5G for University Hospital
#101094477
Overview I  5G for University Hospital, Project Goals

*It is the vision of this project, to make 5G-based technologies and their far-reaching advantages generally available for organizations and actors within the health sector and facilitate ground-breaking changes in how medical services are performed to the public and the individual patient.*

With the implementation of 5G for University Hospital (5G4UH), **Vodafone GmbH will deploy a leading-edge 5G infrastructure at the Frankfurt University Hospital in Germany**, thus enabling innovative 5G use cases and improving the provision of public health services.

Deploying a high-performance, state-of-the-art 5G mobile network with high data rate and capacity, low latency, high resilience and data security enables the Frankfurt University Hospital to adopt new methods and ways of working in diverse fields of application. This is intended to realize, among other things, an improvement in patient care, a reduction in the workload of staff due to a high level of digitalization, improved resource utilization, competitiveness, and implementation of legal requirements (e.g., E-Health Act, Digital Care Act (DVG), Digital Care and Nursing Modernization Act (DVPMG)).

In addition to setting up an adapted 5G infrastructure, **the project will establish and evaluate new types of work processes that are only made possible by the new technologies**. The 5G4UH project therefore promises to be a best practice with supraregional and European added value. **Various 5G-based use cases have already been prepared by the University hospital in order to be applied in daily hospital operations**. There will be teleultrasound devices as well as innovative monitoring solutions and new solution to organize hospital logistics – all of which contribute to better care, more efficient processes and to better use of resources and medical skill. Projects that were previously inhibited by data transmission limitations, especially real-time data transmission from device diagnostics such as ultrasound or vital function monitoring, will benefit from this technological leap.
Overview 1  5G for University Hospital, addt’l info

Campus University Hospital Frankfurt, Germany

Building 23

Project duration: 30 Months  I  01.01.2023 – 30.06.2023

Consortium: University Hospital Frankfurt & Vodafone [Beneficiary]
Deep Dive I 5G for University Hospital, Use Case Examples

Mobile ultrasound examinations I Medical data can be transmitted securely in real time from diagnostic equipment such as e.g. ultrasound, even between different hospital departments or to other hospitals or even from emergency operations. → Significant improvement in diagnostics, e.g. obtaining a second opinion in teleconsultation; specialized professionals located outside the clinic can thus be involved in diagnostics in real time.

Famedly Messenger I Famedly Messenger is a chat with the highest level of security. The digital communication tool enables secure messaging between practitioners/doctors and patients; additional applications such as appointment booking or data exchange can be combined with it. Chat histories of clinic staff can be transferred directly to the electronic patient record, eliminating duplication of effort.

Digital Patient Monitoring I Digital patient monitoring includes a wireless, secure connection to the electronic patient record. Devices and staff send important data from the treatment site to the control center. Vital signs are captured and displayed such as blood pressure (NIBP), oxygen saturation (SpO2), pulse rate and temperature, blood pressure averages, spot check, interval monitoring and custom assessments for all patient populations. Patient monitoring improves vital sign measurement accuracy and performance for neonatal as well as adult patients and supports resident list workflows for long-term care.