

# SANDVIK MINING AND ROCK TECHNOLOGY

CAPITAL MARKETS DAY

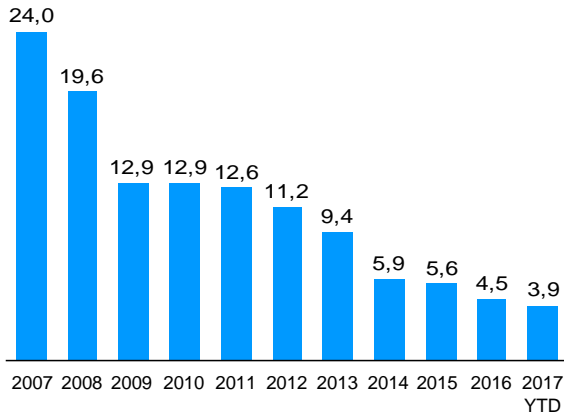
LARS ENGSTRÖM, PRESIDENT



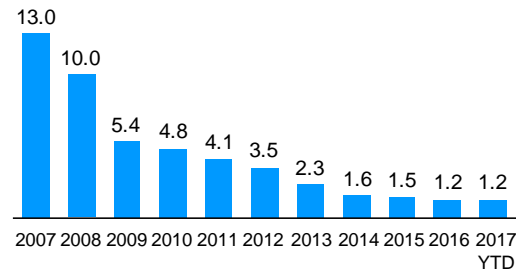
# SAFETY FIRST

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

## TRIFR\* by year



## LTIFR\* by year



- Industry leading in LTIFR level both as compared to peers and to customers
- Founding member of Mining Safety Round Table
- Strong internal safety culture

2 \*LTIFR – Lost-time injury frequency rate; TRIFR – Total recordable injury frequency rate

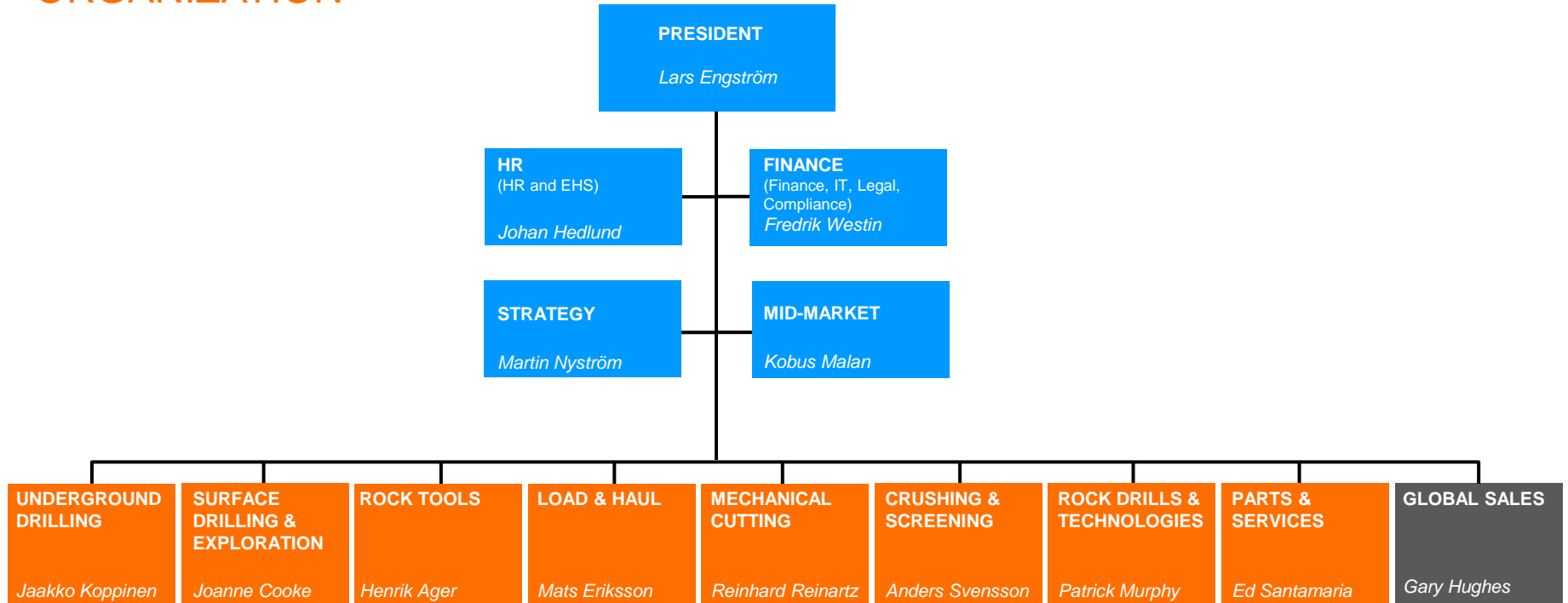




PIONEERING SOLUTIONS  
FOR TODAY AND TOMORROW  
SANDVIK MINING AND ROCK TECHNOLOGY

# SANDVIK MINING AND ROCK TECHNOLOGY

## ORGANIZATION



# SANDVIK MINING AND ROCK TECHNOLOGY

## MANAGEMENT TEAM AND PRODUCT AREAS



**FREDRIK WESTIN**  
CFO



**ED SANTAMARIA**  
PARTS &  
SERVICES



**REINHARD REINARTZ**  
MECHANICAL  
CUTTING



**GARY HUGES**  
GLOBAL  
SALES



**JOHAN HEDLUND**  
HR



**MATS ERIKSSON**  
LOAD & HAUL



**ANDERS SVENSSON**  
CRUSHING &  
SCREENING



**MARTIN NYSTRÖM**  
STRATEGY



**JOANNE COOKE**  
SURFACE  
DRILLING &  
EXPLORATION



**PATRICK MURPHY**  
ROCK DRILLS &  
TECHNOLOGIES



**KOBUS MALAN**  
MID MARKET



**HENRIK AGER**  
ROCK TOOLS  
(INCLUDING  
DRILLING  
& COMPLETION)



**JAAKKO KOPPINEN**  
UNDERGROUND  
DRILLING

# STRONG BUSINESS PERFORMANCE

Q1-Q3 2017

ORDER INTAKE

+23%

PROFITABILITY

+16%

NET WORKING  
CAPITAL

25%



# OUR BIGGEST SEGMENT IS MINING

Q1-Q3 2017

MINING

72%

CONSTRUCTION

25%

2017

OIL AND GAS

3%

Sandvik Mining and Rock Technology revenues by segment, % of total, Q1-Q3 2017



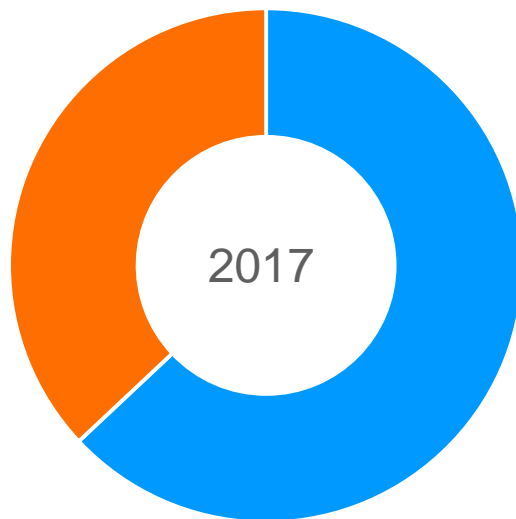


# SALES SPLIT

Q1-Q3 2017



**37%\***  
Equipment



**63%\***  
Aftermarket

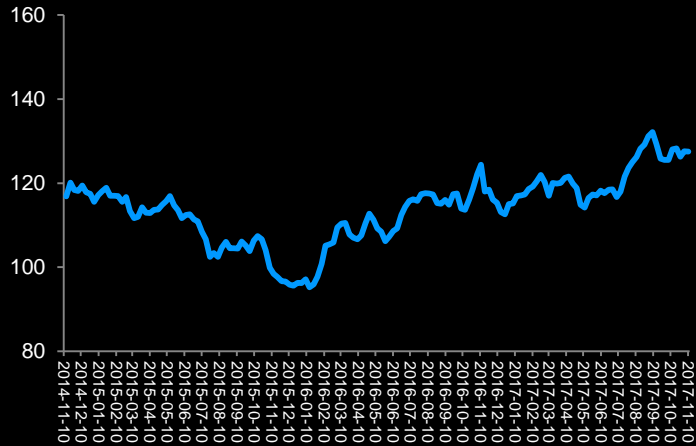
\*Invoicing



# MACRO ECONOMICS AND COMMODITY PRICES

## COMMODITY PRICE INDEX, WEEK 45

WEEKLY COMMODITY PRICE INDEX, base= 2007

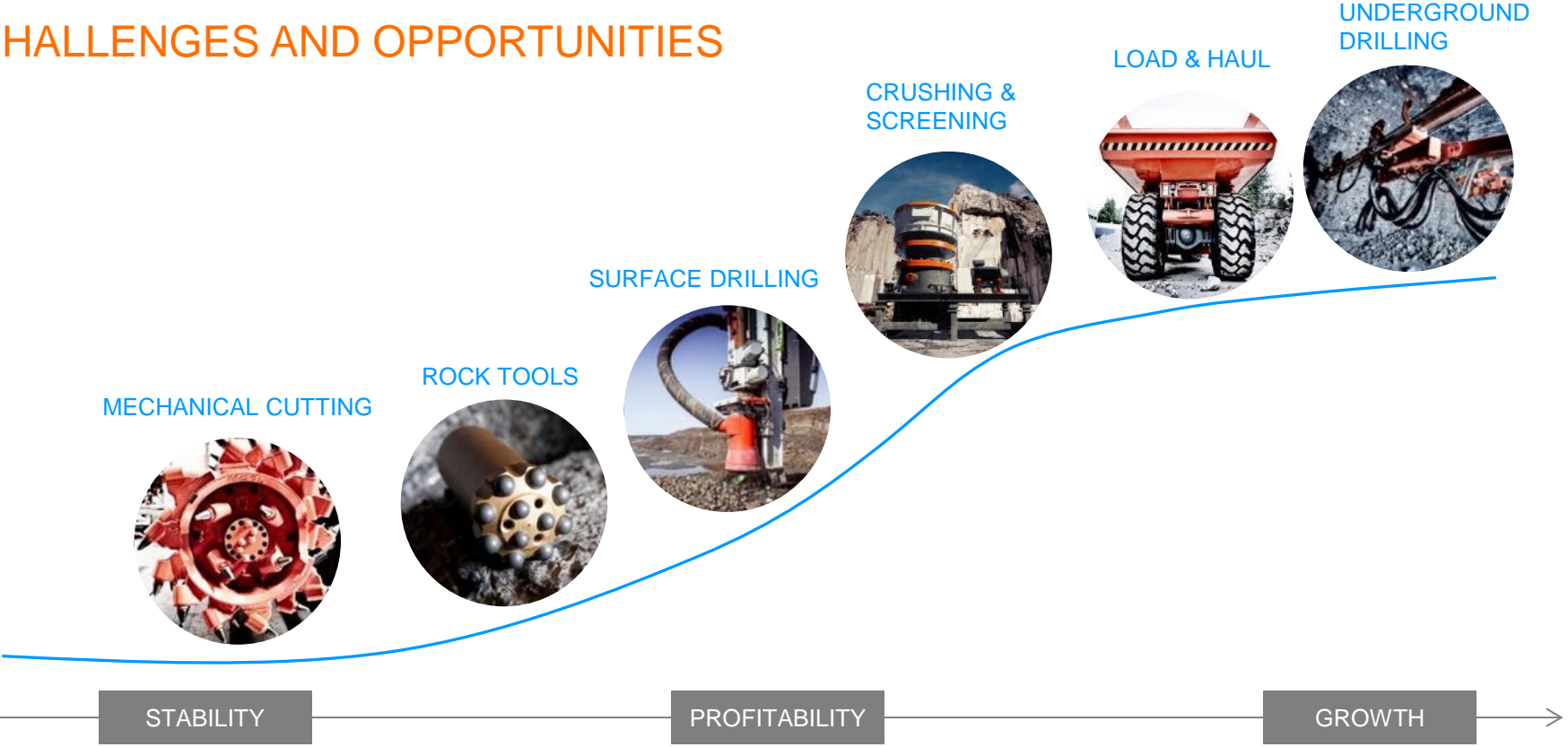


**NOTE:** Mixture of weighted commodities: coal 12%, copper (proxy for base metals) 40%, gold 32%, platinum 8% and iron ore 8%; arrow indicates weekly change.



# BUSINESS PORTFOLIO

## CHALLENGES AND OPPORTUNITIES



# BUSINESS PORTFOLIO

## MECHANICAL CUTTING



STABILITY

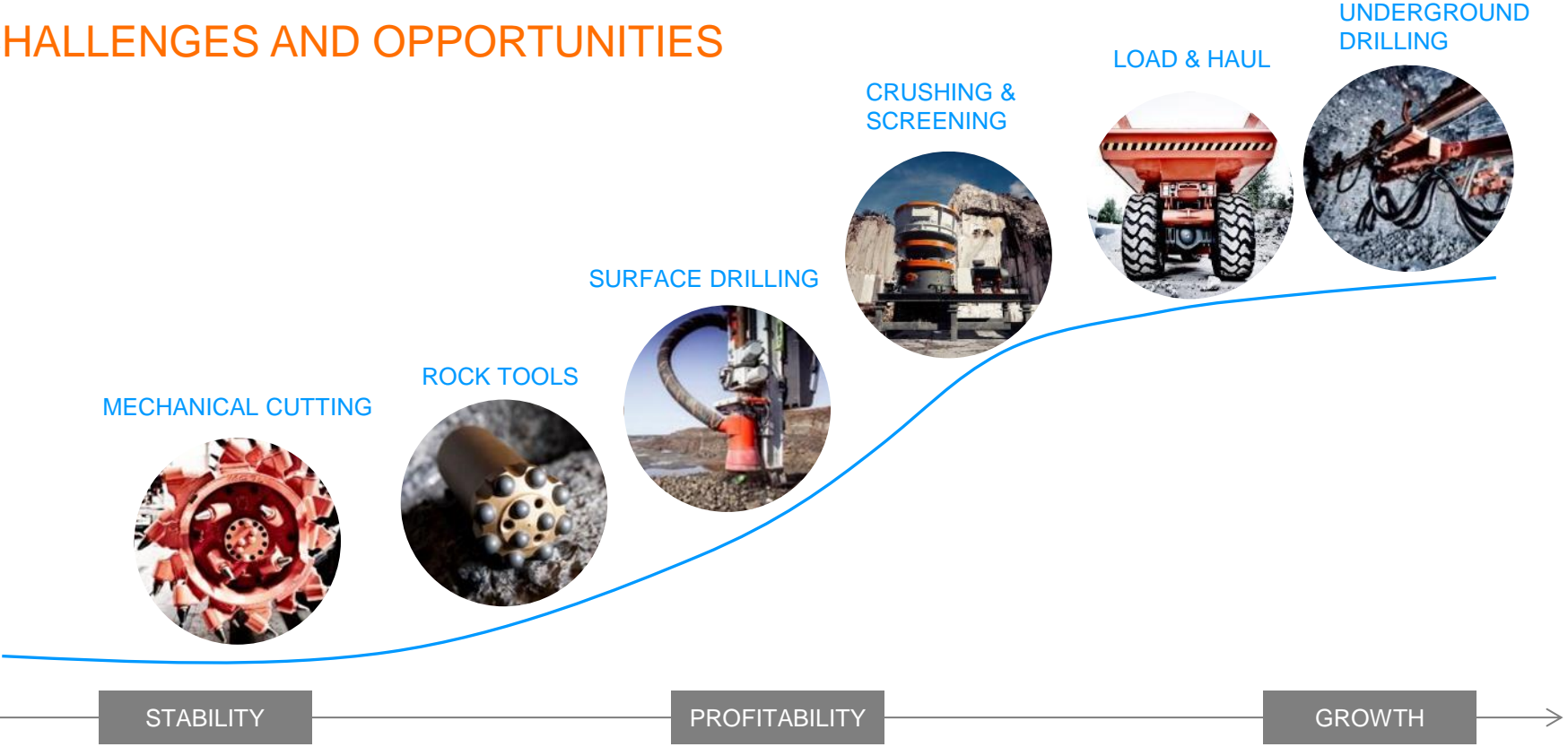
PROFITABILITY

GROWTH



# BUSINESS PORTFOLIO

## CHALLENGES AND OPPORTUNITIES



# BUSINESS PORTFOLIO

## ROCK TOOLS



STABILITY

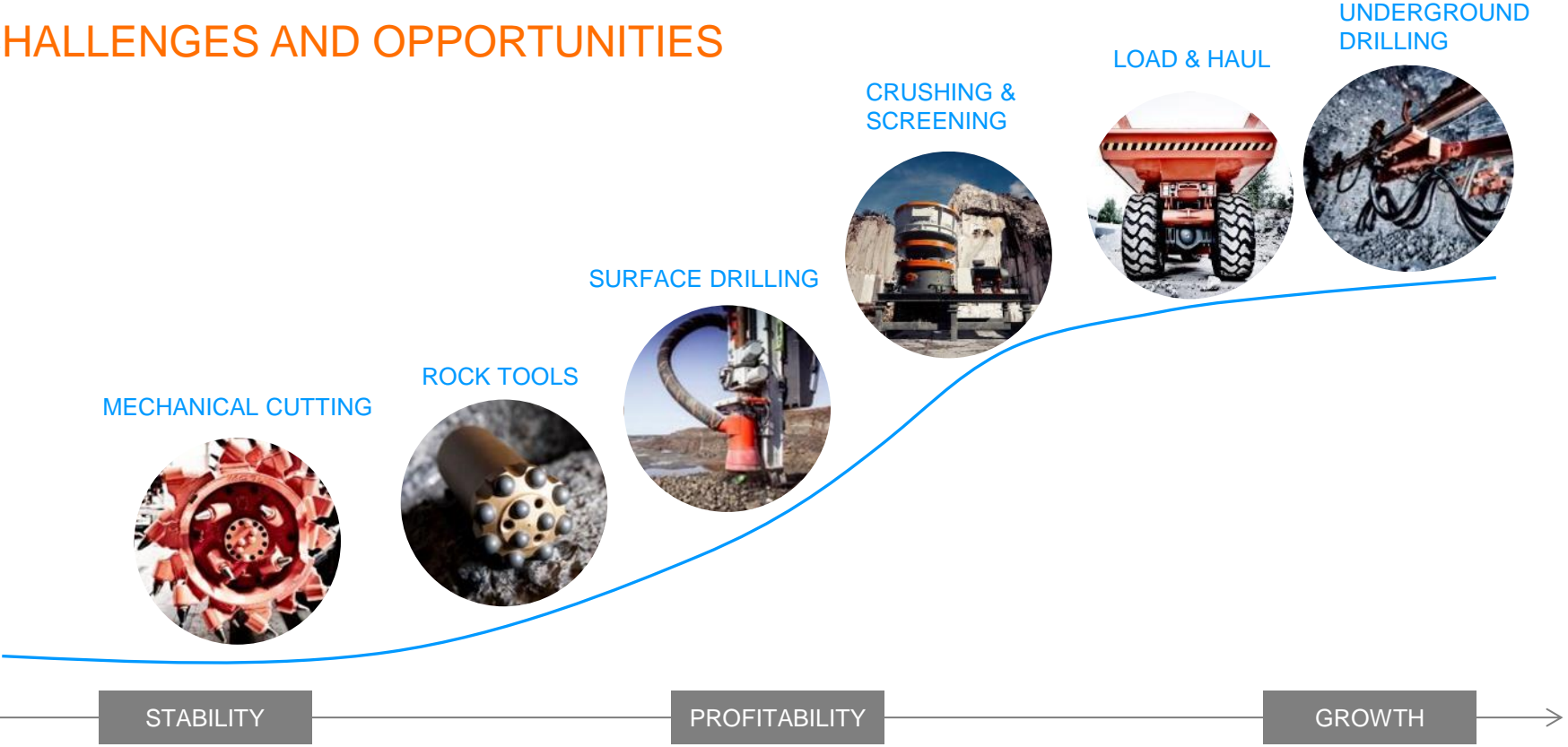
PROFITABILITY

GROWTH →



# BUSINESS PORTFOLIO

## CHALLENGES AND OPPORTUNITIES



# BUSINESS PORTFOLIO

## SURFACE DRILLING



STABILITY

PROFITABILITY

GROWTH →





# BUSINESS PORTFOLIO

## CHALLENGES AND OPPORTUNITIES

MECHANICAL CUTTING



ROCK TOOLS



SURFACE DRILLING



CRUSHING & SCREENING



LOAD & HAUL



UNDERGROUND DRILLING



STABILITY

PROFITABILITY

GROWTH



# BUSINESS PORTFOLIO

## CRUSHING & SCREENING



STABILITY

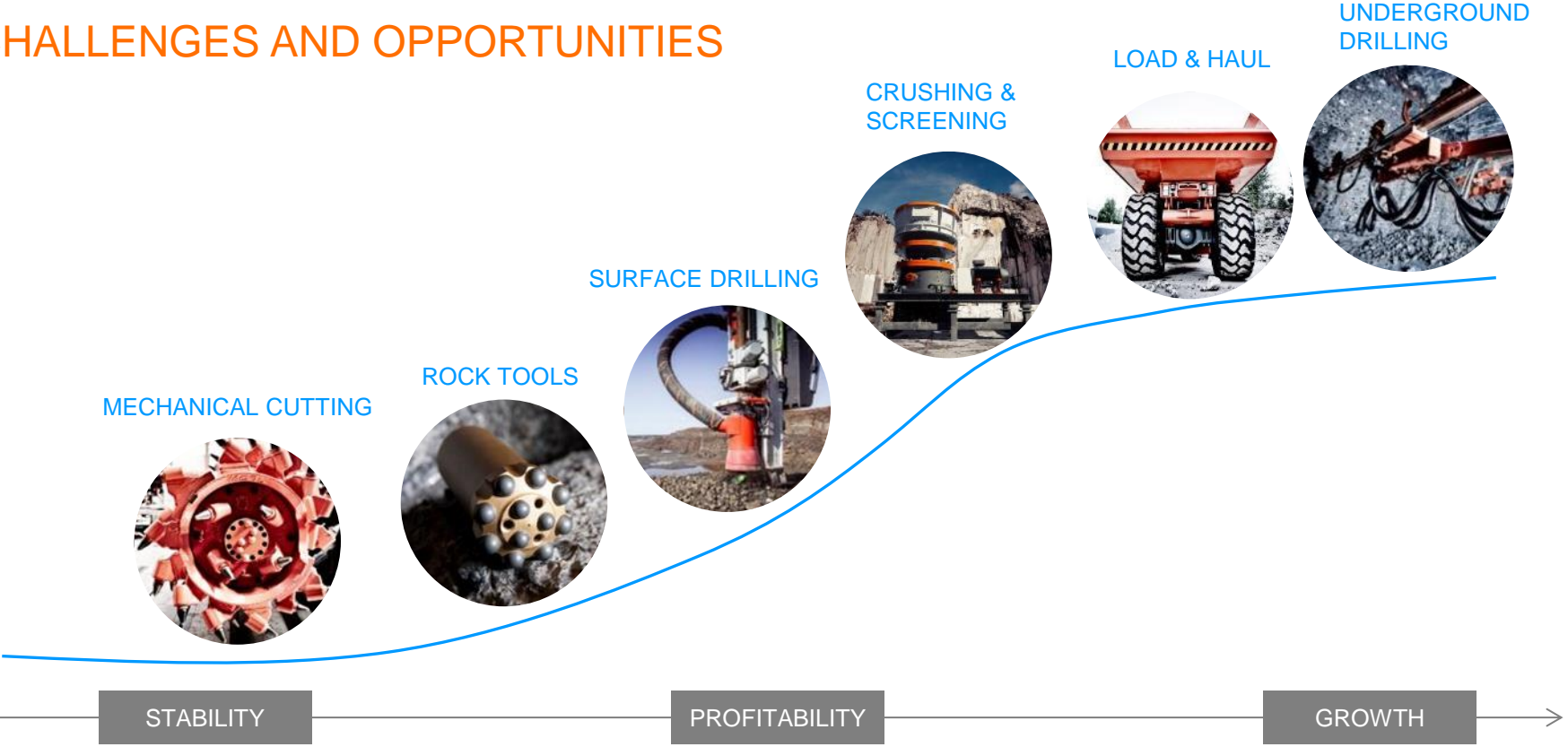
PROFITABILITY

GROWTH →



# BUSINESS PORTFOLIO

## CHALLENGES AND OPPORTUNITIES



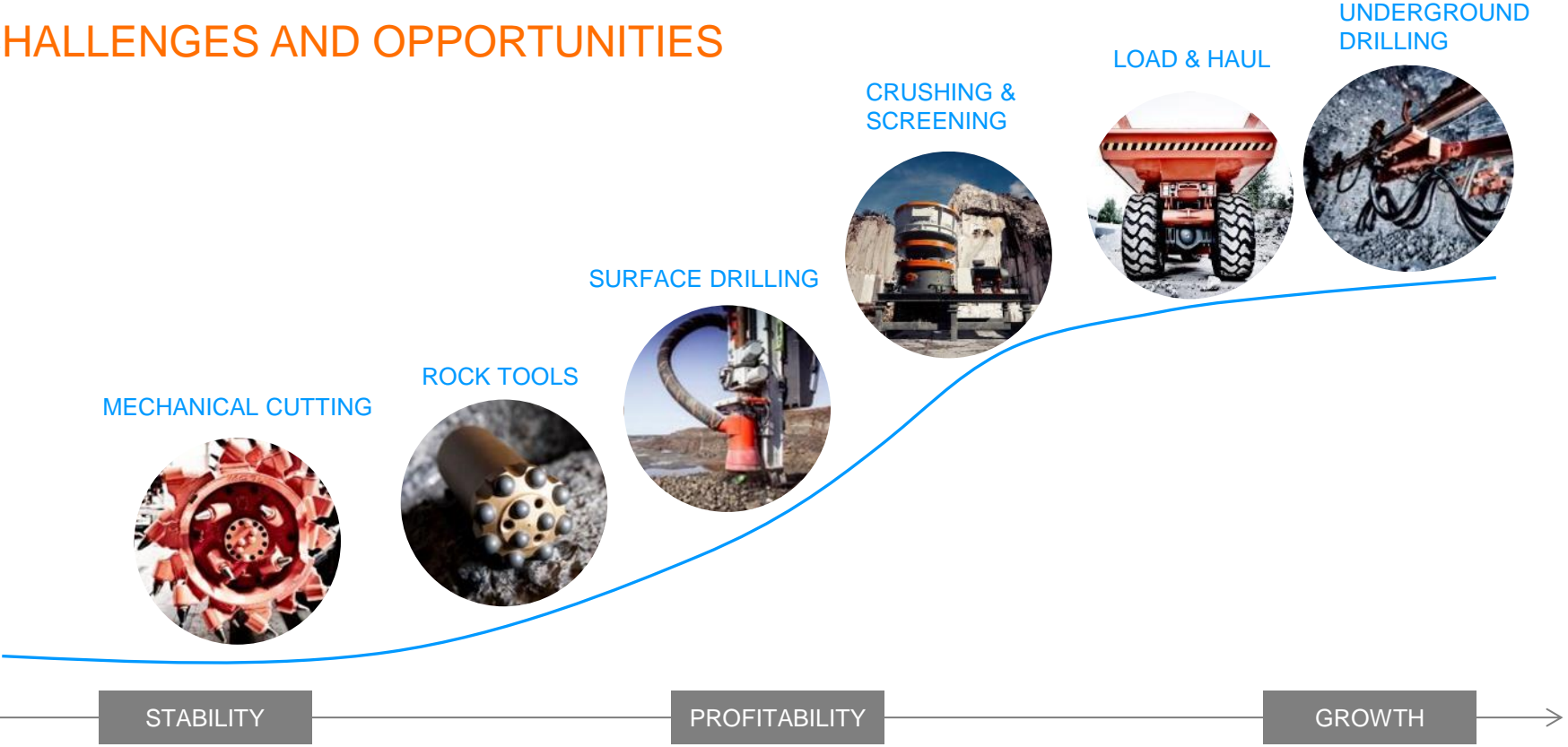
# BUSINESS PORTFOLIO

## LOAD AND HAUL



# BUSINESS PORTFOLIO

## CHALLENGES AND OPPORTUNITIES



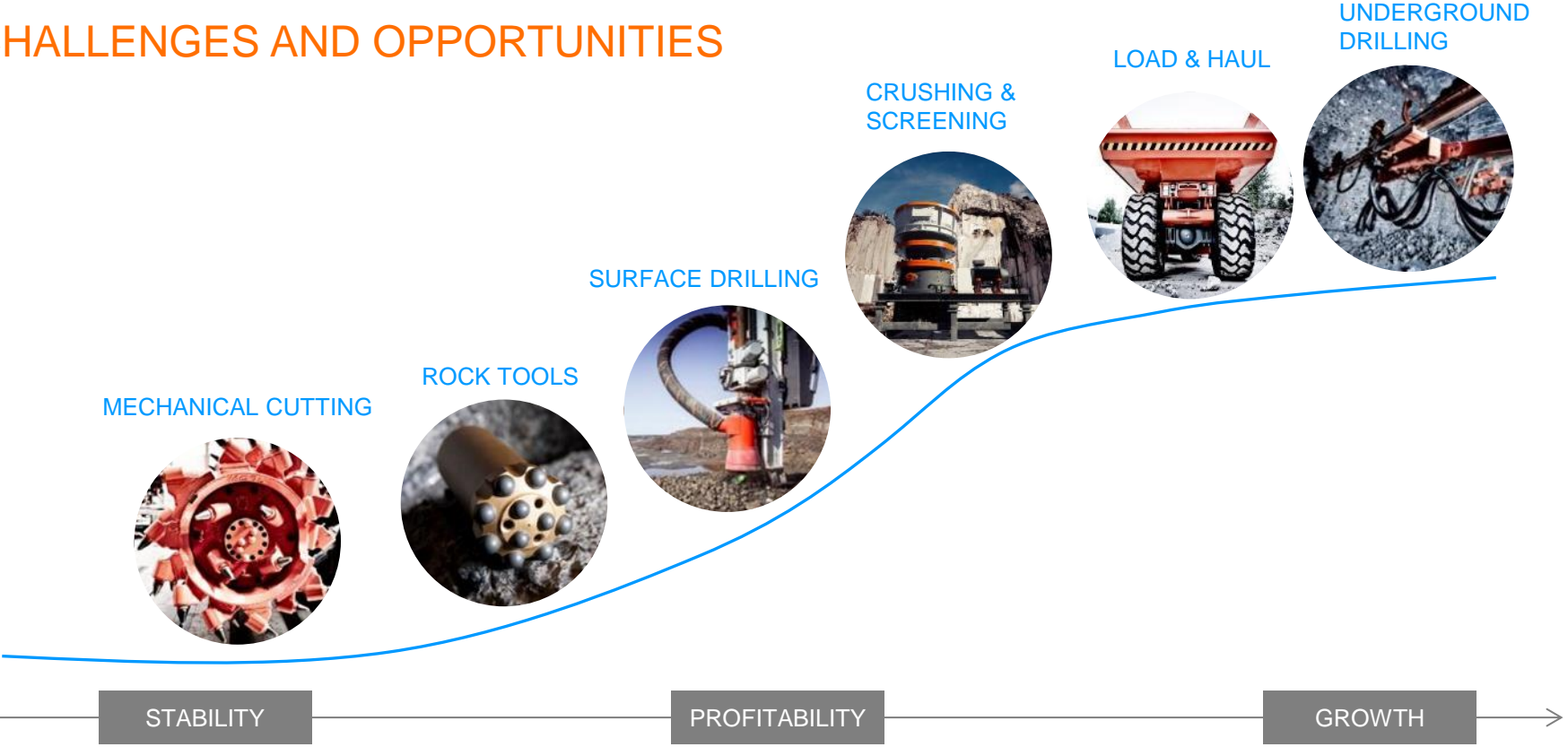
# BUSINESS PORTFOLIO

## UNDERGROUND DRILLING



# BUSINESS PORTFOLIO

## CHALLENGES AND OPPORTUNITIES





# KEY STEPS TO TRANSFORM AFTERMARKET

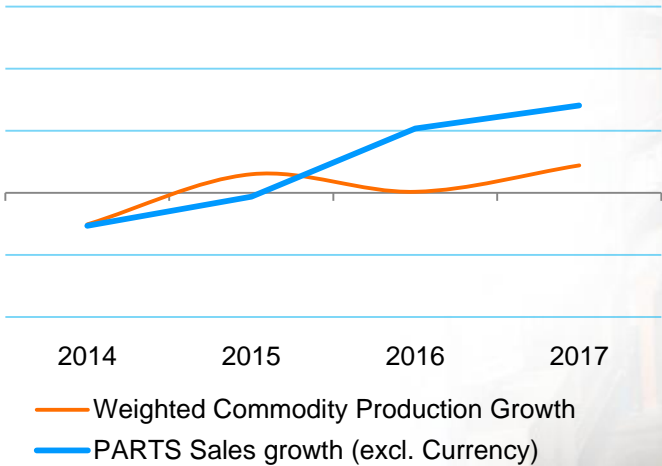
- 1 | Transparency of the installed fleet and understanding of lifecycle support needs.
- 2 | One customer offering with higher presence and closeness to the fleet.
- 3 | Customer experience supported both through Sandvik support centers and highly automated e-commerce platform.
- 4 | Strong execution focus and enabled sales force.



# AFTERMARKET VISION & RECENT DEVELOPMENT

## AFTERMARKET DEVELOPMENT

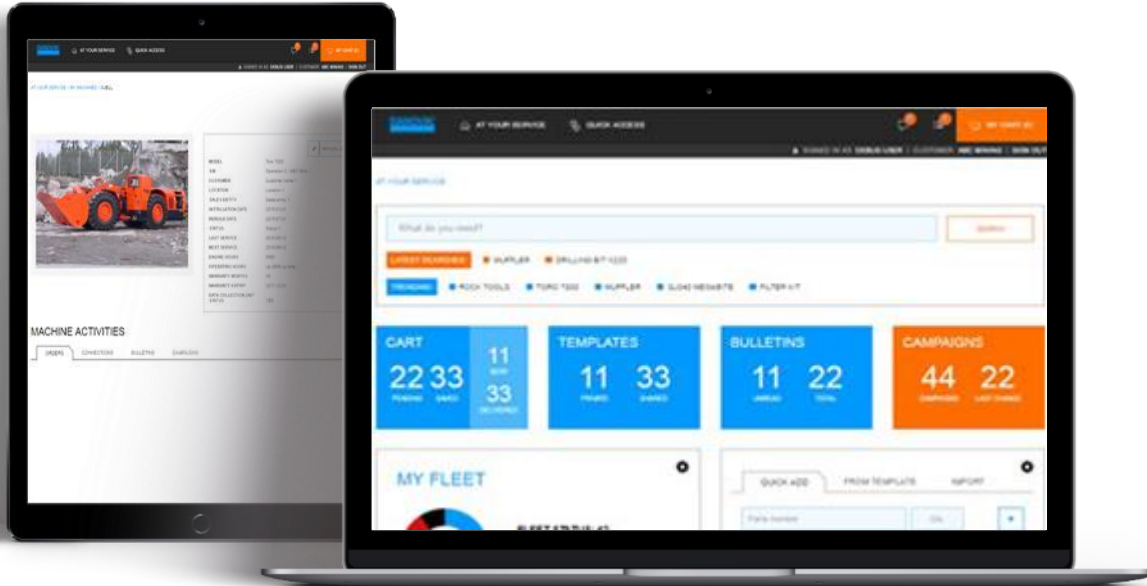
YOY GROWTH VS WEIGHTED  
COMMODITY PRODUCTION



# 365 DIGITAL SERVICE SOLUTIONS OPTIMIZE YOUR PERFORMANCE

PARTS AND SERVICES

# MY SANDVIK SERVICES



# DIGITAL OFFERING FRAMEWORK



## Autonomous equipment & features

What it is

Onboard autonomous features, smart rock tools & systems for remote to autonomous operations

How it creates value

Support or fully take over manual tasks



## Connected equipment

Collection, transfer and visualization of data on fleet health and status

Remote and real-time support for planning and monitoring across sites



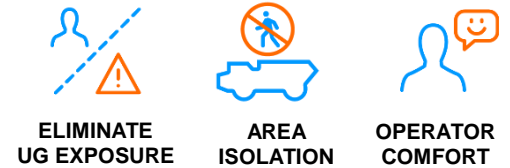
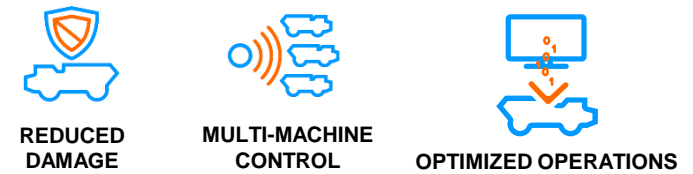
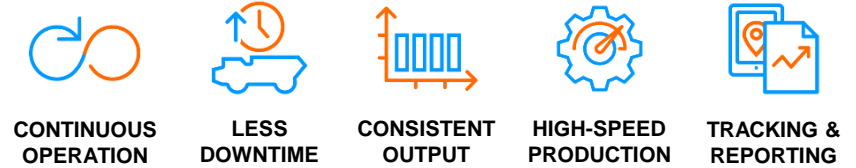
## Analytics and process optimization

Solutions based on processed data from equipment, rock tools, customers' systems, environment

Predictive insights and real-time analytics to improve operator & asset performance

Equipment & Applications  
Hardware, Software, Services

# WHY DIGITALIZATION?





# OPTIMINE®

FROM DATA TO ACTION

1

IDENTIFY AREAS OF IMPROVEMENT

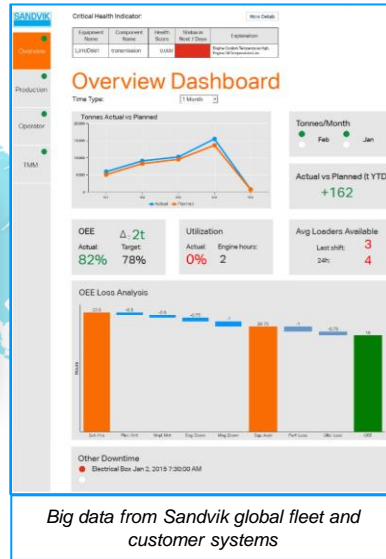
2

PREDICT WITH ACCURACY

3

REALIZE VALUE BY TAKING ACTION

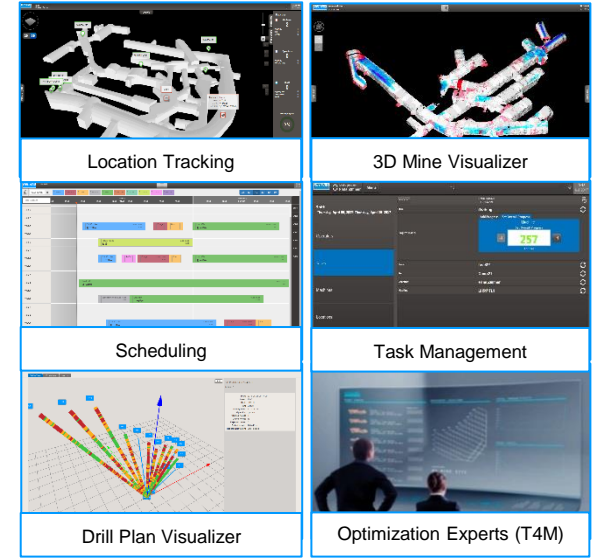
Integrated with customer digital ecosystem



Big data from Sandvik global fleet and customer systems



Proprietary predictive models for process optimization



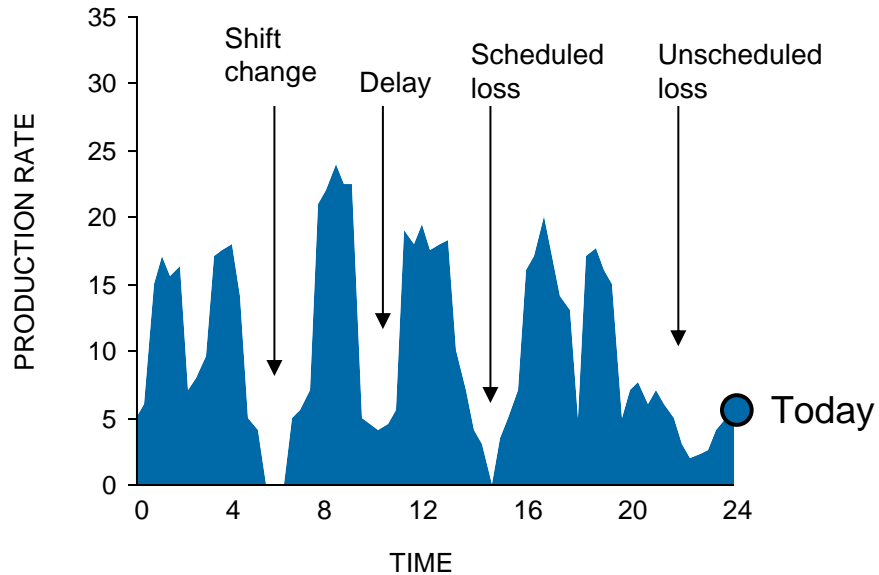
OptiMine Short Interval Control

OptiMine Analytics



# CUSTOMER OUTCOME

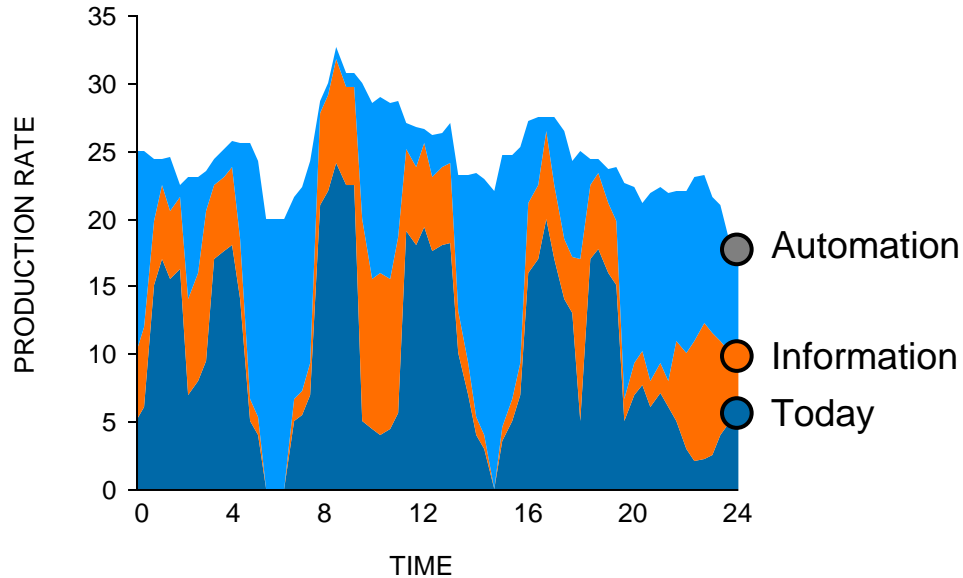
MORE, LOWER-COST & SAFER TONS



Sandvik DD422iE

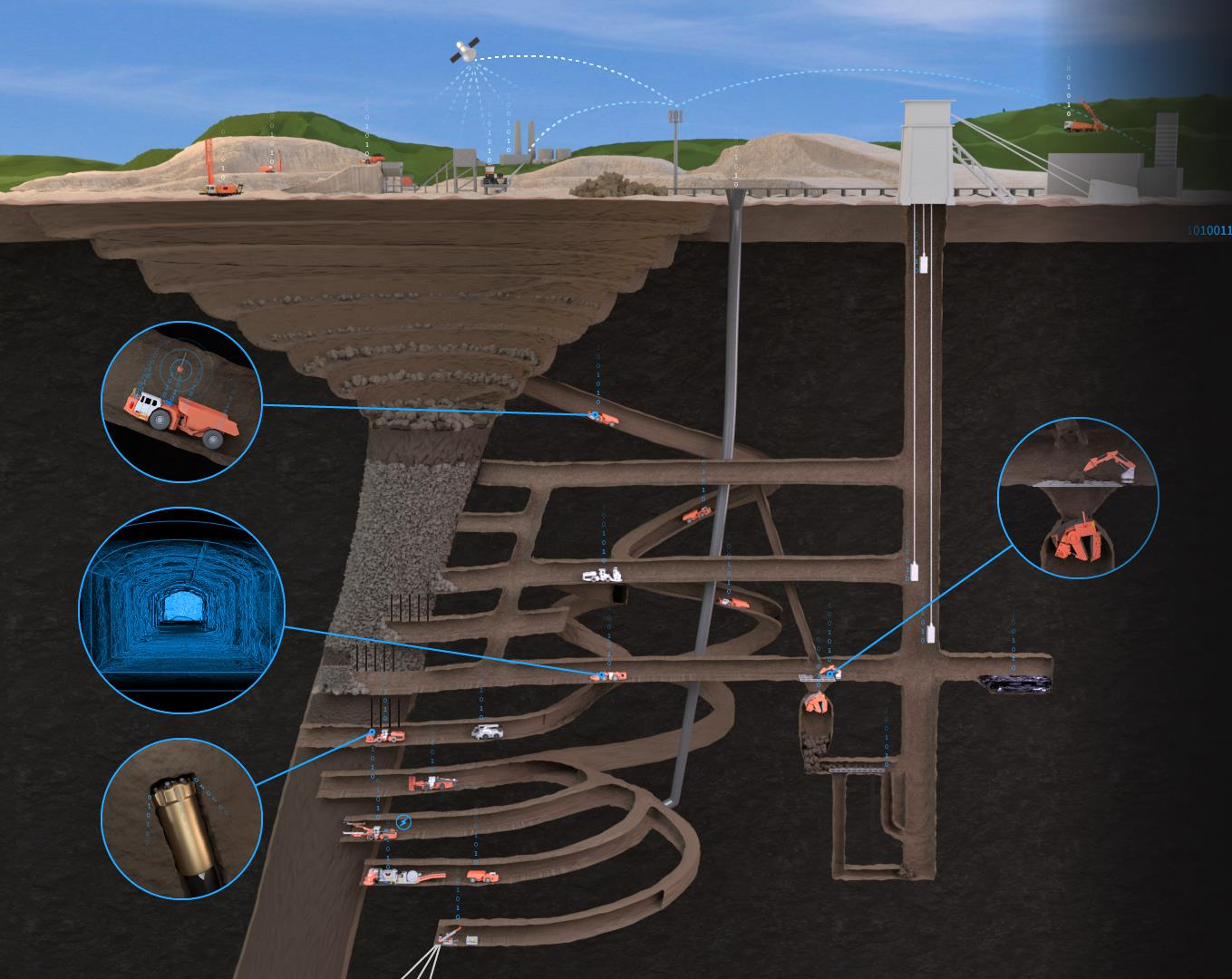
# CUSTOMER OUTCOME

MORE, LOWER-COST & SAFER TONS



Sandvik DD422iE





# ANNOUNCING A NEW GLOBAL PARTNER:



## EXPANDING THE DIGITAL ECOSYSTEM



- Mine Control Room
- Automation Systems
- Connected Equipment Platform
- Analytics & Process Optimization

- Security
- Access Points
- Wireless Controllers
- Routing & Switching

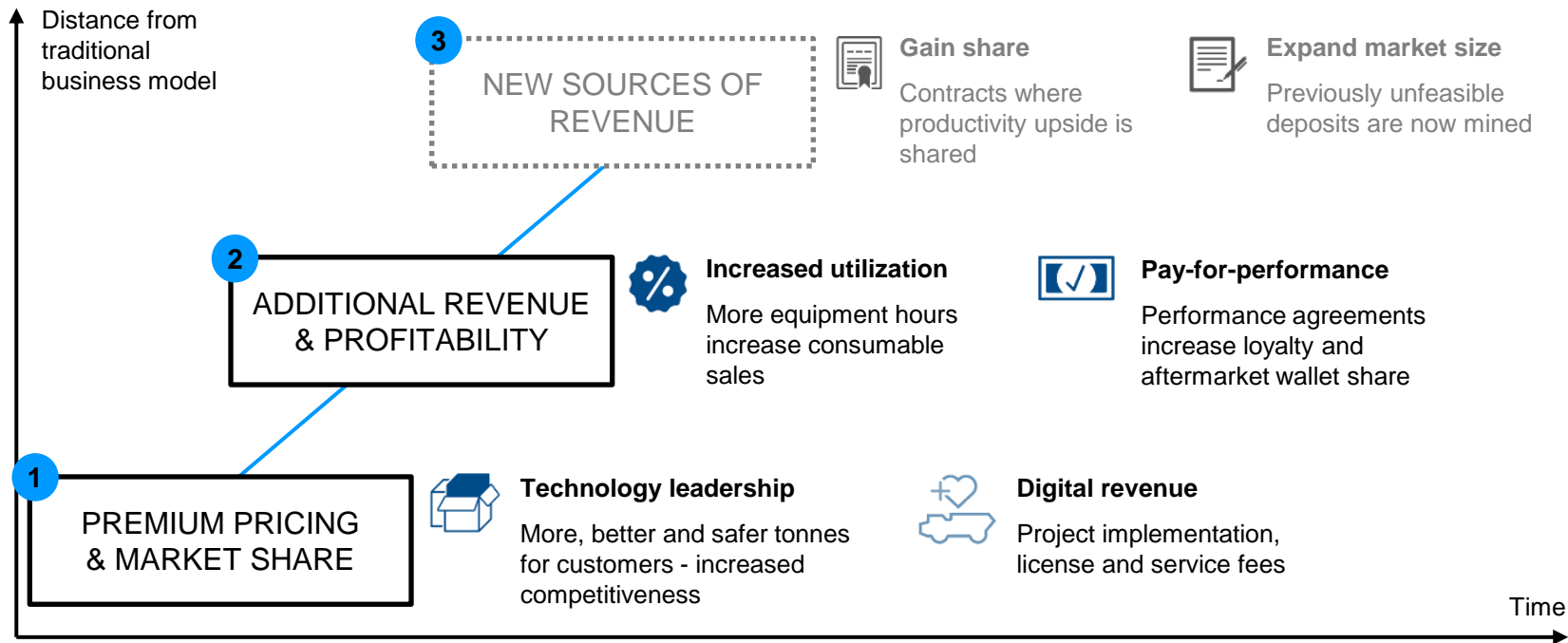
- ✓ END-TO-END PROJECTS
- ✓ FAST AND SECURE
- ✓ COMPLEMENTARY PRODUCTS



- ✓ SOLUTION TAILORED FOR MINING CUSTOMERS



# COMMERCIAL LOGIC OF DIGITAL OFFERING



**End Game:**

CUSTOMER COST PER TONNE



SANDVIK VALUE PER TONNE



# AUTOMATION HAS HIT A TIPPING POINT

AUTOMINE® IS NOW VIEWED AS A “MUST  
HAVE” IN MANY MARKETS

- Example: Resolute Mining (ASX:RSG) will develop their greenfield underground gold mining operation in Mali around a fully automated Sandvik production system



# Resolute's journey to automation

A journey towards improved safety and cost reduction

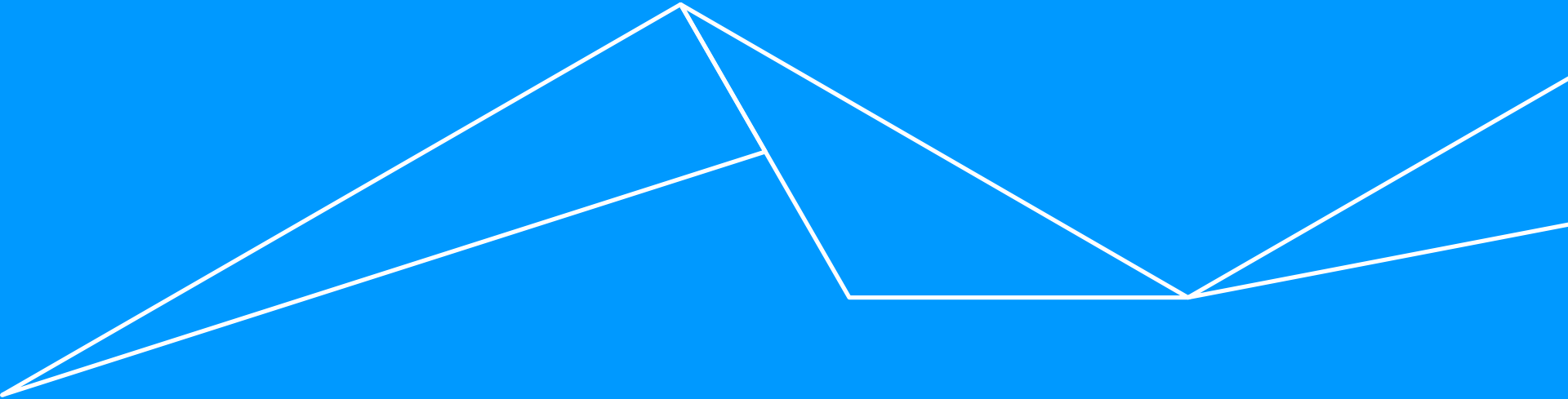


**Resolute**



- A clear management focus on safety, innovation and cost reduction
- Sandvik's integrated product package provides a full service of proven technologies and equipment
- Innovation and technology rather than cost cutting delivers long term improvement
- Syama is a unique opportunity to bring together a suite of proven technologies into a greenfields project
- A vision for a remote operations centre





THANK YOU

