of the asset is written down and the impairment loss is recognized in the consolidated income statement. If a loan or investment held to maturity has a variable interest rate, the current contractual effective interest rate used as the discount rate when impairment has been established. As a practical solution, the Group can establish impairment loss on the basis of the fair value of the instrument using an observable market price.

If the impairment loss decreases in a subsequent period and the decrease can be related objectively to an event occurring after the impairment was recognized (for example an improvement in the debtor's creditworthiness), the previously recognized impairment loss is reversed through the consolidated income statement.

1.11 DERIVATIVE INSTRUMENTS AND HEDGING ACTIVITIES

Derivatives are recognized in the balance sheet on the date of the contract at fair value, both initially and on subsequent remeasurement. The method of reporting the gain or loss arising on revaluation depends on whether the derivative is identified as a hedging instrument, and, if so, the nature of the hedged item. The Group identifies certain derivatives as either:

- a hedge of the fair value of a recognized asset or liability or a firm commitment (fair value hedge),
- a hedge of a particular risk associated with a recognized asset or liability or a highly probable forecast transaction (cash flow hedge).

When the transaction is entered into, the Group documents the relationship between the hedging instrument and the hedged item, as well as the Group's risk management objective and strategy for undertaking the hedge. The Group also documents its assessment, both when the hedge is undertaken and on a continuous basis, of whether the derivative instruments used in hedging transactions are effective in offsetting the changes in the fair value or cash flows of the hedged items.

Information on the fair value of the different derivative instruments used for hedging purposes is given in note 21. The entire fair value of a derivative designated as a hedging instrument is classified as a non-current asset or liability when the remaining maturity of the hedged item is more than 12 months and as a current asset or liability when the remaining maturity of the hedged item is less than 12 months.

Fair value hedging

The Group only applies fair value hedging for certain financial non-current assets and borrowing.

Cash flow hedging

The effective portion of the change in fair value of a derivative instrument identified as a cash flow hedge and satisfying the criteria for hedge accounting, is reported in other comprehensive income in the hedging reserve in equity. The gain or loss referring to the ineffective portion is recognized immediately in the income statement in the items 'Other operating income' or 'Other operating expenses' - net. When a hedging instrument matures or is sold or when the hedge no longer fulfills the criteria for hedge accounting and accumulated gains or losses referring to the hedge are in equity, these gains/losses remain in equity and are recognized in revenue at the time when the forecast transaction is ultimately reported in the income statement. When a forecast transaction is no longer expected to occur, the accumulated gains or losses deferred in equity must immediately be taken to the income statement items 'Other operating income' or 'Other operating expenses' – net.

1.12 INVENTORIES

Inventories are stated at the lower of cost and net realizable value. Cost is determined using the first-in, first-out (FIFO) method. The cost of finished goods and work in progress comprises raw materials, direct labor, other direct costs and related production overheads. Borrowing costs are not included. Net realizable value is the estimated selling price in the ordinary course of business, less applicable variable selling expenses.

1.13 TRADE RECEIVABLES

Accounts receivable are reported in the amount at which they are expected to be received after deduction for bad debts, assessed individually. The expected maturity of trade receivables is less than twelve months and therefore the value has been recognized at the nominal amount without discounting. Impairment losses in trade receivables are recognized in the item 'Selling and marketing costs'.

1.14 CASH AND CASH EQUIVALENTS

Cash and cash equivalents includes cash in hand, bank balances and other short-term liquid investments with original maturities of three months or less of the date of acquisition.

1.15 SHARE CAPITAL

Ordinary shares are classified as equity.

Transaction costs directly attributable to the issue of new shares or options are shown in equity as a deduction, net of tax, from the proceeds.

1.16 TRADE PAYABLES

Trade payables are recognized at fair value and are commitments to pay for goods or services acquired from suppliers in the operating activities. Trade payables have a short expected maturity and are classified as current liabilities.

1.17 BORROWINGS

Borrowings are recognized at fair value, net after transaction costs.

Borrowings are classified as current liabilities unless the Group has an unconditional right to defer settlement of the liability for at least 12 months after the balance sheet date.

1.18 CURRENT AND DEFERRED INCOME TAX

Tax expense for the period includes current and deferred tax. Tax is reported in the income statement, except when the tax refers to items reported in other comprehensive income or directly in equity. In that case the tax is also reported in other comprehensive income and equity respectively.

The current tax expense is calculated on the basis of the tax laws that have been enacted or substantively enacted on the balance sheet date in the countries in which the parent company's subsidiaries and associated companies operate and generate taxable revenues. The management regularly assesses claims made in tax returns for situations where applicable tax rules are subject to interpretation and, where deemed appropriate, makes provision for amounts that will probably have to be paid to the tax authorities.

Deferred tax is recognized in its entirety, using the balance sheet method, on all temporary differences arising between the tax bases of assets and liabilities and their carrying amounts in the consolidated accounts. However, the deferred tax is not recognized if it arises as a consequence of a transaction constituting the initial recognition of an asset or liability in a transaction other than a business combination that, at the time of the transaction, affects neither accounting profit nor taxable profit. Deferred income tax is determined using tax rates (and laws) that have been enacted or substantially enacted by the balance sheet date and are expected to apply when the related deferred tax asset is realized, or the deferred tax liability is settled.

Deferred tax assets are recognized to the extent it is probable that future taxable profit will be available against which the temporary differences can be applied. 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 the deferred tax assets and deferred tax liabilities relate to income taxes levied by the same taxation authority on either the same taxable entity or different taxable entities which intend to settle current tax liabilities and assets on a net basis.

1.19 EMPLOYEE BENEFITS

Pension obligations

The Group companies operate various pension schemes. The schemes are generally funded through payments to insurance companies or trustee-administered funds, in which the payments are determined on the basis of periodic actuarial calculations. The Group has both defined benefit and defined contribution plans. A defined contribution plan is a pension plan under which the Group pays fixed contributions into a separate legal entity. The Group has no legal or constructive obligation to pay further contributions if this legal entity does not have sufficient assets to pay all employee benefits associated with the employees' service in the current or prior periods. A defined benefit plan is a pension plan that is not a defined contribution plan. It is characteristic of defined benefit plans that they define an amount of pension benefit that an employee will receive on retirement, usually dependent on one or more factors such as age, years of service and compensation.

The liability recognized in the balance sheet in respect of defined benefit pension plans is the present value of the defined benefit obligation at the balance sheet date less the fair value of plan assets. The defined benefit obligation is calculated annually by independent actuaries using the projected unit credit method. The present value of the defined benefit obligation is determined by discounting the estimated future cash outflows using interest rates of high-quality corporate bonds that are denominated in the currency in which the benefits will be paid and flows using interest rates of high-quality corporate bonds that are denominated in the currency in which the benefits will be paid and that have terms to maturity approximating to the terms of the related pension liability.

Actuarial gains and losses as a result of experience adjustments and changes in actuarial assumptions are reported in other comprehensive income in the period in which they arise. Past service costs are recognized directly in the income statement. For defined contribution plans, the Group pays contributions to publicly or privately administered pension insurance plans on a mandatory, contractual or voluntary basis. The Group has no further payment obligations once the contributions have been paid. The contributions are recognized as employee benefit expense when they are due. Prepaid contributions are recognized as an asset to the extent that cash refund or a reduction in the future payments is available to the Group.

Termination benefits

Termination benefits are payable when employment is terminated by the Group before the normal retirement date, or whenever an employee accepts voluntary redundancy or in exchange for these benefits. The Group recognizes termination benefits at the earlier of the following dates, a) when the Group can no longer withdraw the offer of those benefits, and b) when the company recognizes the costs for a restructuring within the scope of IAS 37 that includes the payment of termination benefits. In cases where the company has made an offer to encourage voluntary redundancy, the termination benefits are calculated on the basis of the number of employees expected to accept the offer.

Profit sharing and variable salary components

The Group recognizes a liability and an expense for variable salary and profit-sharing, based on a formula that takes into consideration the profit that can be attributed to the parent company's shareholders after certain adjustments. The Group recognizes a provision where contractually obliged or where there is a past practice that has created a constructive obligation.

1.20 PROVISIONS

Provisions for environmental restoration measures, future waste management costs, restructuring costs and other legal requirements are recognized when: the Group has a present legal or constructive obligation as a result of past events; it is more probable than not that an outflow of resources will be required to settle the obligation; and the amount has been reliably estimated. No provision has been made for future operating losses.

If there are a number of similar obligations, the probability that an outflow of resources will be required to settle the obligations will be assessed overall for the entire group of obligations. A provision is reported even if the probability of an outflow for a particular item in this group of obligations is minor. See note 33, 'Other provisions'.

1.21 REVENUE RECOGNITION

Revenue comprises the fair value of the consideration received or receivable for goods and services sold in the Group's operating activities. Revenue is reported exclusive of value added tax, returns and discounts and after elimination of sales within the Group.

Consultancy Services

The Group offers services at both fixed and variable prices. Revenue from services delivered is recognized in the period they are supplied. For fixed price contracts, the revenue is based on the percentage of the total contracted service delivered during the financial year when the customer receives and uses the services at the same time. This is determined on the basis of the actual cost incurred compared with the total expected cost of the contract. Estimates of revenue, costs or percentage of completion of projects are revised if circumstances change. Increases or decreases in assessed revenue or costs that depend on a changed estimate are recognized in the income statement in the period when the circumstances that caused the revision became known.

In fixed price contracts the customer pays the agreed price at agreed times of payment. If the services the Group has delivered exceed the payment, a contract asset is recognized in the item Trade and other receivables. If payments exceed the services delivered, a contract liability is recognized in the item Trade and other payables. If the contract is a cost plus contract based on an hourly rate, the revenue is recognized to the extent the Group has a right to invoice the customer. Customers are invoiced monthly, usually with a 30-day payment term. More information on the Group's Consultancy Services can be found in note 4 and the Waste Management Technology, Fuel and Materials Technology and Germany segments.

Software

Revenue for the software developed by the Group is received through:

- Sale of goods
- License revenues
- Maintenance agreements
- Contract revenue

Sales of software are recognized in revenue when control of the products is transferred, which is when the software is delivered to the customer and there are no unfulfilled obligations that may affect the customer's approval of the software. A receivable is recognized when the software has been delivered, as this is the time at which payment becomes unconditional.

License revenues are classified as "right to use" licenses where control over the license is received by the customer directly at the time of sale and delivery and they are therefore recognized in revenue when the customer receives the license key. Customers are invoiced annually, usually with a 30-day payment term.

Maintenance agreements are normally signed on an annual basis and as it is difficult to estimate when the maintenance will be supplied, these revenues are recognized on a straight-line basis over the period of the agreement. The deferred income is recognized as a contract liability in the item Trade and other payables. Customers are invoiced annually, usually with a 30-day payment term.

Contract revenue is offered at both fixed and variable prices and the Group treats these revenues in the same way as Consultancy Services (see description above). More information about the Group's software can be found in note 4 and the Scandpower segment.

Interest income is recognized on a time-proportion basis using the effective interest method. When the value of a receivable is impaired, the Group reduces the carrying amount to the recoverable amount, which is the estimated future cash flow, discounted at the original effective interest rate for the instrument, and continues to reverse the discount effect as interest income. Interest income on impaired loans is recognized at the original effective interest rate.

Dividend income is recognized when the right to receive payment is established.

Remaining performance obligations

The table below shows unfulfilled performance obligations referring to long-term projects in the Fuel and Materials Technology segment. The table does not include revenue related to contracts invoiced on a cost plus basis or contracts with an expected maximum duration of one year.

Year	2020	2021	2022	2023	2024	2025	2026	2027	Total
SEK m	82	70	87	96	91	73	74	15	**587**

1.22 LEASES

Previous accounting policy under IAS 17

Until December 2018 the Group applied IAS 17 for leases. Leases on non-current assets, in which the Group holds the financial risks and rewards incident to legal ownership, are classified as finance leases. At the start of the lease term finance leases are recorded in the balance sheet at the lower of the leased asset's fair value and present value of the minimum lease payments.

Each lease payment is allocated between amortization of the debt and financial costs for achieving a fixed rate of interest on the reported debt. The corresponding payment liabilities, less financial expenses, are included in the balance sheet items 'Non-current borrowing' and 'Current borrowing'. The interest component of the financial expenses is allocated over the lease term in the income statement so that each accounting period is charged with an amount equivalent to a fixed interest rate on the reported debt in the respective period. Non-current assets held as finance leases are depreciated over the shorter of the useful life of the asset and the lease term.

Leases that are not finance leases are classified as operating leases. The lease payments for operating leases are expensed on a straight-line basis over the lease term. The effect for Studsvik under the previous accounting policy is described in Note 36 and then refers to the comparative year 2018.

New accounting policy under IFRS 16

IFRS 16 Leases has replaced IAS 17 Leases as of January 1, 2019. The new standard means that lessees must recognize all contracts that meet the definition of a lease as right-of-use assets and financial liabilities in the statement of financial position. For lessees the standard does not differentiate between operating and finance leases.

Leases that previously constituted operating leases are now recognized in the balance sheet, with the consequence that what was previously recognized as an operating expense corresponding to the lease charge for the period, has now been replaced by depreciation and interest expense in the income statement.

The Group leases various offices, machinery and vehicles. Leases may include both lease and non-lease components and Studsvik has decided to only take into account lease components in their rights-of-use. The right of use is initially recognized at cost of acquisition and in following reporting periods at cost of acquisition less accumulated depreciation and impairment. The lease liability is recognized initially at the present value of future lease payments discounted at the incremental borrowing rate. In subsequent accounting the lease liability will be adjusted for interest and lease charges paid, as well as changes in the lease, such as extension clauses. Payments for short -term leases and leases of low value will be expensed on a straight-line basis in the income statement. Short-term leases have a lease term of 12 months or less and low value leases are valued at less than USD 5,000.

When determining the value of the rights of use and financial lease liability, the most significant assumptions are as follows:

- The lease payments have been discounted at the incremental borrowing rate. The same discount rate has been used for rights of use with similar characteristics. Studsvik has used an incremental borrowing rate of 2.6 per cent, which reflects the interest rate received from the Group's credit institution.
- Options to extend and terminate leases have been taken into account for leases where it is reasonably certain that they will be exercised. When determining the lease term, the Group takes into account available information that gives an economic incentive to exercise an option to extend. The majority of the options to extend that refer to office premises and vehicles have not been included in the lease liability, as Studsvik can replace the rights of use without significant costs or business disruptions.
- Historical information has been used in assessing a lease term in the cases where there are options to extend or terminate a lease.

Effects on the Group's financial statements after introduction of IFRS 16

As described above, Studsvik applies IFRS 16 retroactively from January 1, 2019. Studsvik reports the transition to IFRS 16 in accordance with the simplified transition method and therefore the comparative figures for 2018 have not been restated. The reclassifications and adjustments arising from the new standard are reported in the opening balance as at January 1, 2019. In the transition to IFRS 16 the Group recognizes lease liabilities attributable to leases previously classified as operating leases under the rules of IAS 17 Leases. These liabilities have been measured at the present value of the remaining lease charges. In the calculation Studsvik's incremental borrowing rate as at January 1, 2019 was used. Studsvik's incremental borrowing rate applied to these lease liabilities as at January 1, 2019 was 2.6 %.

In the transition to IFRS 16, the Group used the following practical relaxation rules allowed by the standard:

- The same discount rate has been used for lease portfolios with similar characteristics.
- Operating leases with a remaining lease term of less than 12 months or a value lower than USD 5,000 as at January 1, 2019, have been reported as short-term leases

The effect for Studsvik after introduction of IFRS 16 is described in Note 37.

1.23 DIVIDENDS

Dividend distribution to the parent company's shareholders is recognized as a liability in the Group's financial statements in the period in which the dividends are approved by the parent company's shareholders.

1.24 PARENT COMPANY

The Parent Company has prepared its annual accounts in accordance with the Swedish Annual Accounts Act and Swedish Financial Reporting Board recommendation RFR 2, Accounting for Legal Entities. RFR 2 means that the Parent Company, in its separate financial statements, must apply all the IFRS and statements adopted by the EU as far as possible, subject to the Annual Accounts Act and the Act on Safeguarding Pension Obligations taking into account the connection between accounting and taxation. The recommendation specifies the exemptions and additions that must be made in relation to IFRS. The differences between the Group's and the Parent Company's accounting policies are presented below. The main differences between the accounting policies applied by the Group and the Parent Company are:

Formats

The income statement and balance sheet follow the format of the Annual Accounts Act. This entails differences compared with the consolidated accounts, mainly as regards financial income and expense, the statement of comprehensive income, provisions and the statement of changes in equity.

Shares and participations in subsidiaries

Investments in subsidiaries are recorded at the lower of cost and fair value. Assessments are made as to whether the book amount corresponds to fair value and the book amount is written down if the impairment is deemed permanent and recorded in the item 'Profit/loss from participations in Group companies'. Dividend received is reported as financial income.

Revenue

The Parent Company's income includes dividends and group contributions received from subsidiaries and other internal transactions that are eliminated in the consolidated accounts.

Leases

All leases, regardless of whether they are finance or operating leases, are recorded as rental agreements (operating leases).

Pensions

Pension obligations refer to defined contribution plans and are covered by insurance arrangements.

Taxes

The accumulated values of accelerated depreciation and other untaxed reserves are presented in the parent company balance sheet under the item 'Untaxed reserves' with no deduction for the deferred tax. Changes in the untaxed reserves are shown on a separate line in the income statement in the parent company income statement. The consolidated accounts, however, divide untaxed reserves into deferred tax liability and equity.

Group contributions and shareholders' contributions for legal entities

The company reports group contributions and shareholders' contributions in accordance with the Swedish Financial Reporting Board's recommendation RFR 2. Shareholders' contributions are recognized directly in the equity of the recipient and capitalized in shares and participations by the giver, to the extent there is no impairment loss. Group contributions from subsidiaries are reported as financial income as is normal dividend from subsidiaries. Tax on group contributions is reported in accordance with IAS 12 in the income statement.

NOTE 2 Financial risk management

2.1 FINANCIAL RISK FACTORS

Through its operations the Group is exposed to a number of different financial risks; market risk (covering currency risk, fair value interest rate risk, cash-flow interest rate risk and price risk), credit risk and liquidity risk. The Group's overall risk management policy focuses on the unpredictability of financial markets and aims to minimize potential adverse effects on the Group's financial performance. The Group uses derivative instruments to hedge certain risk exposure. Risk management is handled by a central treasury function in accordance with policies determined by the Board of Directors. The central function identifies, evaluates and hedges financial risk in close cooperation with the Group's operating units. The Board of Directors draws up written policies, both for overall risk management and for specific areas, such as currency risk, interest rate risk, credit risk, use of derivative and non-derivative financial instruments and investment of surplus liquidity.

Market risk

Price risk

The Group's largest single cost item is personnel, which accounts for 68 (63) per cent of the total costs of continuing operations. Other expenses vary. The Group's risk exposure as regards purchases is therefore of less significance.

Currency risk

The Group operates internationally and is exposed to currency risk arising from various currency exposures, above all in US dollars (USD), euros (EUR) and pounds sterling (GBP). Currency risk arises through future business transactions, reported assets and liabilities and net investment in foreign operations.

The Board of Directors has drawn up policies and guidelines for how currency risk is to be managed in the Group. To minimize the currency risk arising on business transactions and for reported assets and liabilities, the companies use different forms of currency derivatives issued by external banks. Currency risk arises when future business transactions or reported assets and liabilities are denominated in a currency that is not the functional currency of the unit.

At Group level only external foreign currency derivative contracts are classified as hedges of gross amounts of specific assets, liabilities or future transactions.

If the Swedish krona had weakened by 10 per cent against the euro, all other variables being constant, the year's profit for continuing operations as at December 31, 2019 would have been SEK 2.5 million lower (SEK 1.0 million lower), as the Group's total costs in EUR are lower than the corresponding revenue in EUR. Equity would have been SEK 2.5 million lower (1.0 million lower), mainly due to translation of the Group's net investments in Germany.

If the Swedish krona had weakened by 10 per cent against the GBP, all other variables being constant, the year's profit for continuing operations as at December 31, 2019 would have been SEK 1.9 million lower (SEK 0.3 million lower), as the Group's total revenues in GBP are greater than the corresponding expenses in GBP. Equity would have been SEK 1.9 million (SEK 0.3 million lower), mainly due to translation of the Group's net investments in the United Kingdom.

If the Swedish krona had weakened by 10 per cent against the US dollar, all other variables being constant, the year's profit from continuing operations as at December 31, 2019 would have been SEK 5.0 million lower (SEK 1.8 million lower), mainly as a result of Scandpower Inc's operations. Equity would have been SEK 5.0 million lower (1.8 million lower), mainly due to translation of the Group's net investments in the USA.

Interest rate risk referring to cash flows and fair values

Since the Group does not have any material interest-bearing assets, the Group's income and cash flow from operating activities are in all essentials independent of changes in market interest rates.

The Group's interest rate risk arises through long-term borrowings. Borrowing at variable interest rates exposes the Group to cash flow interest rate risk. Borrowing at fixed interest rates exposes the Group to fair value interest rate risk.

The Group's contractual repricing dates for interest rates are shown in note 30. The Group analyses its interest rate exposure regularly. Different scenarios are simulated, taking into account refinancing, renewals of existing positions, alternative funding and hedging. With these scenarios as a base, the Group calculates the impact on earnings of a given interest rate change. For each simulation the same interest rate change is used for all currencies. The scenarios are only simulated for debt constituting the largest interest-bearing positions.

Simulations carried out show that the impact on pre-tax earnings of a change of 0.1 percentage point would be a maximum increase or decrease respectively of SEK 0.0 (0.2) million.

If the interest rate on borrowing in SEK on December 31, 2019 had been 0.5 percentage points higher/lower, all other variables being constant, the pre-tax earnings for the financial year would have been SEK 0.2 (1.0) million higher/lower, mainly as an effect of higher/lower interest expense in connection with changes in reference rates.

Credit risk

Credit risk is managed at company and Group level. Credit risk arises through cash and cash equivalents, derivative instruments and balances at banks and financial institutions, as well as credit exposure to customers, including outstanding receivables and contractual transactions. The Group only uses banks with an A+ or higher rating for depositing cash and cash equivalents. In cases where no independent credit evaluation exists, a risk appraisal is made of the customer's creditworthiness in which financial position and prior experience and other factors are taken into consideration. Individual risk limits are set, based on internal or external credit evaluations in accordance with limits set by the Board of Directors.

The credit quality of financial assets is described in note 20.

Liquidity risk

Liquidity risk is managed through the Group holding sufficient cash and cash equivalents and short-term deposits in a liquid market, available funding through contracted credit lines and the possibility of closing market positions. Due to the dynamic character of operations, the Group retains flexibility of funding by maintaining contracts for withdrawable lines of credit. The company has a bank loan of SEK 48.5 million, which falls due on April 2, 2024. The loan carries interest of 2.6 % + STIBOR 3 months. Expected interest expense is calculated as SEK 1.2 million in 2020. Apart from the bank loan, there is also a bank overdraft facility of SEK 100 million that runs to the turn of the year 2020/2021. The risk of non-extension is considered to be low as the Group has a good and ongoing working relationship with the bank. The management carefully follows rolling forecasts of the Group's liquidity reserve, consisting of unutilized loan assurances (note 30) and cash and cash equivalents (note 25), on the basis of expected cash flows.

The table below analyses the Group's financial liabilities and derivative instruments settled net that constitute financial liabilities, broken down by the contractual time to maturity remaining on the balance sheet date. The amounts stated in the table are the contracted, undiscounted cash flows.

As at December 31, 2019	Less than 1 year	Between 1 and 2 years	Between 2 and 5 years	More than 5 years
Bank loans	3,237	3,185	46,976	–
Bond loans	–	–	–	–
Derivative instruments	118	–	–	–
Trade and other payables	233,727	42	126	14,970

As at December 31, 2018	Less than 1 year	Between 1 and 2 years	Between 2 and 5 years	More than 5 years
Bank loans	–	–	–	–
Bond loans	201,765	–	–	–
Derivative instruments	3,650	53	–	–
Trade and other payables	208,520	1,500	4,500	8,568

The table below analyses the Group's financial derivative instruments that will be settled gross, broken down by the contractual time to maturity remaining on the balance sheet date. The amounts stated in the table are the contracted, undiscounted cash flows. The amounts that mature within 12 months have not been discounted, since the discount effect is immaterial.

As at December 31, 2019	Less than 1 year	Between 1 and 2 years	Between 2 and 5 years	More than 5 years
Forward exchange contracts – Cash flow hedges				
– Outflow	–	–	–	–
– Inflow	118	–	–	–

As at December 31, 2018	Less than 1 year	Between 1 and 2 years	Between 2 and 5 years	More than 5 years
Forward exchange contracts – Cash flow hedges				
– Outflow	–	–	–	–
– Inflow	49,433	2,980	–	–

2.2 CAPITAL RISK MANAGEMENT

The Group's goal for its capital structure is to safeguard the Group's ability to continue as a going concern, so that it can generate a return for its shareholders and benefit for other stakeholders and maintain an optimal capital structure as a means of controlling the cost of capital. The Group assesses the capital on the basis of debt/equity ratio and equity/assets ratio. Studsvik has an overall goal of an equity/assets ratio of 40 per cent. The equity/assets ratio at the close of the year was 37.5 (35.1) per cent.

To retain or adjust the capital structure, the Group can alter the dividend it pays to shareholders, repay capital to shareholders, issue new shares or sell assets to reduce its liabilities

Just like other companies in the industry, the Group assesses its capital on the basis of the debt/equity ratio. This ratio is defined as net debt divided by total equity. Net debt is defined as total borrowing (including the items current borrowing and Non-current borrowing in the consolidated balance sheet) less cash and cash equivalents. Equity is calculated including non-controlling interests.

	2019	2018
Total borrowing (note 30)	123,095	199,850
Less cash and cash equivalents (note 25)	–40,226	–155,539
Net debt	**82,869**	**44,311**
Total equity	**302,772**	**316,205**
Debt/equity ratio	27.4 %	14.0 %

The change in debt/equity ratio in 2019 was mainly a consequence of repayment of the SEK 200 million bond in 2019. Negative earnings is the main reason for lower equity.

2.3 FAIR VALUE ESTIMATION

The table below shows financial instruments at fair value on the basis of their classification in the fair value hierarchy. The different levels are defined as follows:

- Level 1 – Quoted prices (unadjusted) on active markets for identical assets or liabilities.
- Level 2 – Other observable market data for the asset or liability other than quoted prices included in level 1, either direct (i.e. as quoted prices) or indirect (i.e. derived from quoted prices).
- Level 3 – Data on the asset or liability not based on observable market data (i.e. unobservable inputs).

The following table shows the Group's assets and liabilities measured at fair value as at December 31, 2019.

	Level 1	Level 2	Level 3
Assets			
Financial assets at fair value through profit or loss			
– Unlisted shareholdings	–	–	14,703
– Capital insurance	–	15,180	–
– Long-term bank deposits	–	2,867	–
Derivatives used for hedging	–	–	–
Total assets	**–**	**18,047**	**14,703**
Liabilities			
Derivatives used for hedging	–	118	–
Total liabilities	**–**	**118**	**–**

The following table shows the Group's assets and liabilities measured at fair value as at December 31, 2018.

	Level 1	Level 2	Level 3
Assets			
Financial assets at fair value through profit or loss			
– Unlisted shareholdings	–	–	13,949
– Capital insurance	–	12,233	–
– Long-term bank deposits	–	3,004	–
Derivatives used for hedging	–	3,236	–
Total assets	**–**	**18,473**	**13,949**
Liabilities			
Derivatives used for hedging	–	3,703	–
Total liabilities	**–**	**3,703**	**–**

The fair value of financial instruments traded in active markets is based on quoted market prices at the balance sheet date. A market is regarded as active if quoted prices from a stock exchange, broker, industrial group, pricing service or supervisory authority are easily and regularly available, and these prices represent actual and regularly occurring market transactions at arm's length. The Group does not currently hold such assets or liabilities

Fair value of financial instruments not traded on an active market (for example OTC derivatives) is established using valuation techniques. These techniques use market information as far as possible when this is available, while company-specific information is used as little as possible If all material inputs required for fair value measurement of an instrument are observable the instrument is found at level 2.

Specific valuation techniques used to measure financial instruments include:

- Quoted market prices or brokers' quotations for similar instruments.
- The fair value of interest swaps is calculated as the present value of estimated future cash flows based on observable yield curves.
- The fair value of forward exchange contracts is determined using quoted forward exchange rates at the balance sheet date, where the resulting value is discounted to present value.

Other techniques, such as estimating discounted cash flows, are used to determine the fair value of remaining financial instruments.

The following instruments at level 3 refer to our holdings in nuclear insurance companies. They are valued at acquisition cost plus our share of their surplus.

The following table shows changes for instruments at level 3 in 2018.

	Level 3
Opening balance	13,039
Acquisitions of shares	–
Gains recognized in the income statement	910
Closing balance	**13,949**
Total gains or losses for the period included in profit or loss for assets held at the end of the reporting period	**910**

The following table shows changes for instruments at level 3 in 2019.

	Level 3
Opening balance	13,949
Acquisitions of shares	–
Gains recognized in the income statement	754
Closing balance	**14,703**
Total gains or losses for the period included in profit or loss for assets held at the end of the reporting period	**754**

NOTE 3 Important accounting estimates

Estimates and assumptions are continually evaluated and rest on historical experience and other factors, including expectations of future events regarded as reasonable under the circumstances.

3.1 IMPORTANT ACCOUNTING ESTIMATES AND ASSUMPTIONS

The Group makes estimations and assumptions about the future. The estimates for accounting purposes derived from these assumptions will, by definition, seldom correspond to the actual outcome. The estimates and assumptions that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year are outlined below.

Impairment tests for goodwill

Each year the Group examines whether goodwill is impaired, in accordance with the accounting policy described in note 1.7. Recoverable amounts for cash-generating units in continuing operations have been determined by calculating value in use. Certain estimates must be made for these calculations in note 16)

Based on the assumptions and estimates made, there is no impairment loss on goodwill.

Income taxes

The Group is liable to pay tax in different countries. Extensive assessments are required to establish the global provision for income tax. There are many transactions and calculations in which the final tax is uncertain at the time the transactions and calculations are made. The Group reports a liability for expected tax field audits based on assessments of whether further tax liability will arise. In cases where the final tax for these cases differs from the amounts first reported, the differences will affect current tax and provisions for deferred tax in the period when these determinations are made. Moreover, estimates and assumptions are made to determine the value of the deferred tax asset and deferred tax liability on the balance sheet date. Future amendments to tax legislation and the development of the business climate affect the company's future taxable profit and thus the ability to use the deferred tax asset on tax loss carry forwards.

Fair value of derivative instruments or other financial instruments

Fair value of financial instruments not traded on an active market is established using valuation techniques. The Group chooses several methods and makes assumptions that are mainly based on the market conditions existing on the respective balance sheet date.

Revenue recognition

The Group uses the percentage of completion method for reporting fixed price contracts. The percentage of completion method means that the Group must estimate completion of services on the balance sheet date as a proportion of the total services to be provided. If the proportion of completed services to total services to be provided deviates by 10 per cent from the management's estimate, the year's reported revenue would increase by SEK 5.8 (8,2) million if the percentage of completion had increased, or decrease by SEK 5.8 (8,2) million if the percentage of completion had decreased.

Provisions

The operations at Studsvik's facilities in Sweden are subject to local licensing requirements and Studsvik is liable to decommission facilities, manage waste and restore land. The Group makes provision in its own balance sheet for these future decommissioning costs. The Group also provides collateral in the form of bank guarantees and deposits blocked funds. The Group makes regular assessments of its technical and financial obligations and revises the value of these provisions annually. The commitment consists of discounted values of future cash flows.

If the actual estimate of the future decommissioning cost were to deviate by 10 per cent from the management's assessment, the result would have been SEK 0.9 (0.9) million lower for a higher estimate of future costs. Changes in estimates of future costs refer to repository costs for waste treated in the Group's Swedish facility, which affect future cash flows. Other changes in estimated future costs are capitalized as property, plant and equipment and thus only affect future depreciation.

Changes in the Group's provisions are presented in note 33.

NOTE 4 Segment reporting

Operating segments have been established on the basis of information dealt with by the Board of Directors and the President and used to make strategic decisions. The Board of Directors and the President assess operations mainly from a business area perspective, and therefore the segments consist of the Group's four business areas, which are described on pages 12-19.

The Board of Directors and the President assess the operating segments' performance on the basis of operating profit.

Operating segment assets refer to all non-current assets and current assets allocated by segment. Operating segment liabilities refer to all long-term and current liabilities allocated by segment.

Interest income and expenses are not allocated to the segments, since they are affected by measures taken by the central treasury, which handles the Group's cash liquidity. Reclassification of income, earnings and employees was made between segments for the comparison year to achieve comparability with 2018.

Financial year 2019	**Waste Management Technology**	**Fuel and Materials Technology**	**Scandpower**	**Germany**	**Other**	**Eliminations**	**Group**
Sales revenues	56,726	200,076	130,104	263,064	50,972	–46,928	654,014
External sales revenue	49,659	196,767	118,525	258,552	30,511	–	654,014
EBITDA before non-recurring items	–21,107	38,168	16,460	–699	–8,904	–	23,917
Non-recurring items	–14,003	–	–	-	–800	–	–14,803
Depreciation/amortization and impairment	–3,846	–12,918	–3,482	–4,429	–4,374	–	–29,049
Earnings from associated companies and joint ventures	5,363	–	–	4,120	–	–	9,483
Operating profit/loss	**–33,592**	**25,250**	**12,978**	**–1,009**	**–14,078**	–	**–10,451**
Net financial items						–	–12,395
Taxes							–5,194
Net profit/loss for the year							**–28,041**
Holdings in associated companies and joint ventures	17,789						17,789
Other operating segments	139,939	206,373	170,356	222,042	381,781	–330,039	790,452
Total assets	**157,728**	**206,373**	**170,356**	**222,042**	**381,781**	**–330,039**	**808,241**
Operating segment liabilities	141,465	120,809	67,092	205,622	300,520	–330,039	505,469
Equity							302,772
Total equity and liabilities	**141,465**	**120,809**	**67,092**	**205,622**	**300,520**	**–330,039**	**808,241**
Investments	4,220	22,929	1,291	1,679	2,541	–	32,660
Average number of employees	46	104	35	349	18	–	552

Financial year 2018	**Waste Management Technology**	**Fuel and Materials Technology**	**Scandpower**	**Germany**	**Other**	**Eliminations**	**Group**
Sales revenues	78,243	224,327	137,182	285,427	47,981	–47,049	726,111
External sales revenue	68,910	219,509	129,668	280,003	28,021	–	726,111
EBITDA before non-recurring items	–16,245	43,478	27,627	–5,330	–12,013	–	37,517
Non-recurring items	–3,918	–742	–	–2,866	12,251	–	4,725
Depreciation/amortization and impairment	–1,172	–12,670	–777	–1,071	–3,692	–	–19,382
Earnings from associated companies and joint ventures	10,622	–	–	–	–	–	10,622
Operating profit/loss	**–10,712**	**30,066**	**26,850**	**–9,267**	**–3,454**	–	**33,481**
Net financial items							–14,747
Taxes							–10,019
Net profit/loss for the year							**8,715**
Holdings in associated companies and joint ventures	12,531						12,531
Other operating segments	149,269	217,641	145,627	230,237	432,906	–287,570	888,111
Total assets	**161,800**	**217,641**	**145,627**	**230,237**	**432,906**	**–287,570**	**900,641**
Operating segment liabilities	133,646	158,687	49,537	209,319	320,816	–287,570	584,437
Equity							316,205
Total equity and liabilities	**133,646**	**158,687**	**49,537**	**209,319**	**320,817**	**–287,570**	**900,641**
Investments	2,370	23,237	500	337	5,635	–	32,079
Average number of employees	51	98	33	417	25	–	624

NOTE 4 (cont)

External sales revenue per product area	2019	2018
Consultancy and engineering services	94,089	112,365
Health physics services	50,843	113,322
Transport and logistics	–	21,202
Decommissioning services	–	–
Operational and outage support	186,616	146,003
Fuel and materials performance	142,892	138,101
Corrosion and water chemistry studies	34,518	41,448
Fuel optimization software	103,646	114,894
Other operations	41,410	38,776
Total	**654,014**	**726,111**

Other operations include the parent company and the part of the Swedish company Studsvik Nuclear AB that is not part of the Waste Management Technology or Fuel and Materials Technology segments.

External sales revenue based on the customer's country of location	2019		2018	
	SEK '000	Per cent	SEK '000	Per cent
Sweden	113,733	17.4	126,912	17.5
Europe excluding Sweden	417,653	63.8	484,315	66.7
North America	86,904	13.3	71,331	9.8
Asia	35,724	5.5	43,553	6.0
All other countries	–	–	–	–
Total	**654,014**	**100.0**	**726,111**	**100.0**

In 2019 the Group had no customers that accounted for 10 per cent of total sales.

Non-current assets per country	2019		2018	
	SEK '000	Per cent	SEK '000	Per cent
Sweden	217,544	41.5	208,217	43.1
Europe excluding Sweden	190,070	36.3	171,332	35.4
North America	110,768	21.1	97,861	20.2
Asia	5,609	1.1	6,167	1.3
Total	**523,991**	**100.0**	**483,577**	**100.0**

NOTE 5 Other operating income

Other income	2019	2018
Sale of property, plant and equipment	–	91
Insurance compensation	–	–
Revaluation of holding in mutual insurance company	–	–
Non-recurring structural revenue	–	13,568
Other	1,599	1,457
Total	**1,599**	**15,116**

Other gains	2019	2018
Other financial instruments at fair value through profit or loss		
– Fair value gains	2,547	1,553
Forward exchange contracts		
– Foreign exchange differences	684	652
Total	**3,231**	**2,205**

Non-recurring structural revenue in 2018 was SEK 13,568 and refers to capital gains from the sale of Horsviks gård.

NOTE 6 Other operating expenses

Other costs	2019	2018
Sale of property, plant and equipment	–	–
Non-recurring structural costs	14,803	8,843
Other	623	1,367
Total	**15,426**	**10,210**

Other losses	2019	2018
Other financial instruments at fair value through profit or loss		
– Fair value losses	2,446	1,529
Forward exchange contracts		
– Foreign exchange differences	2,110	805
Total	**4,556**	**2,334**

Non-recurring structural costs amount to SEK 14,803 (8,843) thousand and consist of costs for termination of staff in Sweden of SEK 1,450 (4,518) thousand, in the United Kingdom of SEK 12,553 (0), in Germany of SEK 0 (2,866) thousand, and in France of SEK 0 (1,459) thousand and closing down offices in Sweden of SEK 800 (0) thousand.

NOTE 7 Costs by nature of expense

	2019	2018
Purchases of material and services	168,678	214,359
Staff costs	445,961	447,627
Energy	12,849	12,096
Depreciation/amortization and impairment	29,048	19,383
Other costs	2,261	14,564
Total	**658,797**	**708,029**

NOTE 8 Remuneration to auditors

	2019	2018
PricewaterhouseCoopers AB		
– Audit assignments	2,338	2,360
– Audit business in addition to audit	–	–
– Tax consultancy	45	265
– Other services	–	82
Total	**2,383**	**2,707**
Other auditors		
– Audit assignments	377	234
– Audit business in addition to audit	155	106
– Tax consultancy	880	800
– Other services	–	–
Total	**1,412**	**1,140**
Group total	**3,795**	**3,847**

Audit assignments refers to examination of the annual accounts, the accounting records and the administration by the Board of Directors and the President, other duties incumbent on the company's auditors, as well as advisory services and other types of support as a result of observations made through such an examination or performance of such duties. Other services consist mainly of fees referring to the sale of the waste treatment operations.

The fees specified above refer to the following: PwC Sweden, audit assignment SEK 1,494 (1,322) thousand, audit business in addition to audit assignment, SEK 0 (0) thousand (tax consultancy) and other services SEK 45 (82) thousand.

NOTE 9 Employee benefits

Employee benefits	2019	2018
Salaries, benefits and other remuneration	366,161	379,934
Social security contributions	68,472	71,850
Pension costs – defined contribution based	20,746	21,129
Pension costs – defined benefit based	382	469
Total	**455,761**	**473,382**

NOTE 9 (cont.)

Salaries and other remuneration distributed between Board members and President as well as other employees	2019 Board and President	2019 Of which variable remuneration	2019 Other employees	2018 Board and President	2018 Of which variable remuneration	2018 Other employees
Parent company	5,661	–	1,802	4,716	–	6,852
Subsidiaries in Sweden	3,012	–	88,255	3,087	–	82,658
Subsidiaries abroad	2,649	227	264,556	9,187	405	273,434
Total, subsidiaries	**5,661**	**227**	**352,811**	**12,274**	**405**	**356,092**
Total for Group	**11,322**	**227**	**354,613**	**16,990**	**405**	**362,944**

Average number of employees	2019 Men	2019 Women	2019 Total	2018 Men	2018 Women	2018 Total
Parent company	1	3	4	2	3	5
Subsidiaries in Sweden	100	42	142	99	44	143
Subsidiaries abroad	359	47	406	423	53	476
– Germany	298	37	335	366	38	404
– United Kingdom	12	6	18	10	10	20
– USA	29	4	33	30	4	34
– Japan	1	–	1	1	–	1
– Switzerland	19	–	19	16	1	17
– France	–	–	–	–	–	–
Total, subsidiaries	**459**	**89**	**548**	**522**	**97**	**619**
Total for Group	**460**	**92**	**552**	**524**	**100**	**624**

Gender breakdown in the Group (including subsidiaries) for members of the Board and other senior management	2019 Number on balance sheet date	2019 Of whom men	2018 Number on balance sheet date	2018 Of whom men
Board members	7*	4	7*	4
President and other senior management	5	4	5	4
Total for Group	**12**	**8**	**12**	**8**

Salaries and other remuneration includes severance pay in 2019. For information on benefits to senior management, see note 39.

* The number of board members only refers to ordinary members.

NOTE 10 Financial income and expense

	2019	2018
Financial income		
Current bank balances	219	1,726
Fair value gains (realized and unrealized)	–99	104
Other financial income	9,481	2,187
Total	**9,601**	**4,017**
Financial expenses		
Bank loans	–8,065	–14,991
Fair value losses (realized and unrealized)	–3,099	–447
Other financial expenses	–10,832	–3,326
Total	**–21,996**	**–18,764**
Net financial items	**–12,395**	**–14,747**

NOTE 11 Income tax

	2019	2018
Current tax		
Current tax on profit for the year	–6,095	–5,498
Adjustment for previous years	943	800
Total	**–5,152**	**–4,698**
Deferred tax (note 31)		
Origination and reversal of temporary differences	–42	–5,321
Total	**–42**	**–5,321**
Total income tax	**–5,194**	**–10,019**

NOTE 11 (cont.)

The Swedish income tax rate is 21,4 (22) per cent. The income tax on the Group's profit before tax differs from the theoretical amount that would arise using the weighted average tax rate for profits of the consolidated companies as follows.

	2019	2018
Profit/loss before tax	–22,847	18,734
Tax at current tax rate	5,088	–4,496
Non-taxable revenue	185	1,042
Non-deductible expenses	–12,666	–2,869
Tax unrecognized loss	46	18
Tax asset unrecognized loss	–	–
Adjustment for foreign tax rate	1,251	–
Adjustment for previous years' tax assessment	–964	800
Tax loss carry-forwards utilized	1,837	–
Unrecognized deferred tax	–	735
Revaluation, deferred tax assets	29	–4,762
Other effects	–	–487
Tax expense	**–5,194**	**–10,019**

The weighted average tax rate was 22 (24) per cent. The revaluation of deferred tax assets includes revaluation to new tax rate as well as new assessment concerning the potential utilization of tax loss carry-forwards.

Other comprehensive income only includes tax effects on cash flow hedges and on December 31 these were SEK -345 (–161) thousand. Other comprehensive income also includes foreign exchange differences, but they have no tax effect.

NOTE 12 Foreign exchange differences – net

Foreign exchange differences are recognized in the income statement as follows.

	2019	2018
Other gains and losses – net (notes 5 and 6)	–1,325	–129
Financial items (note 10)	–3,197	–343
Total	**–4,522**	**–472**

NOTE 13 Earnings per share

Diluted earnings per share is calculated by adjusting the weighted average number of shares in issue to assume conversion of all dilutive potential shares. There were no unconverted share options or convertible debt instruments in issue on the balance sheet date.

Earnings per share before and after dilution is calculated by dividing t Earnings per share before and after dilution is calculated by dividing the profit for the year by the weighted average number of shares in issue (note 26).

Before and after dilution

	2019	2018
Net profit/loss for the year	–28,041	8,715
Weighted average number of ordinary shares in issue	8,218,611	8,218,611
Earnings per share before and after dilution (SEK PER SHARE)	**–3.41**	**1.06**

NOTE 14 Dividend

Dividend paid in 2019 and 2018 was SEK 0 (0) per share.
The Board of Directors proposes that no dividend be distributed in 2020.

NOTE 15 Property, plant and equipment

	Buildings and land	Plant and machinery	Equipment and tools	Construction in progress and advance payments for property, plant and equipment	Total
As at December 31, 2017					
Cost of acquisition	111,081	132,900	121,550	12,760	378,291
Accumulated depreciation and impairment	–60,388	–103,952	–97,395	–	–261,735
Book value	**50,693**	**28,948**	**24,155**	**12,760**	**116,556**
January 1 – December 31, 2018					
Opening book value	50,693	28,948	24,155	12,760	116,556
Foreign exchange differences	32	97	187	–	316
Investments	–	1,377	877	25,476	27,730
Capitalization of future restoration cost	–	–	–	–	–
Redistributions	53	6,279	493	–7,478	–653
Disposals and retirements	–432	–714	–92	–	–1,238
Depreciation/amortization	–3,658	–8,960	–5,758	–	–18,376
Impairment losses for the year	–	–	–	–	–
Closing book value	**46,688**	**27,027**	**19,862**	**30,758**	**124,335**
As at December 31, 2018					
Cost of acquisition	108,646	111,992	81,448	30,758	332,844
Accumulated depreciation and impairment	–61,958	–84,965	–61,586	–	–208,509
Book value	**46,688**	**27,027**	**19,862**	**30,758**	**124,335**
January 1 – December 31, 2019					
Opening book value	46,688	27,027	19,862	30,758	124,335
IFRS 16 ADJUSTMENT OPENING BALANCE	18,401	6,607	–	–	25,008
Foreign exchange differences	64	189	163	–1	415
Investments	3,463	3,982	2,407	20,235	30,087
Capitalization of future restoration cost	–	–	–	–	–
Redistributions	–263	1,205	4,712	–5,654	–
Disposals and retirements	–6,995	–1,615	–640	–	–9,250
Depreciation/amortization	–10,498	–11,049	–5,785	–	–27,332
Impairment losses for the year	–	–	–	–	–
Closing book value	**50,860**	**26,346**	**20,719**	**45,338**	**143,263**
As at December 31, 2019					
Cost of acquisition	116,070	122,951	90,199	45,338	374,558
Accumulated depreciation and impairment	–65,210	–96,605	–69,480	–	–231,295
Book value	**50,860**	**26,346**	**20,719**	**45,338**	**143,263**

Depreciation costs include SEK 15,376 (16,348) thousand in 'Cost of services sold', SEK 171 (71) thousand in 'Selling and marketing costs' SEK 11,719 (1,662) thousand in 'Administrative expenses' and SEK 66 (295) thousand in 'Research and development costs'. The value of finance leases capitalized as property, plant and equipment is presented in note 37.

NOTE 16 Intangible assets

	Goodwill	Patents	Software rights	Con-tractual customer relations and similar rights	Total
As at December 31, 2017					
Cost of acquisition	209,284	–	31,001	18,236	258,521
Accumulated depreciation and impairment	–35,872	–	–27,343	–17,899	–81,114
Book value	**173,412**	**–**	**3,658**	**337**	**177,407**
1 January – 31 December 2018					
Opening book value	173,412	–	3,658	337	177,407
Foreign exchange differences	8,644	–	156	16	8,816
Investments	–	–	1,054	3,295	4,349
Redistributions	–	–	–	653	653
Disposals and retirements	–	–	–	–	–
Depreciation/amortization	–	–	–976	–31	–1,007
Impairment losses for the year	–	–	–	–	–
Closing book value	**182,056**	**–**	**3,892**	**4,270**	**190,218**
As at December 31, 2018					
Cost of acquisition	219,299	–	10,921	22,952	253,172
Accumulated depreciation and impairment	–37,243	–	–7,029	–18,682	–62,954
Book value	**182,056**	**–**	**3,892**	**4,270**	**190,218**
1 January – 31 December 2019					
Opening book value	182,056	–	3,892	4,270	190,218
Foreign exchange differences	5,855	351	–	–32	6,174
Investments	–	774	767	1,033	2,574
Redistributions	–	2,533	1,354	–3,887	–
Disposals and retirements	–	–	–	–	–
Depreciation/amortization	–	–331	–1,290	–95	-1,716
Impairment losses for the year	–	–	–	–	–
Closing book value	**187,911**	**3,327**	**4,723**	**1,289**	**197,250**
As at December 31, 2019					
Cost of acquisition	225,837	6,216	10,549	20,613	263,215
Accumulated depreciation and impairment	–37,926	–2,889	-5,826	–19,324	-65,965
Book value	**187,911**	**3,327**	**4,723**	**1,289**	**197,250**

Contractual customer relations and similar rights consist mainly of customer relations/contracts as well as some tenancy rights. Depreciation of SEK 1,716 thousand (1,007) is included in "Cost of goods sold" in the income statement.

Impairment tests for goodwill

Goodwill is allocated to the Group's cash generating units (CGUs) identified by segment. A segment level summary of the goodwill allocation is presented below.

	2019	2018
Waste Management Technology (formerly Consultancy Services)	187,911	182,056
Other	–	–
Total	**187,911**	**182,056**

Goodwill is tested annually to identify any impairment loss. Acquired operations are integrated with other operations after acquisition. Impairment testing is therefore carried out at segment level. The segments are identified as cash generating units..

The cash-generating units' recoverable amount is based on value in use. These values are based on estimated future cash flows based on business plans approved by the Board of Directors for the next three years. The management has established the budgeted gross margin on the basis of previous earnings and its expectations concerning market developments. The rate of growth is estimated for each cash-generating unit on the basis of market position and development. Cash flows beyond the three-year period are extrapolated with an estimated annual rate of growth. A weighted cost of capital for borrowed capital and equity is applied as the discount rate, as presented below.

Material assumptions used for calculating value in use:

	Gross margin, %	Rate of growth after year 3, %	Discount rate, %
Waste Management Technology 2019	11	2.5	10.4
Waste Management Technology 2018	11	2.5	10.4

The cost of borrowed capital has been determined individually for each segment, thereby taking into consideration differences in market rates between the markets in which the various units operate. The cost of equity is calculated as the return on risk-free investments for each segment, plus a market risk premium. The weighted cost of capital used in calculating the recoverable amount is 14 (14) per cent before tax. Based on the assumptions and estimates made, there is no impairment loss on goodwill. Studsvik has also assessed the sensitivity of value in use to unfavorable changes in the most important assumptions concerning cash flows and discount rate. There are no other specific circumstances that have affected impairment testing.

NOTE 17 Investments in associated companies

	2019	2018
As at January 1	**5,962**	**3,121**
Share in earnings	6,614	8,388
Disposals	–	–
Dividend received from associated companies	–7,277	–5,455
Share in proceeds from disposals	–	–
Foreign exchange differences	122	–92
As at December 31	**5,421**	**5,962**

The Group's holding in UK Nuclear Waste Management Ltd. The ordinary shares are directly owned by the Group.

2018	Participating interest %	Valutation method
UK Nuclear Waste Management Ltd	15.0	Equity method

2019	Participating interest %	Valuation method
UK Nuclear Waste Management Ltd	15.0	Equity method

UK Nuclear Waste Management Ltd (NWM) has been appointed to be responsible, together with the Nuclear Decommissioning Authority (NDA), for management and operation of a final repository and to implement a well-functioning strategy for management of low-level waste in the United Kingdom.

Obligations and contingent liabilities

There is an obligation to contribute capital to associated companies if necessary.

Financial information for the Group's associated companies

A financial summary of the Group's associated companies to which the equity method is applied is given below.

Balance sheet	UK Nuclear Waste Management Ltd*	
	2019	2018
Current		
Cash and cash equivalents	2,096	2,305
Other current assets	2,205	2,425
Total current assets	**4,301**	**4,730**
Financial liabilities (excluding trade payables)	–	–
Other current liabilities (including trade payables)	24,178	26,590
Total current liabilities	**24,178**	**26,590**
Non-current		
Non-current assets	56,017	61,607
Total non-current assets	**56,017**	**61,607**
Financial liabilities	–	–
Other long-term liabilities	–	–
Total long-term liabilities	–	–
Net assets	**36,140**	**39,747**

Statement of comprehensive income	2019	2018
Revenues	95,711	91,112
Depreciation/amortization	–	–
Interest income	–	–
Interest expense	–	–
Profit/loss before tax	**44,093**	**55,920**
Income tax	–	–
Net profit/loss for the year	**44,093**	**55,920**
Other comprehensive income	–	–
Total comprehensive income	**44,093**	**55,920**

The information above reflects the figures presented in the associated companies' financial statements adjusted for differences in accounting rules between the Group and the respective associated company.

* UKNWM's financial year runs from April 1 to March 31. The figures are estimated on the basis of information available at the year-end closing in 2018 and 2019.

Reconciliation of the financial information

Reconciliation of the financial information to the carrying amount of the Group's participations in associated companies.

	UK Nuclear Waste Management Ltd	
	2019	**2018**
Net assets as at January 1	**39,747**	**20,804**
Net profit/loss for the year	44,093	55,920
Dividend	–48,513	–36,367
Capital contributions from owners	–	–
Foreign exchange differences	813	–610
Other comprehensive income	–	–
Net assets as at December 31	**36,140**	**39,747**
Participating interest associated companies	5,421	5,962
Carrying amount	**5,421**	**5,962**

NOTE 18 Interests in joint ventures

	2019	2018
As at January 1	**6,569**	**3,746**
Share in earnings	2,869	2,234
Foreign exchange differences	416	589
Reclassifications	2,514	–
As at December 31	**12,368**	**6,569**

The Group's share in earnings of the joint ventures in which the company has interests, all of which are unlisted, and its share of assets (including goodwill and liabilities) is as follows:

2019		Non-current assets	Current assets	Current liabilities	Net assets	Revenue	Result	Participating interest
THOR Treatment Technologies, LLC	USA	–	459	2	457	265	–76	50
KOBELCO STUDSVIK CO., LTD	Japan	7,392	4,272	52	11,612	–	–1,175	49
ARGE SH KWO BIOSCHILD	Tyskland	–	6,862	291	6,571	11,410	4,120	50
Total		**7,392**	**11,593**	**345**	**18,640**	**11,675**	**2,869**	

2018		Non-current assets	Current assets	Current liabilities	Net assets	Revenue	Result	Participating interest
THOR Treatment Technologies, LLC	USA	–	510	2	508	402	–69	50
KOBELCO STUDSVIK CO., LTD	Japan	7,770	4,628	334	12,064	3,233	2,303	49
ARGE SH KWO BIOSCHILD	Tyskland	–	–	–	–	–	–	–
Total		**7,770**	**5,138**	**336**	**12,572**	**3,635**	**2,234**	

THOR Treatment Technologies, LLC (TTT), is a joint venture where Studsvik is a co-owner under a cooperation agreement on joint control. TTT conducts waste treatment operations on the US federal waste market. KOBELCO STUDSVIK Co., Ltd is a joint venture in Japan, focusing on design of facilities for treatment of Japanese radioactive waste. ARGE SH KWO BioSchild is a joint venture in Germany focusing on decommissioning of the biological shield and pool structures of the Obrigheim (KWO) nuclear power plant.

Obligations and contingent liabilities

The Group has an obligation to contribute capital to TTT if necessary. The Group has no obligations regarding KOBELCO STUDSVIK Co., Ltd and ARGE SH KWO BioSchild.

Financial information for the Group's joint ventures

A summary is given below of the Group's joint venture companies in which the equity method is applied.

Balance sheet	KOBELCO STUDSVIK Co., Ltd		THOR Treatment Technologies, LLC		ARGE SH KWO Bioschild	
	2019	2018	2019	2018	2019	2018
Current						
Cash and cash equivalents	2,367	1,784	1,324	850	1,056	–
Other current assets	6,352	7,661	-406	169	12,668	–
Total current assets	**8,719**	**9,445**	**918**	**1,019**	**13,724**	**–**
Financial liabilities (excluding trade payables)	–	–	–	–	–	–
Other current liabilities (including trade payables)	106	682	4	4	582	–
Total current liabilities	**106**	**682**	**4**	**4**	**582**	**–**
Non-current						
Non-current assets	15,087	15,857	–	–	–	–
Total non-current assets	**15,087**	**15,857**	–	–	**–**	**–**
Financial liabilities	–	–	–	–	–	–
Other long-term liabilities	–	–	–	–	–	–
Total long-term liabilities	–	–	–	–	–	–
Net assets	**23,699**	**24,620**	**914**	**1,015**	**13,142**	**–**
Share of net assets	11,612	12,064	457	508	6,571	–
Elimination of intra-group profit against share of equity	–6,272	–6,003	–	–	–	–
Carrying amount	**5,340**	**6,061**	**457**	**508**	**6,571**	**–**

Statement of comprehensive income	KOBELCO STUDSVIK Co., Ltd		THOR Treatment Technologies, LLC		ARGE SH KWO Bioschild	
	2019	2018	2019	2018	2019	2018
Revenue	–	6,597	529	804	22,821	–
Depreciation/amortization	–	–	–	–	–	–
Interest income	–	–	–	–	–	–
Interest expense	–	–	–	–	–	–
Profit/loss before tax	**–2,171**	**4,718**	**–150**	**–152**	**8,240**	**–**
Income tax	–228	–18	–	–	–	–
Net profit/loss for the year	**–2,398**	**4,700**	**–150**	**–152**	**8,240**	**–**
Other comprehensive income	–	–	–	–	–	–
Total comprehensive income	**–2,398**	**4,700**	**–150**	**–152**	**8,240**	**–**

The information above reflects the figures presented in THOR Treatment Technologies, LLC, KOBELCO STUDSVIK Co., Ltd, ARGE SH KWO BioSchild, financial statements adjusted for differences in accounting rules between the Group and the joint venture company.

NOTE 19 Financial instruments by category

Accounting policies for financial instruments have been applied to the items below.

	Amortized cost	Assets at fair value through profit or loss	Total
As at December 31, 2019			
Assets on the balance sheet			
Derivative financial instruments	–	–	–
Trade and other receivables	284,207	–	284,207
Other financial instruments at fair value through profit or loss	–	32,851	32,851
Cash and cash equivalents	40,226	–	40,226
Total	**324,433**	**32,851**	**357,284**

	Amortized cost	Assets at fair value through profit or loss	Total
Liabilities on the balance sheet			
Liabilities to credit institutions	123,095	–	123,095
Derivative financial instruments	118	–	118
Total	**123,213**	–	**123,213**

	Loans and trade receivables	Assets at fair value through profit or loss	Derivatives for hedging	Total
As at December 31, 2018				
Assets on the balance sheet				
Derivative financial instruments		3,236	–	3,236
Trade and other receivables		292,046	–	292,046
Other financial instruments at fair value through profit or loss		–	29,186	29,186
Cash and cash equivalents		155,539	–	155,539
Total		**450,821**	**29,186**	**480,007**

	Amortized cost	Assets at fair value through profit or loss	Total
Liabilities on the balance sheet			
Liabilities to credit institutions	199,850	–	199,850
Derivative financial instruments	3,703	–	3,703
Total	**203,553**	–	**203,553**

NOTE 20 Credit quality of the financial assets

The credit quality of the financial assets can be assessed by referring to external credit ratings (if available) or to the counterparty's payment history.

	2019	2018
Trade receivables		
Counterparties without external credit rating		
– New customers (less than 6 months)	–	–
– Existing customers with no defaults in the past	158,299	139,437
– Existing customers with some delayed payments in the past	1,695	4,460
Total	**159,994**	**143,897**
Loans to related parties		
Existing related party with no previous defaults	1,832	1,691
Total	**1,832**	**1,691**
No repayment of loans to related parties was made during the year.		
Bank balances		
AA- and A+	40,226	155,539
Total	**40,226**	**155,539**
Derivative financial instruments		
AA- and A+	–	3,236
Total	–	**3,236**

No repayment of loans to related parties was made during the year.

NOTE 21 Derivative instruments

	2019		2018	
	Assets	Liabilities	Assets	Liabilities
Forward exchange contracts – Cash flow hedges	–	118	3,236	3,703

The entire fair value of a derivative instrument des The entire fair value of a derivative instrument designated as a hedging instrument is classified as a non-current asset or liability when the remaining maturity of the hedged item is more than 12 months and as a current asset or liability when the remaining maturity is less than 12 months. Revaluation of forward exchange contracts designated as hedges is through equity. Other forward contracts are revalued through profit or loss.

The ineffective portion, recognized in the income statement, referring to cash flow hedges, amounts to SEK –1,426 thousand (notes 5 and 6).

The hedged, highly probable forecast transactions in foreign currency are expected to occur at varying dates during the coming 12 months. Gains and losses on forward exchange contracts as at December 31, 2019, recognized in the hedging reserve in equity (note 28), are recognized in the income statement in the period or periods during which the hedged forecast transaction affects the income statement.

Outstanding forward exchange contracts on December 31, 2019

		INFLOW CURRENCIES			OUTFLOW CURRENCIES	
Förfalloår		EUR 000	GBP 000	USD 000	EUR 000	JPY 000
2020	Amount	250	–	51	–	–
	Rate[1]	10.154	–	8.663	–	–
2021	Amount	–	–	–	–	–
	Rate[1]	–	–	–	–	–
Remeasured at fair value, SEK ‘000		**2,622**	–	**476**	–	–

[1] Average contractual rate

The nominal amount for outstanding forward exchange contracts is SEK 2,980 (52,413) thousand.

	Spot component of forward exchange contract
As at January 1, 2019	–1,338
In addition: Change in fair value of hedging instruments recognized in OCI	1,613
Less: Deferred tax	–345
As at December 31, 2019	**–70**
As at January 1, 2018	–768
In addition: Change in fair value of hedging instruments recognized in OCI	–731
Less: Deferred tax	161
As at December 31, 2018	**–1,338**

NOTE 22 Trade and other receivables

	2019	2018
Trade receivables	160,242	145,909
Less – Provision for impairment of receivables	–248	–244
Trade receivables – net	**159,994**	**145,665**
Loans to related parties (note 37)	1,832	1,691
Other receivables	39,248	22,700
Service contracts in progress	53,903	71,916
Tax assets	5,588	8,825
Other receivables	10,650	12,236
Prepaid expenses and accrued income		
– Accrued income	4,007	9,602
– Prepaid rent	741	1,212
- Prepaid lease charges	–	–
- Prepaid insurance premiums	2,768	2,006
– Other prepaid expenses	5,476	6,495
Total	**284,207**	**282,348**
Long term portion	41,421	24,593
Current portion	242,786	257,755
Total	**284,207**	**282,348**

NOTE 22 Trade and other receivables (cont.)

Of the long-term receivables SEK 1,832 million (1,691) constitutes receivables from related parties, which is on level 2 of the fair value hierarchy. The book value for trade and other receivables is the fair value.

The effective interest rate on long-term receivables is as follows.

	2019	2018
Loans to related parties (note 38)	2.0 %	2.0 %

As at December 31, 2019 trade receivables amounting to SEK 53,977 million (55,748) were overdue without any impairment loss being identified. These refer to a number of independent customers who have not had payment difficulties in the past. The Group applies the simplified method for calculating expected credit losses. The method means that expected losses during the entire life of the claim are used as the basis for trade receivables and contract assets. The expected credit loss levels are based on the customers’ payment history. An age analysis of these trade receivables and contract assets is given below.

December 31, 2019	Not past due	Up to 3 months overdue	3-6 months overdue	More than 6 months overdue	Total
Expected loss level in %	0 %	0 %	8.5 %	10.0 %	
Carrying amount trade receivables gross	106,265	51,159	2,171	647	160,242
Carrying amount, contract assets, gross	53 903	–	–	–	53 903
Credit loss reserve	–	–	183	65	248

January 1, 2019	Not past due	Up to 3 months overdue	3-6 months overdue	More than 6 months overdue	Total
Expected loss level in %	0 %	0 %	1.6 %	6.0 %	
Carrying amount trade receivables gross	90,161	45,885	7,891	1,972	145,909
Carrying amount, contract assets, gross	71 916	–	–	–	71 916
Credit loss reserve	–	–	126	118	244

The reserve for doubtful receivables amounted to SEK 248 (244) thousand as at December 31, 2019.

Carrying amounts of the Group’s trade and other receivables by currency are as follows.

	2019	2018
SEK	152,797	158,123
EUR	67,575	74,765
GBP	6,854	12,058
USD	49,777	41,009
Other currencies	7,204	7,038
Total	**284,207**	**292,993**

Changes in the reserve for doubtful receivables:

	2019	2018
As at January 1	**–244**	**–1,261**
Translation difference	–56	–
Provision for doubtful receivables	–	–
Receivables written off as unrecoverable	–	307
Unused amounts reversed	52	610
As at December 31	**–248**	**–344**

Transfers to and reversals from reserves for doubtful receivables are included in the item 'Other costs' in the income statement. Amounts stated in the depreciation account are normally written off when the Group is not expected to recover further cash funds. No impairment loss has been identified for any assets in other categories of trade and other receivables. There is no concentration of credit risk with respect to trade receivables, as the Group has a large number of customers, internationally dispersed.

NOTE 23 Financial assets at fair value through profit or loss

	2019	2018
Unlisted shareholdings	14,703	13,949
Capital insurance	15,138	12,233
Long-term bank deposits	3,010	3,004
Total	**32,851**	**29,186**

The statement of cash flows includes financial assets measured at fair value through profit or loss in the category 'Cash flow from operating activities' as part of the change in working capital. This does not, however, apply to bank deposits recorded as 'Cash flow from financing activities'.

NOTE 24 Inventories

	2019	2018
Raw material	–	–
Finished products	1,238	534
Total	**1,238**	**534**

The expensed expenditure for inventories is included under 'Cost of services sold' and amounts to SEK 610 (621) thousand.

NOTE 25 Cash and cash equivalents

	2019	2018
Cash and bank balances	40,226	155,539
Total	**40,226**	**155,539**

NOTE 26 Share capital and other contributed capital

	Number of shares	Share capital	Other contributed capital
As at January 1, 2018	**8,218,611**	**8,219**	**225,272**
As at December 31, 2018	**8,218,611**	**8,219**	**225,272**
As at January 1, 2019	**8,218,611**	**8,219**	**225,272**
As at December 31, 2019	**8,218,611**	**8,219**	**225,272**

All shares are ordinary shares with a quotient value of 1.0. Number of shares in absolute figures.

NOTE 27 Retained earnings

As at January 1, 2018	**49,858**
Net profit/loss for the year	8,715
Dividend paid for 2017	–
Transfers within equity	–
As at December 31, 2018	**58,573**
As at January 1, 2019	**58,573**
Net profit/loss for the year	–28,041
Dividend paid for 2018	–
Transfers within equity	–
As at December 31, 2019	**30,532**

NOTE 28 Reserves

All the items below may be reclassified in the income statement.

	Currency translation reserve	Hedging reserve	Total reserves
As at January 1, 2019	**25,110**	**–1,338**	**23,772**
Foreign exchange differences			
–Group	13,324	–	13,324
Cash flow hedges			
–Currency translation reserve	–	1,268	1,268
As at December 31, 2019	**38,434**	**–70**	**38,364**
As at January 1, 2018	**5,553**	**–768**	**4,785**
Foreign exchange differences			
–Group	19,557	–	19,557
Cash flow hedges			
–Currency translation reserve	–	–570	–570
As at December 31, 2018	**25,110**	**–1,338**	**23,772**

NOTE 29 Trade and other payables

	2019	2018
Trade payables	39,663	34,182
Liabilities for work in progress	72,093	62,592
Social security and other taxes	21,781	19,152
Other liabilities	49,447	28,321
Accrued expenses and deferred income		
–Deferred income	2,104	1,463
–Accrued interest expense	–	1,409
–Accrued wages and salaries	21,545	27,071
–Accrued pension costs	15,138	14,568
–Accrued consulting and service costs	5,546	25,977
–Accrued audit fees	1,570	1,264
–Other items	19,978	7,147
Total	**248,865**	**223,146**
Long term portion	27,774	14,568
Current portion	221,091	208,578
Total	**248,865**	**223,146**

For liabilities referring to service contracts in progress in existence at the close of 2018, SEK 38,389 million was recognized in revenue in 2019.

NOTE 30 Borrowings

	2019	2018
Long term portion		
Bank loans	46,500	–
Bond loans	–	–
Total	46,500	–
Current portion		
Bank loan	76,595	–
Bond loans	–	199,850
Total	**76,595**	**199,850**
Total borrowings	**123,095**	**199,850**

The bank loan bears an interest margin of 2.60 per cent plus stibor 90 days and matures in its entirety on April 2, 2024.

The exposure of the Group's borrowings to interest rate changes and the contractual repricing dates at the balance sheet date are as follows	2019	2018
0–6 months	123,095	199,850
6–12 months	–	–
1–5 years	–	–
More than 5 years	–	–
Total borrowings	**123,095**	**199,850**

Shares in Studsvik Nuclear AB and Studsvik Scandpower AB and a corporate mortgage of SEK 100 million have been put up as collateral for the Group's bank loan and credit facilities. Carrying amounts and fair value for non-current borrowing are presented below. The loans are at level 2 of the fair value hierarchy.

	FAIR VALUE		CARRYING AMOUNT	
Maturities of borrowings	2019	2018	2019	2018
Less than 1 year	76,595	200,200	–	199,850
Between 1 and 2 years	2,000	–	123,095	–
Between 2 and 5 years	44,500	–	–	–
More than 5 years	–	–	–	–
Total	**123,095**	**200,200**	**123,095**	**199,850**

Carrying amounts, per currency, for the Group's borrowings	2019	2018
SEK	123,095	199,850
Total	**123,095**	**199,850**

The Group has the following unutilized credit facilities	2019	2018
Variable interest rate		
– Matures within one year	25,405	–
Total	**25,405**	**–**

The lines of credit that mature within one year are one-year credit facilities that will be reviewed on varying dates in 2019.

Average effective interest rate on balance sheet date, bank loans	2019	2018
SEK	2.60 %	6.50 %

NOTE 31 Deferred tax

Deferred tax assets and tax liabilities are offset when there is a legally enforceable right to offset current tax assets against current tax liabilities and when the deferred tax refers to the same tax authority.

Offset amounts	**2019**	**2018**
Deferred tax assets		
Deferred tax assets to be utilized after more than 12 months	88,193	85,701
Deferred tax assets to be utilized within 12 months	3,224	7,315
Total	**91,417**	**93,016**
Deferred tax liabilities		
Deferred tax liabilities to be paid after more than 12 months	34,732	33,992
Deferred tax liabilities to be paid within 12 months	168	388
Total	**34,900**	**34,380**

Deferred tax assets	**Tax losses**	**Fair value gains**	**Other**	**Total**
As at January 1, 2018	**103,309**	**–3,538**	–1,674	**98,097**
Recognized in the income statement	–4,094	226	–1,454	–5,321
Reposting from other financial receivables	–	161	–	161
Tax referring to components in other comprehensive income	–	–	–	–
Tax attributable to sold operations	–	–	–	–
Reposting to current tax	–6,533	–	–	–6,533
Reclassifications	–9,874	3,818	6,056	–
Translation differences	6,612	–	–	6,612
As at December 31, 2018	**89,420**	**667**	**2,928**	**93,016**
Recognized in the income statement	256	–649	321	–73
Reposting from other financial receivables	–	–	–	–
Tax referring to components in other comprehensive income	–	–	–	–
Tax attributable to sold operations	–	–	–	–
Reposting to current tax	–1,576	–	–	–1,576
Reclassification	–	–	–	–
Translation differences	50	–	–	50
As at December 31, 2019	**88,150**	**18**	**3,249**	**91,417**

Deferred tax liabilities	**"Accelerated tax depreciation"**	**Fair value gains**	**Other***	**Total**
As at January 1, 2018	–	**126**	**32,030**	**32,156**
Recognized in the income statement	–	–	–	–
Tax referring to components in other comprehensive income	–	–	–	–
Reposting to current tax	–	–	–	–
Translation differences	–	–89	1,186	1,097
As at December 31, 2018	–	**270**	**34,110**	**34,380**
Recognized in the income statement	–	–	–	–
Tax referring to components in other comprehensive income	–	–	–	–
Reposting to current tax	–	–	–	–
Reclassifications	–	–110	110	–
Translation differences	–	–160	680	520
As at December 31, 2019	–	–	**34,900**	**34,900**

*Other deferred tax liabilities include deferred tax of SEK 34.7 (34.0) million referring to temporary differences from goodwill in the German operations. Deferred tax assets are recognized for tax loss carry forwards to the extent that the realization of the related tax benefit through the future taxable profits is probable. Most of the Group's tax loss carry forwards are related to the US and UK operations. They amount to a total of USD 105,7 (105,1) million, which restated at the balance sheet rate is SEK 985.3 (937.5) million, to be utilized within a 20-year period in the USA, and GBP 9.2 (7.2) million in the United Kingdom, which restated at the balance sheet rate is SEK 112.3 (80.8) million, where there is no time limit on the right to apply tax loss carry forwards. Apart from these, the Group has tax loss carry forwards in Germany of EUR 7.1 (6.3) million, which restated at the balance sheet rate amount to SEK 73.7 (64.0) million, and in Sweden of SEK 61.8 (80.6) million. The Group's recognized deferred tax assets include the USA, SEK 59.3 (57.8) million, Sweden, SEK 16.0 (20.4) million and Germany, SEK 16.1 (14.8) million.

NOTE 32 Pension obligations

Defined benefit pension plans

There are a few defined benefit pension plans within the Group, which are primarily based on final salary. The largest of the plans is in Germany. Other pension obligations, which also exist in Germany and Japan, have not been regarded as having any material effect and have not been subject to actuarial calculation.

Pension insurance with Alecta

Commitments for old-age pension and family pension for employees in Sweden are safeguarded through insurance with Alecta. According to a statement by the Swedish Financial Reporting Board, UFR 10, this is a defined benefit plan covering several employers. For the 2019 financial year the Group has not had access to such information as will make it possible to report this plan as a defined benefit plan. The pension plan under ITP, which is vested through insurance with Alecta, is therefore reported as a defined contribution plan. The year's contributions for pension insurance taken out with Alecta amount to SEK 8,909 (4,657) thousand . Alecta's surplus can be distributed to the policy holders and/or the insured. At the end of 2019 Alecta's surplus in the form of a collective solvency level was 148 (142) per cent. The collective solvency level comprises the market value of Alecta's assets as a percentage of its insurance commitments calculated in accordance with Alecta's actuarial assumptions, which do not comply with IAS 19.

NOTE 32 Pension obligations (cont)

	2019	2018
Obligations in the balance sheet for		
Pension benefits	10,388	9,719
Recognition in the income statement for (note 9)		
Pension costs	21,128	21,598

Amounts recognized in the balance sheet	**2019**	**2018**
Present value of unfunded obligations	10,388	9,719
Total	**10,388**	**9,719**

Amounts recognized in the income statement	**2019**	**2018**
Defined benefit plans		
Current service cost	–	–
Interest expense	64	102
Total	**64**	**102**

Of the total cost, SEK 64 (61) thousand was included in the items 'Cost of goods sold' and 'Administrative expenses'. The actual return on the plan assets was SEK – (–) thousand.

Changes in the liability recognized in the consolidated balance sheet	**2019**	**2018**
At the start of the year	**9,719**	**9,767**
Translation differences	376	24
Total expense recognized in the income statement	64	102
Contributions paid	229	–174
At the end of the year	**10,388**	**9,719**

Total pension costs recognized in the consolidated income statement	**2019**	**2018**
Total costs for defined benefit plans	64	102
Total costs for defined contribution plans	21,064	17,583
Costs of special employer's contribution and tax on returns from pension funds	–	3,913
Total	**21,128**	**21,598**

Actuarial assumptions	**2019**	**2018**
Discount rate	1.0 %	1.8 %
Expected return on plan assets	1.0 %	1.0 %
Future salary increases	0.0 %	0.0 %
Future pension increases	1.0 %	1.0 %

NOTE 33 Other provisions

	Future waste management expenses	**Other provisions**	**Total**
Per den 1 januari 2019	**91,637**	**20,761**	**112,397**
Recognized as an expense in the consolidated income statement			
– Additional provisions	9,124	–	9,124
– Reversed provisions	–4,300	–19,118	–23,418
Capitalized as property, plant and equipment		–	–
Transfers	802	2	804
Discount effect	–	–	–
Exchange rate difference	–	–	–
Funds in sold operations	–	–	–
Amount utilized during the period	–11,577	–	–11,577
Translation difference	–	–	–
As at December 31, 2019	**85,686**	**1,645**	**87,330**
Long term portion	81,488	1,405	82,893
Current portion	4,197	240	4,437
Total	**85,685**	**1,645**	**87,330**

NOTE 33 Other provisions (cont)

The Group's operations generate nuclear waste and radioactive waste which must be sent for final disposal within the framework of the systems and rules in force in the countries in which Studsvik carries on operations in its own production facilities. Provisions are made for operational waste, spent reactor fuel and also to some extent for decommissioning of facilities and the resulting decommissioning waste. The main part of the costs of decommissioning and decommissioning waste from the Group's Swedish nuclear facilities is financed, under the provisions of the Studsvik Act 1988:1597, through a charge on nuclear generated electricity. Fees paid in are administered by the Nuclear Waste Fund. The Group's total payments to the Nuclear Waste Fund amount to SEK 16,548 (9,698) million and are recorded as long-term receivables, see note 22. Funds for decommissioning and waste management may be withdrawn from the Fund by Studsvik, which holds the nuclear permit for the facilities in question. Studsvik is not liable to pay under the current Act. Studsvik's responsibility for decommissioning and waste management for its own nuclear facilities is limited to buildings, systems and components coming into existence after June 30, 1991. Studsvik estimates these commitments on a current basis and provision is made for them. Reversed provisions during the year of SEK 23.4 million refer to payments for operational waste to Swedish Nuclear Fuel and Waste Management Co and adjustment of reserves for future decommissioning of Studsvik, which are covered by payments to the Nuclear Waste Fund.

Future waste management costs

Future waste management costs cover provisions for operational waste and spent reactor fuel. Of the total provisions of SEK 85.7 million, SEK 4,2 million is expected to be utilized in 2020 and the rest is expected to be utilized successively and at the earliest starting in 2021.

Other provisions

Other provisions cover future costs for decommissioning and management of waste in connection with the decommissioning of the Studsvik facility. Of the total provisions of SEK 1.6 million, SEK 0.2 million is expected to be utilized in 2020. The remaining part of the provisions is expected to be utilized only in connection with decommissioning operations. Studsvik's payments to the Nuclear Waste Fund are included in the item 'Financial assets at fair value through profit or loss'.

NOTE 34 Cash flow

Non-cash items	**2019**	**2018**
Depreciation/amortization	29,048	19,383
Impairment losses on property, plant and equipment	8,956	785
Proceeds from sale of property, plant and equipment	–	–
Proceeds from sale of subsidiaries and other business units	–	–
Share in earnings from associated companies	–9,483	–10,622
Revaluation of financial holdings	–3,198	5,559
Other changes in provisions	–24,398	1,158
Total	**925**	**16,263**

Reconciliation of items included in financing activities	**Bank loans**	**Lease liabilities**	**Total**
Liabilities as at January 1, 2018	**199,850**	**–**	**199,850**
Cash flow	–	–	–
Foreign exchange differences	–	–	–
Liabilities as at December 31, 2018	**199,850**	**–**	**199,850**
Effect of transition to IFRS 16 (note 37)	–	25,008	25,008
Liabilities as at January 1, 2019	**199,850**	**25,008**	**224,858**
Cash flow	–76,755	–4,223	–80,978
Acquisitions - leases	–	–2,465	–2,465
Foreign exchange differences	–	626	626
Liabilities as at December 31, 2019	**123,095**	**18,946**	**142,041**

NOTE 35 Contingent liabilities and pledged assets

The Group has contingent liabilities in respect of bank guarantees and other guarantees as well as other items arising in the normal course of business. No material liabilities are expected to arise through these contingent liabilities. In the normal course of business the Group has issued guarantees amounting to SEK 43,103 (62,796) thousand to third parties. No further payments are expected as at the date of these financial statements.

Pledged assets	**2019**	**2018**
Real estate mortgage	40,000	15,000
Corporate mortgage	100,000	–

NOTE 36 Commitments

Capital commitments

Capital expenditure contracted for at the balance sheet date but not yet recognized in the financial statements is as follows.

	2019	2018
Property, plant and equipment	–	–
Intangible assets	–	–
Total	**–**	**–**

Operating lease commitments

Lease expenses for operating leases for the year amounted to SEK 1,652 (11,607) thousand.

Future aggregate minimum lease payments	2019	2018
Within one year	1,023	7,887
Between one and five years	736	8,212
More than 5 years	–	–
Total	**1,759**	**16,099**

NOTE 37 Rights of use

Commitments regarding leases

Lease expenses for finance leases for the year amounted to SEK 10,828 (0) thousand.

Future aggregate minimum lease payments	2019	2018
Within one year	9,264	–
Between one and five years	12,106	–
More than 5 years	–	–
Total	**21,370**	–

Studsvik applies IFRS 16 from January 1, 2019, using the simplified transition method. An exemption is made for contracts with a shorter maturity than 1 year and contracts whose value is less than USD 5,000. The effect of the transition to IFRS 16 is presented below.

	2018-12-31	Adjustments	2019-01-01
ASSETS			
Non-current assets			
Property, plant and equipment	124,335	25,008	149,343
Intangible assets	190,218		190,218
Holdings in associated companies and joint ventures	12,531		12,531
Deferred tax assets	93,016		93,016
Financial assets at fair value through profit or loss	29,186		29,186
Derivative financial instruments	–		–
Trade and other receivables	34,291		34,291
Total non-current assets	**483,577**	**25,008**	**508,585**
Current assets			
Inventories	534		534
Trade and other receivables	257,755		257,755
Financial assets at fair value through profit or loss	–		–
Derivative financial instruments	3,236		3,236
Cash and cash equivalents	155,539		155,539
Total current assets	**417,064**	–	**417,064**
TOTAL ASSETS	**900,641**	**25,008**	**925,649**
EQUITY			
Capital and reserves attributable to parent company's shareholders			
Share capital	8,219		8,219
Other contributed capital	225,272		225,272
Other reserves	23,772		23,772
Retained earnings	58,573		58,573
Equity attributable to the parent company's shareholders	**315,836**	–	**315,836**
Non-controlling interests	369		369
TOTAL SHAREHOLDERS' EQUITY	**316,205**	–	**316,205**
LIABILITIES			
Long-term liabilities			
Liabilities to credit institutions	–		–
Derivative financial instruments	53		53
Deferred tax liabilities	34,380		34,380
Pension obligations	9,719		9,719
Other provisions	107,960		107,960
Trade and other payables	14,568	15,404	29,972
Total long-term liabilities	**166,680**	**15,404**	**182,084**
Current liabilities			
Trade and other payables	208,578	9,604	218,182
Current tax liabilities	1,241		1,241
Liabilities to credit institutions	199,850		199,850
Derivative financial instruments	3,650		3,650
Other provisions	4,437		4,437
Total current liabilities	**417,756**	**9,604**	**427,360**
Total liabilities	**584,436**	**25,008**	**609,444**
TOTAL EQUITY AND LIABILITIES	**900,641**	**25,008**	**925,649**

Measurement of lease liability	2019
Commitments for operating leases as at December 31, 2018	16,099
Discount at Studsvik's incremental borrowing rate at the time of transition	1,387
In addition: liabilities for finance leases as at December 31, 2018	8,909
Less: short-term leases not recognized as liabilities	–394
Less: leases for which the underlying asset is of low value	–993
Lease liability recognized as at January 1, 2019	**25,008**
Of which:	
Current liability	9,604
Non-current liability	15,404
	25,008

LEASES

Carrying amounts on the balance sheet

Right of use assets	2019	1,jan,2019
Land and buildings	15,155	18,401
Plant and machinery	4,676	6,607
	19,831	**25,008**

Lease liabilities	2019	1,jan,2019
Current	8,650	9,604
Non-current	10,296	15,404
	18,946	**25,008**

Additional rights of use in 2019 amounted to SEK 5,641 thousand, which mainly refers to new premises and vehicles.

	Land and buildings	Plant and machinery	Total
January 1 – December 31, 2019			
Opening book value	0	0	0
IFRS 16 adjustment opening balance	18,401	6,607	25,008
Foreign exchange differences	860	159	1,019
Investments	3,319	2,322	5,641
Redistributions			0
Disposals and retirements	–110	–1,149	–1,259
Depreciation/amortization	–7,315	–3,263	–10,578
Impairment losses for the year			0
Closing book value	**15,155**	**4,676**	**19,831**

Carrying amounts in the income statement

Amortization on rights of use	2019	2018
Land and buildings	–7,315	–
Plant and machinery	–3,263	–
	–10,578	–
Interest expense (included in financial expenses)	–590	–
Expenditure referring to current leases (included in costs of services sold and administrative expenses)	–1,209	–
Expenditure referring to leases for which the underlying asset is of low value (included in costs of services sold and administrative expenses)	–779	–

The total cash flow for leases in 2019 was SEK –6,062 thousand.

Future aggregate minimum lease payments	2019	2018
Within one year	9,264	–
Between one and five years	12,106	–
More than 5 years	–	–
Total	**21,370**	–

NOTE 38 Transactions with related parties

Studsvik, Inc. owns 50 percent of THOR Treatment Technologies, LLC (TTT). In accordance with a Joint Venture Operating Agreement the owners are to provide management, technical and marketing services to TTT. Studsvik owns 15 per cent of UK Nuclear Waste Management Ltd (NWM), where Studsvik, in a consortium together with other partners, is to manage and operate a repository for low level radioactive waste in the United Kingdom. Studsvik AB owns 49 per cent of KOBELCO STUDSVIK Co, Ltd, a joint venture in Japan, focusing on design of facilities for treatment of Japanese waste. Studsvik GmbH & Co. KG owns 50 per cent of ARGE SH KWO BioSchild, where Studsvik, in a consortium with other partners, is to manage and operate the decommissioning of the biological shield and pool structures of the nuclear power plant Obrigheim (KWO) in Germany.

Related party transactions	**2019**	**2018**
Sale of services		
– THOR Treatment Technologies, LLC	–	–
– UK Nuclear Waste Management Ltd	6,614	8,388
– KOBELCO STUDSVIK Co., Ltd	–	8,199
– ARGE SH KWO BioSchild	1,430	–
Reported receivables from related parties		
– THOR Treatment Technologies, LLC	–	–
– UK Nuclear Waste Management Ltd	–	5,962
– KOBELCO STUDSVIK Co., Ltd	–	2,230
– ARGE SH KWO BioSchild	42	–
Provision for doubtful trade receivables	–	–
Impairment loss on trade receivables	–	–
Total costs referring to provisions and impairment losses recognized in the income statement	**8,086**	**24,779**
Loans receivable from related parties		
– UK Nuclear Waste Management Ltd	1,832	1,691

Under an agreement with the owners the services are supplied on a commercial basis.

There have been no transactions with other related parties, besides remuneration to the Board of Directors, President and senior management. Remuneration to the Board of Directors, President and senior management is described in note 9.

Studsvik holds 79 per cent of Studsvik Scandpower, Inc. The remaining 21 per cent is held by a private individual previously employed by the company. Studsvik owns 91 per cent of Studsvik Scandpower AB and its subsidiary Studsvik Scandpower GmbH. The remaining 9 per cent is held by the minority shareholder of Studsvik Scandpower, Inc.

The owners have agreed on how share transfers are to take place in the event of one of the parties wishing to relinquish or increase their holdings in the two companies. Studsvik can only increase its ownership through acquisition of the entire minority holding. The acquisition must be at market price. An acquisition must cover both companies. If the minority wishes to relinquish its ownership, the shares must be offered to Studsvik at market price. The market price will be determined by an independent valuation institute. In a situation where Studsvik AB wishes to relinquish its holding the minority has an option to acquire 12 per cent of the shares in Studsvik Scandpower AB at book value of equity.

NOTE 39 Formation on the board of directors and senior management

Salaries and other benefits, 2019	**Basic salary/ Board fee**	**Committee fee**	**Variable remuneration**	**Other benefits**	**Pension cost**	**Other remuneration**	**Total**
Chairman of the Board							
– Anders Ullberg	650	75	–	–	–	–	725
Members of the board (6)							
– Jan Barchan	225	–	–	–	–	–	225
– Anna Karinen	225	–	–	–	–	–	225
– Peter Gossas	225	150	–	–	–	–	375
– Agneta Nestenborg	225	75	–	–	–	–	300
Employee representatives* (4)	–	–	–	–	–	–	–
President	2,677	–	–	87	459	–	3,223
Other senior management (5)	7,246	–	229	486	1,989	–	9,950
Total	**11,473**	**300**	**229**	**573**	**2,448**	**–**	**15,023**

* Two ordinary members and two alternates.

Salaries and other benefits, 2018	**Basic salary/ Board fee**	**Committee fee**	**Variable remuneration**	**Other benefits**	**Pension cost**	**Other remuneration**	**Total**
Chairman of the Board							
– Anders Ullberg	650	75	–	–	–	–	725
Members of the board (6)							
– Jan Barchan	225	–	–	–	–	–	225
– Anna Karinen	225	–	–	–	–	–	225
– Alf Lindfors	113	–	–	–	–	–	113
– Peter Gossas	225	150	–	–	–	–	375
– Agneta Nestenborg	225	75	–	–	–	–	300
Employee representatives* (4)	–	–	–	–	–	–	–
President	2,675	–	–	79	444	–	3,198
Other senior management (6)	7,562	–	337	315	1,760	3,499	13,473
Total	**11,899**	**300**	**337**	**394**	**2,204**	**3,499**	**18,633**

* Two ordinary members and two alternates.

NOTE 39 (cont.)

Remuneration to the board of directors and other senior management	2019	2018
Parent company		
Salaries, benefits and other remuneration	6,510	8,099
– Of which variable remuneration	–	–
Pensions	905	963
Number of persons	8	7
Subsidiaries		
Salaries, benefits and other remuneration	6,065	8,226
– Of which variable remuneration	229	337
Pensions	1,543	1,011
Number of persons	3	3
Group		
Salaries, benefits and other remuneration	12,575	16,325
– Of which variable remuneration	229	337
Pensions	2,448	1,973
Number of persons	11	10

Principles

In 2019 the members of the Board have not received any remuneration apart from Board and Committee fees.

Variable remuneration

The President has the right to variable remuneration. The forms of the variable salary component are established annually. No variable remuneration was paid for 2019. The variable salary component for other senior management for 2019 is based on outcomes related to individually specified targets at both Group and unit level. For 100 per cent target fulfillment in all parameters a maximum variable salary component is payable of 10–30 percent of the basic salary.

Other benefits and remuneration

Other benefits reported are company car, meal subsidies and other benefits such as health care. Other remuneration consists of severance pay.

Financial instruments

Under current employment contracts there are no share-based payments.

Pension

The pensionable age of the President is 65 years. Apart from statutory national pension she has a defined contribution pension plan to which the company pays in a monthly pension premium equivalent to 30 per cent of fixed monthly salary. For other members of the Executive Group Management a pension is payable as a rule from the age of 65. Swedish members of the Executive Group Management are included in the ITP plan and have a defined contribution pension of a maximum of 35 per cent of fixed salary. National defined contribution pension plans apply to Executive Group Management members outside Sweden.

Termination and severance pay

The President's period of notice is 6 months for his own termination of employment and 12 months for termination by the company. In the case of termination of employment by the company, salary is payable during the period of notice as well as an additional monthly severance payment for 9 months after termination of employment, though no longer than until retirement age. The monthly severance payment will be equivalent to the fixed monthly salary received during the period of notice. Deduction is made for any salary from a new employer. For other members of the group executive management, the main rule is that the period of notice is 6 months when employment is terminated by the employee and 6 months when terminated by the company. In the case of termination of employment by the company, salary is payable during the period of notice as well as an additional severance payment of up to 6 months' salary.

NOTE 40 Events after the close of the reporting period

No events considered to be material as defined in IAS 10 have occurred after the close of the reporting period on December 31, 2019.

NOTE 41 Reconciliations of key figures and ratios

Amounts in SEK million

Return on capital employed	2019	2018
Profit/loss after financial items	–22.8	18.7
Financial costs according to the income statement	22.0	18.6
Total	**–0.8**	**37.3**
Balance sheet total	900.6	824.9
Provisions and other long-term liabilities	–166.6	–164.8
Trade and other payables	–217.9	–171.8
Opening capital employed	**516.1**	**488.3**
Balance sheet total	808.2	900.6
Provisions and other long-term liabilities	–155.9	–166.6
Trade and other payables	–226.4	–217.9
Closing capital employed	**425.9**	**516.1**
Average capital employed	**471.0**	**502.2**
Return on capital employed	**–0.2**	**7.4**

Return on equity	2019	2018
Net profit/loss for the year	–28.0	8.7
Total	**–28.0**	**8.7**
Opening equity	316.2	288.5
Closing equity	302.8	316.2
Return on equity	**–9.0**	**2.9**

Net debt	2019	2018
Current borrowing	76.6	199.9
Non-current borrowing	46.5	0.0
Total debt	**123.1**	**199.9**
Cash and cash equivalents	40.2	155.5
Net debt	**82.9**	**44.4**

Definitions of key figures and ratios are presented on page 80.

NOTES TO THE PARENT COMPANY ACCOUNTS

For the parent company's accounting policies, see note 1.24.

NOTE 42 Sales revenue

Sales revenue by geographical market	2019	2018
Sweden	5,204	4,658
Europe, not including Sweden	6,018	5,575
Asia	–	–
North America	2,685	2,541
Total	**13,907**	**12,774**

NOTE 43 Employee benefits

	2019		2018	
	Salaries and other remuneration (of which variable remunera-tion)	Social security expenses (of which pension costs)	Salaries and other remune-ration * (of which variable remu-neration)	Social security expenses (of which pension costs)
Board of Directors and President	4,527 (–)	1,792 (571)	4,716 (–)	2,034 (552)
Other employees	2,936 (–)	3,164 (1,430)	5,535 (–)	2,089 (1388)
Total	**7,463 (–)**	**4,956 (2,001)**	**10,251 (–)**	**4,123 (1,940)**

Salaries and other remuneration includes severance payments. See note 39.

NOTE 44 Costs by nature of expense

	2019	2018
Purchases of material and services	16,039	10,928
Staff costs	12,893	9,054
Depreciation/amortization	701	701
Total	**29,633**	**20,683**

Services include fees and remuneration to accounting firms as follows:

	2019	2018
PricewaterhouseCoopers AB		
Audit assignments	1,169	629
Other services	–	82
Total	**1,169**	**711**

Audit assignments refer to the examination of the annual accounts, the accounting records and the administration by the Board of Directors and the President. It also includes other duties that are incumbent on the company's auditors as well as advisory services and other types of support as a result of findings observations made through such examination or performance of such duties.

NOTE 45 Depreciation

	2019		2018	
	According to plan	Book	According to plan	Book
Equipment and tools	701	701	701	701
Total	**701**	**701**	**701**	**701**

NOTE 46 Other operating income and expense

Other operating income	2019	2018
Financial assets at fair value through profit or loss		
– Fair value gains	754	912
Foreign exchange gains	34	84
Total	**788**	**996**

Other operating expenses	2019	2018
Provision for severance payment	–	–1,317
Foreign exchange losses	–270	–59
Total	**–270**	**–1,376**

NOTE 47 Operating leases

	2019	2018
Maturity within one year	123	60
Maturity after one year but within five years	144	25
Maturity after five years	–	–
Total	**267**	**85**

The parent company's leases mainly refer to vehicles with traditional terms and conditions.

NOTE 48 Result from participation in group companies

	2019	2018
Result of recognition of impairment loss on shares in subsidiary	–57,110	–65,687
Total	**–57,110**	**–65,687**

NOTE 49 Interest income and similar income items

	2019	2018
Interest	12,053	10,900
Exchange rate differences	6,627	10,441
Total	**18,680**	**21,341**
Of which in respect of Group companies		
Interest	11,872	10,881
Total	**11,872**	**10,881**

NOTE 50 Interest income and similar income items

	2019	2018
Interest	10,390	15,573
Other financial expenses	9,303	–
Exchange rate differences	–	1,989
Total	**19,693**	**17,562**
Of which in respect of Group companies		
Interest	2,974	758
Total	**2,974**	**758**

NOTE 51 Appropriations

	2019	2018
Dissolution of tax allocation reserve	–	–
Group contributions received	8,675	7,390
Total	**8,675**	**7,390**

NOTE 52 Income tax

	2019	2018
Current tax		
Current tax on profit for the year	–781	149
Adjustment for previous years	–	–
Total	**–781**	**149**
Deferred tax		
Origination and reversal of temporary differences	350	–1,985
Total	**350**	**–1,985**
Total income tax	**–431**	**–1,836**

NOTE 52 Income tax (cont.)

The Swedish income tax rate is 21.4 (22.0) per cent. The income tax on the parent company's profit before tax differs from the theoretical amount that would arise using the weighted average tax rate for profits as follows.

	2019	2018
Profit/loss before tax	–64,656	–67,174
Tax at current tax rate	13,836	14,778
Non-taxable revenue	161	200
Non-deductible expenses	–14,778	–14,829
Revaluation to new tax rate	29	–932
Tax referring to temporary differences	321	–395
Adjustment of deferred tax assets	–	–658
Total	**–431**	**–1,836**

The effective tax rate was 0.7 (2.7) per cent.

NOTE 53 Non-current intangible assets

	2019	2018
Equipment and tools		
Opening cost of acquisition	3,505	3,505
Investments for the year	–	–
Closing accumulated cost of acquisition	**3,505**	**3,505**
Opening depreciation	–2,337	–1,636
Depreciation for the year	–701	–701
Closing accumulated depreciation	**–3,038**	**–2,337**
Closing residual value according to plan	**467**	**1,168**

NOTE 54 Non-current financial assets

	2019	2018
Shares in subsidiaries		
Opening cost of acquisition	1,035,994	1,035,994
Shareholders' contributions	7,110	–
Investment in subsidiaries	1,081	–
Closing cost of acquisition	**1,044,185**	**1,035,994**
Opening impairment losses	–717,941	–652,254
Impairment losses for the year	–57,110	–65,687
Closing impairment losses	**–775,051**	**–717,941**
Closing value	**269,134**	**318,053**

	2019	2018
Interests in joint ventures		
Opening cost of acquisition	12,072	12,073
Investments for the year	–	–1
Closing cost of acquisition	**12,072**	**12,072**

	Number	Nominal value	Interest, %l	Book value 31/12/19	Book value 31/12/18
KOBELCO STUDSVIK Co., Ltd	3,000	98.000 YEN	49 %	12,072	12,072

	2019	2018
Receivables from subsidiaries		
Loans to Studsvik Holding, Inc. Group		
– Opening cost of acquisition	87,816	82,797
– Repayment received	–	–9,222
– New loans	4,353	4,367
– Change in accrued interest	5,794	3,033
– Conversion to shareholders' contribution	–	–
– Foreign exchange differences	3,692	6,841
Closing value	**101,655**	**87,816**

NOTE 54 (cont.)

	2019	2018
Loan to Studsvik Ltd		
– Opening cost of acquisition	25,492	15,022
– Repayment received	–3,615	–
– New loans	4,989	10,503
– Change in accrued interest	–9	1
– Conversion to shareholders' contribution	–7,110	–
– Impairment loss	–9,303	–
– Foreign exchange differences	1,766	–34
Closing value	**12,210**	**25,492**

	2019	2018
Loan to Studsvik France SAS		
– Opening cost of acquisition	–	979
– Repayment received	–	–381
– New loans	–	1,243
– Change in accrued interest	–	41
– Impairment loss	–	–1,989
– Foreign exchange differences	–	107
Closing value	–	**–**
Loan to Studsvik GmbH		
– Opening cost of acquisition	114,269	104,866
– Repayment received	–4,608	–
– New loans	–	–
– Change in accrued interest	2,664	4,805
– Foreign exchange differences	2,413	4,598
Closing value	**114,738**	**114,269**
Financial assets measured at fair value through profit or loss		
Unlisted shareholdings		
– Opening cost of acquisition	13,949	13,039
– Acquisition of new shares	–	–
– Revaluation to fair value	754	910
Closing value	**14,703**	**13,949**
Capital insurance		
– Opening cost of acquisition	12,233	14,028
– Items added	303	340
– Reposting to current asset	1,447	–
– Items deducted	–912	–687
– Revaluation to fair value	2,109	–1,448
Closing value	**15,180**	**12,233**

NOTE 55 Prepaid expenses and accrued income

	2019	2018
Prepaid rent	–	–
Prepaid credit charges and fees	–	–
Prepaid pension premiums	–	78
Prepaid software licenses	171	131
Prepaid service charges	–	–
Accrued income	–	–
Other	194	116
Total	**365**	**325**

NOTE 56 Shares and participations in

	Share of equity, %	Share of voting rights, %	Number of partici-pations/ shares		Nominal value	Book value	Equity	PROFIT/ LOSS FOR THE YEAR
Parent company's holdings								
Studsvik Holding Inc.	100	100	2,000	kUSD	25,372	24,042	652,652	–5,790
Studsvik Nuclear AB	100	100	5,000	kSEK	50,000	223,400	303,632	11,389
Studsvik Scand-power Inc.	79	79	1,503	kUSD	149	984	49,732	–1,088
Studsvik Scand-power AB	91	91	1,000	kSEK	91	603	28,695	–72
Studsvik Japan Ltd	100	100	10,000	kJPY	10,000	373	2,813	164
Studsvik Germany GmbH	100	100		kEUR	26	241	40,886	–3,971
Studsvik Verwaltungs GmbH	100	100		kEUR	26	261	2,806	–
Studsvik Instrument Systems AB	100	100	17,000	kSEK	17,000	18,106	18,106	–
Studsvik France SAS	100	100	4,950	kEUR	5	43	73	–32
Studsvik Limited	100	100	1,000,000	kSEK	1,000	–	–15,580	–11,333
Studsvik Engineering Technology (Beijing) Co., Ltd.	100	100		kSEK	100	1,081	951	–95
Total						**269 134**		

Information on subsidiaries' corporate identity numbers and registered offices

	Corporate identity number	Registered office
Studsvik Nuclear AB	556051-6212	Nyköping, Sverige
Studsvik Scandpower Inc.	36-3088916	Boston, USA
Studsvik Scandpower AB	556137-8190	Nyköping, Sverige
Studsvik Scandpower GmbH	HRB 4839	Norderstedt, Tyskland
Studsvik Suisse AG	CH400.3.036.599-0	Fischbach-Göslikon, Schweiz
Studsvik Japan Ltd	–	Osaka, Japan
Studsvik Holding Inc.	35-3481732	Atlanta, USA
Studsvik, Inc.	36-2999957	Atlanta, USA
RACE Holding LLC	20-2472653	Atlanta, USA
Studsvik Germany GmbH	HRB 504467	Mannheim, Tyskland
Studsvik Verwaltungs GmbH	HRB 504468	Mannheim, Tyskland
Studsvik GmbH & Co. KG	HRA 503411	Mannheim, Tyskland
Studsvik Instrument Systems AB	556197-1481	Nyköping, Sverige
Studsvik France SAS	791 048 200 000 12	Paris, Frankrike
Studsvik Consulting AB	559019-2448	Nyköping, Sverige
Studsvik Limited	9660060	Gateshead, England
Studsvik Engineering Technology Ltd	911101 05MA01K Y4A74	Peking, Kina

NOTE 57 Liabilities to credit institutions

	2019	2018
Bank loans		
Long term portion	46,500	–
Current portion	2,000	199,850
Total	**48,500**	**199,850**
Bank overdraft facility		
Long term portion	–	–
Current portion	74,595	–
Total	**74,595**	**–**
TOTAL	**123,095**	**199,850**

NOTE 58 Accrued expenses and deferred income

	2019	2018
Holiday pay liability	1,028	1,491
Accrued wages and salaries	–	–
Accrued social security contributions	892	1,552
Accrued interest expense	–	1,409
Provision for severance payment	–	2,914
Other	548	434
Total	**2,468**	**7,800**

NOTE 59 Pledged assets

	2019	2018
Shares in subsidiaries	224,003	223,400
Floating charge	100,000	–
Total	**324,003**	**223,400**

Shares in Studsvik Nuclear AB and Studsvik Scandpower AB have been put up as collateral for bank loans.

NOTE 60 Contingent liabilities

	2019	2018
Guarantees	–	–
Contingent liabilities referring to insurance	4,542	4,146
Total	**4,542**	**4,146**

In addition, the parent company has made a guarantee commitment for a subsidiary as for its own debt.

NOTE 61 Cash flow from operating activities

Non-cash items	2019	2018
Depreciation/amortization	701	701
Fair value gains	–	–
Other items	–755	–910
Total	**–54**	**–209**

NOTE 62 Transactions with related parties

Intra-Group purchases and sales

The percentage of the year's purchases and sales referring to other companies within the Studsvik Group is presented below.

	2019	2018
Purchases	14 %	38 %
Sales	100 %	100 %

The same pricing principles are applied to purchases and sales between group companies as apply to transactions with external parties.

NOTE 63 Number of employees

	2019	2018
Women	3	3
Men	1	2
Total	**4**	**5**

	2019		2018	
Board members and senior management	Number on balance sheet date	Of whom men	Number on balance sheet date	Of whom men
Board members	7*	4	7*	4
President and other senior management	2	1	2	1

* The number of board members only refers to ordinary members.

Agreements on severance payments and other commitments to Board members and the President

The President's period of notice is 6 months for his own termination of employment and 12 months for termination by the company. In the case of termination of employment by the company, salary is payable during the period of notice as well as an additional severance payment equivalent to 9 months' salary. See note 39.

NOTE 64 Investment in subsidiaries

	2019	2018	2017
Investment in subsidiaries	1,081	–	–
Total	**1,081**	–	–

The investment refers to the subsidiary Studsvik Engineering Technology (Beijing) Co. Ltd.

The consolidated income statements and balance sheets will be presented to the Annual General Meeting on April 29, 2020 for approval.

The Board of Directors and the President certify that the consolidated accounts have been prepared in accordance with international financial reporting standards, IFRS, as adopted by the EU and give a true and fair view of the Group's financial position and results of operations. The annual accounts have been prepared in accordance with generally accepted accounting principles and give a true and fair view of the parent company's financial position and results of operations.

The administration report for the Group and parent company provides a fair review of the development of the Group's and the parent company's business, financial position and performance and describes significant risks and uncertainties faced by the parent company and the companies that are part of the Group.

Nyköping, March 11, 2020

Anders Ullberg
Chairman

Anna Karinen
Vice Chairman

Jan Barchan
Member

Peter Gossas
Member

Agneta Nestenborg
Member

Linda Ekstrand
Employee representative

Per Ekberg
Employee representative

Camilla Hoflund
President/CEO

Our auditor's report was submitted on March 13, 2020
PricewaterhouseCoopers AB

Martin Johansson
Authorized public accountant

AUDITOR'S REPORT

To the General Meeting of Shareholders of Studsvik AB (publ), corporate identity number 556501-0997

Report on the annual accounts and consolidated accounts

Opinions

We have audited the annual accounts and consolidated accounts of Studsvik AB (publ) for 2019 with the exception of the sustainability report on pages 23–29. The company's annual accounts and consolidated accounts are included on pages 10–22 and 30–66 of this document.

In our opinion, the annual accounts have been prepared in accordance with the Annual Accounts Act and present fairly, in all material respects, the financial position of the parent company as at December 31, 2019 and of its financial performance and its cash flows for the year then ended in accordance with the Annual Accounts Act. The consolidated accounts have been prepared in accordance with the Annual Accounts Act and present fairly, in all material respects, the financial position of the Group as at December 31, 2019 and of its financial performance and cash flow for the year then ended in accordance with International Financial Reporting Standards (IFRS), as adopted by the EU, and the Annual Accounts Act. The statutory administration report is consistent with the other parts of the annual accounts and the consolidated accounts.

We therefore recommend that the General Meeting adopts the consolidated statement of profit or loss and other comprehensive income and the consolidated statement of financial position and the income statement and balance sheet of the parent company.

Our opinions in this report on the annual accounts and consolidated accounts are consistent with the contents of the additional report submitted to the parent company's and the Group's Audit Committee in accordance with Article 11 of the Audit Regulation (537/2014).

Basis for opinion

We conducted our audit in accordance with International Standards on Auditing (ISAs) and generally accepted auditing standards in Sweden. Our responsibilities under those standards are further described in the Auditor's Responsibilities section. We are independent of the parent company and the group in accordance with professional ethics for accountants in Sweden and we have fulfilled our other ethical responsibilities in accordance with these requirements. This includes that, based on the best of our knowledge and belief, no prohibited services referred to Article 5 of the Audit Regulation (537/2014), have been provided to the audited company or, where applicable, its parent company or its controlled companies within the EU.

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

Our audit approach

AUDIT FOCUS AND SCOPE

We designed our audit by determining materiality and assessing the risk of material misstatement in the financial statements. In particular, we considered areas where the President and Board of Directors made subjective assessments, for example in respect of significant accounting estimates that involved making assumptions and considering future events that are inherently uncertain. As in all of our audits, we also addressed the risk of management override of internal controls, including among other matters consideration of whether there was evidence of systematic bias that represented a risk of material misstatement due to fraud.

We tailored our audit to perform sufficient work to enable us to provide an opinion on the financial statements as a whole, taking into account the structure of the Group, accounting processes and controls, and the industry in which the Group operates.

The Studsvik Group consists of several companies. Of these, operations in Sweden and Germany constitute significant units and are therefore included in our audit of the Group. The audit of these units and the parent company includes testing of details supplemented by analytical review of income statement and balance sheet items material to the Group. A majority of the subsidiaries in the Group are also subject to statutory audit under local requirements.

MATERIALITY

The scope and focus of our audit was influenced by our application of materiality. An audit is designed to achieve reasonable assurance that 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 for the financial statements as a whole. These, together with qualitative considerations, helped us to determine the focus and scope of our audit and the nature, timing and extent of our audit procedures and to evaluate the effect of misstatements, both individually and in aggregate, on the financial statements as a whole.

Key audit matters

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

Key audit matters	How our audit addressed the key audit matter
Measurement of goodwill on consolidation for the Waste Treatment business area The consolidated balance sheet reports goodwill of SEK 188 (182) million, which is presented in note 16 of the financial statements. This constitutes 23 % of the Group's balance sheet total and 62 % of the Group's equity. During the year the Group's operations have had difficulties in achieving the forecasts that form the basis for impairment tests aimed at the measurement of goodwill on consolidation for the business area. Under International Financial Reporting Standards (IFRS) the company must measure the value of goodwill on consolidation for impairment by conducting impairment tests for each cash generating unit, based on the present value of forecast future cash flows. The impairment tests are based on several material assumptions on future development based on the management's assessments. These are presented in more detail in note 16 of the financial statements. The impairment testing set up as at 31 December 2019 for the business area did not show any impairment loss.	In our audit we carried out a number of audit procedures on the impairment tests prepared by the company's management. This included verifying, with the help of internal valuation specialists, that the impairment testing is based on generally accepted valuation methods and meet the preparation requirements that exist under International Financial Reporting Standards (IFRS). Moreover, we have verified the mathematical correctness of the model and evaluated the reasonableness of the management's assumptions concerning future cash flows, growth and discount rates. Our audit measures also included verifying that the forecasts in the impairment tests are in line with the strategic plans, budgets and forecasts produced by the company management. In addition, we have evaluated the company's analysis of the sensitivity of the valuation to changes in material parameters that, on an individual or collective basis, could indicate the existence of impairment loss.
Provisions for decommissioning, waste treatment and restoration of land (see the Group's accounting policies in note 1.20, material assumptions in note 3 and note 33) The operations at Studsvik's facilities in Sweden and the now sold facility in the UK are subject to local licensing requirements and Studsvik is liable to decommission facilities, manage waste and restore land. The Group makes provision in the balance sheet for these future decommissioning costs, as well as costs for handling waste. At the close of 2019, provision of SEK 87 (112) million was made in the balance sheet for future waste costs and decommissioning and restoration. The Group has a process for monitoring and measuring provisions for waste treatment, decommissioning and restoration. Determination of provisions has a significant influence on the audit of the Group as the assessment of the value of the size of provisions is influenced by the management's estimates and assumptions.	We have audited the Group's process for identifying additional waste and the valuation process for the provision for waste treatment, decommissioning and restoration of land. Our audit procedures include evaluating whether the provisions comply with the Group's accounting policies. Moreover, based on risk and materiality, we have cross-checked and assessed material parameters, such as volume and price, for calculating the provision against documentation in the form of agreements with external parties, where these exist, and internal calculations on which these are based. In addition, we have tested the mathematical correctness of the provision calculations.
Valuation of deferred tax assets (see the Group's accounting policies in note 1.18, material assumptions in note 3 and note 31) The Group reports deferred tax assets referring to tax loss carry forwards of SEK 91 (93) million. As valuation of tax loss carry forwards reported in the balance sheet depend on the management's estimates in the form of forecasts of future taxable profit, the determination of the value of the deferred tax assets has a significant influence on the audit.	We have examined whether the management's estimate of the carrying amount of deferred tax assets referring to tax loss carry forwards is based on the Group's budgets and forecasts regularly prepared by the management. We have checked that the assumptions used in these budgets and forecasts of future taxable profits are in accordance with the management's strategic plans and intentions and that they are realistic on the basis of our experience of the business. This was done by analyzing how well previous years' assumptions were met, any adjustments made of assumptions from previous years as a consequence of developments in the operations, as well as external factors. In addition, we have tested the mathematical correctness of the calculations for material deferred tax assets referring to tax loss carry-forwards.

Information in the annual report additional to the annual accounts and consolidated accounts

This document also includes other information than the annual accounts and consolidated accounts and can be found on pages 10–22 and 30–66, as well as the sustainability report on pages 23–29. The Board of Directors and the President are responsible for this other information.

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

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

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

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

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

The Board of Director's Audit Committee shall, among other things and without impacting the Board's responsibilities and duties in general, monitor the company's financial reporting.

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

A further description of our responsibility for the audit of the annual accounts and consolidated accounts can be found on the website of the Swedish Inspectorate of Auditors: www.revisorsinspektionen.se/revisornsansvar. This description is part of the auditor's report.

Report on other legal and regulatory requirements

Opinions
In addition to our audit of the annual accounts and consolidated accounts, we have examined the administration of the Board of Directors and the President of Studsvik AB (publ) for 2019 and the proposed appropriations of the company's profit or loss.

We recommend to the General Meeting of Shareholders that the loss be treated in accordance with the proposal in the statutory administration report and that the members of the Board of Directors and the President be discharged from liability for the financial year.

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

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

Responsibilities of the Board of Directors and President
The Board of Directors is responsible for the proposed appropriations of the company's profit or loss. When proposing a dividend, this includes an assessment of whether the dividend is justifiable considering the requirements which the company's and the Group's type of operations, size and risks place on the size of the Parent Company's and the Group's equity, consolidation requirements, liquidity and position in general.

The Board of Directors is responsible for the organization of the company and the administration of its affairs. This includes among other things continuous assessment of the company's and the group's financial situation and ensuring that the company's organization is designed so that the accounting, management of assets and the company's financial affairs in other respects are controlled in a satisfactory manner. The President shall conduct the day-to-day management in accordance with the Board of Director's guidelines and instructions and take measures that are necessary to fulfill the company's accounting in accordance with law and handle the management of assets in a satisfactory manner.

Auditor's responsibility
Our objective concerning the audit of the administration, and thereby our opinion on discharge from liability, is to obtain audit evidence to assess with reasonable assurance whether any member of the Board of Directors or the President in any material respect:

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

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

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

A further description of our responsibility for the audit of the administration can be found on the website of the Swedish Inspectorate of Auditors: www.revisorsinspektionen.se/revisornsansvar. This description is part of the auditor's report.

Auditor's statement on the statutory sustainability report
The Board of Directors is responsible for the sustainability report on pages 23–29 and for ensuring that it has been prepared in accordance with the Annual Accounts Act.

Our examination was conducted in accordance with FAR's recommendation RevR 12 The auditor's opinion regarding the statutory sustainability report. This means that our examination of the sustainability report is different and substantially less in scope than an audit conducted in accordance with International Standards on Auditing and generally accepted auditing standards in Sweden. We believe that the examination has provided us with sufficient basis for our opinion.

A sustainability report has been prepared.

PricewaterhouseCoopers AB, Torsgatan 21, Stockholm, was appointed as auditor of Studsvik AB (publ) by the General Meeting held on April 29, 2019 and has been the company's auditor since its listing on May 4, 2001.

Stockholm, March 13, 2020
PricewaterhouseCoopers AB

Martin Johansson
Authorized public accountant

CORPORATE GOVERNANCE

Corporate governance
Studsvik AB is a Swedish public company with its registered office in Nyköping and is listed on Nasdaq Stockholm. The company is the parent of a Group that carries on business in nuclear technology in an international arena. Corporate governance is based on the Articles of Association and the Swedish Companies Act, a number of Swedish and foreign laws and ordinances and the Swedish Code of Corporate Governance (the Code). Studsvik has no departures from the Code to report.

General Meeting of Shareholders
The General Meeting is the company's highest decision-making body, where the shareholders exercise their influence through discussions and decisions. An Annual General Meeting shall be held once a year to adopt the income statement and balance sheet, decide on dividend, elect a Board of Directors and auditors and decide on their remuneration.

The number of shareholders on December 31, 2019 was 3,110. The total number of shares was 8,218,611. All shares have an equal right to participate in the company's assets and profits. Three shareholders each account for more than 10 % of the shares in the company. Information on shareholders, voting rights and the Articles of Association is presented in the annual report on pages 70–73.

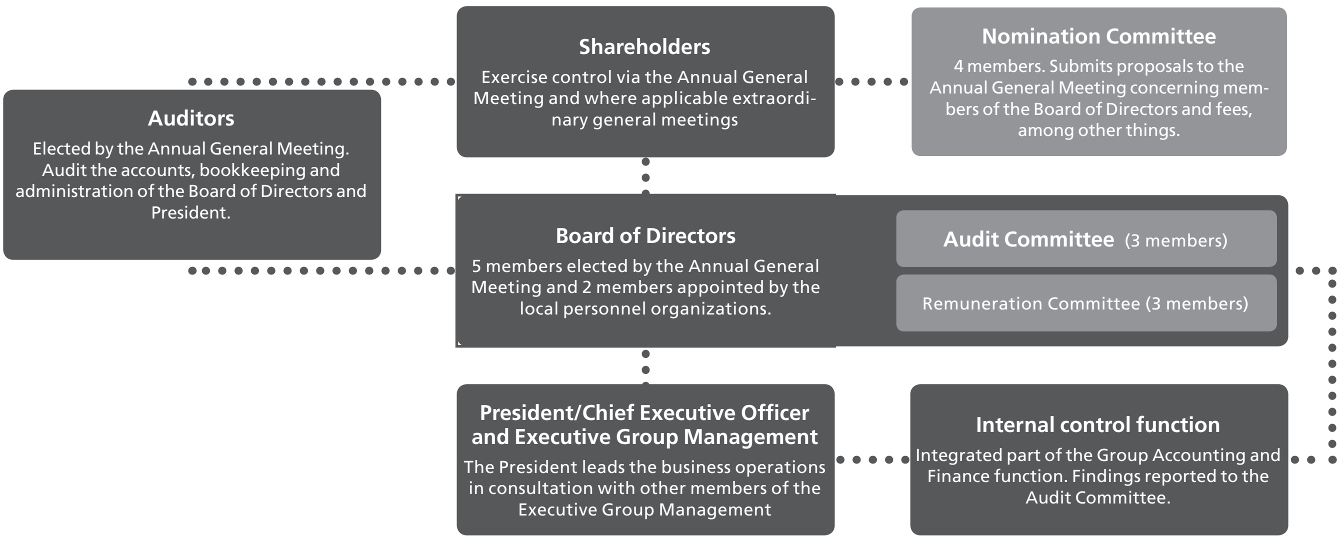
At the Annual General Meeting in April 2019, 35 shareholders participated, representing a total of 58 per cent of all votes in the company. The Annual General Meeting adopted the consolidated income statement and balance sheet, adopted the Board of Directors proposal concerning dividend, discharged the Board of Directors and President from liability and appointed PricewaterhouseCoopers AB as auditor. All members of the Board of Directors were re-elected, and Anders Ullberg was appointed as Chairman. The Meeting also established principles for benefits to senior management and appointed the Nomination Committee. The minutes of the Annual General Meeting can be found on the company's website.

Nomination Committee
The main task of the Nomination Committee is to propose to the Annual General Meeting candidates for the Board of Directors, Chairman of the Board and auditors and their fees. The Nomination Committee is also to propose a new Nomination Committee.

As resolved by the Annual General Meeting, the Nomination Committee is to consist of the Chairman of the Board and representatives of each of the three largest shareholders. The Annual General Meeting appointed Stina Barchan (Briban Invest AB), Sven Ericsson (representative of the Karinen family), Carina Heilborn (Peter Gyllenhammar AB) and Anders Ullberg (Chairman of the Board) as members of the Nomination Committee. The Nomination Committee's term of office is until a new Nomination Committee is appointed. Carina Heilborn left the work of the Nomination Committee in March 2019.

Information on how shareholders can submit proposals to the Nomination Committee has been published on Studsvik's website. The work of the Nomination Committee focuses on ensuring that the Board of Directors is composed of members that together have the knowledge and experience that meet the requirements of the owners concerning Studsvik's highest governing body. In the process of preparing proposals for candidate members of the Board, the Chairman of the Board therefore presents to the Nomination Committee the evaluation made of the work of the Board of Directors in the past year.

Composition of the Board of Directors
The Board of Directors consists of five board members elected by the General Meeting of Shareholders, as well as two members and two alternates appointed by the staff organizations Unionen and the Swedish Association of Graduate Engineers. Of the ordinary seven members, the proportion of women is 43 per cent and of the two alternates the proportion of women is 50 per cent, which is in line with the Group's policy for diversity and gender equality. The members of the Board of Directors are presented on pages 74–75



of the annual report and under Board of Directors and auditors on the website.

The members elected by the Annual General Meeting are to be regarded as independent in relation to the company and the company management All, apart from Jan Barchan and Anna Karinen, are independent of major shareholders.

Chairman

Anders Ullberg is the Chairman of the Board and leads the work of the Board. He has a particular responsibility to follow the company's development between Board meetings and ensure that the Board Members regularly receive the information necessary for performing a satisfactory job. The Chairman is to maintain regular contact with the President on various matters as needed.

Work of the Board

The task of the Board of Directors is to administer the company's business in the best way possible and safeguard the interests of the shareholders in its work. The Board's work follows rules of procedure adopted annually at the inaugural board meeting. The rules of procedure specify the division of duties between the Board and the President, the responsibilities of the Chairman and President respectively, and the forms of financial reporting. The President takes part in the work of the Board of Directors and other employees take part when this is called for. The Group's Chief Financial Officer acts as secretary to the Board.

In 2019 the Board of Directors held 11 meetings, including the inaugural meeting in connection with the Annual General Meeting. The attendance of the members is shown in the table below.

The Board of Directors receives information on the company's economic and financial situation through monthly reports and at board meetings. Operations in the various business areas are monitored and discussed in accordance with a rolling plan, which means that the Board of Directors makes a detailed analysis of each business area at least once a year. Moreover, the Board of Directors agrees each year on a number of issues that are to be examined at a board meeting during the year. In 2019 the Group's strategy and further development of operations in Waste Management Technology, Germany and Scandpower were discussed, as well as the Elekta project and associated investments.

Ahead of each board meeting the Chairman and President go through the business to be dealt with at the meeting and supporting documentation for the Board's processing of the business is sent to the members about a week before each board meeting.

In 2019 the Board devoted particular attention to the Group's financing, strategic alternatives for the operations in Germany, increased customer focus in the software operations and cost savings in consultancy operations and administration.

At one meeting during the year the company's auditors reported on their findings from the audit of the annual accounts and the company's administration. The Board of Directors was then also given the opportunity of discussions with the auditors without the company management being present. The Chairman ensures that the work of the Board of Directors is evaluated annually and that the Nomination Committee receives the information necessary concerning the results of the evaluation. The evaluation is discussed by the Board of Directors as a basis for planning the Board's work for the coming year.

Policies, guidelines and instructions

The Board reviews and adopts Group policies and guidelines and the Group's Code of Conduct. The Code of Conduct aims to provide guidance to employees and business partners, minimize risks, strengthen the corporate culture and convey Studsvik's core values.

The President adopts guidelines and operative instructions based on policies and guidelines established by the Board. Guidelines and operative instructions issued by the President/CEO primarily cover financial reporting, treatment of personal data (GDPR) and information technology. All policies and guidelines are available to the Group's employees on Studsvik's intranet.

Board members	Elected	Attendance	Remuneration Committee	Audit Committee	Independent from company	Independent from major	Fee
Anders Ullberg, Chairman	2007	11/11	1/1	4/4	Yes	Yes	725
Anna Karinen, Vice Chairman	2003	11/11	1/1		Yes	No	225
Jan Barchan	2004	11/11	1/1		Yes	No	225
Peter Gossas	2013	11/11		4/4	Yes	Yes	375
Agneta Nestenborg	2010	10/11		3/4	Yes	Yes	300
Per Ekberg (Employee Rep)	2005	10/11					
Roger Lundström (Employee Rep) alternate	2006	4/11					
Linda Ekstrand (Employee Rep)	2016	10/11					
Jennifer Arnesson (Employee Rep) alternate	2017	9/11					

Audit Committee

The Board of Directors has set up an Audit Committee. The Committee monitors the effectiveness of the company's internal controls, management of the company's risks and assures the quality of the company's financial reporting. The Audit Committee consists of Peter Gossas (chair), Agneta Nestenborg and Anders Ullberg. The presenter on the Committee is the Chief Financial Officer. Apart from the Group's quarterly reports, during the year the Committee has taken note of and dealt with reports from the follow-up of internal controls. In addition, the Committee has been updated on the development of major current fixed price contracts, dealt with accounting matters, with particular focus on impairment testing, as well as continually following the progress of the Group's legal disputes. The company's auditors have reported their findings from the audit of the third-quarter closing (hard-close) and the audit of the annual accounts. The Committee meets before each reporting date and on more occasions if necessary. The Committee held four meetings during the year. The Audit Committee works in accordance with the instructions adopted annually by the Board of Directors and reports on its work to the Board of Directors.

Remuneration Committee

The Board has appointed a Remuneration Committee from among its number. The Remuneration Committee submits proposals to the Board for the President's salary and other conditions of employment and approves salaries and other conditions of employment for the Executive Group Management proposed by the President. The Committee also draws up the Board of Directors' proposals to the General Meeting concerning principles of remuneration and other conditions of employment for the Executive Group Management. The Committee held one meeting during the year. The Remuneration Committee works in accordance with the instructions adopted annually by the Board of Directors and reports on its work to the Board of Directors. The Remuneration Committee consists of Anders Ullberg (chair), Jan Barchan and Anna Karinen.

A description of benefits to senior management is given in note 39 on page 61-62.

Board fees

The total board fee paid by Studsvik AB for 2019 amounted to SEK 1,850,175 (1,850,000). In accordance with a resolution passed by the Annual General Meeting, the Chairman of the Board receives SEK 650,000 per year and ordinary members SEK 225,000 per year. No fee is paid to members appointed by the employee organizations. The chair of the Audit Committee receives a fee of SEK 150,000 per year and the members SEK 75,000 per year. No fee is paid to the Remuneration Committee. Board fees paid are presented in note 39 on page 61–62.

Auditors

At the 2019 Annual General Meeting the registered public accounting firm PricewaterhouseCoopers AB was elected as auditor for the period up to and including the 2020 Annual General Meeting. The auditor in charge is authorized public accountant Martin Johansson. PricewaterhouseCoopers conducts the audit of all the Group's material companies. The audit is based on an audit plan and during the year the auditor regularly reports findings to the Audit Committee and on at least one occasion to the Board of Directors. The auditor obtains views from the Audit Committee concerning Studsvik's risks, which are thereafter given particular consideration in the audit plan. The auditor also participates in the Annual General Meeting to present the auditor's report and describe the audit work and findings.

In addition to the audit assignment, Studsvik has consulted PricewaterhouseCoopers in the area of taxation and on various accounting and financial issues. PricewaterhouseCoopers is obliged to test its independence prior to every decision to provide advice to Studsvik unrelated to the audit assignment. Advisory services in excess of SEK 50,000 are to be approved in advance by the chairman of the Audit Committee. Remuneration to the company's auditors is paid in accordance with an approved invoice on agreed terms. For information concerning remuneration in 2019 please refer to notes 8 and 44.

President/CEO and Executive Group Management

The President is responsible for the day-to-day management of the company. The President/CEO leads the operative business and prepares information and data for decision-making for the Board of Directors and is the presenter at Board meetings. In 2019 the Executive Group Management consisted of the President/CEO, the Chief Financial Officer and the heads of the business areas; Fuel and Materials Technology, Waste Management Technology and Scandpower. The Executive Group Management is presented on pages 76-77 of the annual report and on the website under Executive Group Management.

The Executive Group Management meets monthly to follow up the operative and financial developments in the segments. On two to three occasions during the financial year the Executive Group Management meets to deal in more detail with matters of an operative, strategic or long-term nature.

The President/CEO and Group functions are located in Studsvik. In accordance with the policies and guidelines established by the Board, the Group functions are responsible for business development, allocation of financial resources among the Group's operations, capital structure, risk management and human resources. The tasks also include questions concerning Group wide acquisitions and disposals, certain major projects, the Group's financial reporting, communication with the stock market and other internal and external communication.

Operative management

The Group's operative business was conducted during the year in subsidiaries, which are included in the four business areas. Operations in the business areas were followed up partly through business area reviews, partly through active board work in the subsidiaries. The business area reviews, which take place quarterly, not only analyze and discuss financial developments, but also market developments, risks and sustainability issues, among other things. The management groups for the business areas follow the business areas' day to day activities on a monthly basis. Business plans and budgets are prepared by each business area in consultation with the Executive Group Management. The business is carried on in accordance with the rules, guidelines and policies established by the parent company, and local rules established by the respective local board. The heads of business areas have budget responsibility and are to ensure growth in their operations as well as being responsible for utilizing the synergies between the Group's various units.

Internal control

Internal control aims to ensure:

- that company goals and strategies are followed up,
- that shareholders' interests are protected,
- that external financial reporting reflects the actual situation with reasonable assurance,
- that financial reports are prepared in accordance with generally accepted accounting principles, laws and ordinances and other requirements of listed companies.

The Board of Directors has the overall responsibility for ensuring the Group has effective internal controls. The President is responsible for ensuring that processes and organization that guarantee internal control and the quality of financial reporting are in place. Studsvik has no special internal audit function. The review and internal control are performed by an external consultant on behalf of the Chief Financial Officer, which the Board has found to be appropriate. The audit is based on an overall risk analysis at Group level, as well as on checklists and question lists in material for self-assessment that is subsequently verified from the point of view of materiality through direct audit The audit is conducted via interviews and spot checks and is summarized in a report to the Audit Committee, where it is dealt with. A detailed description of the Group's risks and how they are managed is presented in the Administration Report on pages 10–30. An account of the Group's financial risks can be found in note 2 on pages 44–46.

The outcome of the examination is reported to the Audit Committee and the Board. The company's financial situation is discussed at every board meeting and the management makes a monthly analysis of the financial reporting at a detailed level. At its meetings the Audit Committee follows up the financial reporting and receives a report from the auditors.

Statement by the auditor on the corporate governance report

To the General Meeting of Shareholders of Studsvik AB (publ), corporate identity number 556501-0997

Assignment and division of responsibilities

The Board of Directors is responsible for the corporate governance report for 2019 on pages 70–73 and for its preparation in accordance with the Annual Accounts Act.

Focus and scope of the examination

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

Opinion

A corporate governance report has been prepared. Disclosures in accordance with Chapter 6, Section 6, second paragraph, points 2–6 of the Annual Accounts Act and Chapter 7, Section 31, second paragraph of the same Act are consistent with the annual accounts and consolidated accounts and are in accordance with the Annual Accounts Act.

Stockholm, March 13, 2020
PricewaterhouseCoopers AB

Martin Johansson
Authorized public accountant

BOARD OF DIRECTORS AND AUDITORS

Anders Ullberg
Danderyd, born in 1946
Chairman since 2007
Former President and CEO of SSAB Svenskt Stål. Chairman of the board of Boliden and Eneqvist Consulting and member of the board of Atlas Copco, Beijer Alma, Epiroc and Valedo Partners. Chair of the Swedish Financial Reporting Board and board member of the European Financial Reporting Advisory Group
Education: Graduate business administrator
Holding: 60,000 shares

Anna Karinen
Sparreholm, born in 1963
Member since 2003, Vice Chairman since 2007
Self-employed, in commercial real estate management, member of the board of the Flen local branch of Handelsbanken.
Education: Bachelor of laws
Holding: 1,327,492 shares

Jan Barchan
Malmö, born in 1946
Member since 2004
President of Briban Invest AB, member of the board of Audiodev AB and member of the board of Net Insight AB, Trianon AB and Trialbee AB
Education: Graduate business administrator
Holding: 1,285,492 shares

Peter Gossas
Mora, born in 1949
Member since 2013
Previously President of the Sandvik Materials Technology business area Chairman of the board of Maintpartner Group OY. Industrial Advisor at Peter Gossas AB and KIGO Business Development.
Education: M.Sc. Engineering physics
Holding: 2,000 shares

Agneta Nestenborg
Kävlinge, born in 1961
Member since 2010
Director, Project Support & Administration, European Spallation Source ERIC. Member of the board of Dynasafe Demil Systems AB
Education: Ph.D. and MBA
Holding: 2,000 shares

EMPLOYEE REPRESENTATIVES

Linda Ekstrand
Nyköping, born in 1982
Member since 2017, alternate 2016
Employee representative appointed by the Swedish Association of Graduate Engineers, works at Studsvik Waste Management Technology AB
Education: M.Sc.
Holding: 65 shares

Per Ekberg
Nyköping, born in 1959
Member since 2018, alternate 2017- 2006
Employee representative appointed by Unionen. Works in the materials research department at Studsvik Nuclear AB
Education: Power generation technology
Holding: 100 shares

Roger Lundström
Nyköping, born in 1966
Alternate since 2018, member 2017- 2005, alternate 2003–2005
Employee representative appointed by Unionen. Works in microscopy and damage analysis at Studsvik Nuclear AB
Education: Mechanical engineer
Holding: 0 shares

Jennifer Arnesson
Huddinge, born in 1989
Alternate since 2017.
Employee representative appointed by the Swedish Association of Graduate Engineers, works at Studsvik Waste Management Technology AB
Education: Higher education qualification in nuclear power engineering
Holding: 0 shares

AUDITOR

PricewaterhouseCoopers AB
Auditor in charge: Martin Johansson
Year of birth 1967
Auditor of Studsvik since 2016
Other assignments: Melker Schörling AB, Endomines AB, Orio AB and Toyota Industries Europe AB


ANDERS ULLBERG


ANNA KARINEN


JAN BARCHAN


PETER GOSSAS


AGNETA NESTENBORG


LINDA EKSTRAND


PER EKBERG


ROGER LUNDSTRÖM


JENNIFER ARNESSON

EXECUTIVE GROUP MANAGEMENT

Camilla Hoflund
President and Chief Executive Officer
Education: Mining engineer, Materials technology
Born: 1969
Year of employment: 1994–2000, 2003
Background: Consultant and business developer at Det Norske Veritas and other senior positions in the group
Holding: 8,200 shares

Claes Engvall
Chief Financial Officer
Education: Graduate business administrator
Born: 1964
Year of employment: 2019
Background: Leading positions at BillerudKorsnäs, PostNord and Ericsson
Holding: 1,600 shares

Joakim Lundström
Head of Fuel and Materials technology business area
Education: M.Sc. Engineering physics
Born: 1978
Year of employment: 2002
Background: Various leading positions at Studsvik Nuclear AB
Holding: 0 shares

Mikael Karlsson
Head of Waste Management Technology business area
Education: M.Sc. Engineering physics
Born: 1962
Year of employment: 1989
Background: Several leading positions in the Group
Holding: 2,101 shares

Steven Freel
Head of Scandpower business area
Education: BSc Mechanical Engineering and MBA
Born: 1964
Year of employment: 2016
Background: Administrative and technical manager at GSE Systems Inc. and other leading positions in SAIC and Raytheon
Holding: 0 shares

Arthur DiGiovine, Senior Vice President- Business development, is a coopted member of the Executive Group Management.

CAMILLA HOFLUND

CLAES ENGVALL

JOAKIM LUNDSTRÖM

MIKAEL KARLSSON

STEVEN FREEL

FIVE YEAR REVIEW

CONDENSED INCOME STATEMENTS

Amounts in SEK million	2015	2016	2017	2018	2019
Sales revenues	721.2	758.8	704.8	726.1	654.0
Cost of services sold	–538.2	–535.3	–539.1	–551.2	–496.9
Gross profit	**183.0**	**223.5**	**165.7**	**174.9**	**157.1**
Selling and marketing costs	–36.4	–44.4	–44.2	–39.9	–51.1
Administrative expenses	–93.1	–112.8	–116.9	–107.9	–102.0
Research and development costs	–25.1	–27.5	–28.2	–9.0	–8.8
Participation in associated company's profit before tax	11.6	4.1	8.7	10.6	9.5
Other, net	–3.4	–18.2	–26.7	4.9	–15.1
Operating profit/loss	**36.6**	**24.7**	**–41.6**	**33.5**	**–10.4**
Net financial items	–17.7	–16.4	–17.1	–14.9	–12.4
Profit/loss after financial items	**18.9**	**8.3**	**–58.6**	**18.7**	**–22.8**
Income tax	–4.3	8.7	13.7	–10.0	–5.2
Profit/loss for the year from continuing operations	**14.6**	**17.0**	**–45.0**	**8.7**	**–28.0**
Operations held for sale					
Profit/loss for the year from operations held for sale	–12.2	46.0	–	–	–
NET PROFIT/LOSS FOR THE YEAR	**2.4**	**63.0**	**–45.0**	**8.7**	**–28.0**

CONDENSED BALANCE SHEETS

Amounts in SEK million	2015	2016	2017	2018	2019
Assets					
Goodwill	172.0	173.7	173.4	182.1	187.9
Other non-current assets	481.9	273.4	283.2	301.4	336.1
Trade receivables	196.6	150.8	158.9	145.7	160.0
Other non-interest-bearing current assets	68.1	107.7	110.7	115.9	84.0
Cash and cash equivalents and short-term investments	74.9	195.4	98.7	155.9	40.2
Assets in operations held for sale	–	–	–	–	–
Total assets	**993.5**	**901.0**	**824.9**	**900.6**	**808.2**
Equity and liabilities					
Equity	297.9	348.1	288.1	315.8	302.4
Non-controlling interests	0.3	0.4	0.3	0.4	0.4
Long-term interest-bearing liabilities	1.0	198.2	199.9	0.0	46.5
Long-term non-interest-bearing liabilities	238.0	161.7	164.8	166.6	155.9
Short-term interest-bearing liabilities	208.2	–	–	199.9	76.6
Short-term non-interest-bearing liabilities	248.1	192.6	171.8	217.9	226.4
Liabilities in operations held for sale	–	–	–	–	–
Total equity and liabilities	**993.5**	**901.0**	**824.9**	**900.6**	**808.2**

CONDENSED CASH FLOW STATEMENTS

Refers to total operations

Amounts in SEK million	2015	2016	2017	2018	2019
Operating result	24.4	70.0	–41.6	33.5	–10.4
Reversal of depreciation/amortization	33.5	20.8	16.1	19.4	29.0
Other non-cash items	–4.8	–64.4	–	–3.1	–28.1
Cash flow from operating activities	**53.1**	**26.4**	**–25.5**	**49.8**	**–9.5**
Net financial items	–11.5	–25.5	–9.0	–14.4	–9.2
Tax	–6.9	–8.3	–6.5	–6.4	–9.7
Cash flow before changes in working capital	**34.7**	**–7.4**	**–41.0**	**29.1**	**–28.4**
Changes in working capital	–41.3	–48.7	–32.1	51.2	14.9
Cash flow before investments	**–6.6**	**–56.1**	**–73.1**	**80.3**	**–13.5**
Investments	–23.2	185.6	–11.0	–26.1	–25.3
Cash flow after investments	**–29.8**	**129.5**	**–84.1**	**54.2**	**–38.8**

DATA PER SHARE	2015	2016	2017	2018	2019
Number of shares at close of period	8,218,611	8,218,611	8,218,611	8,218,611	8,218,611
Average number of shares	8,218,611	8,218,611	8,218,611	8,218,611	8,218,611
Earnings per share from continuing operations before and after dilution, SEK	1.78	2.07	–5.47	1.06	–3.41
Earnings per share from operations held for sale before and after dilution, SEK	–1.49	5.6	–	–	–
Earnings per share before and after dilution, SEK	0.29	7.67	–5.47	1.06	–3.41
Equity per share, SEK	36.30	42.41	35.09	38.47	36.84

KEY FINANCIAL FIGURES AND RATIOS	2015	2016*	2017	2018	2019
Margins					
Operating margin, %	5.1	3.2	–5.9	4.6	–1.6
Profit margin, %	2.6	–0.1	–8.3	2.6	–3.5
*Return on investment**					
Return on operating capital, %	8.9	6.3	–11.2	9.9	–2.8
Return on capital employed, %	12.0	7.3	–7.8	7.4	–0.2
Return on equity, %	0.8	2.5	–14.1	2.9	–9.0
Capital structure					
Operating capital, SEK million	432.6	351.3	389.6	360.6	385.7
Capital employed, SEK million	507.5	546.7	488.3	516.1	425.9
Equity, SEK million	298.3	348.5	288.4	316.2	302.8
Net interest-bearing debt, SEK million	134.3	2.9	101.2	44.4	82.9
Net debt-equity ratio, %	45.0	0.8	35.1	14.0	27.4
Interest coverage ratio	1.8	1.3	–2.6	2.0	1.1
Equity-assets ratio, %	30.0	38.7	35.0	35.1	37.5
Cash flow					
Self-financing ratio, multiple	–	–	–	–	–
Investments, SEK million	14.6	15.3	22.1	32.1	32.7
EBITDA	51.2	40.0	–25.0	53.0	18.6
EBITDA/Net financial items	2.9	2.4	–1.5	–3.6	–1.5
Employees					
Average number of employees	708	687	662	624	552
Net sales per employee, SEK million	1.1	1.1	1.1	1.2	1.2

* Calculation based on continuing operations.

DEFINITIONS OF KEY FIGURES AND RATIOS

EBITDA
Operating result before amortization and impairment.

EBITDA/Net financial items
Operating result before amortization and impairment divided by net financial items.

Equity
The total of non-restricted and restricted equity at the end of the year. Average equity has been calculated as opening balance plus closing balance of equity, divided by two.

Equity per share
Equity divided by the number of shares at the end of the period.

Sales revenue per employee
The year's net sales divided by the average number of employees.

Investments
Total of the acquisition of businesses/subsidiaries and acquisition of intangible assets and property, plant and equipment

Average number of employees
Average number of employees at the end of each month.

Net debt
Total long-term and short-term borrowing less cash and cash equivalents.

Net debt/equity ratio
Interest-bearing net debt divided by equity including non-controlling interests.

Operating capital
The balance sheet total less non-interest-bearing liabilities, current investments, cash and bank balances. Average operating capital has been calculated as opening balance plus closing balance of operating capital, divided by two.

P/E ratio
Share price divided by earnings per share.

Earnings per share
Profit for the year divided by the average number of shares. The average number of shares has been calculated as a weighted average of all shares in issue for the year.

Return on equity
Profit for the year as a percentage of average equity.

Return on operating capital
Operating result as a percentage of average operating capital.

Return on capital employed
Profit/loss after financial items with financial expenses added back, as a percentage of average capital employed.

Net interest-bearing debt
Total of current and long-term interest-bearing liabilities less current investments and cash and bank balances.

Interest coverage ratio
Profit after financial income divided by financial expense.

Operating margin
Operating result after amortization as a percentage of net sales.

Self-financing ratio
Cash flow before investments divided by investments.

Equity-assets ratio
Equity including non-controlling interests as a percentage of the balance sheet total.

Capital employed
Balance sheet total less non-interest-bearing liabilities. Average capital employed has been calculated as opening balance plus closing balance of capital employed, divided by two.

Profit margin
Profit/loss after financial items as a percentage of net sales.

Studsvik Worldwide

SWEDEN
Studsvik AB
SE-611 82 Nyköping
Visiting address: Studsvik
Tel: + 46 155 22 10 00
Fax: + 46 155 26 30 70

Studsvik Nuclear AB
SE-611 82 Nyköping
Visiting address: Studsvik
Tel: +46 155 22 10 00
Fax: + 46155 26 30 70

Studsvik Waste Management Technology AB
SE-611 82 Nyköping
Tel: +46 155 22 10 00
Fax: + 46 155 26 30 70

Studsvik Scandpower AB
Stensborgsgatan 4
SE-721 32 Västerås
Tel: +46 21 41 57 83

JAPAN
Studsvik Japan Ltd
Rinku Gate Tower
Building 1409,
1 Rinku Oraikita,
Izumisano-city,
Osaka, 598-0048 Japan
Tel / Fax: +81 (0)72 493 7418

CHINA
Studsvik Engineering Technology Ltd
Level 26, Fortune Financial
Center, No. 5, Central East
3rd Ring Rd., Chaoyang
District, Beijing, China
Tel: +86 10 5775 0535

SWITZERLAND
Studsvik Suisse AG
Schlösslistrasse 12,
CH-5408 Ennetbaden,
Switzerland
Tel: + 41 79 501 42 08

UNITED KINGDOM
Studsvik Ltd
Ribble Hurse
Meany Gate
Bamber Bridge, Preston
PR5 6UP, United Kingdom
Tel: +44 (0) 1772 646880
Fax: +44 (0) 1772 646899

GERMANY
Studsvik Scandpower GmbH
Rathausallee 28
DE-22846 Norderstedt
Germany
Tel: +49 40 3098 088 10
Fax: +49 40 3098 088 88

Studsvik GmbH & Co. KG
Walter-Krause-Str. 11
DE-68163 Mannheim
Germany
Tel: + 49 (0) 621 950 403 01
Fax: + 49 (0) 621 950 403 02

USA
Studsvik Scandpower, Inc.
101 North Third Street, Suite
202
Wilmington, NC 28401 USA
Tel: +1 910 777 2553
Fax: + 1 910 769 3249

Studsvik, Inc.
5605 Glenridge Dr
Suite 670
Atlanta, GA 30342
USA
Tel: +1 404 497 4900
Fax: +1 404 497 4901

Studsvik AB (publ) Annual Report 2019 Corporate identity number 556501-0997

Studsvik

Studsvik AB (publ)
SE-611 82 Nyköping
Telephone +46 155 22 10 00
www.studsvik.com