



# ***Atlas Copco Mining and Rock Excavation Technique***

Capital Markets Day 2017  
Helena Hedblom, Business Area President

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*Atlas Copco*

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# Agenda

- 1 Facts in brief
- 2 Business fundamentals
- 3 Customer value in global trends
- 4 Summary



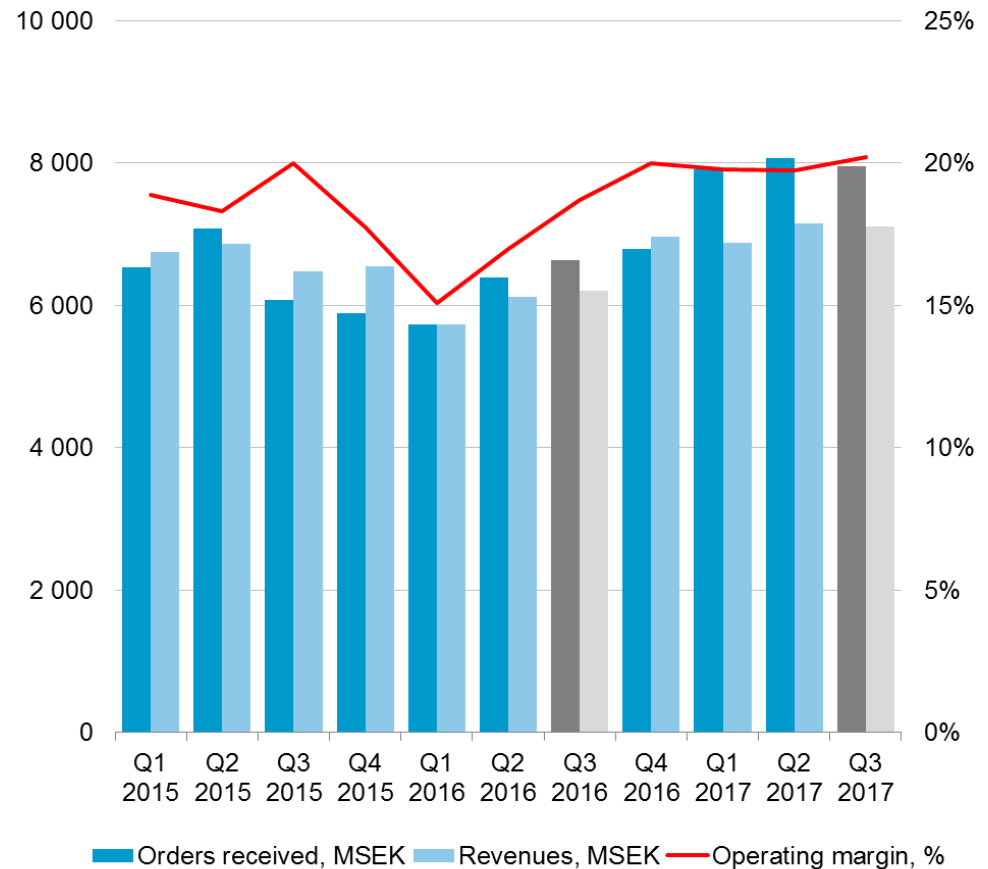
# Mining and Rock Excavation Technique

ROCE  
41%

## Growth drivers

- Innovations and automation
- Focus on customers' total cost of ownership
- Strengthen agility and resilience
- Grow service and consumables

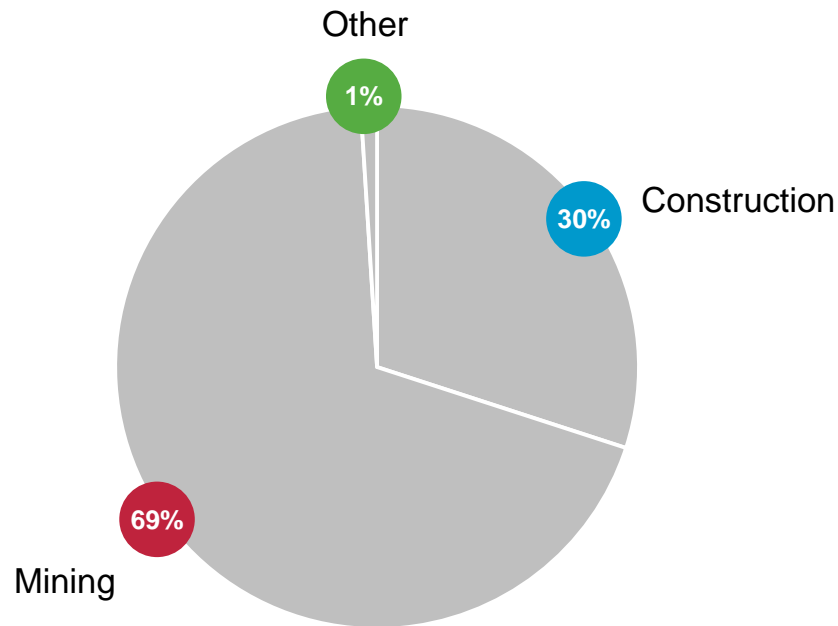
## Orders, revenues and operating margin



# Mining and Rock Excavation Technique

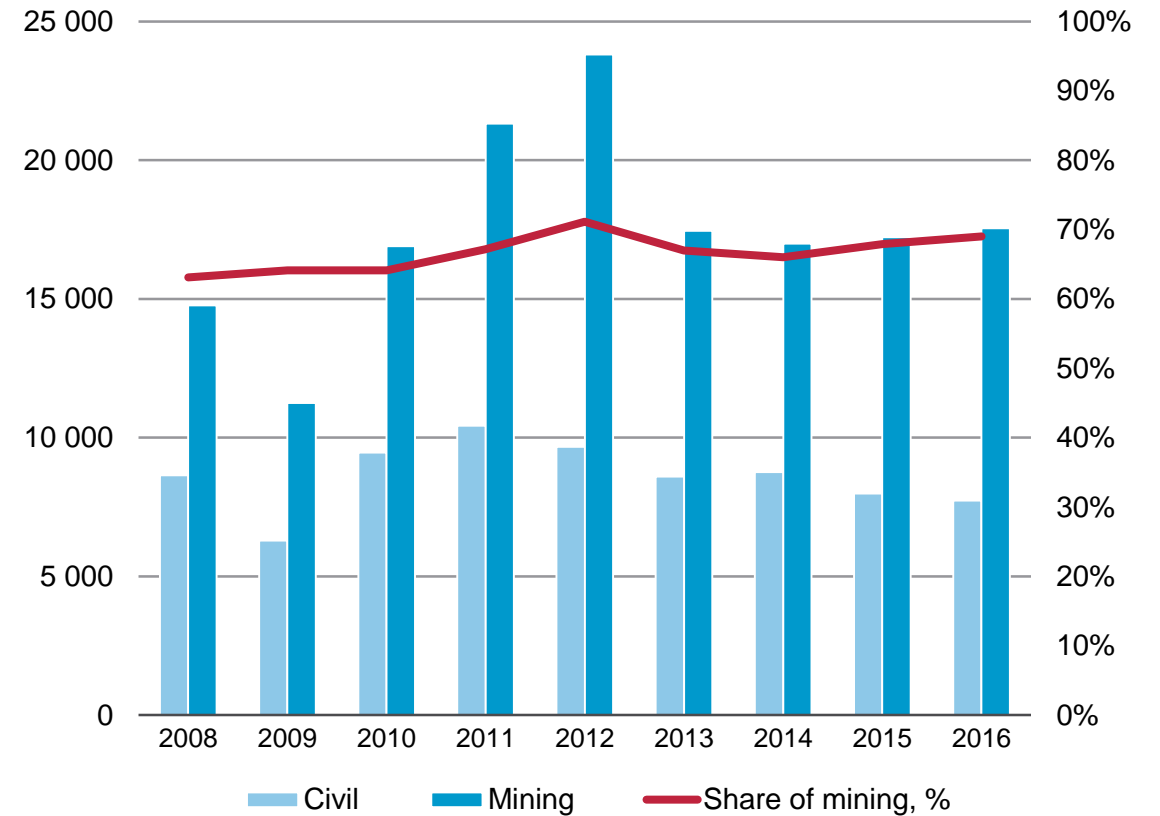
## Customer split

Orders received by customer category



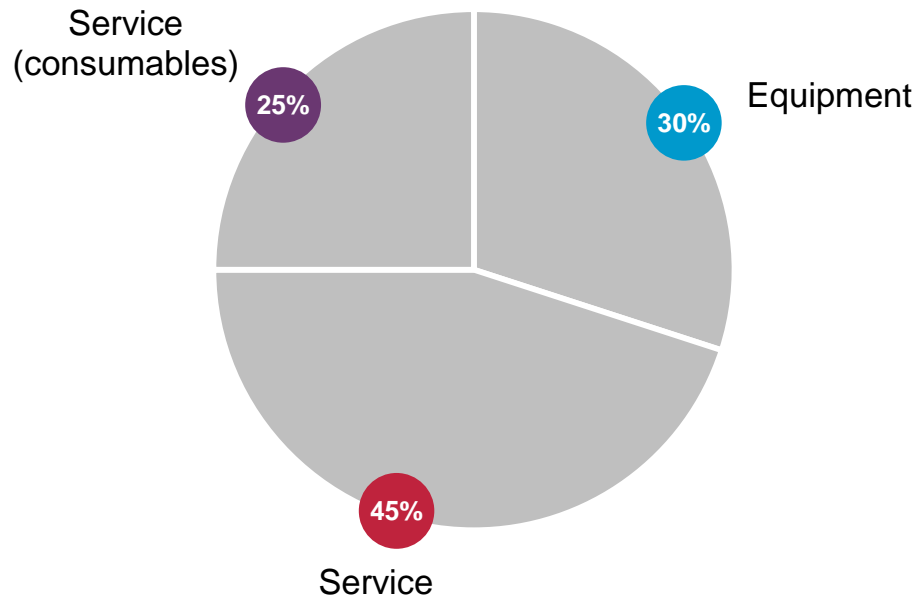
Orders received 2016

Orders received 12 months figures



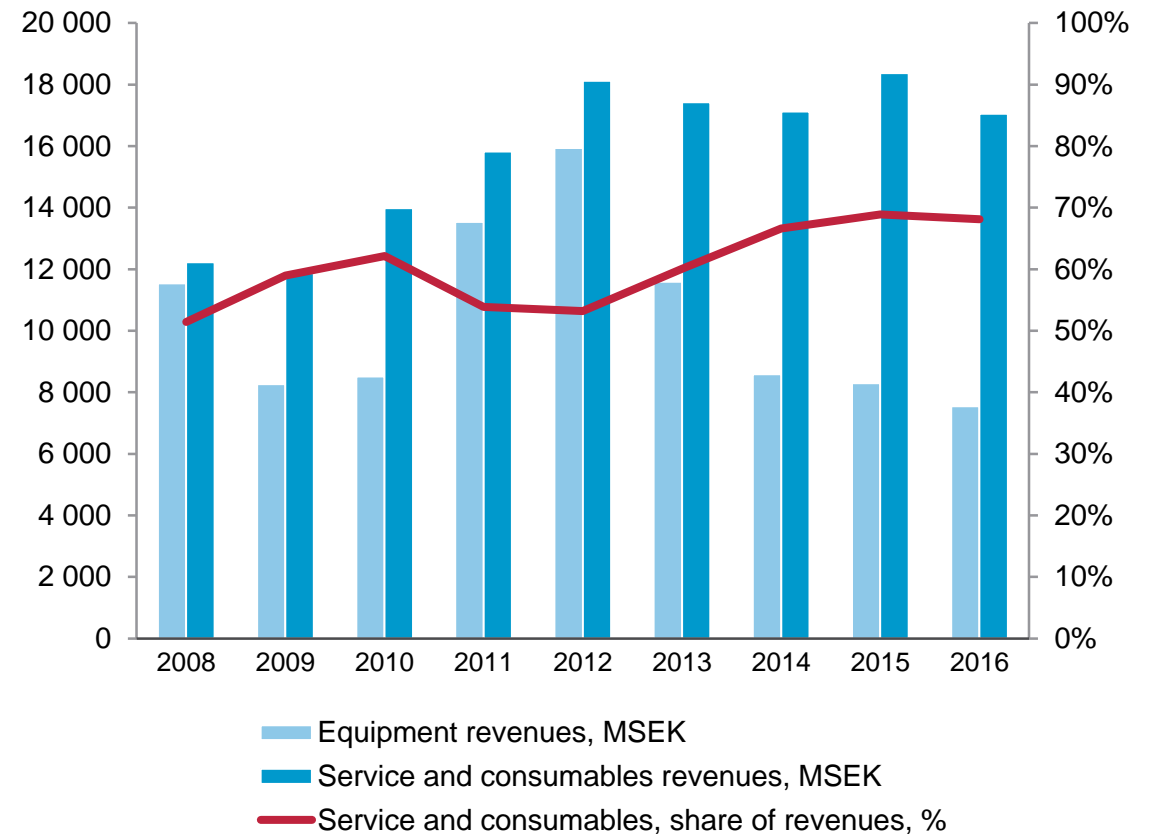
# Mining and Rock Excavation Technique

## Revenues by business type



Revenues December 2016, 12 months figures

## Revenues 12 months figures



Equipment revenues, MSEK

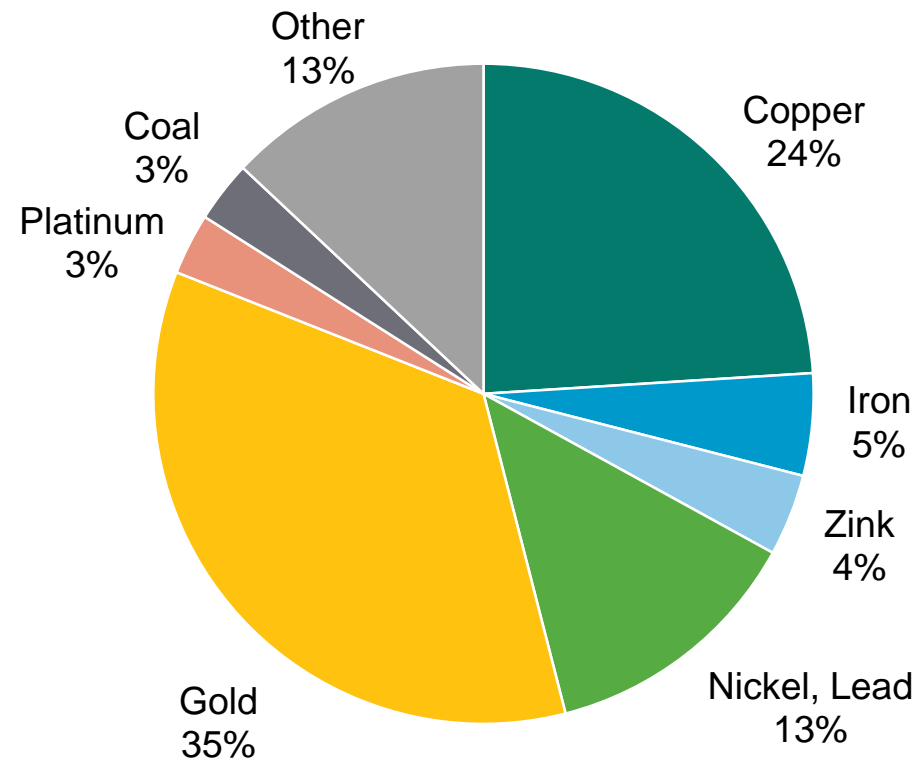
Service and consumables revenues, MSEK

Service and consumables, share of revenues, %

# Mining

## Estimated exposure to minerals

June 2017



Orders received June 2017, 12 months figures (all business types)

# Mining and Rock Excavation Technique

Underground mining



Surface mining



Exploration



Underground civil engineering



Surface civil engineering,  
urban development, quarrying



Geotechnical, ground engineering  
well drilling oil and gas



## *Business fundamentals*



**Agility and  
resilience**  
through a strong  
aftermarket  
position



# Business fundamentals




Opportunities  
and presence  
in profitable  
niche markets

# Business fundamentals

**Sustainability**  
as a core value  
in our strategy

# Business fundamentals



Our innovation  
is founded in  
**people and  
knowledge**

# Creating customer value on global trends: Mine of the future



1 Fossil free mine



4 Digitalization



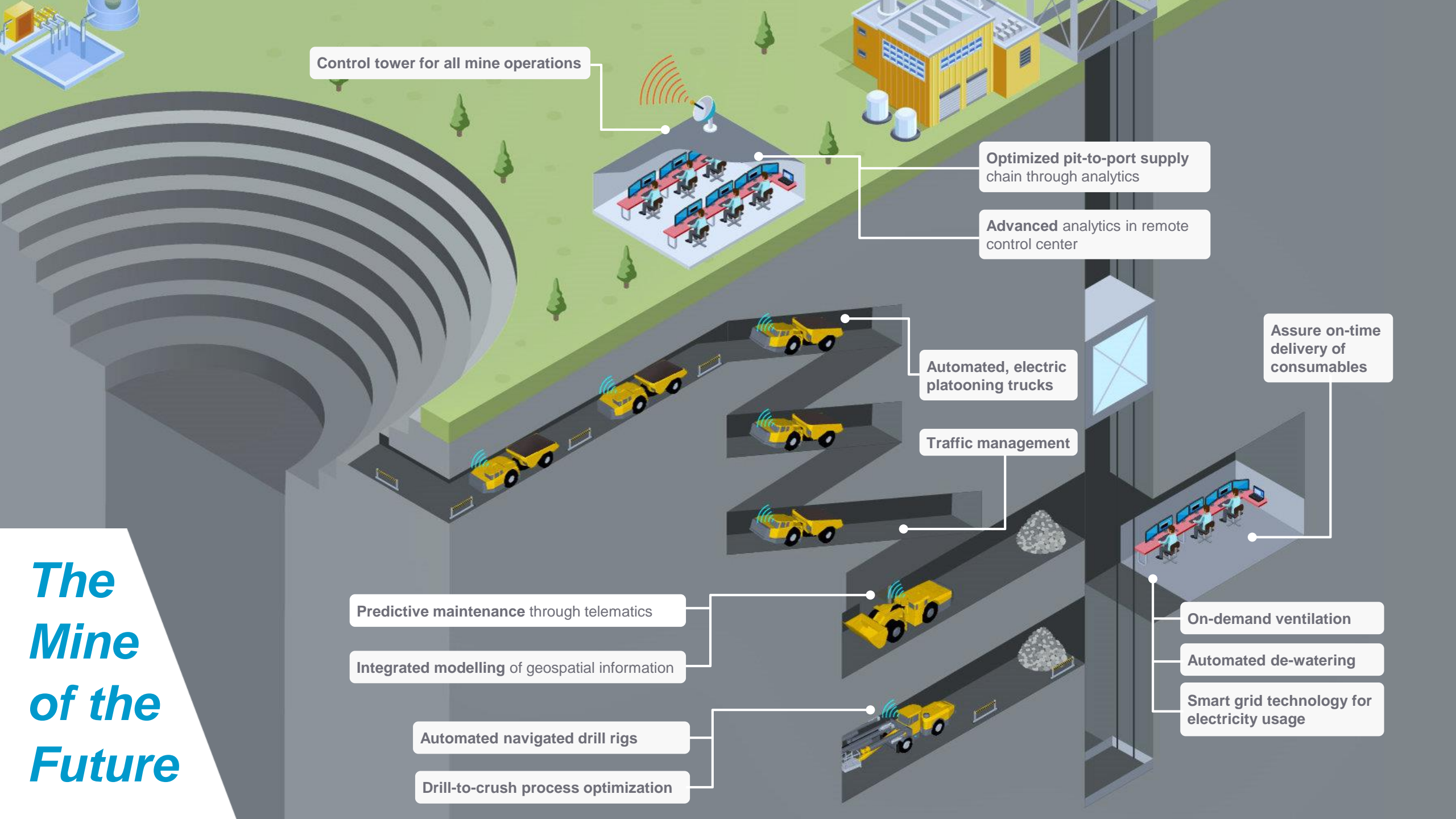
2 Interoperability

3 Automation



5 Mechanical rock excavation

# The Mine of the Future



# Fossil free mine: battery operated equipment

## Creating customer value on global trends

- ▶ Complete fleet of electrified mining equipment
- ▶ Common infrastructure
- ▶ From ventilation on demand to fossil free



- 1 Cleaner, safer and more flexible operations
- 2 Potential for greater production at reduced cost due to less need for mine ventilation
  - ✓ 80% less energy for the same amount of work than a diesel machine
  - ✓ 100% reduction in CO<sub>2</sub> from diesel



# Interoperability & automation: underground mining

## Creating customer value on global trends

- ▶ From asset control to process control
- ▶ From connected equipment to real time mining
- ▶ From supplier to business improvement partner

- 1 Increased safety, productivity and reliability
  - 2 Support for continuous improvement
  - 3 Higher equipment utilization & predictability
- ✓ 20% improvement in rock reinforcement activity thanks to Boltec reporting status



# Interoperability & automation: surface mining

## Creating customer value on global trends

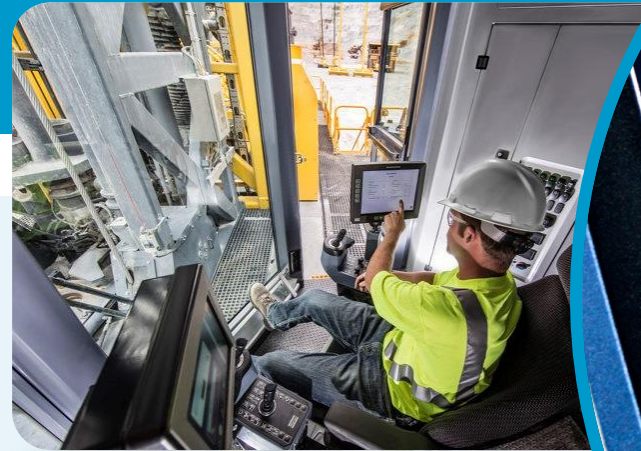
- ▶ From asset control to process control
- ▶ From connected equipment to real time mining
- ▶ From supplier to business improvement partner

- 1 Increased safety, productivity and reliability
- 2 Higher Predictability allowing process to run at prescribed intervals

**Autonomous Pit Viper** ✓ 16% faster per cycle - 20% better utilization – 30% increased drill capacity

**SmartROC** ✓ Automation enabled with full drill cycle – automatic feed positioning – hole navigation system – remote operation

✓ Fleet monitoring with Certiq, Surface and ROC manager





# Digitalization: the mine alliance

## Creating customer value on global trends

- ▶ Performance center for global connectivity
- ▶ Mine of the future

- 1 Certiq
  - ✓ Full data monitoring access
  - ✓ Predictive maintenance
- 2 Mobilaris
  - ✓ Real time asset positioning
- 3 Saab / Combitech
  - ✓ Control tower, cyber security & ecosystem solutions



# Mine Alliance

**SAAB** System Integration – Network Management – Advanced Analytics – System Security

**SAAB** Fleet/Traffic Management System

## Atlas Copco Equipment



## Other OEM



## Real Time Positioning



**Mobilaris**

## Process Control



**ABB**

## Dynamic Mine & Plant Real Time

Mine Planning

Work Management

Production/  
Maintenance  
Scheduling

Production  
Management

Ops Modelling &  
Simulation

Business  
Planning

**Dassault  
Systems**



*Together with partners we offer complete mine systems solutions*

# Mechanical Rock Excavation

Creating customer value on global trends

► From high performance drilling and blasting to continuous mining



- 1 Complete fleet in one machine with high precision profiling
- 2 Easier scheduling and planning for increased efficiency and predictability
- 3 Safer operations through automation and remote operation



## Summary – Mining and Rock Excavation Technique

- Agile and resilient with strong after market position
- Strong innovation focus
- Creating customer value through battery technology, automation and digitalization



***Committed to  
sustainable productivity.***



*Atlas Copco*



# *Cautionary Statement*

“Some statements herein are forward-looking and the actual outcome could be materially different. In addition to the factors explicitly commented upon, the actual outcome could be materially and adversely affected by other factors such as the effect of economic conditions, exchange-rate and interest-rate movements, political risks, the impact of competing products and their pricing, product development, commercialization and technological difficulties, supply disturbances, and major customer credit losses.”