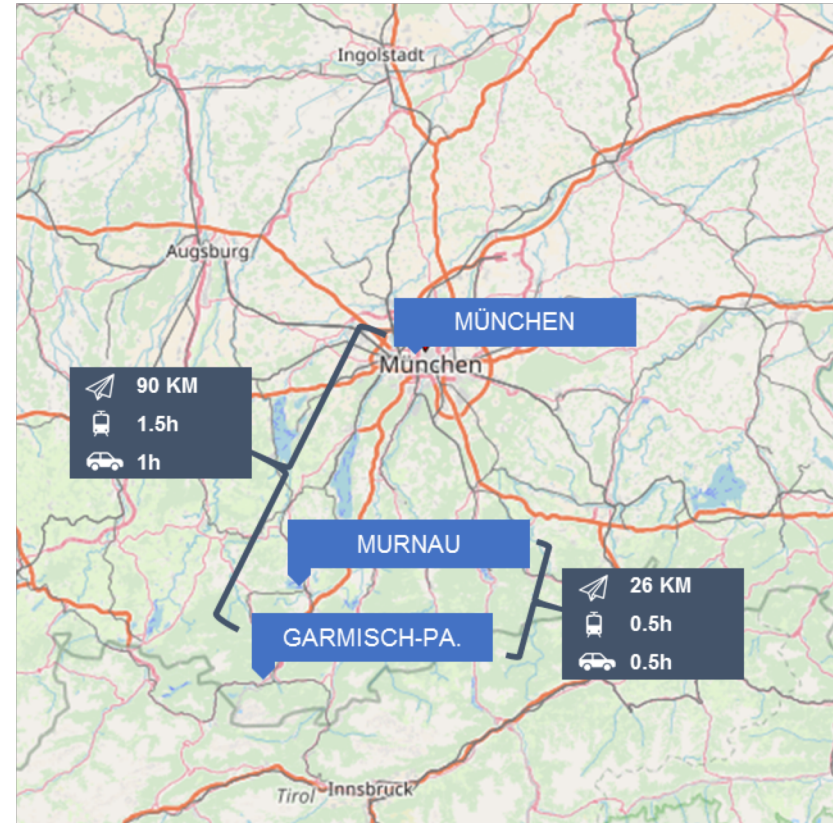
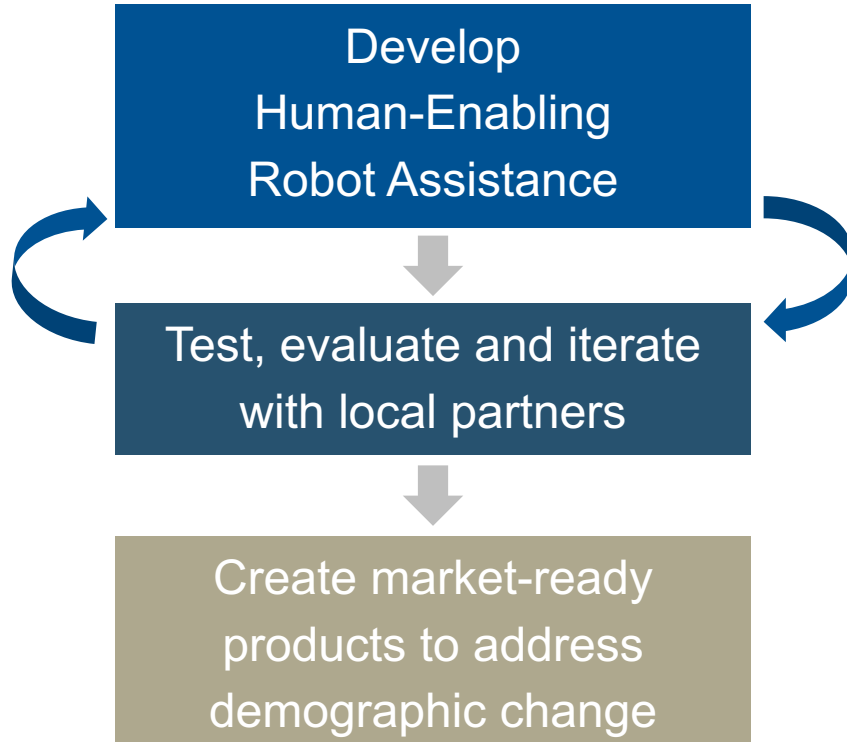


We. Create. Geriatrics.

– Robot Assistants for the Elderly

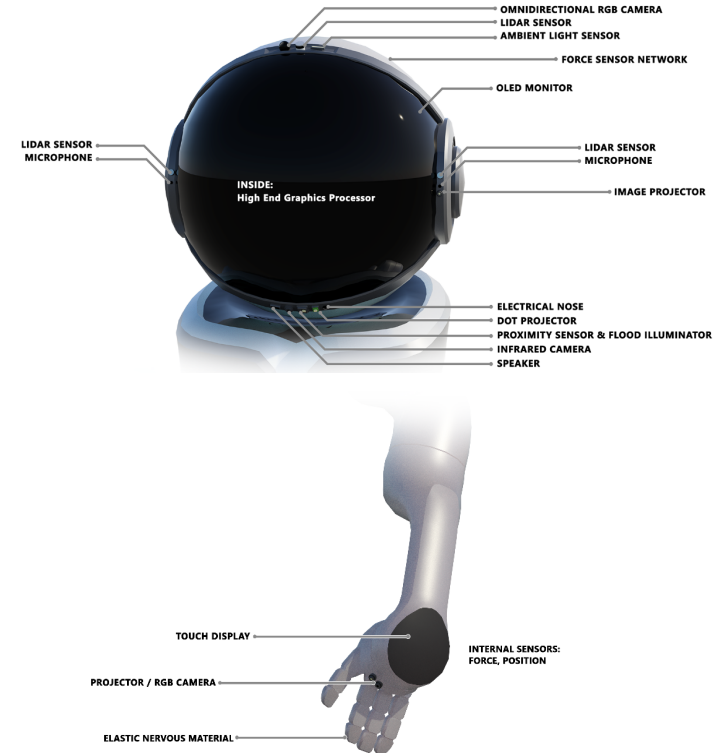
Join the Team in Garmisch.

Concept & Goals



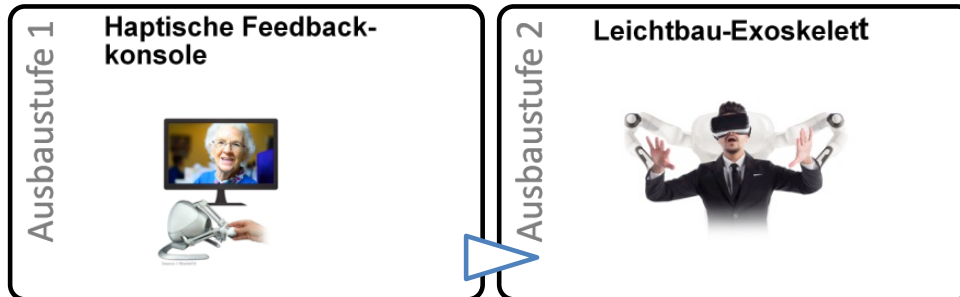
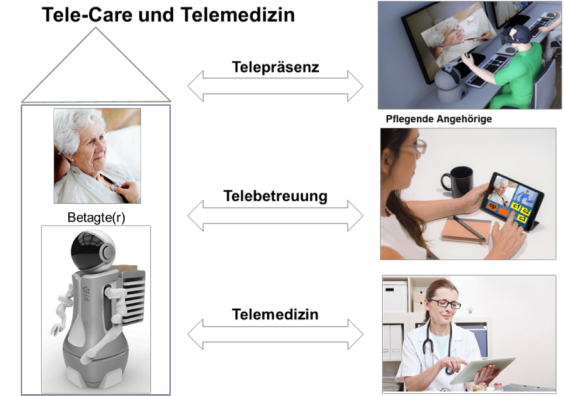
Technological Goals (1/5)

- GARMI, a human-enabling service robots based on a platform delivered by Franka Emika
- Multimodal and adaptive robotic head
- Sensitive, under actuated robotic hands
- Cognition-enabled and inference-based workflow planning
- SLAM-based navigation
- Medical assistance



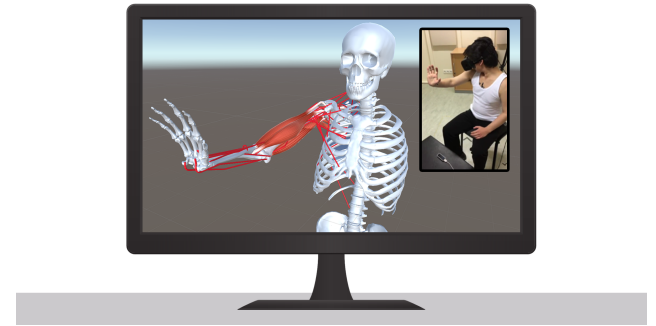
Technological Goals (2/5)

- Tele-presence and tele-robotics for private (e.g. family) and professional users (e.g. medical staff)
- Haptic feedback console and exoskeleton
- Tele-presence control-center



Technological Goals (3/5)

- Mathematical model of the human upper body including circulatory system, lymph system and musculoskeletal system of the human upper limbs
- Digital Twin: monitoring and visualization of an individual's health
- VR / AR for medical training
- Integration in telepresence



Technological Goals (4/5)

- Very early patient mobilization at home
- Impedance control
- Advanced security needs
- Piloting and evaluation in the field

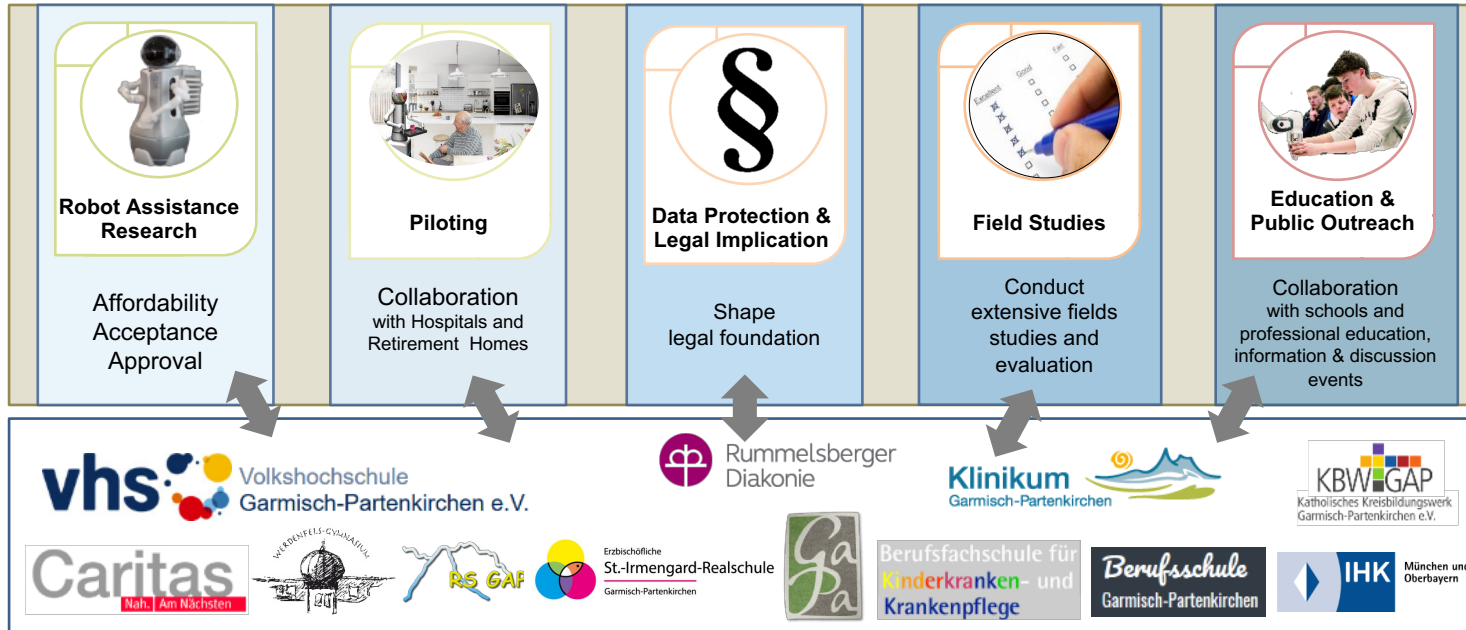


Technological Goals (5/5)

- **Roboterfabrik Senior:** a place to inform and educate senior citizens about latest technologies and solutions in the field of Geriatrics
 - **Education** concept and systems for professional including VR / AR
 - **Public Outreach:** communication of progress and results to the public
- Information- and dialogue with the public



Summary: Geriatrics



PI's:

