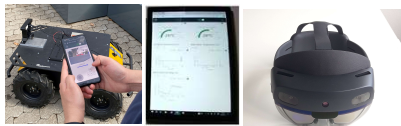


Applica.



Digital twin (DT)



Intelligent decisions Multi-modal data

Physical systems



Layer 6: Service discovery & consumption in different applications (Industry, Society, Educa., Metaverse,...)

Layer 5: Web-based & DT-driven services (e.g., design, monitoring, sustainability, control,...)

Layer 4: Communication (e.g., next-gen wireless network, web, OPC UA, ...)

Layer 1: Data synthetization (Metaverse) and data sensing

Layer 2: Multi-modal data structuration and knowledge management

Layer 3: Data processing, artificial intelligence & machine learning (edge AI)

Deep Transfer

Generative AI

Pre-trained Foundation Models

Graph Neural Network