How digitalisation contributes to global sustainability
Forum ö 2017
Stuart Bashford, Digital Officer
Bühler plays a relevant role in the food & feed industry.

65% of all wheat production is covered by Bühler milling solutions.

50% of all cars worldwide feature die cast parts from Bühler.

60% of all chocolate is produced on Bühler equipment.

30% of global rice production is covered by Bühler solutions.
2020

4 BILLION Connected people

$4 TRILLION Revenue Opportunity

25+ MILLION Apps

25+ BILLION Embedded Systems

50 TRILLION Gbs of data
Digital Manufacturing
Driving Business Outcomes

- Reduced Downtime: 48%
  - Unplanned downtime down from 11% to 5.8%

- Reduction in Defects: 49%
  - Defect rate down from 4.9% to 2.5%

- OEE Improvement: 16%
  - Average OEE improved from 74% to 86%

- Reduction in Energy Use: 18%
  - Annual energy cost down from $8.4M to $6.9M

The cost of feeding the world today

- 24% of global GHG emissions is from agriculture
- 69% of total Water usage come from agriculture
- 1/3 of global energy goes into food production from field to table
- 1/3 of all food produced is waste
Digitalization is key to making the food value chain more resilient

The Challenge: Making sense of large volumes of acquired data within short timeframes!

- Plant diseases
- Adverse weather events
- Unusual consumption patterns
- Criminal / terrorist activities

Machine learning for pattern recognition

Early warning for emerging crisis situations

Faster and more effective recovery

Coordination of preemptive measures

More accurate assessments of situations

Sensors & Telemetry
Intelligent sensors

Bühler process knowhow

Collection of data is nothing without process knowledge. Intelligent sensors provide real-time quality measurement.

- Consistent product quality
- Optimized process control
- Real-time particle size measurement & control
- Online color & speck analysis

- Vibration sensor
- Temperature sensor
Sustainable value chains drive our innovation
Innovations for a better world.