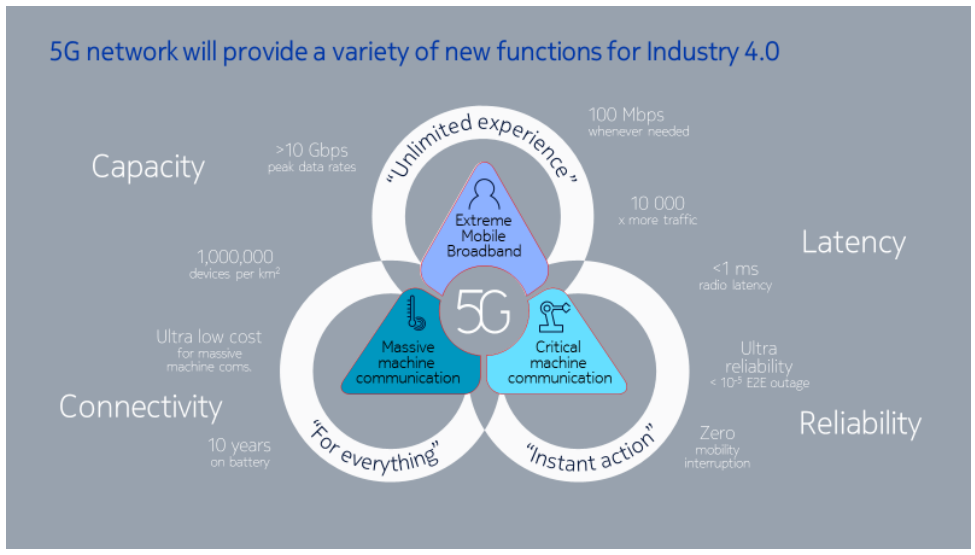
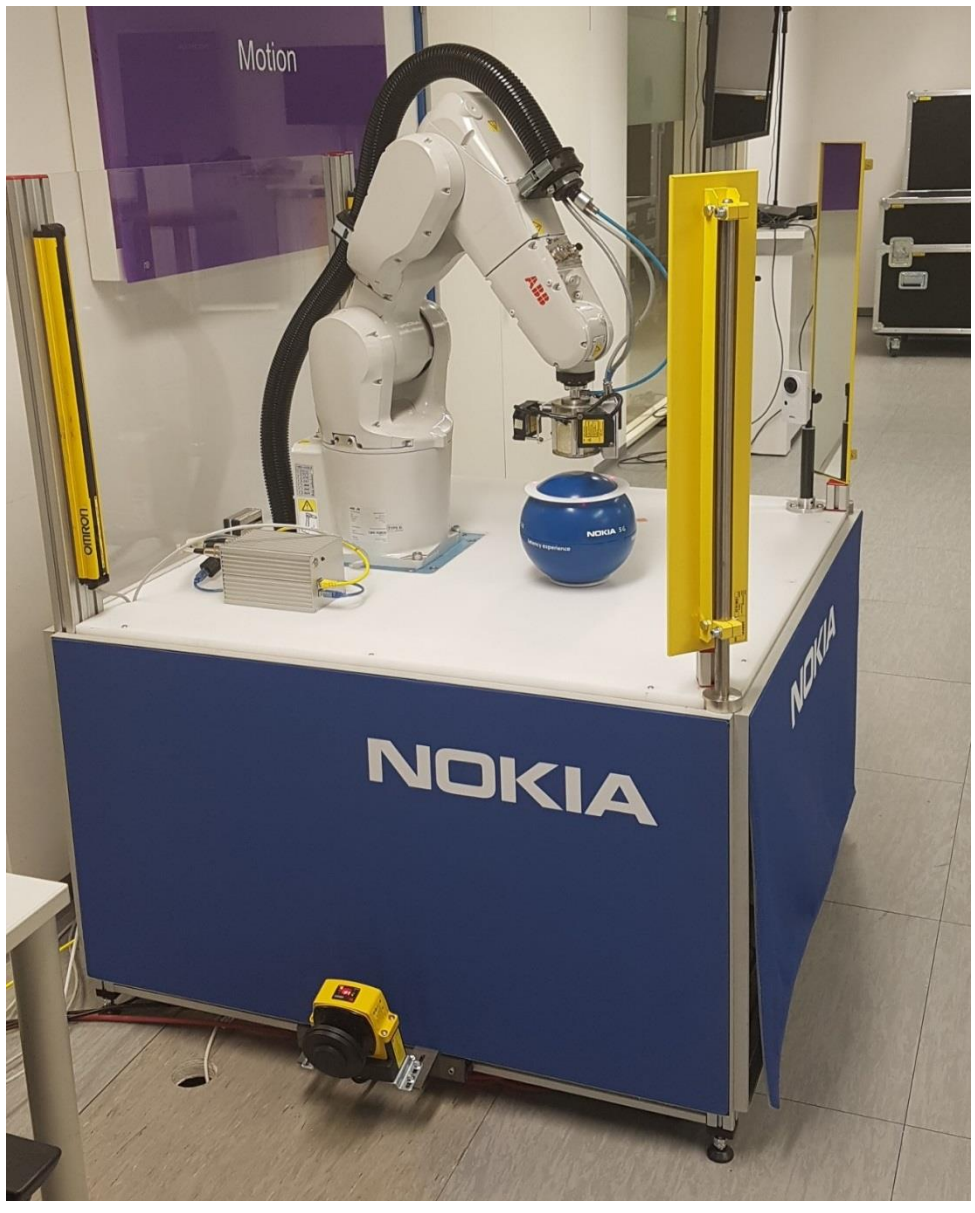
# 5G Demo: Magnetic Levitation

## Industry 4.0 – 5G connected, remote controlled Robots

## Opportunity

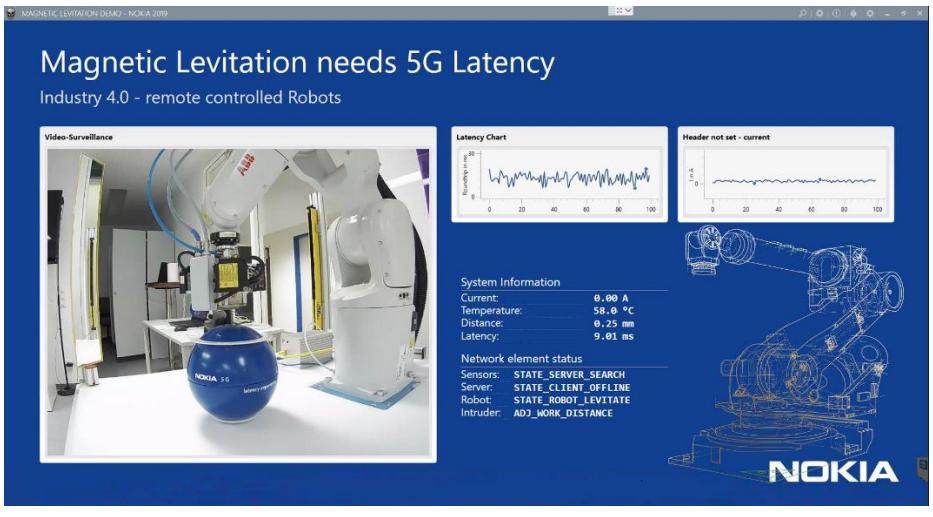



## Description

A globe will be moved by a robot. All the time the globe is levitating and does not touch any other body. The globe is moving up/down, left/right and rotating during the movement of the robot.

- An electromagnet is mounted at the end of the robot arm. Different sensors observing the globe continuously. All measured data will be sent via 5G to a server. This server will analyze those data, calculate the required current for the electromagnet and send the calculated result back.
- The latency of the travelling 5G demo has a direct impact to the velocity of the robot / globe movement.
- For a direct comparison an offset of 40ms will be added to the life 5G latency and the difference in velocity of those two scenarios is huge. A movement of the globe with the velocity configured for 5G and the higher latency will not work. The globe will be lost.

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