INNOVATION

Atlas Copco Capital Markets Day 2014
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COMMITTED TO SUSTAINABLE PRODUCTIVITY

We stand by our responsibilities towards our customers, towards the environment and the people around us. We make performance stand the test of time. This is what we call – Sustainable Productivity.
AGENDA

1. Innovation drivers
2. How do we work with innovation
3. Innovations
4. Summary

INNOVATION DRIVERS
Trends

- Increased demand for natural resources
- Increased demand for automation / fleet management and safety
- Focus on energy efficiency and carbon footprint
- Growth in emerging markets' middle segment
- A growing demand for competent labor
- Quicker communication and availability of information
HOW WE WORK WITH INNOVATION

Technology level

Process

System

Product

Short term and long term simultaneously

Today

2020+

PRODUCT INNOVATION

ST 18 loader
PRODUCT INNOVATION
Differentiated value proposition

SERVICE INNOVATION
Training
Rig Scan
Service packaging
CONSUMABLES INNOVATION

Threaded equipment
…and more

MECHANIZED ROCK EXCAVATION

Easier
…and more
MINING AUTOMATION

- **Automation**: Operator onboard, but is assisted by technology.
- **Remote automation**: Operator interacts remotely — ability to operate multiple machines.
- **Autonomous**: Operations with minimal or no human interaction.

AUTOMATION

- Rig Control System installed on equipment increases productivity and enables automation.
- Large installed fleet.
MINING AUTOMATION

Remote automation
Operator interacts remotely – ability to operate multiple machines

Automation
Operator onboard, but is assisted by technology

Autonomous
Operations with minimal or no human interaction

MULTI-MACHINE OPERATIONS

One operator can monitor and operate up to six production drill rigs

One shift per day – rigs on auto through the night

Operators sit in office
**LOADER AUTOMATION**

14 ton loader operating in a 10 ton loader sized drift
Control room 80 km from the mine

**BENCH REMOTE**

One operator runs two drill rigs with remote control
MINING AUTOMATION

- **Automation**
  Operator onboard, but is assisted by technology

- **Remote automation**
  Operator interacts remotely – ability to operate multiple machines

- **Autonomous**
  Operations with minimal or no human interaction

FULLY AUTONOMOUS
MINING AUTOMATION – THE FUTURE
Large installed fleet with process control and consultancy products

SUMMARY
- More productive and efficient equipment, services and consumables
- Mechanization and automation
- Efficiency and time to market
- Growth opportunities
COMMITTED TO
SUSTAINABLE PRODUCTIVITY.