

HORIZON-CL4-2026-05-DIGITAL-EMERGING-03: Next-Generation Agile and Intelligent Robotics Platforms for Industrial and Service Applications (RIA)

Management summary - Human Robotics Call

Motivation

European manufacturing is facing a dual pressure: increasing complexity and aging, diverse workforces. Many industrial tasks remain physically and cognitively demanding, leading to fatigue, injury, and staff turnover. Despite progress in automation, the human remains central to production, he but needs supportive, intelligent augmentation that is ethical, inclusive, and trusted. Furthermore, every robot is tailored manually to industrial tasks.

Solution

Our aims to develop and validate a modular human-centered robotics platform for diverse demanding manufacturing environments, combining:

- Digital and Physical augmentation toolkits via adaptive robots and robot foundation models
- Human involvement, using voice, gesture, and context-aware interfaces
- Business needs by deriving blueprints for integration and exemplary ROI-calculation frameworks

Our objective is to enhance worker safety, productivity, and job satisfaction, while enabling new forms of collaboration between humans and technology.

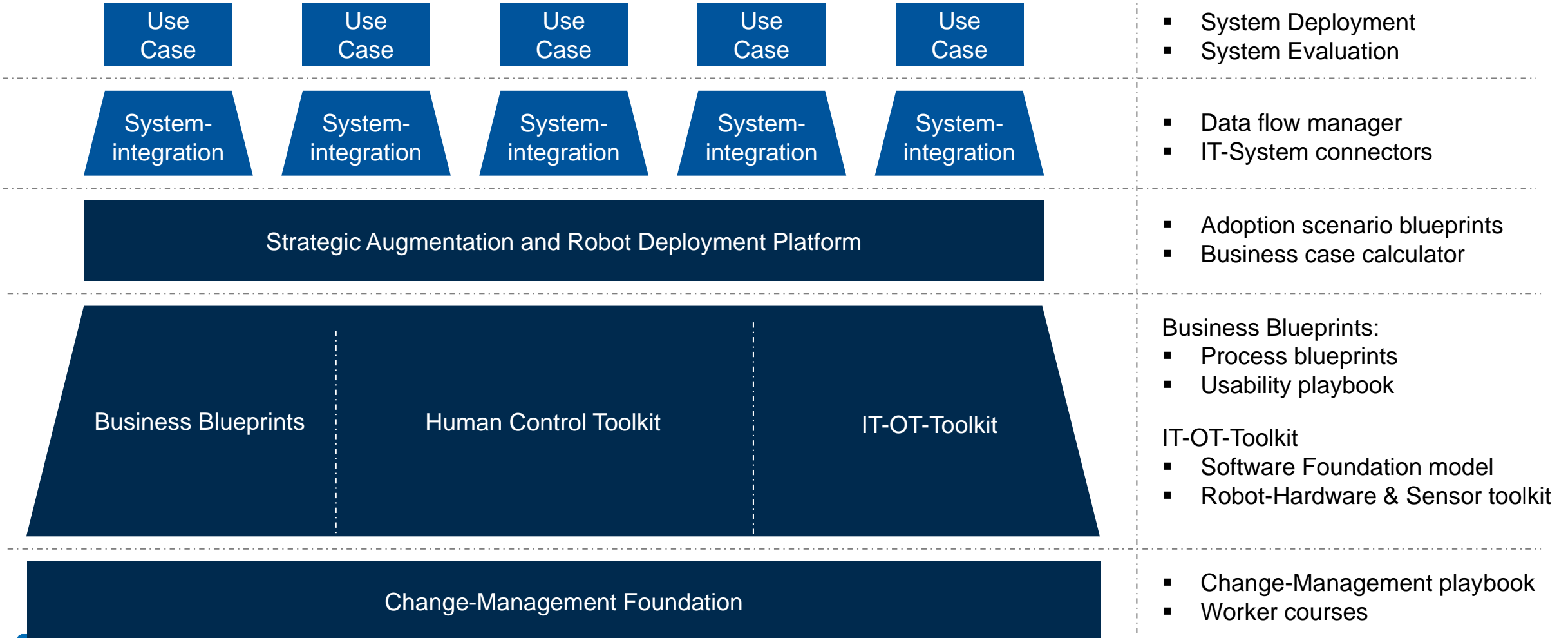
FIR contribution

- **Building a robot app store** to keep IT and OT integration simple
→ The FIR researches frameworks like a “Company OS”, involving findings in systems like the “Company OS” makes integration of robotic applications for industrial partners easy. The base is a modular app store that represents those robot apps conceptualize by the FIR’s information management department
- **Model interactions between robot apps and the existing ITSL** with IT-OT-information flow charts
→ The FIR builds its “Company OS” vision modular based on existing ITSL with its production and service management departments
- **Stabilization through economic exploitation** in the form of business model blueprints and change management playbooks
→ The FIR focuses on feasibility calculation for its “Company OS” through its business expertise with its service management and business transformation department
- **Exploitation of automation potential** for service processes
→ The FIR has expertise and a cohesive network in various industrial service domains, which makes implementation easier

The target picture combines the work package architecture and the result

Project-Architecture

Result



For further information, contact our specialists.



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