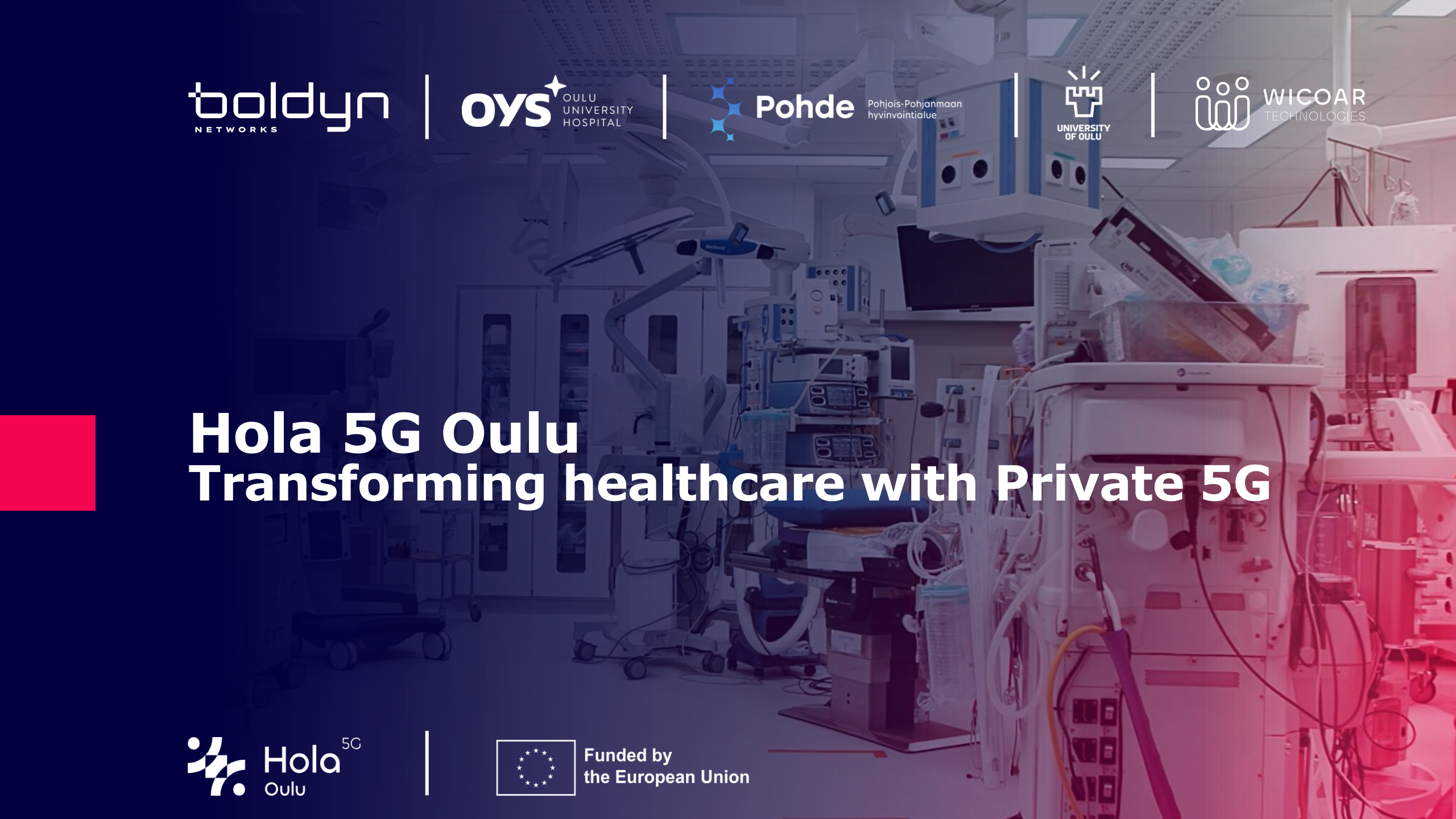


Hola 5G Oulu
Transforming healthcare with Private 5G

Hola 5G Oulu

Funded by the European Union

Partner, Owner

Wellbeing services county & OYS

- Premises
- Connections
- An enabler

Medical Faculty

- Clinical Medicine Research Unit
- Usability testing

Faculty of Information and Electrical Engineering

- Centre for Wireless Communications
- Immunity testing
- Safety testing

Meet the consortium team

Timo Alalääkkölä
Head of Testing & Innovations, Pohde/Oulu University Hospital

Mikael von und zu Fraunberg
Head of Testing and Innovations, Pohde/Oulu University Hospital

Rauno Jokelainen
Co-Founder and CO WICOAR Technologies

Petri Parviainen
Head of Sales Public Sector, Boldyn Networks

Jani Katisko
Specialised Medical Physicist, Adjunct Professor, Pohde/Oulu University Hospital

Erkki Harjula
Associate Professor (tenure track) University of Oulu

Jani Saarikoski
Program Director, Boldyn Networks

Supported by
EU/HaDEA Team

Oana Bodron
Project Adviser
CEF-Digital at HaDEA

Chrysoula Lentzou
Project Adviser
CEF-Digital at HaDEA

CHALLENGES IN IMPROVING PATIENT CARE

50%

Up to 50% of doctors’ and nurses’ time is spent on computers

- **Excessive administrative workload**
- **Staff wellbeing and stress**
- **Communication inefficiencies**

USE CASES AND IMPACT

Wicoar HealthAudio

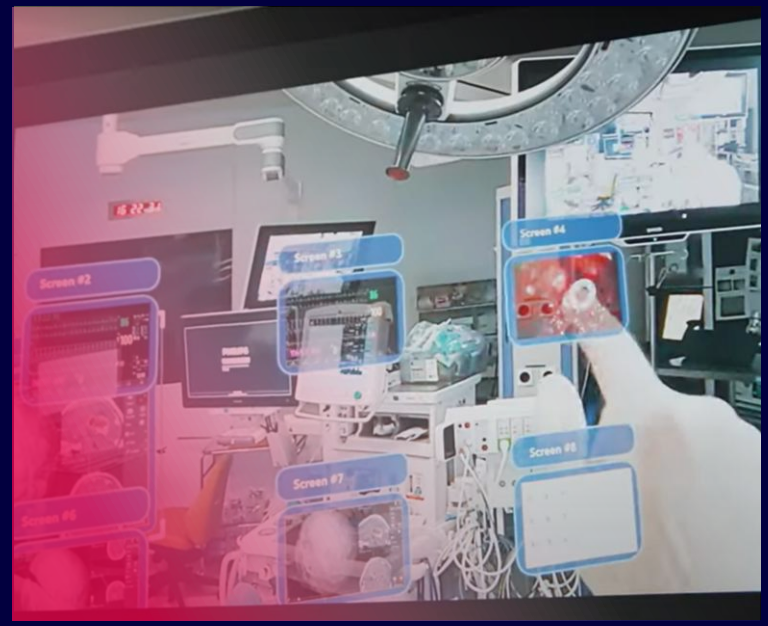
Secure and reliable communication, ward-to-ward

Wicoar HealthVision in patients wards

Facial recognition and retrieval and visualisation of patient information through AR glasses

Wicoar HealthVision in surgical theatres

Retrieval and visualisation of patient information through AR glasses



WHY PRIVATE 5G?

Data stays on site
accessible only to authorized personnel

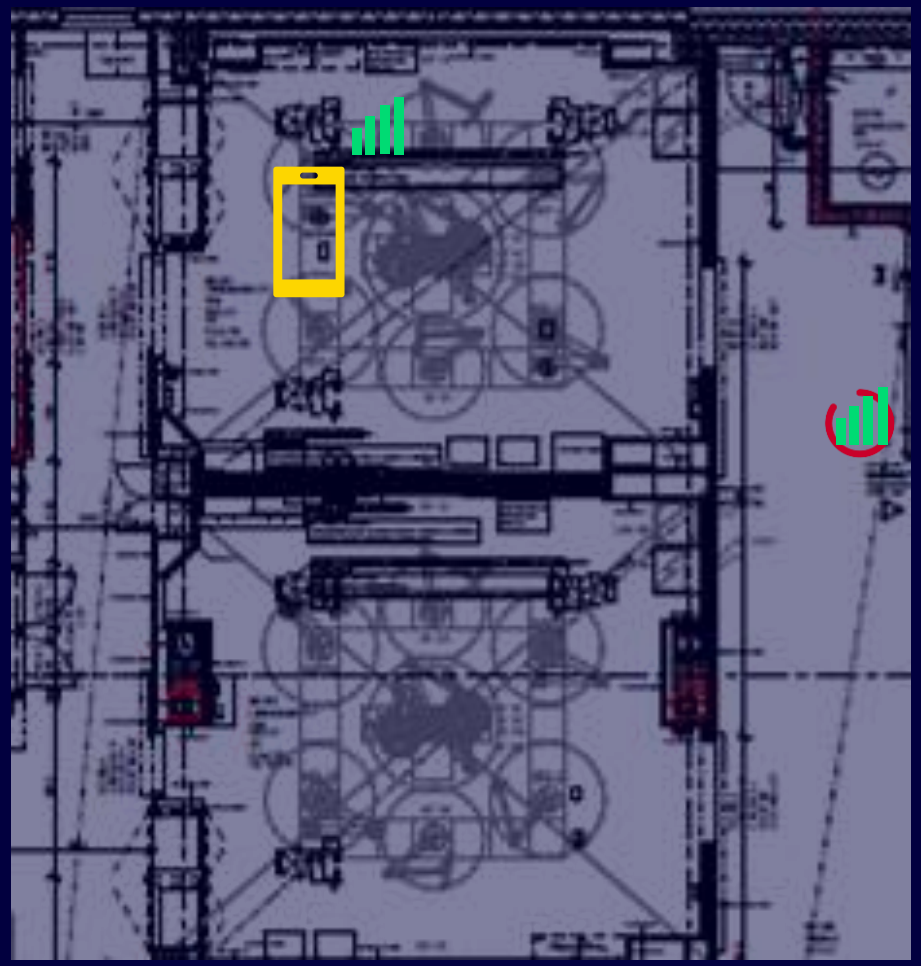
Interference resistant
tested by University of Oulu to avoid interference with medical devices

Low latency performance
supports real-time applications (AR/VR) and immediate patient data access

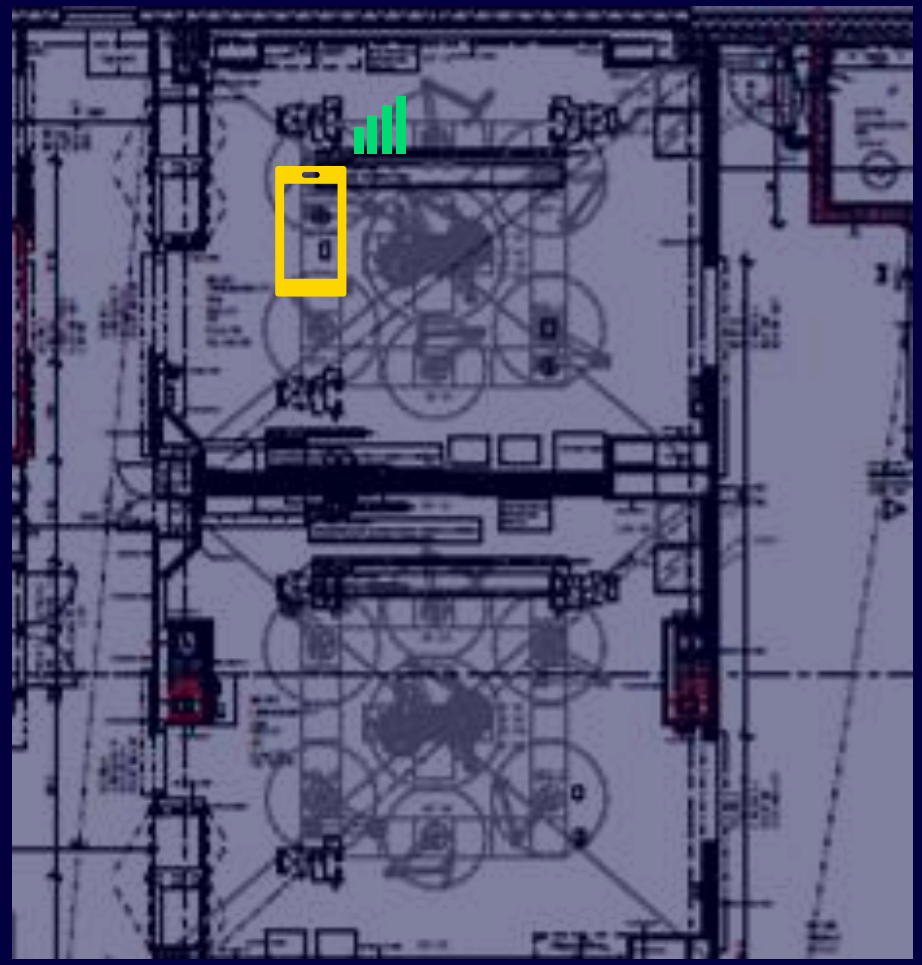
Network resilience
no single point of failure even in emergencies

PRIVATE 5G CONNECTION STAYS INTACT WHEN MOVING BETWEEN WARDS

Handover over Wi-Fi



Handover over 5G



FUTURE VISION

Unified network for all medical devices
Better synchronization. Simplified maintenance

Robotics
Relieving staff from auxiliary tasks to focus on patient care

Resilient voice solutions
Cost optimization. Full functionality in crisis situations.

AI & analytics
Automatically records patient records. Identify anomalies. Saving time.

Hybrid network
Extending network coverage across entire wellbeing area

TRANSFORMING HEALTHCARE

CLOSING REMARKS

- **Proven technology:** no interreference between medical devices and the network
- **Proven use cases**: reduce time behind computers. Improving precision and safer surgeries.
- **Huge interest from healthcare ecosystem:** ongoing innovation into use cases.
- **Collaboration**: essential driver behind project success.
- **EU funding**: vital enabler.

boldyn NETWORKS | OYS OULU UNIVERSITY HOSPITAL | Pohde Pohjois-Pohjanmaan hyvinvointialue | UNIVERSITY OF OULU | WICOAR TECHNOLOGIES

THANK YOU

Hola 5G Oulu

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