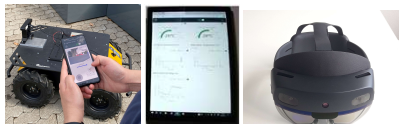


Physical systems

Digital twin (DT)

Applica.



Remote mobile robot

Camera

Intelligent decisions Multi-modal data

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

Genera-
tive AI

Foun-
dation
models

Graph
neural
network

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

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

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