

SANDVIK MINING AND ROCK TECHNOLOGY

CAPITAL MARKETS DAY

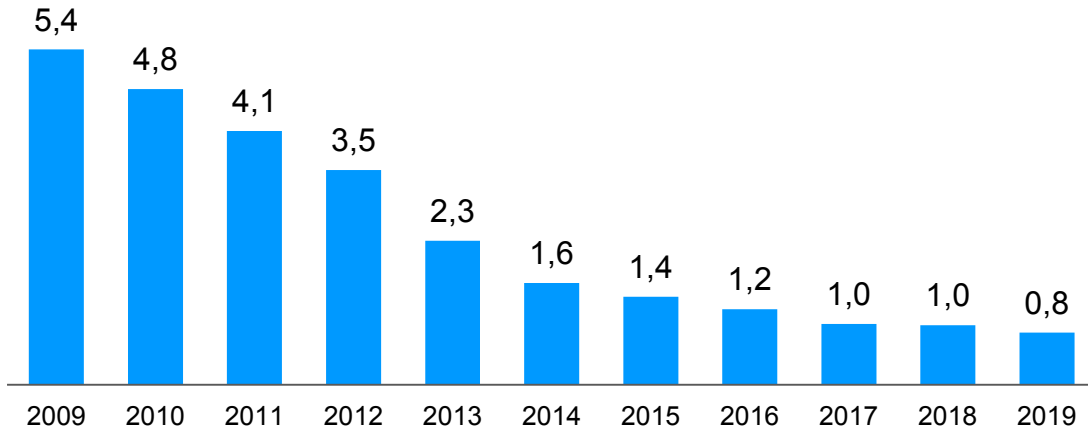
Henrik Ager, Business Area President, Sandvik Mining and Rock Technology
Patrick Murphy, President, Rock Drills and Technologies Division



SAFETY FIRST

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

LTIFR* by year

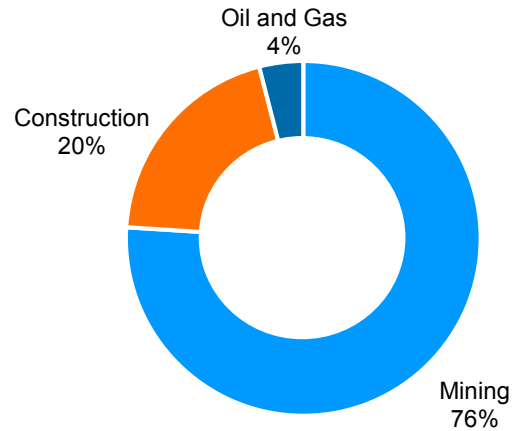


2 *LTIFR – Lost-time injury frequency rate

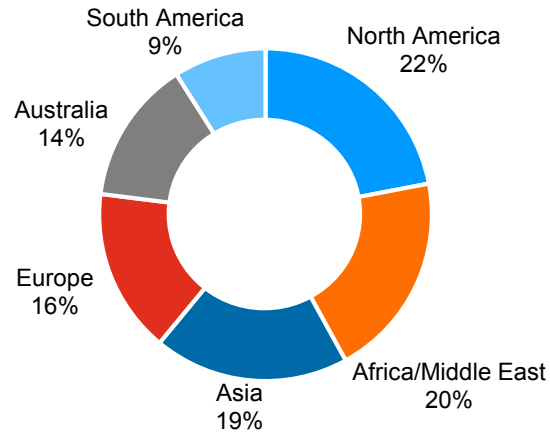


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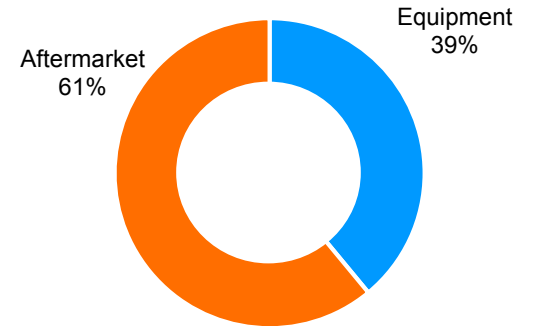
SALES BY SEGMENT



REVENUES BY MARKET AREA

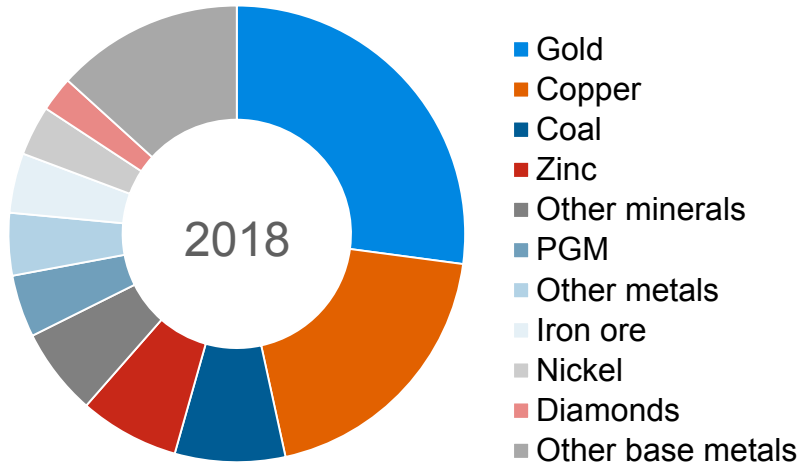


REVENUES BY PRODUCT AREA

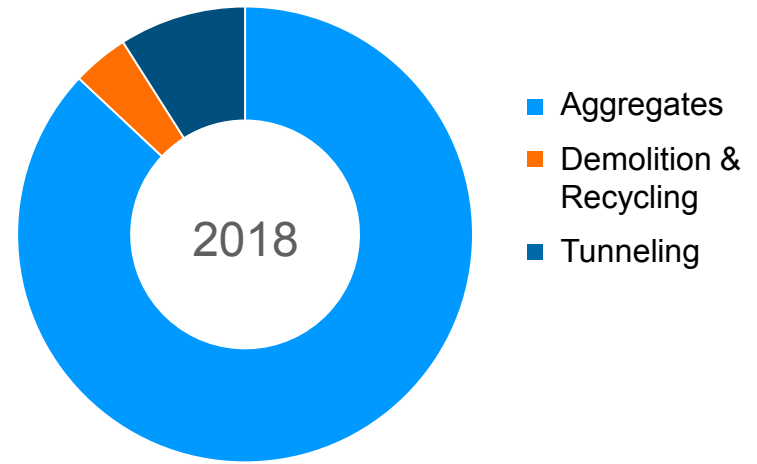


OUR MARKET LEADING OFFERING

MINING COMMODITY EXPOSURE



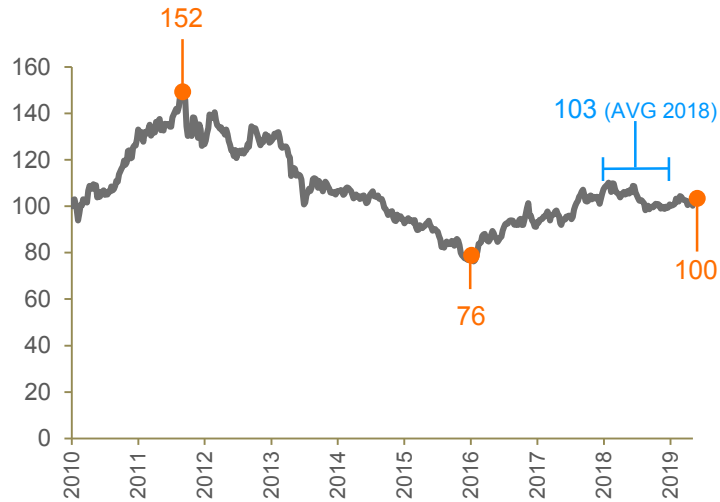
CONSTRUCTION INDUSTRY EXPOSURE



MINING MARKET ENVIRONMENT

COMMODITY PRICE INDEX, WEEK 19

WEEKLY COMMODITY PRICE INDEX, base= 2010

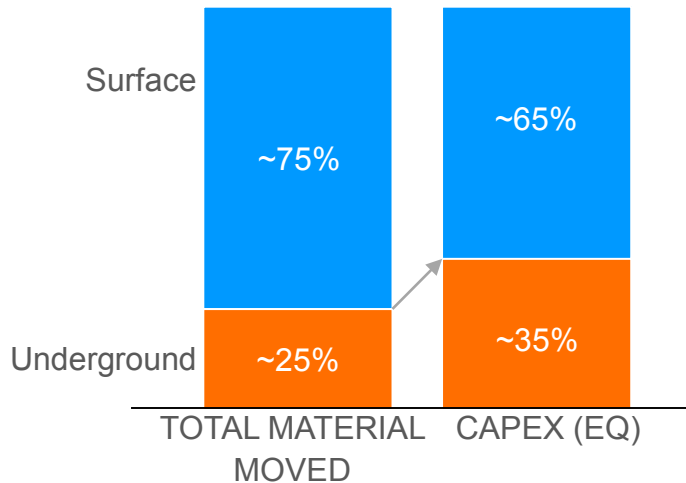


NOTE: Mixture of weighted commodities: coal 12%, copper (proxy for base metals) 40%, gold 32%, platinum 8% and iron ore 8%; arrow indicates weekly change.

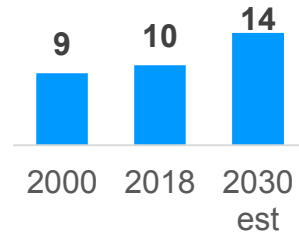


MINING – TRENDS AND DEMANDS

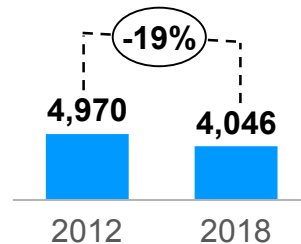
MATERIAL MOVED & EQUIPMENT CAPEX PERCENT (2018)



THE COPPER EXAMPLE SHARE OF UNDERGROUND ORE VOLUMES



All-IN SUSTAINING COST (AISC), USD/ton



Key trends

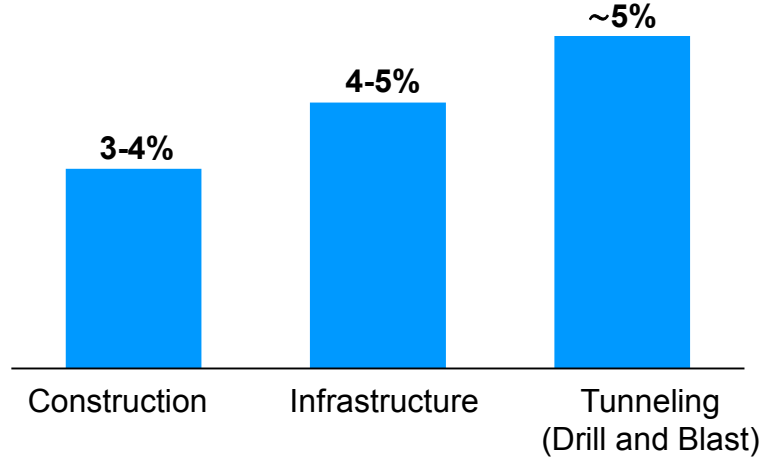
- Steady, slow demand growth
- Share of underground slowly growing
- Mines extend and go deeper
- Ore depletion – more moved material
- Productivity gains significantly contribute to lower mining costs

Key customer demands

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

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

SANDVIK MINING AND ROCK TECHNOLOGY

+9.8%

ORDER INTAKE

+7.4%

REVENUES

17.0%

EBIT

29.4%

ROCE

Figures include structure

EXCLUDING OIL AND GAS

+10.1%

ORDER INTAKE

+6.5%

REVENUES

18.3%

EBIT

37.5%

ROCE

Figures include structure



CAPITAL MARKETS DAY
MAY 2019

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

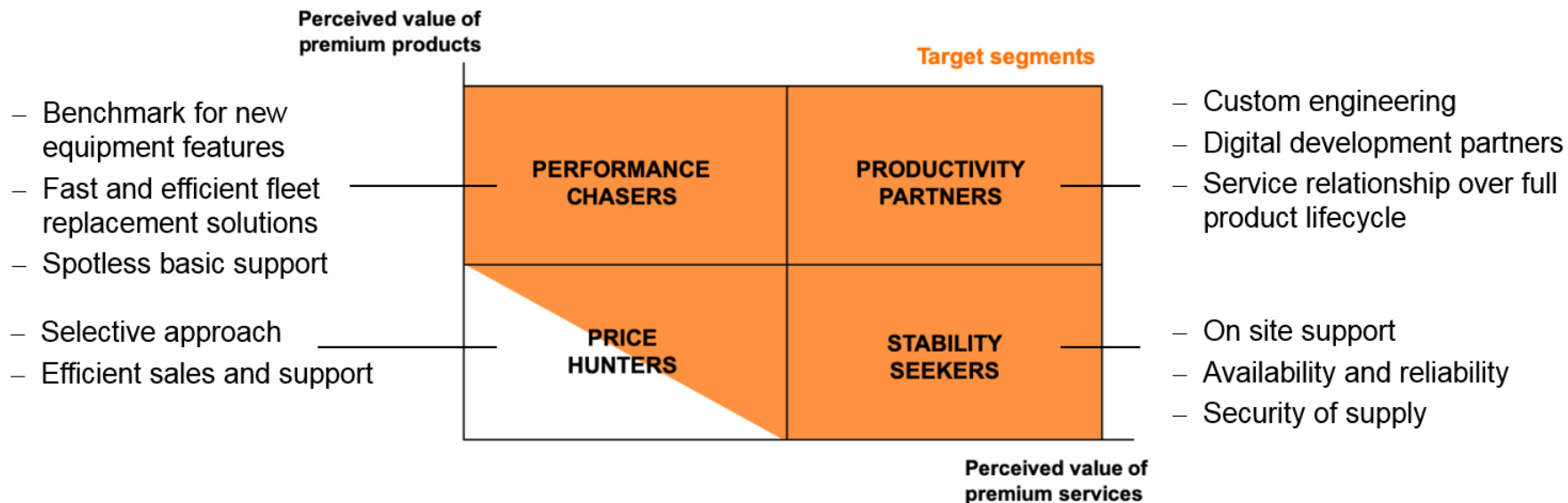
SAFE AND SUSTAINABLE

EXCEPTIONAL PEOPLE AND AGILE EXECUTION

EVOLVE PORTFOLIO AND PARTNERSHIPS

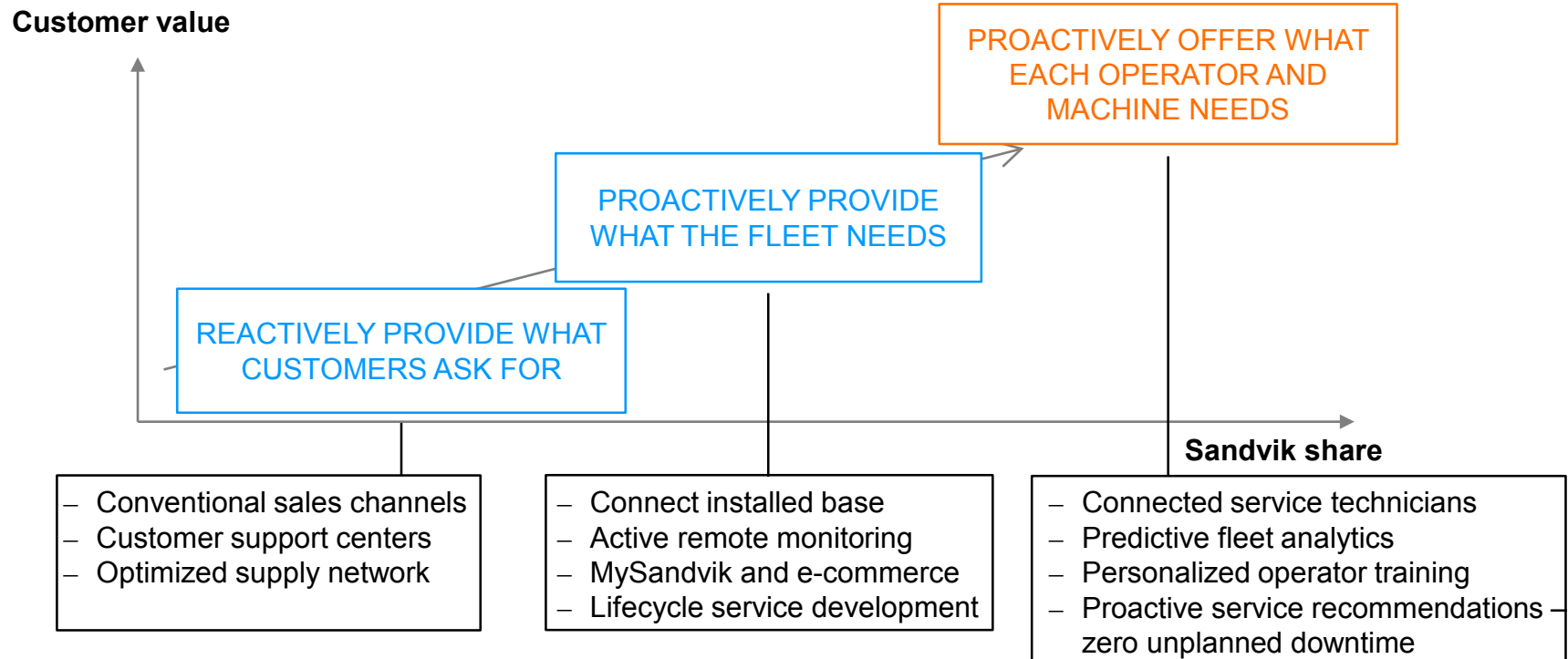
CUSTOMER FOCUS

FOR PROFITABILITY AND GROWTH

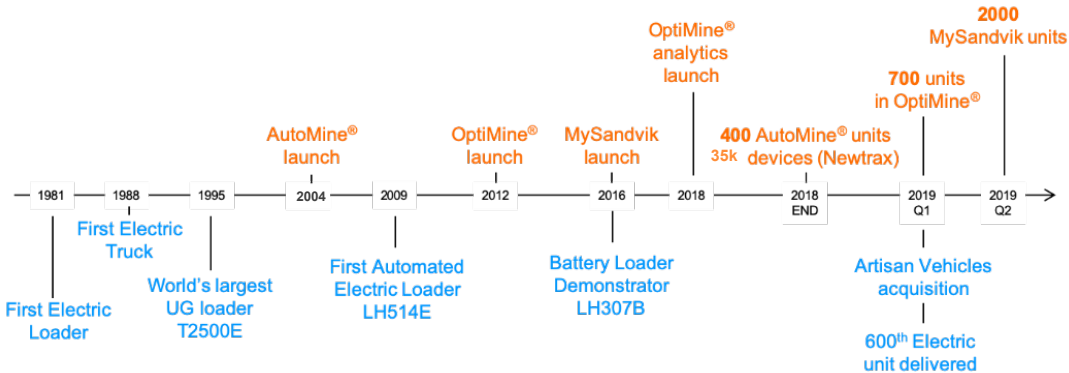


LIFECYCLE – AFTERMARKET, SERVICE, AND TOOLS

HOW TO INCREASE CUSTOMER VALUE GOING FORWARD



DEVELOPMENT OF AUTOMATION AND ELECTRIFICATION



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



DIGITAL



ELECTRIFICATION



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



43 AUTOMINE®

51 OPTIMINE®
connected sites

160 MY SANDVIK
connected sites

107 NEWTRAX
connected sites

CAPITAL MARKETS DAY
MAY 2019



LEADER IN UNDERGROUND DIGITALIZATION



43 AUTOMINE®
connected sites

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CAPITAL MARKETS DAY
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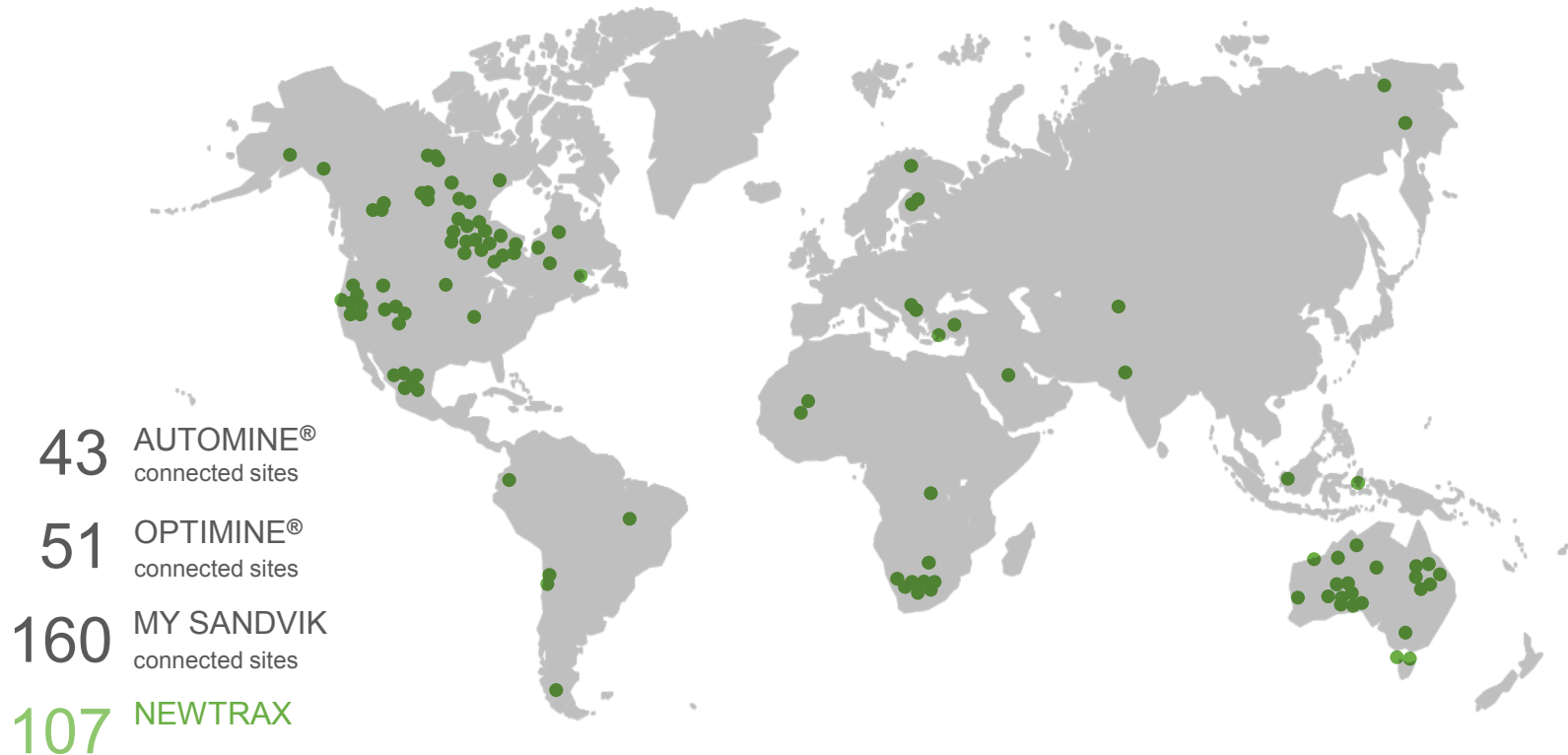
160 MY SANDVIK

107 NEWTRAX
connected sites

CAPITAL MARKETS DAY
MAY 2019



LEADER IN UNDERGROUND DIGITALIZATION



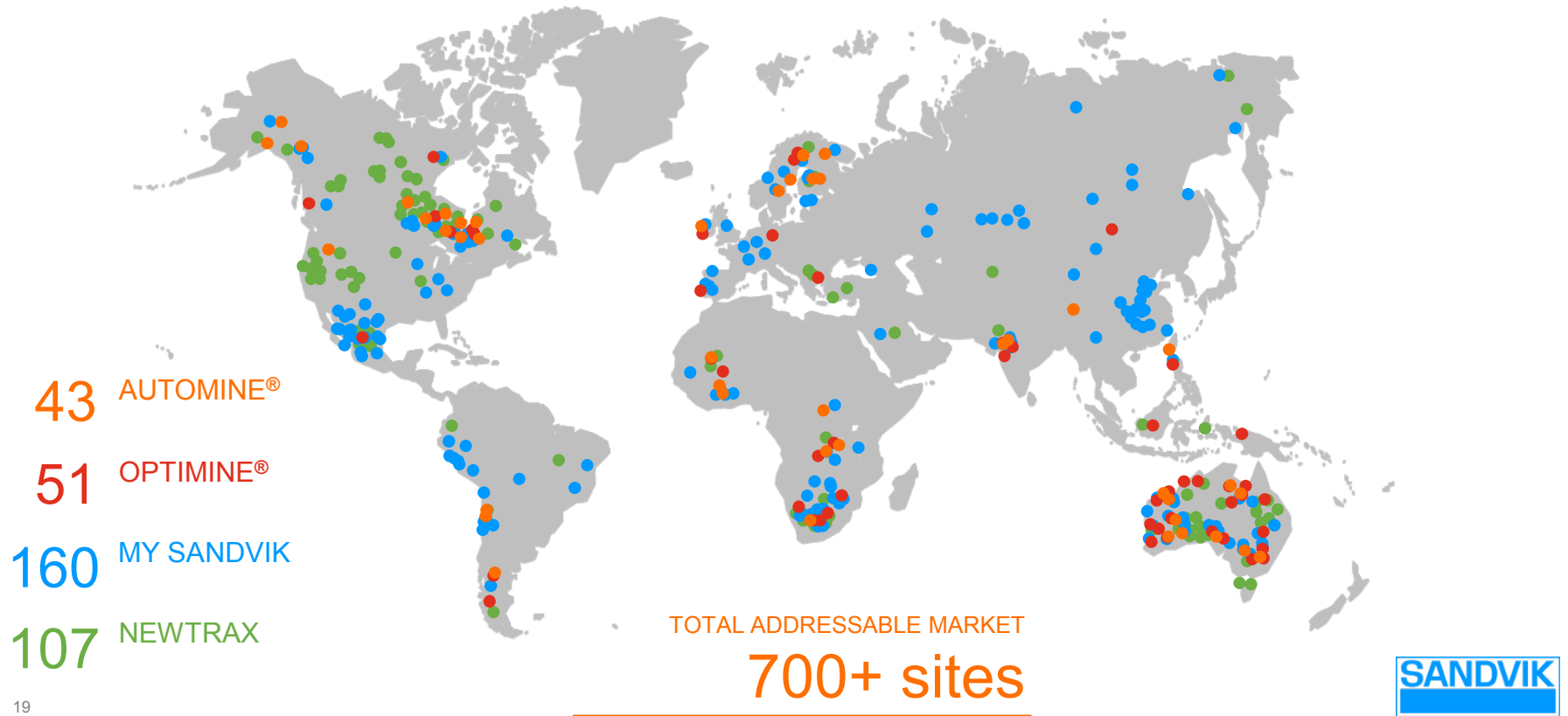
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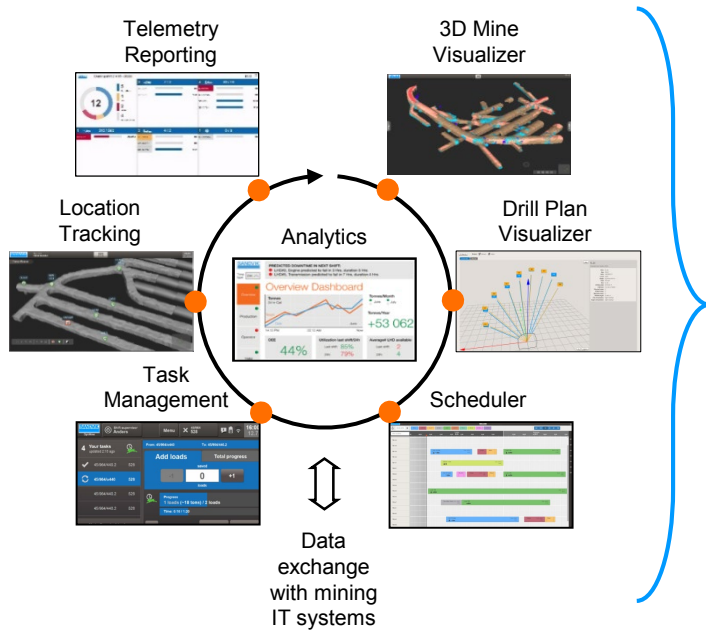


OPTIMINE® PRODUCT FAMILY

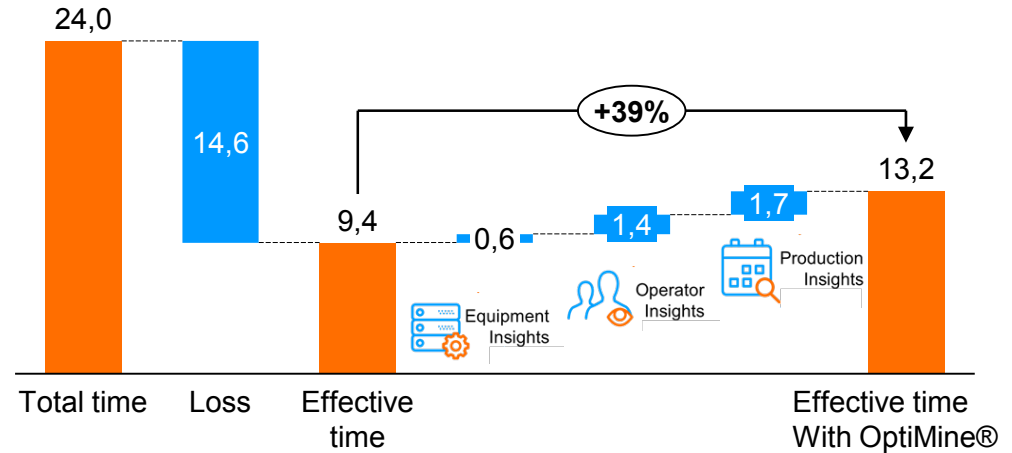
OPERATIONS OPTIMIZATION WITH INFORMATION & ANALYTICS

PROCESS CONTROL MODULES

IMPROVED CUSTOMER PRODUCTIVITY



Production hours per machine (OEE)



AUTOMINE[®] PRODUCT FAMILY

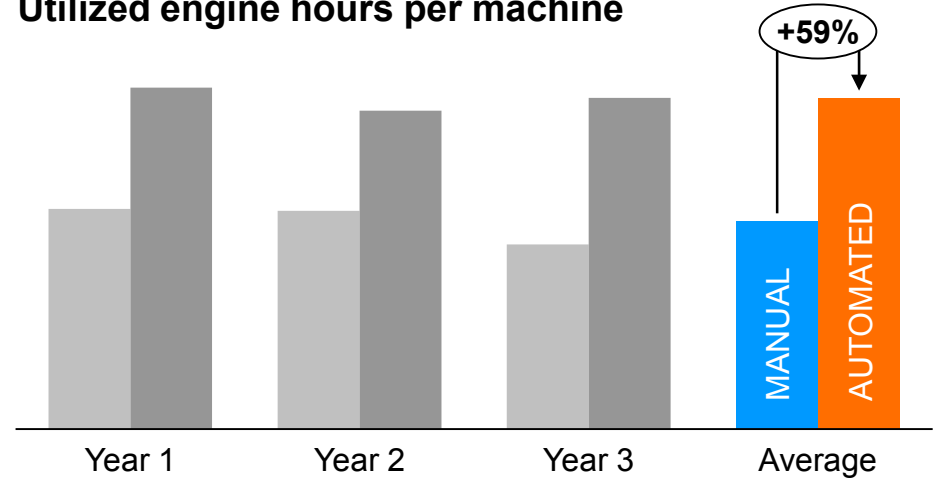
PRODUCTION OPTIMIZATION WITH AUTOMATED FLEETS

AUTOMATED EQUIPMENT

MORE PRODUCTION



Utilized engine hours per machine



AUTOMATION AND DIGITAL DELIVERS VALUE

CUSTOMER TESTIMONIALS...A FEW EXAMPLES



Canada

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."



Canada

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."



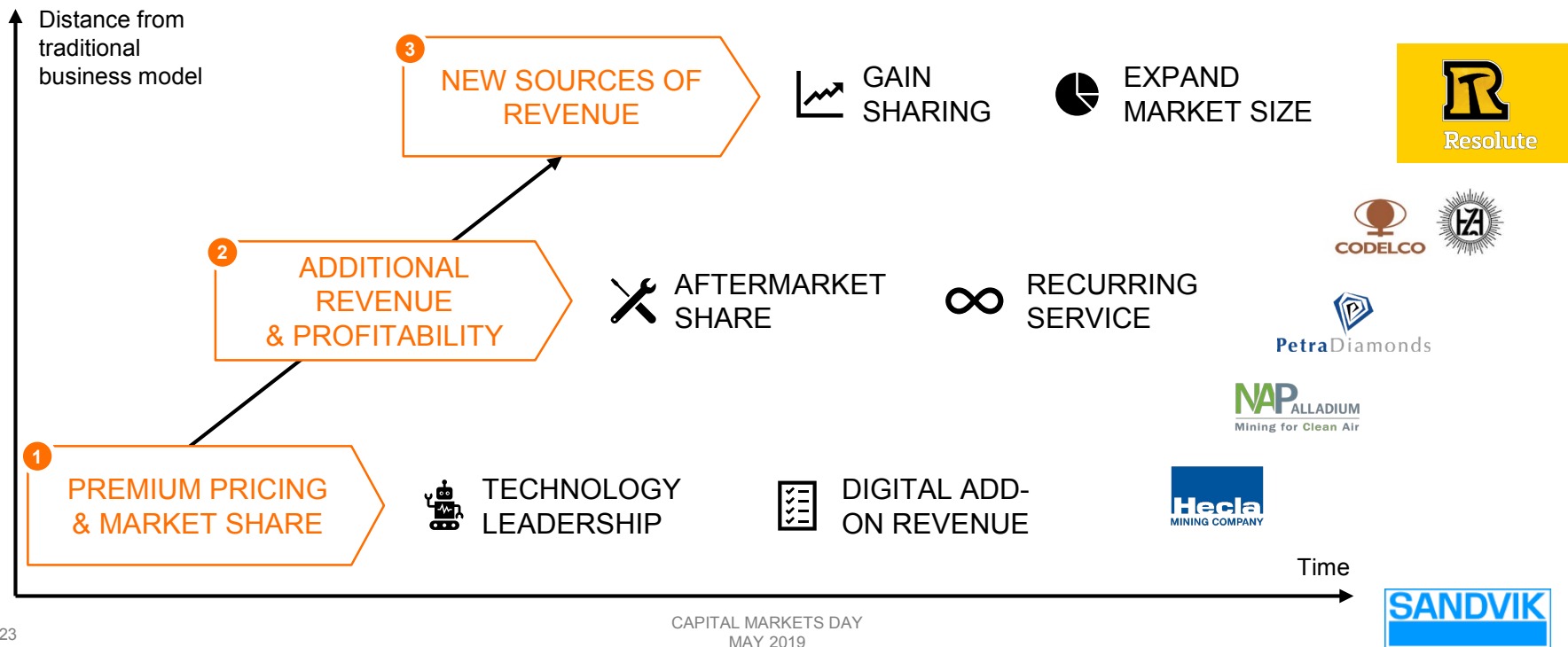
Petra Diamonds
South Africa

Autonomous trucks **extended machine life by 35%**

OptiMine® Analytics resulted in **+9% fill factor**



COMMERCIAL LOGIC OF DIGITAL OFFERING



Impact of Automation

Economics, Safety and People

Production cost
881 → 746 USD/oz

Mine Life Extended to
2032 (+4yrs)



Reduced
Damage



Smaller
Fleet



Lower
Upfront
Capex

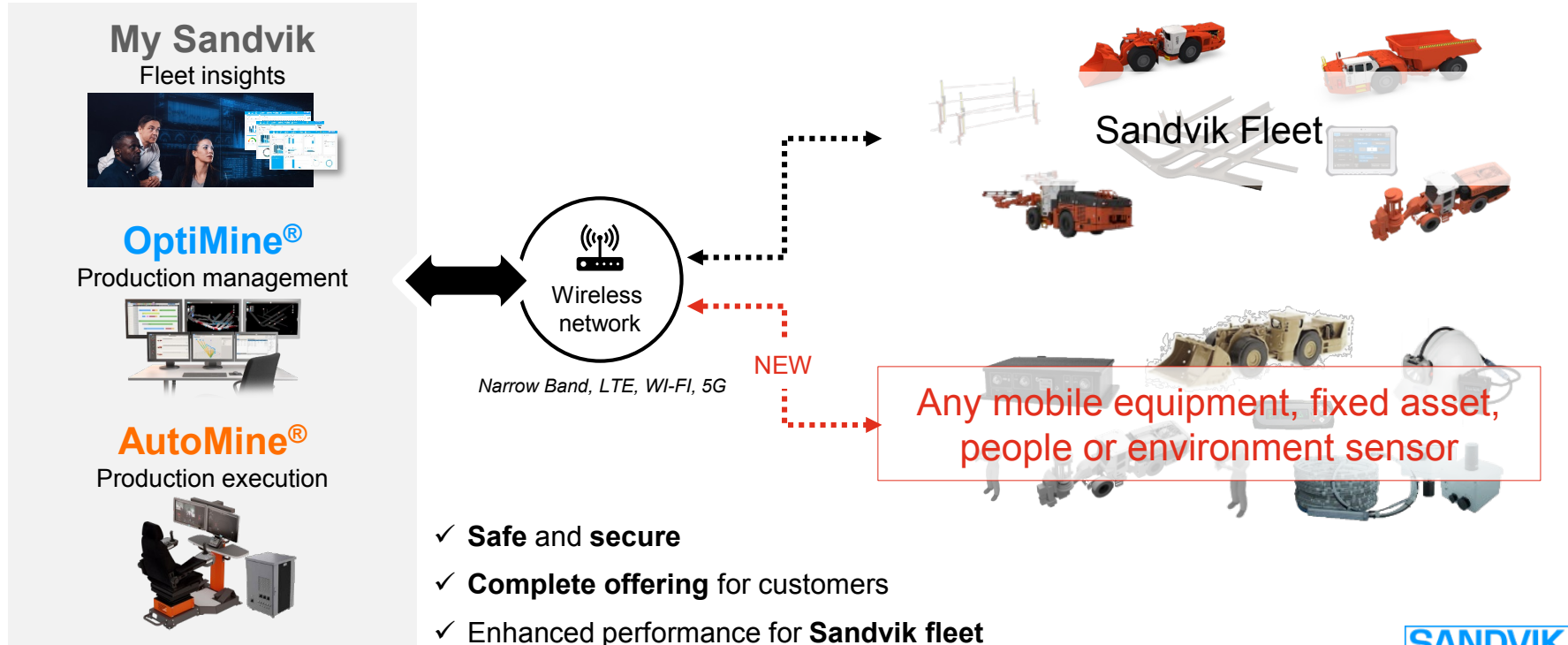
Upskilling Local Workforce



Improved Operator
Comfort



SHAPING THE ECOSYSTEM INTEROPERABILITY



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



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

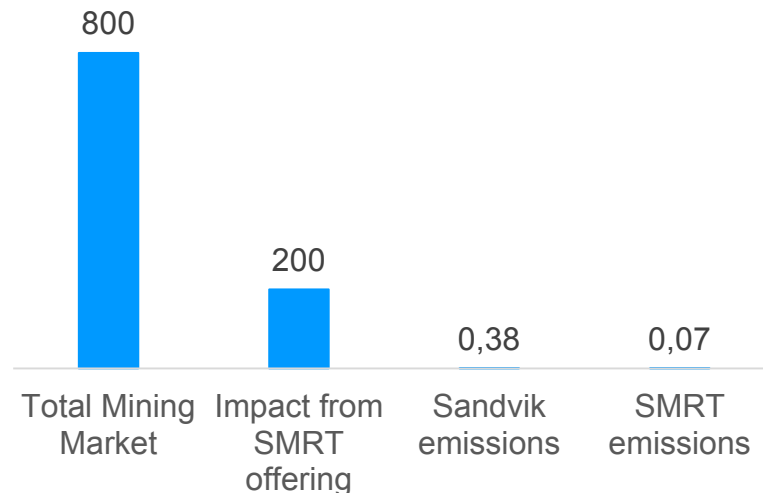
- Solutions for increased productivity and energy efficiency
- Material efficiency (lighter, stronger) and recycling a R&D criteria
- Sustainability as complementary raw material supplier criteria and as core component of value proposition

ZERO HARM AND ZERO TOLERANCE

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

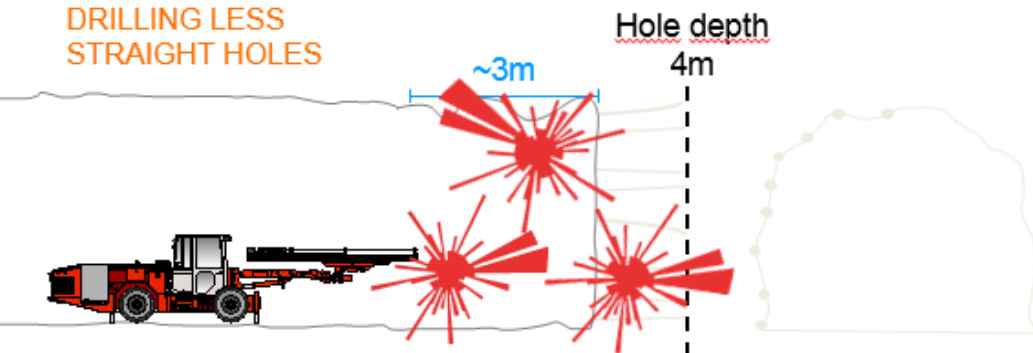
* GHG = Green House Gases

MINING EMISSIONS INFLUENCE (MT)

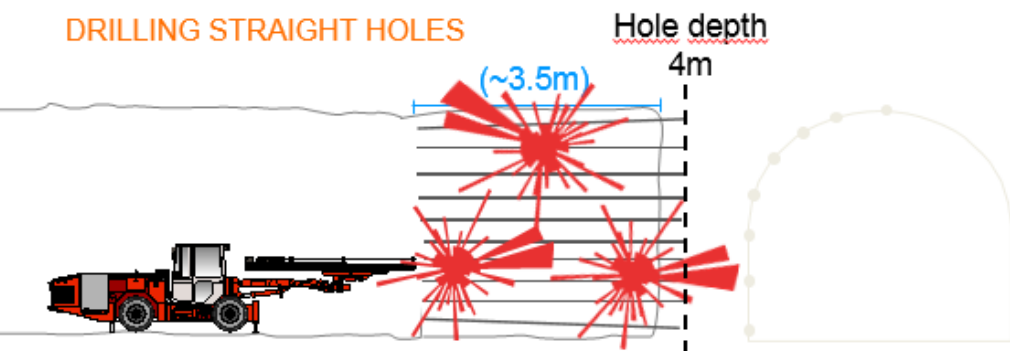


GHG EFFICIENT OFFERING

DRILLING LESS
STRAIGHT HOLES



DRILLING STRAIGHT HOLES

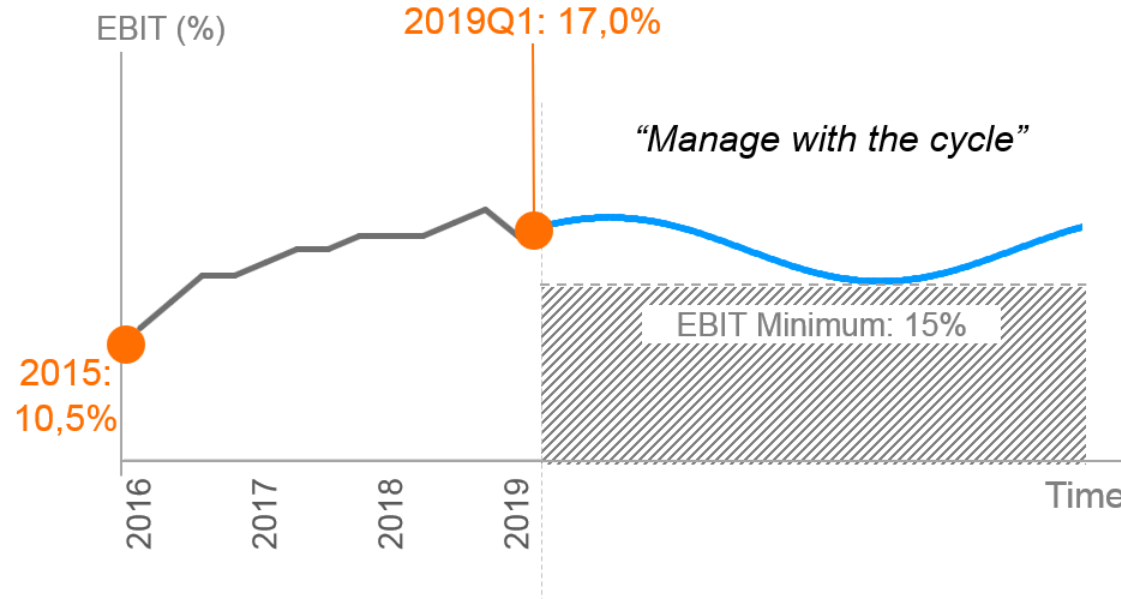


- Better fragmentation and profile
- Faster, more energy efficient equipment and tools
- Electrification, Automation and digitalization

MINING EMISSION POTENTIAL UG HARDROCK (MT)



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

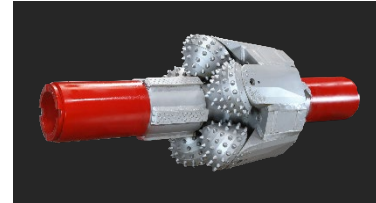
- Strengthen the core
- Adjacent to core
- Digitalization and electrification
- Less volatile earnings profile and more resilient

DIVESTMENT

- Varel Oil & Gas

ACQUISITIONS

- Inrock
- Newtrax
- Artisan



INROCK



NEWTRAX



VAREL O&G



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

FOCUS AREAS

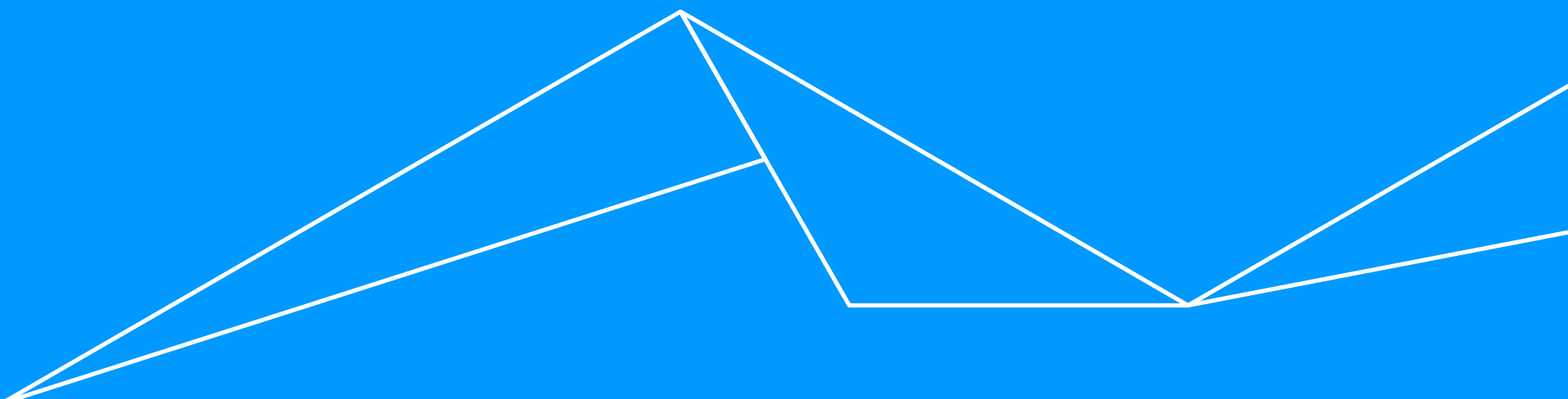
DELIVER CUSTOMER VALUE

SHAPE THE INDUSTRY ECOSYSTEM

SAFE AND SUSTAINABLE

EXCEPTIONAL PEOPLE AND AGILE EXECUTION

EVOLVE PORTFOLIO AND PARTNERSHIPS



Q&A