HIGHLIGHTS

- New strategic agenda to increase decentralization and accountability
- Consolidation into three business areas and non-strategic operations identified
- New financial targets
- Market conditions remained muted overall, however improved as the year progressed with positive order growth achieved in the fourth quarter
- Increased focus on digitalization, automation and intelligent tools
- Commercialization of additive manufacturing; new product area established
- Lost time injury frequency rate (LTIFR) at 1.7, lowest in the Group’s history
- Increased scores in the 2016 Dow Jones Sustainability Index (DJSI) and reconfirmation as a constituent of the FTSE4Good Index Series and the Ethibel Sustainability Index (ESI) Excellence Europe

<table>
<thead>
<tr>
<th>REVENUES, MSEK</th>
<th>OPERATING PROFIT, MSEK</th>
<th>OPERATING MARGIN, %</th>
</tr>
</thead>
<tbody>
<tr>
<td>81,553</td>
<td>11,018</td>
<td>13.5</td>
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</table>

<table>
<thead>
<tr>
<th>ORDER INTAKE, MSEK</th>
<th>PROPOSED DIVIDEND, SEK</th>
<th>RETURN ON CAPITAL EMPLOYED, %</th>
</tr>
</thead>
<tbody>
<tr>
<td>81,861</td>
<td>2.75</td>
<td>14.7</td>
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</table>

<table>
<thead>
<tr>
<th>EARNINGS PER SHARE, GROUP TOTAL, SEK</th>
<th>LOST TIME INJURY FREQUENCY RATE, GROUP TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.39</td>
<td>1.7</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>RECOVERED METALLIC RAW MATERIAL, %</th>
<th>SHARE OF WOMEN, GROUP TOTAL, %</th>
</tr>
</thead>
<tbody>
<tr>
<td>78</td>
<td>19.4</td>
</tr>
</tbody>
</table>
HIGH-TECH AND GLOBAL ENGINEERING GROUP

Sandvik is a high-tech and global engineering Group with approximately 43,000 employees and sales in more than 150 countries. We have a strong focus on enhancing customer productivity, profitability and sustainability. Our operations are based on unique expertise in materials technology, extensive knowledge of industrial processes and close customer cooperation.

OUR BUSINESS AREAS

SANDVIK MACHINING SOLUTIONS
A market-leading manufacturer of tools and tooling systems for advanced metal cutting.

SANDVIK MINING AND ROCK TECHNOLOGY
A leading supplier in equipment and tools, service and technical solutions for the mining industry and rock excavation within the construction industry.

SANDVIK MATERIALS TECHNOLOGY
A world-leading developer and manufacturer of advanced stainless steels, powder-based alloys and special alloys for the most demanding industries.

<table>
<thead>
<tr>
<th>SHARE OF REVENUES</th>
<th>SHARE OF OPERATING PROFIT</th>
</tr>
</thead>
<tbody>
<tr>
<td>40%</td>
<td>59%</td>
</tr>
<tr>
<td>38%</td>
<td>27%</td>
</tr>
<tr>
<td>16%</td>
<td>9%</td>
</tr>
</tbody>
</table>

OTHER OPERATIONS
Sandvik Process Systems and Sandvik Hyperion have been identified as non-strategic operations and are placed outside the business area structure in "Other Operations". Sandvik’s ambition is to exit these businesses. Share of the Group’s revenues was 6% and share of operating profit was 5% in 2016.

DISCONTINUED OPERATIONS
Mining Systems’ business, that the Group intends to divest, was classified as discontinued operations already in 2015 and the process to exit the business continued during 2016.
2016 was a positive and eventful year for Sandvik with several significant changes. We took considerable actions to move accountability closer to the business. These measures are important to strengthen our entrepreneurial way of working, ensure continuous improvements and promote agility in responding to customer needs. For me, it is important that Sandvik is a great company to work for and to own. We shall be leading in the industries in which we operate and we strengthened our core businesses during the year.

The new strategic direction that we established during the year focuses on decentralization and that decisions are made closer to customers. We moved the profit and loss responsibility to the product areas, i.e. to our different businesses, and established new management teams for many of these. This is the foundation for Sandvik to drive performance and become faster in the response to changing customer demand.

I believe that strong performance is about small improvements every day and we are fully committed to deliver in line with the new targets that we have communicated. Together with our new decentralized business model, they will support revenue growth, internal performance improvements and a more cost-efficient organization that is focused on driving profitable growth and ensuring a generous dividend.

The new organizational structure and the adjusted ways of working will certainly contribute to securing a stable and profitable business moving forward. This, in turn, will allow us to invest and make new acquisitions more in line with our core businesses.

Our vision is to set the industry standard in the eyes of our customers. This involves not only being the number one choice for our customers in our selected segments, but also keeping ahead of other actors on the market.

Sustainability is crucial to our ability to create increased customer value, enabling us to help our customers become safer, more efficient and more productive. Climate change is an increasingly important issue. Our high performing products can meet the growing customer demand for low-carbon and more sustainable solutions. Safety is a key focus area for Sandvik. We continue to improve and I am satisfied that we reduced our Lost time injury frequency (LTIFR) to 1.7 (2.2) in 2016. However, despite the fact that we are making progress, we will not be completely satisfied until we achieve zero accidents.

Our increased decentralization and the changes we are now focusing on are the foundation for our capability to deal with anticipated market trends and variations in the business climate. We will continue to be a market leader, secure even better results and market shares, as well as continue to be an attractive company to work for and to own.

Björn Rosengren
President and CEO
OUR WAY FORWARD

VISION – WE SET THE INDUSTRY STANDARD
Our ambition is to set the benchmark for others to follow by continuously improving our offering, market presence and level of service.

We strive to be number one or two in the eyes of our customers, within our chosen segments and markets.

BUSINESS IDEA
Sandvik’s business idea is to develop, manufacture and market highly processed products and services based on our core capabilities that enhance customer productivity, profitability and sustainability.

Our operations are primarily concentrated in areas where Sandvik is, or has the potential to become, a world leader.

FINANCIAL TARGETS

<table>
<thead>
<tr>
<th>Metric</th>
<th>Target</th>
<th>Outcome 2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>EBIT Growth (CAGR)</td>
<td>≥7%</td>
<td>+3.1%</td>
</tr>
<tr>
<td>ROCE Improvement</td>
<td>≥3% PTS</td>
<td>+1%-point</td>
</tr>
<tr>
<td>Net Debt/Equity Ratio</td>
<td>&lt;0.8</td>
<td>0.7</td>
</tr>
<tr>
<td>Dividend payout ratio</td>
<td>50%</td>
<td>63%²</td>
</tr>
</tbody>
</table>

1) 2016-2018
2) Based on proposed dividend of 2.75 SEK per share.

STRATEGIC AGENDA

Focus on core operations and be no 1 or 2 in chosen markets and segments
Technology leadership and innovation
Accountability and decisions close to customers
Stability and profitability before growth
Efficiency and continuous improvements
Culture of doing things right
Exceptional people

SUSTAINABLE BUSINESS

SHAREHOLDER VALUE
CUSTOMER VALUE
EMPLOYEE VALUE
OUR STRATEGY

OUR SEVEN FOCUS AREAS

FOCUS ON CORE CAPABILITIES AND TO BE NUMBER ONE OR TWO IN CHOSEN SEGMENTS AND MARKETS
We focus on areas where we are or can become world leading and the customers’ first choice. By focusing on our core capabilities – material knowledge, close cooperation with customers to develop our offering, and ability to industrialize – we ensure our world-leading position within metal cutting, mining and rock technology and advanced material knowledge.

TECHNOLOGY LEADERSHIP AND INNOVATION
We strive to be a technology leader within our chosen segments and markets, by investing in product innovation and R&D, efficient time-to-market processes and through close cooperation with our customers.

ACCOUNTABILITY AND DECISIONS CLOSE TO CUSTOMERS
We ensure a high degree of accountability by taking decisions close to customers through a decentralized, entrepreneurial way of working.

STABILITY AND PROFITABILITY BEFORE GROWTH
We will focus on stability and profitability before growth. This involves ensuring we have the right organizational structure, strong management, efficient working processes and that our businesses ensure stable, predictable results as a prerequisite before driving growth.

EFFICIENCY AND COST REDUCTIONS
We strive to achieve efficiency through continuous improvements. This involves promoting a culture of implementing small every-day improvements to increase our own productivity, efficiency and, consequently, achieve cost reductions – and ultimately ensure operational excellence.

CULTURE OF DOING THINGS RIGHT
We believe that high ethical standards and strong values create long-term value for customers, employees and other stakeholders. Through our values, our Code of Conduct and key policies, all encompassed within our governance model, The Sandvik Way, we set clear standards for “doing things right”. These key principles apply to all parts of Sandvik and are non-negotiable for all employees and entities. Our Speak Up and investigations process supports central principles within internal control, compliance and internal audit to build a stable foundation for Sandvik’s long-term business.

EXCEPTIONAL PEOPLE
We promote a culture that attracts, develops and retains exceptional people, and ensures that Sandvik is a great place to work. This is fundamental to our success.
SUSTAINABLE BUSINESS

We have a long history of responsible business conduct. We are convinced that we can create a more sustainable future together with our customers, employees, shareholders and other stakeholders. Our sustainable business strategy, revised in 2016, aims to further integrate these matters into our core operations, and promote a greater understanding of how our offerings can contribute to a better future.

TWO IMPACT AREAS – EIGHT DIMENSIONS

OUR OFFERINGS

The impact occurs outside of our operations

- Innovation and productivity
- Health and safety
- Environmental impact
- Use, reuse and recycle

OUR OPERATIONS

The impact of our operations – everything we do to produce products and services

- Governance
- Partners
- Environmental footprint
- People

MAKING OUR CUSTOMERS MORE SUSTAINABLE

We develop products, solutions and services that enhance our customers’ productivity and competitiveness while reducing environmental impact, and promoting health and safety for our customers’ employees. We work with our customers throughout the product’s life cycle by providing service and aftermarket support, such as in customer buy-back programs which enable us to recover and recycle used products.

PROMOTING SUSTAINABILITY IN OUR OPERATIONS

We work continuously to improve our internal processes, to address aspects such as our supplier management, energy use, emissions, water consumption, anti-corruption, fair working conditions as well as other human rights.

MATERIAL ASPECTS

We conduct a materiality analysis on a regular basis. This analysis provides us with a clear direction and indicates the most significant aspects of the sustainability agenda for us at a particular point in time. For 2013–2016 the following areas were defined as material by our Group executive management:

- Compliance
- Sustainable supplier management
- Use, reuse and recycle of materials and natural resources
- Energy, emissions and climate change
- Health and safety
- Diversity and inclusion
- Talent attraction, development and retention
CUSTOMER SEGMENTS

MINING

We deliver drill rigs, rock-drilling tools and systems, mobile and stationary crushers, load and haul machines, tunneling equipment, continuous mining and mechanical cutting equipment, as well as various solutions to increase automation, safety and customer productivity.

SHARE OF GROUP REVENUES 2016: 27%

ENGINEERING

Our tools and tooling systems for metal cutting as well as advanced materials and components are used in engineering industries worldwide, improving productivity, profitability, quality, output, safety and environment.

SHARE OF GROUP REVENUES 2016: 23%

AUTOMOTIVE

Our cemented-carbide tools and tooling systems for turning, milling and drilling in metals raise productivity when manufacturing e.g. engines and transmissions. Our stainless and high-alloy products are found in, for example, safety belts, airbags, brakes, air conditioning and various instruments.

SHARE OF GROUP REVENUES 2016: 14%
ENERGY

Sandvik offers solutions for all forms of energy production, including clean and renewable energy. We supply stainless and high-alloy products as well as tools and tooling systems to satisfy the industry’s metal-cutting needs.

SHARE OF GROUP REVENUES 2016:

12%

CONSTRUCTION

We provide solutions for the breaking, drilling, tunneling, crushing and screening niches of the construction industry.

SHARE OF GROUP REVENUES 2016:

12%

AEROSPACE

Sandvik works closely with the world's aerospace companies. As they apply new materials to manufacture airplanes that are lighter, safer and more fuel efficient, advanced tooling solutions and lightweight materials from the Group are critical.

SHARE OF GROUP REVENUES 2016:

6%
SANDVIK MACHINING SOLUTIONS

Sandvik Machining Solutions is a market-leading manufacturer of tools and tooling systems for advanced industrial metal cutting. The focus is on increasing customer productivity by providing products, services and applications know-how.

2016 IN FIGURES

Revenues: 32,852 million SEK (33,809) with -2% organic growth
Operating profit: 6,970 million SEK (5,504)
Operating margin: 21.2% (16.3)
Adjusted operating profit: 6,970 million SEK (6,814)
Adjusted operating margin: 21.2% (20.2)
President: Jonas Gustavsson (Klas Forsström as of April 2017)
Gender balance: Men 80.2%, Women 19.8%
Lost time injury frequency rate (LTIFR): 1.6
Share of recovered metallic raw material: 53%

2016 IN SHORT

Despite negative organic growth Sandvik Machining Solutions improved the operating margin, supported by the ongoing structural program for consolidation of the manufacturing footprint, reduction of front- and back-office resources as well as a general tight cost control.

Launch of 11,000 new products focused on the core segments and applications, including the introduction of the first digital tools on the market. These launches are essential to maintain the global No.1 position.

The integration of the product area Powder and Blanks Technology was successful. It consists of the tungsten mine and recycling business Wolfram Bergbau und Hütten as well as the internal supply of round tool blanks in Sandvik Hyperion. Both operations were previously within the former business area Sandvik Venture.

RESEARCH AND DEVELOPMENT – NEW PRODUCT HIGHLIGHT

COST-EFFICIENT METAL-CUTTING TOOL

CoroMill® 745 is a new, double-sided, face milling concept that offers light cutting action with smooth, soft sound for a good working environment. The innovative design from Sandvik Coromant offers benefits such as excellent chip formation and low power consumption, while providing the cost-efficiency that only 14 true cutting edges can bring.
SANDVIK MINING AND ROCK TECHNOLOGY

Sandvik Mining and Rock Technology is a leading supplier in equipment and tools, service and technical solutions for the mining and construction industries. Application areas include rock drilling, rock cutting, crushing as well as screening, loading and hauling, tunneling, quarrying and breaking and demolition.

2016 IN FIGURES

Revenues: 31,093 million SEK (33,131) with -3% organic growth
Operating profit: 3,206 million SEK (2,417)
Operating margin: 10.3% (7.3)
Adjusted operating profit: 3,206 million SEK (3,492)
Adjusted operating margin: 10.3% (10.5)
President: Lars Engström
Gender balance: Men 86.2%, Women 13.8%
Lost time injury frequency rate (LTIFR): 1.1
Share of recovered metal raw material: 91% (metallic input material used in manufacturing, excluding assembled metal parts)

2016 IN SHORT

During 2016 we successfully merged the previous business areas Sandvik Mining and Sandvik Construction, creating Sandvik Mining and Rock Technology. In doing so, also implementing a more decentralized business model, where the highest operating level lies with the established eight product areas. This will bring higher transparency, accountability and speed to the organization, for improved cost control and performance.

During the year we successfully completed important product launches offering sustainable productivity for customers. We expanded the electrical equipment offering to also include the first battery driven underground drill rig, as well as a battery driven underground loader. Both products offering zero emissions, driving safety and reducing expensive ventilation requirements in the mine.

RESEARCH AND DEVELOPMENT – NEW PRODUCT HIGHLIGHT

100% ELECTRIC TRAMMING

Sandvik DD422iE mining jumbo launched in 2016 uses electric energy from an onboard battery during tramming. It produces zero emissions while maneuvering between headings. This improves health and safety for miners working underground. Lower diesel consumption in the mine can ease ventilation requirements while also reducing associated diesel logistics and maintenance expenses.

* Only for mining-related revenues, i.e. 69% of total revenues.
SANDVIK MATERIALS TECHNOLOGY

Sandvik Materials Technology is a world-leading developer and manufacturer of advanced stainless steels, powder-based alloys and special alloys for the most demanding industries, as well as products for industrial heating. The focus is on making customers’ processes safer and more efficient while reducing the environmental impact.

2016 IN FIGURES

Revenues: 12,931 million SEK (13,909) with -7% organic growth
Operating profit: 1.115 million SEK (8)
Operating margin: 8.6% (0.1)
Adjusted operating profit*: 1,115 million SEK (818)
Adjusted operating margin*: 8.6% (5.9)
President: Petra Einarsson
Gender balance: Men 81.9%, Women 18.1%
Lost time injury frequency rate (LTIFR): 4.7
Share of recovered metallic raw material: 78%

2016 IN SHORT

Despite the negative organic growth during 2016, the operating margin was stable year-on-year, supported by an extensive mitigation program – including flexibility solutions to manage volatility, general strict cost control and the ongoing cost adjustment programs. To further strengthen the position in the oil and gas industry, a new state-of-the-art ultra-sonic testing line for OCTG-tubing (production tubing) was inaugurated in Sandviken, Sweden – and a new control line facility was taken into operation in Rio de Janeiro, Brazil. The capacity for fine powder used for e.g. additive manufacturing, was expanded in Neath, Wales. 142 new or modified alloys were added to the materials program and 161 patents were granted for new materials, applications or production processes.

RESEARCH AND DEVELOPMENT – NEW PRODUCT HIGHLIGHT

MAJOR ENERGY SAVINGS WITH FIBROTHAL® GSO

Fibrothal® GSO heating modules offer energy savings and increased customer flexibility in industrial furnaces. The compact design enables use in tougher conditions, with great adaptability in power-voltage and design, offering unique customer benefits within the automotive and power industries.
BUILDING A HIGH-PERFORMING ORGANIZATION

We are a multifaceted company that recognizes and benefits from diversity both in our business and our employees. We strive to realize the full potential of our employees and equip them to take ownership for their career development. This, in turn, enables them to contribute with experience and expertise to deliver results and attain business success.
HEALTH AND SAFETY
We have a vision of Zero Harm; zero harm to our people, our customers, our suppliers and the environment we work in. Sandvik aims to have a first-class EHS culture where all employees have the mindset and awareness that workplace safety is fundamental and that accidents can never be accepted. During 2016, we adopted new 2016-2020 objectives for the company that the business areas assume responsibility for applying and breaking down to specific plans for their operations. We have also developed new targets in order to reduce the number of work-related injuries and illnesses.

A DIVERSE AND INCLUSIVE COMPANY
Having a diverse mix of people, one that reflects our markets to as great an extent as possible, is a competitive advantage. It enriches our customer relationships and supports our development as a company.

ATTAIN THE RIGHT PEOPLE
Our people are a vital asset to the company. We work to attract the best talent and once in the company we want to make sure they have the opportunity to grow and develop, equipping them to take ownership of their development and career.

LEADERS ENABLE DEVELOPMENT
Competent leaders advance our business. They enable a strong performance culture, support the development of individuals and teams and realize change. Our leadership model is the foundation; it sets clear expectations on our managers’ capabilities and behaviors, and guides development activities.

ENGAGING EMPLOYEES
Enabling our employees to realize their full potential and take ownership for their career development is of great importance to us. Individual performance dialogs and team dialogs set the foundation, followed by development activities such as on the job training, collaboration and formal learning. To create internal mobility and utilize competence in the whole organization we strive for an open internal job market, where open positions are posted.

NUMBER OF EMPLOYEES BY MARKET AREA, 2016

<table>
<thead>
<tr>
<th>Market Area</th>
<th>Employees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Europe</td>
<td>24,091</td>
</tr>
<tr>
<td>Asia</td>
<td>8,021</td>
</tr>
<tr>
<td>North America</td>
<td>5,723</td>
</tr>
<tr>
<td>Africa/Middle East</td>
<td>2,755</td>
</tr>
<tr>
<td>South America</td>
<td>2,107</td>
</tr>
<tr>
<td>Australia</td>
<td>1,035</td>
</tr>
</tbody>
</table>

1) Restated to Full Time Equivalents (FTEs) at 31 December 2016.

LEADERS PARTICIPATED IN COMPANY LEADERSHIP PROGRAMS: 673
RETENTION OF NEW HIRES AFTER ONE YEAR: 90%
SHARE OF WOMEN IN MANAGEMENT: 16.5%
SHARE OF WOMEN IN TOTAL WORKFORCE: 19.4%
OUR ENVIRONMENTAL FOOTPRINT

In order to achieve a significantly reduced environmental footprint we focus our efforts in areas where we can deliver the most eco-efficient improvements and business advantages, for us and our customers.

Our environmental impact can be divided in two parts: direct impact from our production and transportation, and indirect impact which occurs in the supply chain, customer use and the phasing-out or recycling of our products. It is therefore important to take the entire value chain into account in our efforts to change our environmental footprint. This entails our products and customer solutions, our solutions within the area of transportation as well as supply of resources and purely internal operations.

ENERGY, EMISSIONS AND CLIMATE CHANGE
Global energy demands and environmental requirements drive development of new energy-efficient solutions with low environmental impact. Energy consumption, climate change and emissions are therefore important aspects in relation to our supply of raw materials, production and transportation.

USE, REUSE AND RECYCLING OF MATERIALS AND NATURAL RESOURCES
By prioritizing the use of recycled material as far as possible in our production processes, such as recovered metal resources and repurchased used tools, and by developing a valuable use for the by-products from our operations, we contribute to a more circular society. The production of stainless steel and special alloys is mainly based on recovered steel materials. In total for the Group, 78% of the metallic raw material derives from recovered material.

USE OF WATER
We continuously seek new ways to reduce consumption of freshwater and groundwater. We do this by developing more efficient processes or finding ways for reuse of water through recirculation, whenever possible.

WASTE MANAGEMENT
Sandvik’s operations give rise to various types of waste. Metal-liferous waste and other by-products are reused or recycled to the greatest extent possible. However, certain waste products, such as slag from stainless steel production as well as casting and tailings from tungsten enrichment, are still disposed of pending the further development of these types of waste into usable by-products. The total amount of waste declined by 11% (–4).
The mining automation system AutoMine® has improved safety and loader efficiency in the Kidd Operations copper and zinc mine in Timmins, Ontario, Canada, by allowing remote and automated, driver-free loader operation.

The mine has used Sandvik loaders for 25 years – some of which have been equipped with the mining automation system AutoMine® since 2012, to overcome the technical and logistical challenges of operating at depths of down to 9,889 feet (3,000 meters). These challenges include seismicity considerations, and transporting miners and materials from the surface, which can take over an hour.

Kerry Falk, Marketing Manager, Sales Area Canada, at Sandvik Mining and Rock Technology, tells us more.

HOW DO KIDD OPERATIONS USE AUTOMINE®?
The mining automation system AutoMine® enables Kidd Operations to operate their Sandvik LH514s for as many as 21 hours of mucking each day. They can continue mucking even between shifts and when conventional operations must stop due to safety precautions – such as during seismic activity following a blast and during gas checks on levels where no personnel are allowed.

WHAT HAVE BEEN THE CUSTOMER PRODUCTIVITY BENEFITS?
Effective production hours have increased by 30% compared with the customer’s conventional loaders. The mine has also been able to reduce its total loader fleet by three units, in part due to the gains from mining automation.

WHAT HAVE BEEN THE CUSTOMER HEALTH AND SAFETY IMPLICATIONS?
AutoMine® improves health and safety as the customer does not need to have operators in the automated production area. Operators can instead work from air-conditioned offices on the surface.

HOW DOES SANDVIK OPTIMIZE LONG-TERM CUSTOMER ADDED VALUE?
As part of our commitment to optimize the total added value for our customers in these challenging times of low commodity prices, we are not only measuring how AutoMine® increases productivity. We also evaluate how the system reduces fuel usage, emissions, and maintenance costs for Kidd Operations, and how the customer solution can be continuously improved over the long-term.

FACTS

AUTOMINE®
Allows operators to manage load-haul-dump trucks in real-time, and oversee fully-automated tasks such as tramming remotely from the surface.
REDUCED ENVIRONMENTAL IMPACT THROUGH INNOVATIVE POWDER-BASED SOLUTIONS

Sandvik Materials Technology's strategy is to develop customer solutions which contribute to a more sustainable future. One example is a powder-technology based Hot Isostatic Pressed (HIP) technique that is used to manufacture efficient fuel nozzles – which enables the customer MAN to produce fuel-efficient marine engines, radically reducing emissions.

As the world’s leading designer and manufacturer of two and four-stroke marine diesel engines, MAN Diesel & Turbo engines use around half of all power needed for global trade. With conventional fuel nozzles subject to corrosion issues and inadequate fuel efficiency, MAN needed an innovative solution to meet the rising demands on engine components for reduced emission and increased fuel efficiency.

Hans Södervall, Marketing Manager for powder technology-based HIP-products at Sandvik Materials Technology, explains.

CAN YOU TELL US MORE ABOUT HOW SANDVIK’S HIP METHOD CAME ABOUT?
Sandvik’s HIP manufacturing method for fuel nozzles was the result of a long-term development and supply agreement with MAN that is committed to meeting the customer’s ambitious emissions and fuel efficiency objectives. We launched this second-generation fuel nozzle on the market in early 2016, and the product has exceeded our customer's performance objectives.

WHAT POSITIVE EFFECTS HAVE YOU SEEN ON THE MARKET?
The product has exceeded our sales expectations, as our total fuel nozzles sales have increased by 500% following the launch of our second-generation nozzle. Sandvik’s second-generation nozzles now lead the marine engine fuel nozzle market, setting the industry standard.

HOW DOES THE SOLUTION CREATE CUSTOMER VALUE?
HIP, combined with design and material solutions, is an enabling technology, which in this case results in second-generation fuel nozzles achieving higher fuel efficiency and lower emissions of NOx, CO2, smoke and unburnt hydrocarbons. This improved efficiency will not only help MAN meet rising fuel efficiency and emission regulations in the shipping industry, but also help them to maintain their world-leading position in the marine engine market. An added benefit is of course the huge impact these second-generation fuel nozzles will have on combating one of mankind’s greatest challenges – climate change – through significantly reduced greenhouse gas emissions. Powder metallurgy is in itself also a recognized green technology.

FACTS
A fuel nozzle is an important part of a diesel engine’s fuel injection system that disperses diesel fuel into the combustion chamber. Sandvik’s patented powder-technology-based HIP technique combines two different powder-based metals under high temperature and isostatic pressure to improve the corrosion resistance and overall performance of the fuel nozzles.
The energy segment is important for the Group. Sandvik Coromant has developed a new plunge milling solution for Siemens that significantly reduces machining time on gas turbine housings – to lower both customer cost and environmental impact.

Siemens Power Generation Division manufactures SGT5-8000H gas turbines at its plant in Berlin, Germany. The turbines are key components in gas-fired power plants, which represent a growing global market. Back in 2012, when Siemens introduced a new gas turbine maxi housing, the established production process was not stable enough to make the 16 borings required for the turbine burners in the turbine housing. From 2013, Sandvik Coromant has worked with Siemens to develop a solution that involves plunge milling, followed by finish boring, to give the surfaces the necessary high surface demands.

Olaf Zahn, Technical Consultant and Sales Representative at Sandvik Coromant, tells us more.

CAN YOU EXPLAIN HOW THE SOLUTION CAME ABOUT?
Sandvik Coromant has been a Siemens technology partner for many years, so it was natural for them to come to us with this problem of drilling wide diameter borings. We were able to draw up a potential solution to their problem almost immediately with a concept based on plunge milling. This technology is used in other industries, such as the automotive industry, but was quite innovative in this instance.

HOW DOES THE SOLUTION CREATE CUSTOMER VALUE?
The plunge milling solution is much faster and more efficient than conventional milling solutions. Our data shows that it makes financial savings of around €77,000 per year for the customer, primarily by reducing machining time from 100 hours per housing to 42 hours.

More efficient milling also reduces energy use and the number of cutting inserts required, which both reduce overall environmental impact. Safety is improved too, as the milling action is more stable with less vibration than the previous corner milling system.

WHAT IS THE FUTURE POTENTIAL OF THE SOLUTION?
The solution can easily be transferred to other processes and has already been used for another Siemens housing, with more projects planned. In this sense it is really a model technology.

Plunge milling when machining turbine housings reduces the customer's processing time, costs and environmental impact.

FACTS

**PLUNGE MILLING** involves plunging straight into precast borings, cutting at the end of the tool instead of at the periphery. Plunging is the most efficient milling system in terms of quickly removing large quantities of material.

Siemens SGT5-8000H is one of the largest and most powerful gas turbines available, and an important component in the most efficient gas-fired power plants in the world. The turbine has a raw power capacity of 1,200 Porsche 911 cars and weighs as much as a fully fuelled Airbus A380.
# KEY FIGURES

## KEY FIGURES, GROUP TOTAL

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<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>Revenue, MSEK</td>
<td>86,338</td>
<td>92,654</td>
<td>71,937</td>
<td>82,654</td>
<td>94,084</td>
<td>87,328</td>
<td>88,821</td>
<td>90,822</td>
<td>84,430</td>
<td></td>
</tr>
<tr>
<td>Operating profit/loss, MSEK</td>
<td>14,394</td>
<td>12,794</td>
<td>–1,412</td>
<td>11,029</td>
<td>10,148</td>
<td>13,490</td>
<td>8,638</td>
<td>10,120</td>
<td>6,062</td>
<td>9,657</td>
</tr>
<tr>
<td>Cash and cash equivalents, MSEK</td>
<td>2,006</td>
<td>4,998</td>
<td>7,506</td>
<td>4,783</td>
<td>5,592</td>
<td>13,829</td>
<td>5,076</td>
<td>6,327</td>
<td>8,818</td>
<td></td>
</tr>
<tr>
<td>Return on shareholders equity1,%</td>
<td>34.4</td>
<td>24.8</td>
<td>–7.9</td>
<td>22.1</td>
<td>18.5</td>
<td>25.3</td>
<td>15.3</td>
<td>17.4</td>
<td>6.2</td>
<td>15.2</td>
</tr>
<tr>
<td>Return on capital employed1,%</td>
<td>27.0</td>
<td>19.9</td>
<td>–1.3</td>
<td>17.4</td>
<td>16.0</td>
<td>19.8</td>
<td>12.6</td>
<td>13.4</td>
<td>7.9</td>
<td>12.9</td>
</tr>
<tr>
<td>Total investments, MSEK</td>
<td>9,480</td>
<td>7,766</td>
<td>6,161</td>
<td>4,493</td>
<td>5,332</td>
<td>4,859</td>
<td>4,674</td>
<td>7,537</td>
<td>4,168</td>
<td>3,722</td>
</tr>
<tr>
<td>Cash flow from operations, MSEK</td>
<td>5,076</td>
<td>9,335</td>
<td>11,792</td>
<td>12,149</td>
<td>11,892</td>
<td>5,133</td>
<td>9,515</td>
<td>11,952</td>
<td>12,032</td>
<td></td>
</tr>
<tr>
<td>Cash flow, MSEK</td>
<td>179</td>
<td>2,764</td>
<td>2,471</td>
<td>–2,642</td>
<td>907</td>
<td>8,450</td>
<td>–8,656</td>
<td>1,039</td>
<td>79</td>
<td>2,288</td>
</tr>
<tr>
<td>Number of employees, 31 december</td>
<td>47,123</td>
<td>50,028</td>
<td>44,355</td>
<td>47,064</td>
<td>50,030</td>
<td>47,338</td>
<td>47,318</td>
<td>45,808</td>
<td>43,732</td>
<td></td>
</tr>
</tbody>
</table>

1) As of 2011, comparative figures adjusted due to amended accounting principles.

## DISTRIBUTION OF SHAREHOLDING BY COUNTRY

31 DECEMBER 2016, %

- Sweden, 67
- USA, 14
- UK, 7
- Luxembourg, 5
- Switzerland, 1
- Other countries, 5

## THE TEN LARGEST SHAREHOLDER GROUPS

31 DECEMBER 2016, %

- AB Industrivärden, 11.8
- Alecta Pension Insurance, 5.9
- Handelsbanken Pension, 3.2
- Swedbank Robur Funds, 2.8
- AMF Insurance and Funds, 2.8
- L E Lundbergföretagen AB, 2.4
- Nordea Investment Funds, 2.2
- Göranssonska Stiftelserna, 1.7
- SEB Investment Management, 1.6
- Pensionskassan SHB Försäkringsförening, 1.5

## TEN LARGEST MARKETS, MSEK

<table>
<thead>
<tr>
<th>Revenue by country, Group</th>
<th>2015</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>USA</td>
<td>13,598</td>
<td>11,951</td>
</tr>
<tr>
<td>Germany</td>
<td>6,980</td>
<td>6,707</td>
</tr>
<tr>
<td>China</td>
<td>6,406</td>
<td>5,569</td>
</tr>
<tr>
<td>Australia</td>
<td>3,625</td>
<td>4,286</td>
</tr>
<tr>
<td>Italy</td>
<td>3,245</td>
<td>3,561</td>
</tr>
<tr>
<td>Sweden</td>
<td>3,525</td>
<td>3,189</td>
</tr>
<tr>
<td>France</td>
<td>2,834</td>
<td>2,839</td>
</tr>
<tr>
<td>UK</td>
<td>3,799</td>
<td>2,824</td>
</tr>
<tr>
<td>Russia</td>
<td>2,350</td>
<td>2,792</td>
</tr>
<tr>
<td>South Africa</td>
<td>2,979</td>
<td>2,736</td>
</tr>
<tr>
<td>India</td>
<td>2,300</td>
<td>2,560</td>
</tr>
<tr>
<td>Mexico</td>
<td>2,197</td>
<td>2,356</td>
</tr>
<tr>
<td>Canada</td>
<td>2,499</td>
<td>2,213</td>
</tr>
<tr>
<td>Japan</td>
<td>2,079</td>
<td>2,197</td>
</tr>
<tr>
<td>Indonesia</td>
<td>1,542</td>
<td>1,577</td>
</tr>
<tr>
<td>Other countries</td>
<td>25,887</td>
<td>24,196</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>85,845</strong></td>
<td><strong>81,553</strong></td>
</tr>
</tbody>
</table>

## LTIFR BY BUSINESS AREA, 2008-2016

- Lost time injuries per million work hours