SAFETY FIRST

Sandvik’s objective is zero harm to our people, the environment we work in, our customers and our suppliers.

LTIFR* by year

<table>
<thead>
<tr>
<th>Year</th>
<th>LTIFR*</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>5,4</td>
</tr>
<tr>
<td>2010</td>
<td>4,8</td>
</tr>
<tr>
<td>2011</td>
<td>4,1</td>
</tr>
<tr>
<td>2012</td>
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<td>2013</td>
<td>2,3</td>
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<td>2014</td>
<td>1,6</td>
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<tr>
<td>2015</td>
<td>1,4</td>
</tr>
<tr>
<td>2016</td>
<td>1,2</td>
</tr>
<tr>
<td>2017</td>
<td>1,0</td>
</tr>
<tr>
<td>2018</td>
<td>1,0</td>
</tr>
<tr>
<td>2019</td>
<td>0,8</td>
</tr>
</tbody>
</table>
SALES BY SEGMENT
- Mining: 76%
- Construction: 20%
- Oil and Gas: 4%

REVENUES BY MARKET AREA
- North America: 22%
- South America: 9%
- Africa/Middle East: 20%
- Asia: 19%
- Europe: 16%
- Australia: 14%
- Oil and Gas: 4%
- Construction: 20%

REVENUES BY PRODUCT AREA
- Equipment: 39%
- Aftermarket: 61%
OUR MARKET LEADING OFFERING

MINING COMMODITY EXPOSURE

- Gold
- Copper
- Coal
- Zinc
- Other minerals
- PGM
- Other metals
- Iron ore
- Nickel
- Diamonds
- Other base metals

CONSTRUCTION INDUSTRY EXPOSURE

- Aggregates
- Demolition & Recycling
- Tunneling

2018
MINING MARKET ENVIRONMENT

COMMODITY PRICE INDEX, WEEK 19
WEEKLY COMMODITY PRICE INDEX, base= 2010

NOTE: Mixture of weighted commodities: coal 12%, copper (proxy for base metals) 40%, gold 32%, platinum 8% and iron ore 8%; arrow indicates weekly change.
**Key trends**
- Steady, slow demand growth
- Share of underground slowly growing
- Mines extend and go deeper
- Ore depletion – more moved material
- Productivity gains significantly contribute to lower mining costs

**Key customer demands**
- Safer and more sustainable
- Higher productivity and lower costs
- More advanced equipment
  - Automated
  - Electrified
- More process analytics

---

**MATERIAL MOVED & EQUIPMENT CAPEX PERCENT (2018)**

- Under Ground: ~25% ~35%
- Surface: ~75% ~65%

---

**THE COPPER EXAMPLE**

**SHARE OF UNDERGROUND ORE VOLUMES**

- 2000: 9
- 2018: 10
- 2030 est: 14

---

**ALL-IN SUSTAINING COST (AISC), USD/ton**

- 2012: 4,970
- 2018: 4,046

-19% decrease

---

Source: S&P Global market Intelligence, McKinsey, Freedonia World Mining Equipment Study and Internal Analysis
CONSTRUCTION – TRENDS AND DEMANDS

CAGR (2018-2022 FCST)

- Steady growth led by emerging economies
  - GDP Growth
  - Urbanization
  - Improved living standards
- Aggregates production growth (2-4% CAGR)
  - Supported by large projects
- Drill & blast dominant method in road and rail tunnels
- Large projects gradually advancing, but face risks of delay

Source: Fitch Solution, International Tunneling and Underground Space Association (“ITA”) and Internal Analysis
## STRONG BUSINESS PERFORMANCE

### 2019Q1

<table>
<thead>
<tr>
<th>SANDVIK MINING AND ROCK TECHNOLOGY</th>
<th>EXCLUDING OIL AND GAS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ORDER INTAKE</strong></td>
<td><strong>ORDER INTAKE</strong></td>
</tr>
<tr>
<td>+9.8%</td>
<td>+10.1%</td>
</tr>
<tr>
<td><strong>REVENUES</strong></td>
<td><strong>REVENUES</strong></td>
</tr>
<tr>
<td>+7.4%</td>
<td>+6.5%</td>
</tr>
<tr>
<td><strong>EBIT</strong></td>
<td><strong>EBIT</strong></td>
</tr>
<tr>
<td>17.0%</td>
<td>18.3%</td>
</tr>
<tr>
<td><strong>ROCE</strong></td>
<td><strong>ROCE</strong></td>
</tr>
<tr>
<td>29.4%</td>
<td>37.5%</td>
</tr>
</tbody>
</table>

Figures include structure.
OUR AMBITION AND FOCUS

OUR AMBITION

Disciplined profitable growth

Industry leading EBIT and ROCE through the cycle

#1 or #2 position in key markets and segments

Market share gains over the cycle

FOCUS AREAS

DELIVER CUSTOMER VALUE

SHAPE THE INDUSTRY ECOSYSTEM

SAFE AND SUSTAINABLE

EXCEPTIONAL PEOPLE AND AGILE EXECUTION

EVOLVE PORTFOLIO AND PARTNERSHIPS
CUSTOMER FOCUS

FOR PROFITABILITY AND GROWTH

- Benchmark for new equipment features
- Fast and efficient fleet replacement solutions
- Spotless basic support
- Selective approach
- Efficient sales and support

Target segments

- Custom engineering
- Digital development partners
- Service relationship over full product lifecycle
- On site support
- Availability and reliability
- Security of supply
LIFECYCLE – AFTERMARKET, SERVICE, AND TOOLS

HOW TO INCREASE CUSTOMER VALUE GOING FORWARD

Customer value

- Conventional sales channels
- Customer support centers
- Optimized supply network

PROACTIVELY PROVIDE WHAT THE FLEET NEEDS

- Connect installed base
- Active remote monitoring
- MySandvik and e-commerce
- Lifecycle service development

Sandvik share

- Connected service technicians
- Predictive fleet analytics
- Personalized operator training
- Proactive service recommendations – zero unplanned downtime

PROACTIVELY OFFER WHAT EACH OPERATOR AND MACHINE NEEDS

REACTIVELY PROVIDE WHAT CUSTOMERS ASK FOR
KEY TAKEAWAYS

- Historical adoption has been slow but now accelerating
- We are the current industry leader
- Our solutions deliver value today and customers recognize that
- We are only in the beginning, now we are shaping the ecosystem for future underground mining
SHAPING THE MINING ECOSYSTEM

CUSTOMER VALUE CHAIN

EXPLORE & PLAN \(\rightarrow\) EXCAVATE ROCK \(\rightarrow\) COMMINUTION

DIGITAL

- DATA ACQUISITION
  - NETWORK
  - MINING IoT
  - INTELLIGENT & AUTOMATED EQUIPMENT
  - PRODUCTION SW
    - OTHER SOFTWARE
  - ANALYTICS

- CORE POSITION \(\rightarrow\) CORE AND PARTNERS \(\rightarrow\) PARTNERS

ELECTRIFICATION

- BATTERIES
- ELECTRIC / HYBRID DRIVELINE
- ENGINEERING
- COOLING & CHARGING SYSTEMS
- RESEARCH & UNIVERSITIES

SYSTEMS INTEGRATION

- CORE POSITION \(\rightarrow\) PARTNERS
CURRENT SMRT DIGITAL OFFERING

Connected Equipment
- My Sandvik
- My Rock Tools
- Dealer Portal

Analytics and Process Optimization
- OptiMine®
- iSure

Autonomous Equipment and Features
- AutoMine® Loaders & Trucks
- AutoMine® Surface Drilling
- Automated Crushers (ASRi)
- i-Series equipment

FOCUS TODAY
CAPITAL MARKETS DAY
MAY 2019
LEADER IN UNDERGROUND DIGITALIZATION

160 MY SANDVIK connected sites
51 OPTIMINE®
43 AUTOMINE® connected sites
107 NEWTRAX connected sites

CAPITAL MARKETS DAY
MAY 2019
LEADER IN UNDERGROUND DIGITALIZATION

Capital Markets Day
May 2019

43 AUTOMINE® connected sites
51 OPTIMINE® connected sites
160 MY SANDVIK connected sites
107 NEWTRAX
LEADER IN UNDERGROUND DIGITALIZATION

TOTAL ADDRESSABLE MARKET

700+ sites
OPTIMINE® PRODUCT FAMILY
OPERATIONS OPTIMIZATION WITH INFORMATION & ANALYTICS

PROCESS CONTROL MODULES

IMPROVED CUSTOMER PRODUCTIVITY

Production hours per machine (OEE)

Total time | Loss | Effective time
---|---|---
24,0 | 9,4 | 14,6

Effective time with OptiMine®

Total time: 24,0
Loss: 9,4
Effective time: 14,6

+39%

Data exchange with mining IT systems

Telemetry Reporting

3D Mine Visualizer

Drill Plan Visualizer

Task Management

Scheduler

Location Tracking
AUTOMINE® PRODUCT FAMILY
PRODUCTION OPTIMIZATION WITH AUTOMATED FLEETS

Utilized engine hours per machine

Year 1  Year 2  Year 3  Average

MANUAL  AUTOMATED

+59%

Year 1

Year 2

Year 3

Average
AUTOMATION AND DIGITAL DELIVERS VALUE

CUSTOMER TESTIMONIALS…A FEW EXAMPLES

Increase production
SAFE AND COST-EFFECTIVE MINING
Reduce cost

Autonomous haul trucks with 30% lower maintenance costs
"It's fantastic. We handle a large volume of ore without any injuries. Up to now, it’s more than a success.”

Sources: Hecla, North American Palladium and Petra Diamonds

OptiMine® Analytics resulted in +9% fill factor

Autonomous loaders achieves 65% higher daily production
“We used to get 30 buckets per shift…now we can get 50 buckets out of the same stope.”

Autonomous trucks extended machine life by 35%

SAFE AND COST-EFFECTIVE MINING

CAPITAL MARKETS DAY
MAY 2019

Sources: Hecla, North American Palladium and Petra Diamonds
COMMERCIAL LOGIC OF DIGITAL OFFERING

1. PREMIUM PRICING & MARKET SHARE

2. ADDITIONAL REVENUE & PROFITABILITY
   - TECHNOLOGY LEADERSHIP
   - DIGITAL ADD-ON REVENUE
   - AFTERMARKET SHARE

3. NEW SOURCES OF REVENUE
   - GAIN SHARING
   - EXPAND MARKET SIZE
   - RECURRING SERVICE

Distance from traditional business model

Time
Impact of Automation
Economics, Safety and People

**Production cost**

$881 \rightarrow 746$ USD/oz

**Mine Life Extended to**

2032 (+4yrs)

- Reduced Damage
- Smaller Fleet
- Lower Upfront Capex
- Upskilling Local Workforce
- Improved Operator Comfort

Production cost $881 \rightarrow 746$ USD/oz

881 \rightarrow 746 USD/oz

Production cost $\rightarrow$ 746 USD/oz
SHAPING THE ECOSYSTEM
INTEROPERABILITY

My Sandvik
Fleet insights

OptiMine®
Production management

AutoMine®
Production execution

Wireless network

Narrow Band, LTE, Wi-Fi, 5G

NEW

Any mobile equipment, fixed asset, people or environment sensor

- Safe and secure
- Complete offering for customers
- Enhanced performance for Sandvik fleet
30,000 connected UG IoT devices
80% annual sales growth
>100 deployments

OFFERING

SERVICES
- Deployment
- Remote support
- Custom productivity reporting

NETWORK
- Complementing existing mine network for full coverage

UNDERGROUND IoT
- Equipment telemetry
- Proximity detection
- Environmental sensors
- Personal safety & positioning

CAPITAL MARKETS DAY
MAY 2019
SUSTAINABILITY STRATEGY

SUSTAINABLE OPERATIONS
- Improve energy and GHG* efficiency in current operations
- Minimize material waste and scrap rates
- Optimize GHG efficiency in logistics

GHG EFFICIENT OFFERING
- Solutions for increased productivity and energy efficiency
- Material efficiency (lighter, stronger) and recycling a R&D criteria
- Sustainability as complementary raw material supplier criteria and as core component of value proposition

ZERO HARM AND ZERO TOLERANCE
- Continued emphasis on safer operations
- Safety/safer operations as R&D criteria
- Strengthened compliance systems/processes and zero tolerance

MINING EMISSIONS INFLUENCE (MT)

* GHG = Green House Gases

CAPITAL MARKETS DAY
MAY 2019
GHG EFFICIENT OFFERING

- Better fragmentation and profile
- Faster, more energy efficient equipment and tools
- Electrification, Automation and digitalization

MINING EMISSION POTENTIAL UG HARDROCK (MT)

- All Mining: 30-50
- SMRT Market Share: 12-20
- Sandvik: 0.38
- SMRT: 0.07
MANAGE WITH THE CYCLE

"Manage with the cycle"

KEY LEVERS FOR AGILITY AND RESILIENCE

- Detailed cost contingency plans and formal trigger system
- Flexible manufacturing setup to scale up and down
  - Satellites, ‘Factory-in-factory’, and outsourcing
  - 3rd party work force
  - Time banks
- Ambitious target for both variable and fixed cost
SHARPENED FOCUS - PEDESTAL DRILLS

A LARGE OPPORTUNITY

- Now a separate division with undivided focus
- New management
- New competitive offering underway
- Secure stability, improve profitability, and grow
Evolving Portfolio and Partnerships

Focus Areas
- Strengthen the core
- Adjacent to core
- Digitalization and electrification
- Less volatile earnings profile and more resilient

Divestment
- Varel Oil & Gas

Acquisitions
- Inrock
- Newtrax
- Artisan
SUMMARY

✓ Mining and Construction markets continue to be robust
✓ Stronger customer focus to deliver productivity and cost improvements through the life cycle
✓ Shape the industry by expanding on industry leader in rock knowledge, automation and electrification
✓ Decentralized organization drives customer focus and agile execution
✓ Selective M&A to support growth of core and adjacent to core