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**
  - **Product**
  - **System**
  - **Process**

- **Today**
- **2020+**

Short term and long term simultaneously

**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

Easer
…and more
MINING AUTOMATION

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

AUTOMATION

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

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

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**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

- Operator interacts remotely – ability to operate multiple machines.
- Operations with minimal or no human interaction.
**MINING AUTOMATION – THE FUTURE**

Large installed fleet with process control and consultancy products

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**SUMMARY**

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