



# 5G-innovaatioilla Suomelle kestävä tulevaisuus

Jukka Isokangas / Elisa

# 5G services developed to increase customer perceived value

## 28 new products created together with +60 customers and partners

2021

First in the world – 5G multi-camera communication in agricultural

First in Finland – Remote controlled 5G drones

First in Finland – Fully automated 5G drone deliveries

First in Finland – 5G 4K CCTV system

First in the world – Winter Sport Broadcasting with 5G

First in Finland – 4K live mobile app for consumers

2020

First in the world – Video robot for COVID-19 treatment

First in the world – 6 Gbps Medical Imaging

First in the world – 6 Gbps Gaming platform

First in the world - 5G 8K VR 360 Remote education

First in the world - 5G 8K VR 360 live drone streaming

First in the world - 5G VR remote control of a tractor

First in the world - 5G cloud streaming build environment

First in the world - 8K-resolution 3D movies through 5G

First in Finland - 5G VR for teenagers for preventing exclusion

2019

First in Finland - 5G drone television broadcasting

First in Europe - 5G Robot hand

First in Europe - 5G on telepathology

First in the world - 12K VR broadcasting in 5G

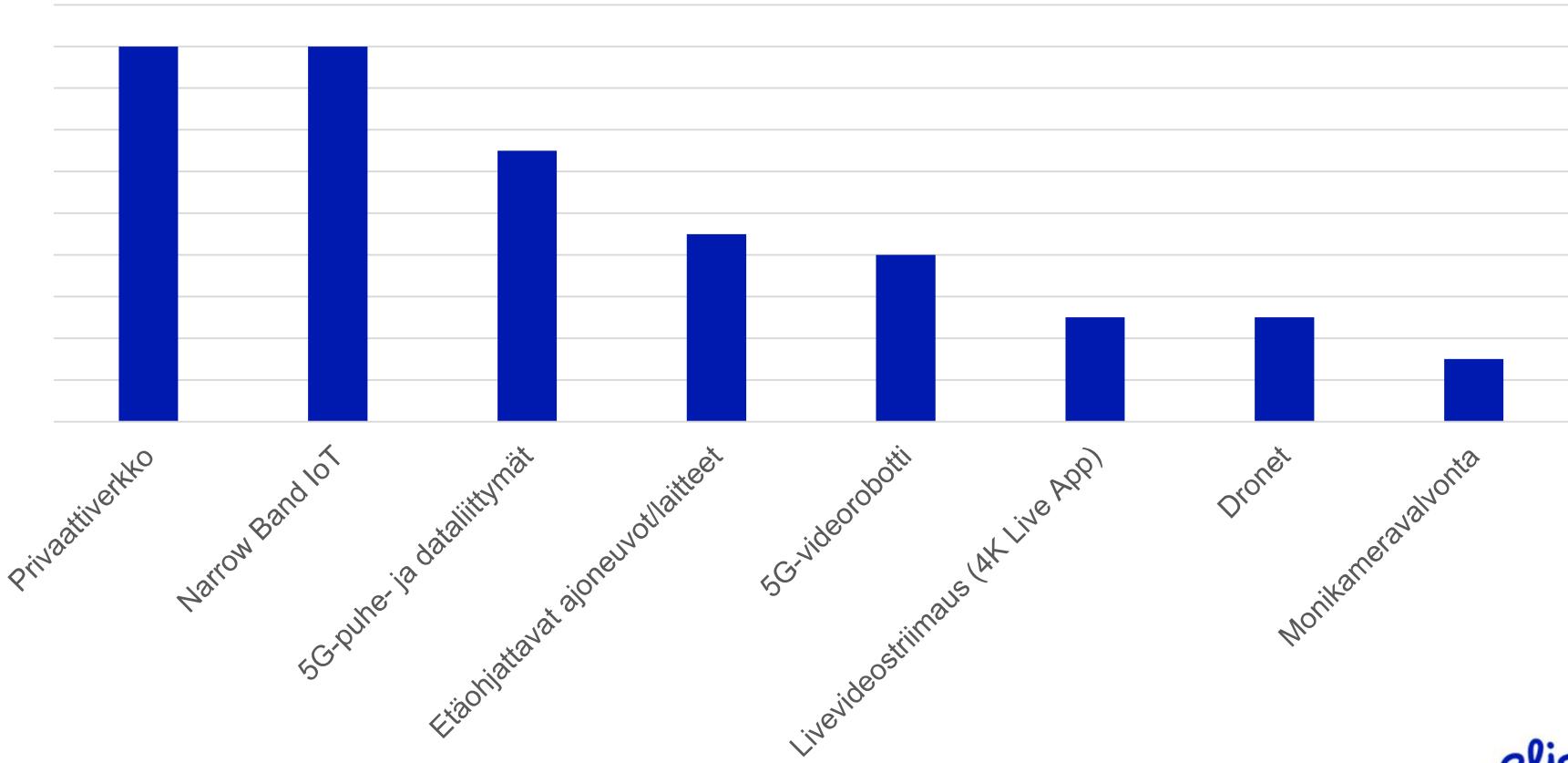
First in the Nordics - 5G drone

First in Finland - 5G Virtual reality for elderly

First in the world - 5G Cafe hotspots



## 5G Showroom -asiakaskiinnostukset



## REMOTE CONTROLLED TRACTOR WITH 5G AND 360 CAMERA



[Read press release](#)  
For Internal Use Only

*First in the world* elisa

# Video communication

Designed for tough vehicle usage on the field enabling multiple camera visibility to the back office. The service includes image recognition based analytics

Up to five cameras in variety of network connectivity (3G/4G/5G)

No delays on video streaming supports audio communication between back office and the field workers

Prototype version released in August 2021. Successful field tests April-October in various countries in Europe together with a commercial customer.



## supersight



elisa

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# 4K live streaming through Elisa 4K Live App and Youtube Studio



Täältä ohjeet: <https://elisa.fi/4k-live/>



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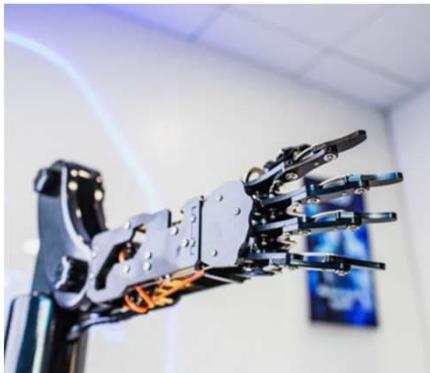
Vieraile  
Elisalla!

# Koeaja 5G Elisan 5G Showroomissa!

Pasilassa sijaitsevaan Elisan 5G Showromiin pääsee vierailemaan joko livenä tai virtuaalisesti. Vierailulla esittemme ja koeajamme asiakkaan kanssa erilaisia 5G:tä hyödyntäviä ratkaisuja ja ideoimme yhdessä, miten 5G:tä voidaan hyödyntää asiakkaan liiketoiminnassa.

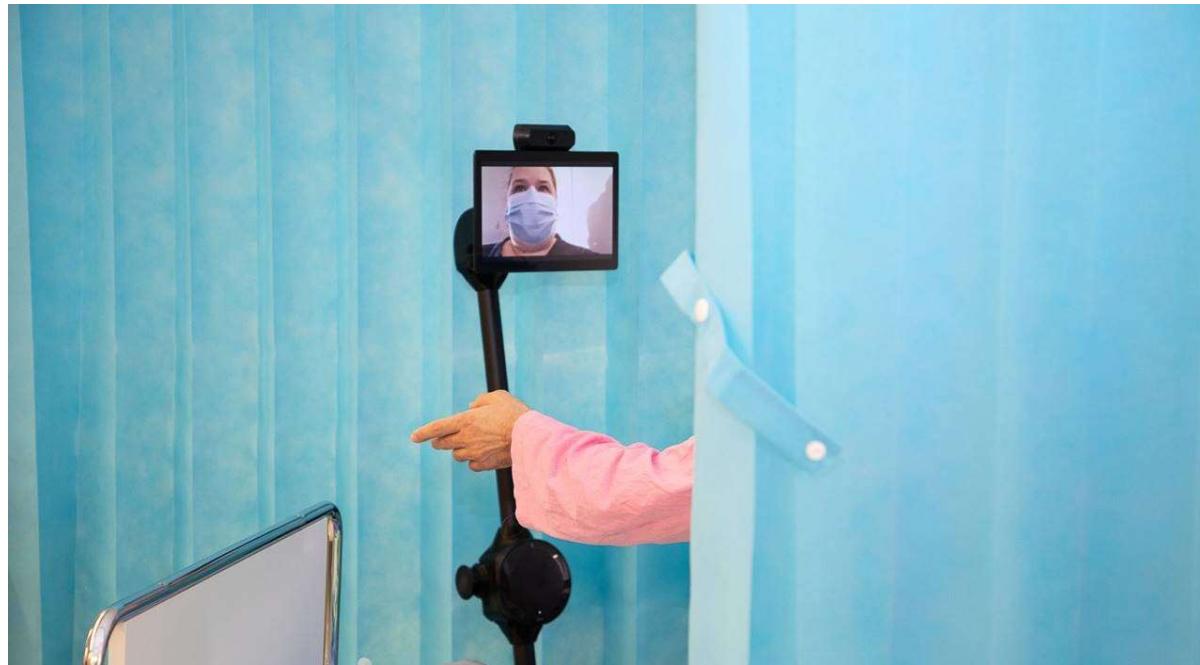
Linkki 5G Showroom –esittelyvideoon:  
<https://youtu.be/4zcH5B54gQ0>

Yhteydenotot: [jukka.isokangas@elisa.fi](mailto:jukka.isokangas@elisa.fi)



elisa

# Remote controlled 5G video robot for COVID-19



5G video robot  
supported for months  
nurses and doctors in  
corona ward at Helsinki  
University Hospital



*First in the world* elisa



The background features a dark blue gradient with three distinct color bands: green on the left, yellow/orange in the middle, and cyan on the right. Overlaid on these bands are numerous thin, glowing lines of the same colors, forming swirling patterns that suggest motion and connectivity. The lines are brighter at their intersections and fade into the background.

elisa<sup>5G</sup>

Thank you!