



# The Green Monitor Project

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Sofia, 23<sup>rd</sup> May 2018



# About ICB



## Competencies:



**Software development**  
With Microsoft's technology stack



**Industrial Internet of Things**  
More than 130 man-years of experience



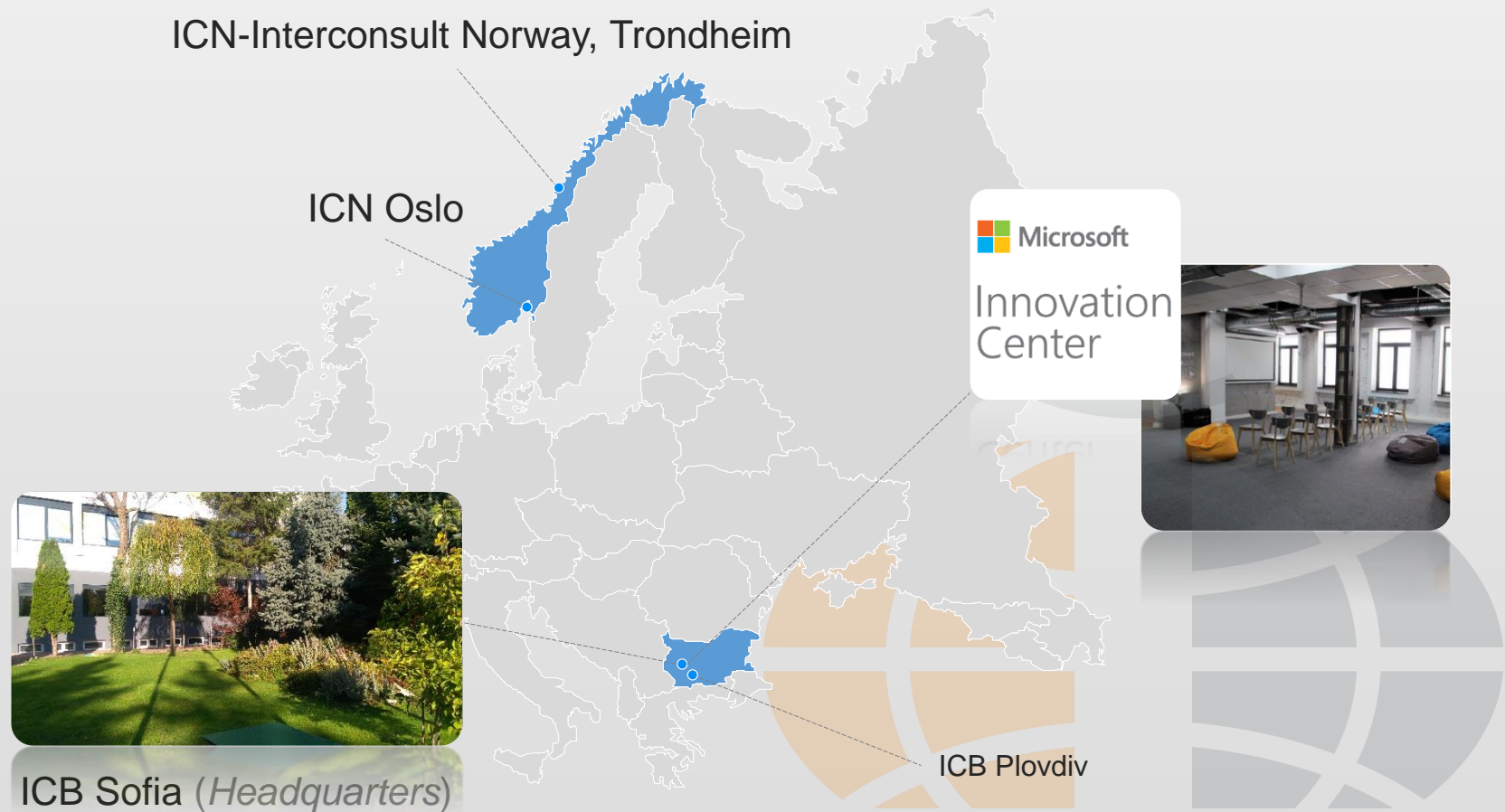
**Simulation and Virtual Reality**  
From headset apps to hydraulic simulators

## Technology partners:

**Microsoft Partner**  
Gold Application Development  
Silver Application Development  
Silver Data Analytics  
Silver Datacenter



# Companies and Locations



# ABOUT THE CCMMSS PROJECT (Green Monitor)

The Centralized Condition-Based Maintenance and Manufacturing Support System Project sets as its **primary objective** the development of innovative software tool – **GREEN MONITOR**, which will support the greening of manufacturing enterprises equipment by optimizing their maintenance activities.



- ✓ Supported by **Norway Grants** through the Norwegian Financial Mechanism 2009-2014 in the frame of the Green Industry Innovation Programme Bulgaria
- ✓ Implemented by **Interconsult Bulgaria (ICB)**  
  
in cooperation with **Kongsberg Terotech AS (KTT)**  
  
& The Norwegian University of Science and Technology (**NTNU**)
- ✓ Project timeframe – 2013-2016 - **three years**
- ✓ **Project budget: 1,322,145 EUR**
- ✓ **Grant amount: 660,776 EUR (49,9 %)**

## Partner: Kongsberg Terotech



Kongsberg Terotech supports **more than 2,000 machine tools** for industrial leaders from Norway and Sweden, incl.:







# Project KPIs (key performance indicators)



5%

Reduced energy consumption

2.5%

Increased machine availability

10%

Reduced consumption of cutting fluid

2.5%

Reduction of wasted materials

12%

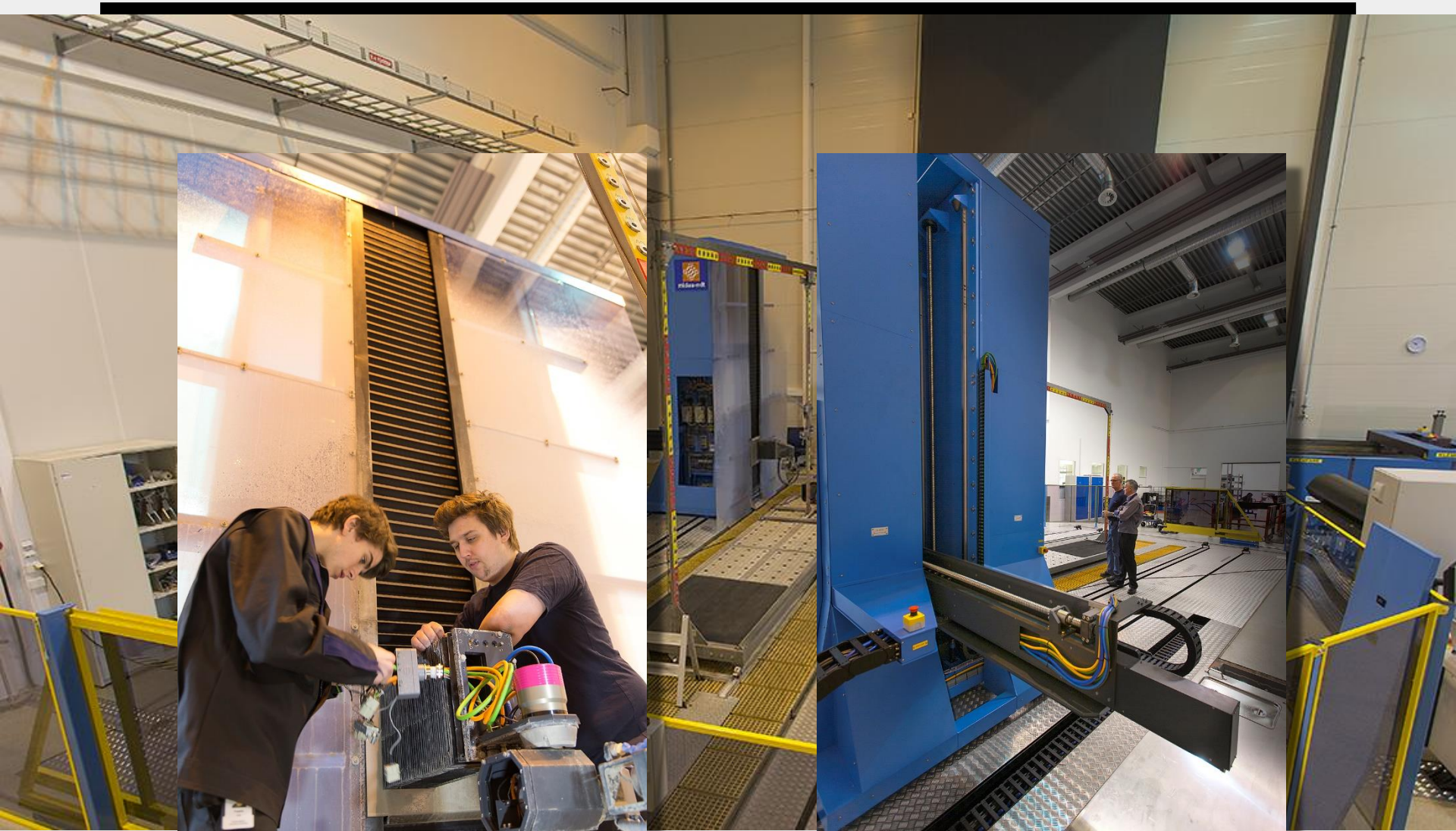
Reduced number of maintenance hours

50%

Reduced consumption of lubrication



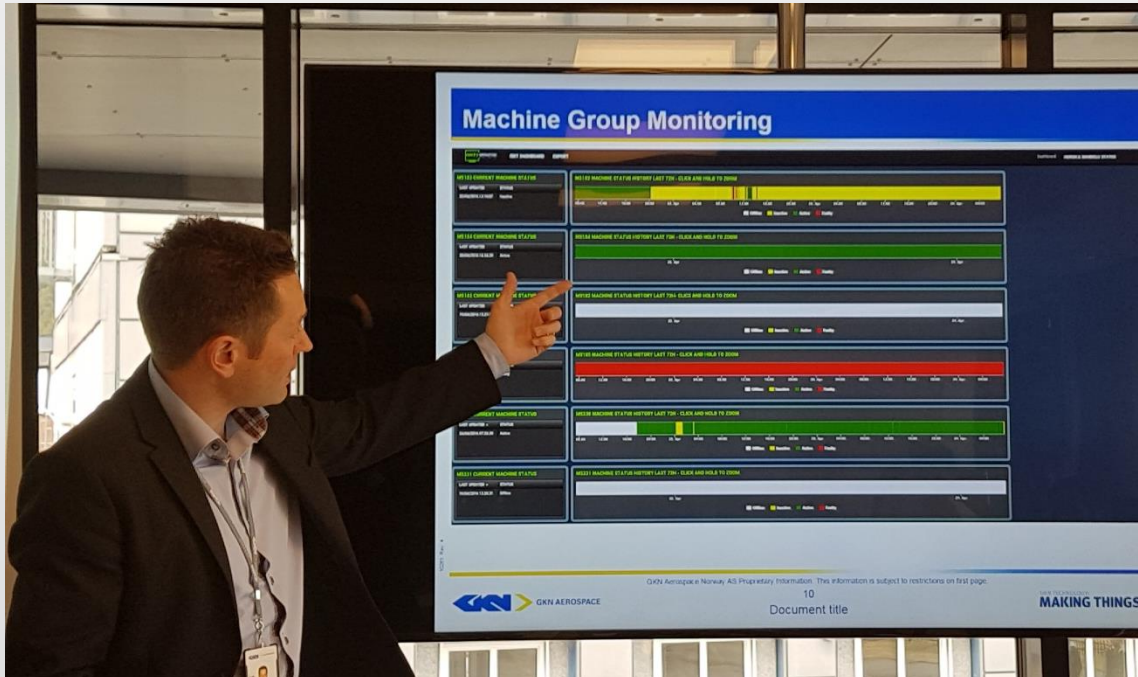
# Industrial environment in factory







# GKN Aerospace presenting the project



Connect to other databases (i.e. SCADA, Qs-STAT, CSUP, ERP)

Automatic pre-warning

Actions before re-work

Decision support

Master tool calibration

Real tool consumption

Monitor cutting/cooling fluid

# **Innovation Norway: a reliable project partner**

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- **A flexible approach** from the project's start
- **Simplified reporting** procedures
- **Fast review and approval process** for project reports
- **On-time information** and **punctual assistance**
- **Commitment and public relations support** for the project through regular events and networking







# Thank you!

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