5G Corridor Munich–Prague

Consulate General of the Czech Republic in Munich

MEDICAL VALLEY
Europäische Metropolregion Nürnberg

5G/6G and Digital Health

Delegation trip to Nuremberg/Erlangen/Munich

4-6 November 2024

AIM

The objective of this three-day mission is to explore the 5G/6G and digital health landscape in Bavaria, enabling researchers, representatives of hospitals, public organisations and private companies from Czechia to meet their Bavarian peers and discuss potential future collaborations.

You can expect input from following organisations/initiatives:

- Medical Valley EMN e. V.
- The Fraunhofer Institute for Integrated Circuits (IIS) incl. test and application centre L.I.N.K.
- ThinkNet 6G initiative at Bayern Innovativ GmbH
- Chair of Electrical Smart City Systems (ESCS), Friedrich-Alexander-Universität (FAU)
- Digital health projects at OTH Amberg-Weiden
- ZTM e. V. – Centre for Telemedicine
- 6G Life – joint 6G initiative of TU Dresden and TU Munich

For details, please see the draft program below.

INTERESTED?

Please register **until 19 September** by filling out this form.
Conditions of participation can be found at the end of this document.

QUESTIONS?

Contact Jana Lachmann - Project Lead, 5G Corridor Munich-Prague
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DRAFT PROGRAMME
(as of August 2024)

Monday, 4 November (Erlangen) *Address: Medical Valley EMN e.V., Henkestraße 91, 91052 Erlangen*	
15:30	*Arrival of participants & Welcome coffee*
16:00 – 17:30	**Introduction by Medical Valley EMN e. V.** **Marco Wendel**, Managing Director; **Timm Ehbauer**, Project Manager; **Lukas Carl,** Project Manager
	Medical Valley EMN e.V. is a German excellence cluster in medical technology, supporting healthcare stakeholders and promoting innovation. Notable projects include the TI model region Franconia, which pilots digital applications and telematics infrastructure in practice. Additionally, the EDIH DigiCare project, part of the EU's European Digital Innovation Hubs network, assists SMEs and healthcare providers in overcoming digital challenges and maximizing digitalization potential in healthcare.
18:00	**Networking dinner** (place tbc)
Tuesday, 5 November (Nuremberg) *Address: Fraunhofer IIS, Nordostpark 84, 90411 Nürnberg*	
08:30	*Transfer by minibus from the centre of Erlangen (place tbc)*
09:00 – 09:15	**Welcome remarks** **Dr.-Ing. Jochen Seitz,** Head of Department, **The Fraunhofer Institute for Integrated Circuits (IIS)**
09:15 – 10:00	**ThinkNet 6G initiative at Bayern Innovativ GmbH** **Kimberley Parsons**, Head of ThinkNet 6G; **Dana Holzner**, Health, Project Manager, Bayern Innovativ GmbH
	To involve all key stakeholders in Bavaria in the early stages of 6G research and development, the Bavarian Ministry of Economic Affairs established ThinkNet 6G. This initiative fosters an agile ecosystem that includes industry players, research institutions, associations, innovators, start-ups, and incubators. ThinkNet 6G serves as both a think tank and a collaborative community for organizations interested in 6G development. Bayern Innovativ, Bavaria's innovation agency, connects companies, research institutes, and experts to form a robust interdisciplinary network. In this talk, the speakers will present their innovation networks for healthcare technologies and 6G wireless communication, highlighting the potential benefits of 6G for the medical sector.
10:00 – 10:45	**5G/6G: a paradigm shift towards highly reliable and secure wireless communications in critical applications – relevant aspects for the eHealth domain** **Prof. Dr. Norman Franchi**, Chair of Electrical Smart City Systems (ESCS), **Friedrich-Alexander-Universität (FAU)**
	The institute is a leading German academic institution specializing in research, hardware-based testing, and evaluation of 5G and 6G technologies. Led by Prof. Franchi, the institute collaborates with top industry partners and research institutions to prototype resilient, secure, real-time, and sustainable 5G/6G technology components and their hardware implementations. Key research areas include Integrated Sensing and Communications (ISAC), private mobile networks, mission-critical services, decarbonization, IoT sensor technologies, and the co-design of communication and energy networks. The institute develops customized electronic components, systems, and 5G/6G networks for applications in medicine, health, mobility, and public safety. It also offers partners rapid testing and evaluation of new technologies—from algorithms to hardware—using its research labs and outdoor facilities.
10:45 – 11:00	*Coffee break*
11:00 – 12:30	**Introduction of Czech participants and Bavarian participants** Moderation: Lukáš Opatrný and Petr Janoušek, Czech Consulate General Munich
12:30 – 13:30	*Lunch*

13:30 – 16:00	**Exchange and insights into application examples and research - with live demonstrators in the L.I.N.K. hall**
	Christian Backert, Chief Project Manager, **The Fraunhofer Institute for Integrated Circuits (IIS)**
	Fraunhofer IIS has been involved in the research and development of technical solutions geared towards the 5G/6G mobile communications standard for over 6 years and advises system developers, network and infrastructure providers as well as companies and organizers using 5G for communication and localization. On the one hand, Fraunhofer IIS has an open, flexible 5G Open RAN Campus infrastructure designed for expansion, which is funded by the 5G Bavaria research program and is being put into operation as a basic installation and continuously expanded. In addition, there is many years of broad knowledge and application know-how in the field of communication and a wide variety of methods for radio-based localization, each tailored to a wide range of use cases. This is an ideal combination for developing suitable solutions for both the healthcare sector and industrial applications.
	Prof. Dr. rer. pol. Steffen Hamm, Professor, Department of Industrial Engineering and Healthcare, **OTH Amberg-Weiden**; **Michael Mark**, Open5GCare project, **OTH Amberg-Weiden**
	Since 2019, "Medical Technology and Healthcare Industry" has been a strategic focus of OTH Amberg-Weiden. This emphasis has guided the institution's development in teaching, research, and knowledge transfer. To address the unique challenges of rural healthcare, the "Competence Center for Health in Rural Areas" was established at the Health and Medical Technology Campus Upper Palatinate, integrating healthcare, industry, science, and politics while engaging local and regional stakeholders. OTH Amberg-Weiden's contributions include presentations on the 5G4Healthcare, Open5GCare, Healthnet, and 5GVCC projects, detailing their environments, partners, and goals. The 5G4Healthcare project, completed in June 2024, has led to several follow-up initiatives. Additionally, the research focus on digital health continues to explore the significant role of 5G/6G.
	Patrick Eder, Innovation Manager - Digital Emergency Management, **ZTM e. V. – Centre for Telemedicine**
	The ZTM is a non-profit organization dedicated to enhancing healthcare system connectivity through telemedicine and e-health. It develops and tests new solutions and products to improve the networking of healthcare facilities and patients. A key component of ZTM's mission is providing advice and information to healthcare stakeholders across all sectors, ensuring needs-based care. This presentation will highlight specific results from the Rettungskette5G and SERNV research projects (both funded by German federal ministry) and showcase the 5G applications developed, including drones, telemedicine systems, and a robotic arm.
16:00 – 17:00	**Networking**
17:00	*Transfer by minibus to the centre of Erlangen*
Wednesday, 6 November (Munich)	
7:53 – 9:17	*Transfer to Munich, departure from Erlangen by train IC 501 at 7:53 (tbc)*
10:30 – 12:00	**Demand and the opportunities for 6G in the healthcare** **Prof. Dr. Dirk Wilhelm**, Principal Investigator, **6G Life**
	The 6G Life project is a consortium of scientists from TU Dresden and TU Munich, funded by the Federal Ministry of Education and Research, focusing on fundamental approaches, concepts, and applications for the 6G mobile communication standard. It focuses on defining and implementing medical use cases, specifically a telerobotic examination unit and context-sensitive patient monitoring. The project cooperates closely with Prof. W. Kellerer's chair at TU Munich (TUM), MIRMI/Prof. Haddadin at TUM, and Prof. Dr. S. Speidel from TU Dresden.
12:00	**Conclusion & End of the program**
Optional	***6-8 November 2024, Munich*** ***Digital Health Summit: Health data – Safe and Secure,*** *More information and registration for the summit: https://digitalhealthsummit.de* *Attendees are responsible for organizing their participation.*

CONDITIONS OF PARTICIPATION

This study visit is designed for up to 20 representatives from Czech and Bavarian research organizations and universities, public institutions, and private companies. Participants should have expertise or interest in 5G/6G and/or digital health-related themes and a desire for potential cooperation with Bavarian/Czech partners. In the case of a high number of registrations, particularly if several registrations come from the same organization, participation will be limited to one representative per organization (on a first-come, first-served basis).

The 5G Corridor Munich-Prague will cover the costs of the program, local transport in Erlangen and Nuremberg, and some meals. Participants are expected to organize and cover their travel costs to and from Bavaria, transfer from Erlangen to Munich, as well as their accommodation costs. Recommendations for accommodation in the center of Erlangen will be provided by the end of September to ensure smooth organization and logistics.

The program will be conducted in English, with no translation available.

If you are interested in participating, please provide brief information about your motivation and cooperation interests via this form **by 19 September** at the latest. We will respond to all interested participants and confirm their participation by 27 September.

CONTACT AND MORE INFORMATION

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ABOUT THE ORGANIZERS

5G CORRIDOR MUNICH-PRAGUE

The 5G Corridor Munich-Prague supports the development and implementation of joint cross-border projects, particularly in scientific, technological, and economic cooperation in 5G application areas such as eHealth, Connected Mobility, Smart Regions, and Cybersecurity. It is based on a joint declaration by the Bavarian State Chancellery, the Bavarian Ministry of State for Federal and European Affairs and Media, and the Ministry for Industry and Trade of the Czech Republic from 2020, aiming to jointly propel digital transformation. More information: www.munich-prague.org

This event is organized in close partnership with the **Medical Valley EMN e.V.** and the **Consulate General of the Czech Republic in Munich**.