

## **Nokia and Telia worked with Intel and Finnish software startup Finwe at the Nokia base station Conscious Factory in Oulu**

The trial, which took place at the end of March 2020, represents one of the first real-world applications of 'Industry 4.0', the industrial trend of automation and data exchange in manufacturing technologies. Nokia and Telia worked with Intel and Finnish software startup Finwe at the Nokia base station Conscious Factory in Oulu using a trial 5G radio access network operating in the 28 GHz frequency band.

Nokia deployed the network, leveraging its 5G AirScale and Multi-access Edge Computing (MEC) platforms. In this scenario, the Nokia AirFrame data center solution, equipped with Intel® Xeon® Scalable processors, delivered network edge and core cloud flexibilities and capabilities, which provide support for myriad applications in the 5G environment. The trial also utilized the Intel® 5G Mobile Trial Platform as the end-user device as well as an integrated video analytics application from Finwe.

The use of Multi-access Edge Computing together with 5G allows data to be processed close to where it's needed, dramatically reducing latency. The Finwe video application was used to monitor and analyze a video feed of a process on one assembly line. The application leveraged machine learning to immediately alert the assembly line operator of any inconsistencies in the process so they could be corrected in real-time, ensuring high-performance, reliability and quality.

In a second trial, Nokia and Telia demonstrated the ability of the technology to enable Telia to offer cloud remote service delivery for business customers. This trial used the Nokia AirFrame data center solution, Nokia's Multi-access Edge Computing platform and Finwe's video analytics application at Telia's centralized data center in Helsinki, approximately 600 km from the Nokia Conscious Factory in Oulu.

Nokia will continue to use its Multi-access Edge Computing platform together with the Finwe video analytics application in the Oulu conscious factory over a 4G LTE network. The ability to upgrade the Nokia AirScale platform to 5G via software provides an evolutionary path for industries to expand automation across their business. The 28 GHz frequency band and Massive MIMO antennas deliver the low latency and bandwidth to enable high performance industrial applications.