Machinaide project
2019–2023

Pauli Salminen, Aalto University

Workpackage 2 leader in Machinaide project

machinaide

MACHINAIDE

19 partners

4 countries

ITEA 3 Call 5

Oct 2019 - Jun 2023

Smart industry

ITEA3

Finland

Netherlands

Turkey

Rebublic of Korea

https://www.machinaide.eu

ITEA 3

BUSINESS FINLAND

IDEAL GRP

TU/e EINDHOVEN UNIVERSITY OF TECHNOLOGY

CP SYSTEMS

KONECRANES®

VTT

teknopar Endüstriyel Otomasyon

ETRI Electronics and Telecommunications Research Institute

REMION

CORDIS SUITE

Additive Industries

KE-works

RollResearch

ER METAL

Aalto University

DAKIK YAZILIM TEKNOLOJİLERİ

TNO

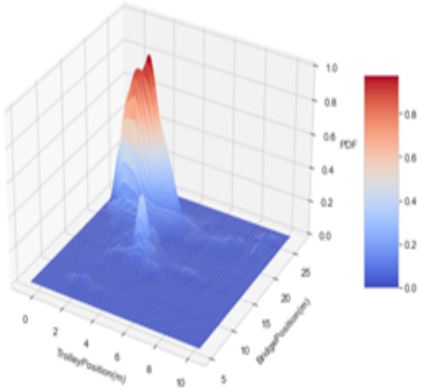
DOĞRU BİLGİ TEKNOLOJİLERİ

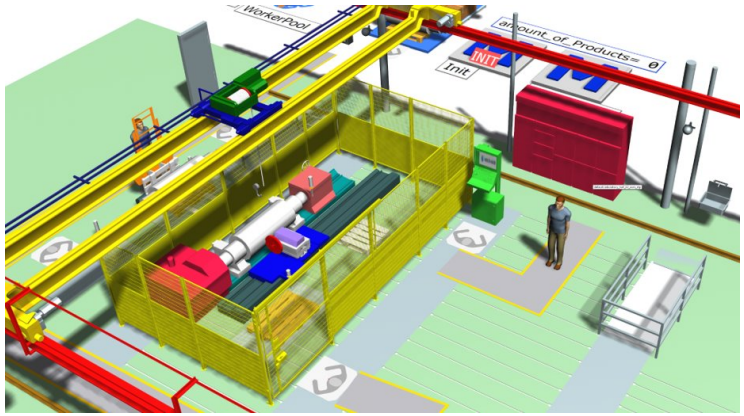
ERSTE

LELY

Better Digital Twins for seamless digitalisation

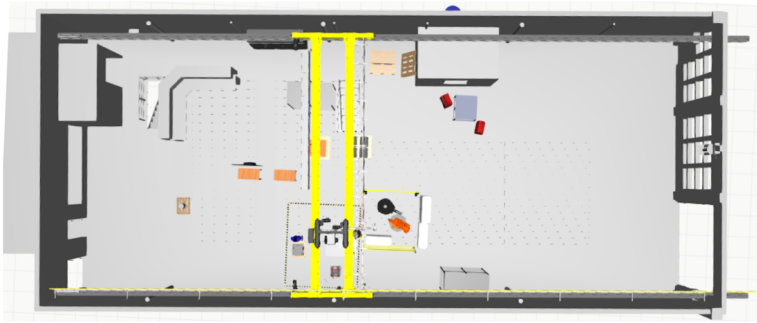
- Machinaide creates solutions to connect industrial ecosystems
- Human Machine Interfaces (HMI) for the Digital Twins, Internet 4.0 and Industrial Internet of Things and machines
- Applications to present processed information from Digital Twins





Work Packages

- **WP1: Use Cases, requirements and evaluation**
- **WP2: Interoperability between Digital Twin ecosystems**
- WP3: Processing of multiple Digital Twin´s data
- **WP4: Innovative Human Machine Interfaces for DT´s and services**
- WP5: Information usage across the machine **Life cycle**
- WP6: Business models
- WP7: Dissemination
- WP8: Project management



machinaide

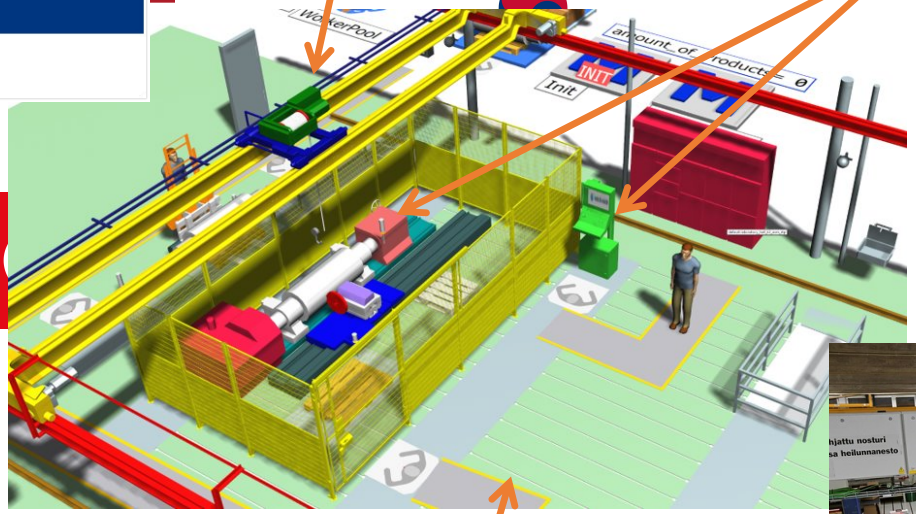
Smart factory ecosystem

KONECRANES®

Smart crane “Ilmatar” and crane ecosystems

RollResearch

Virtual Grinding machine with real control hardware



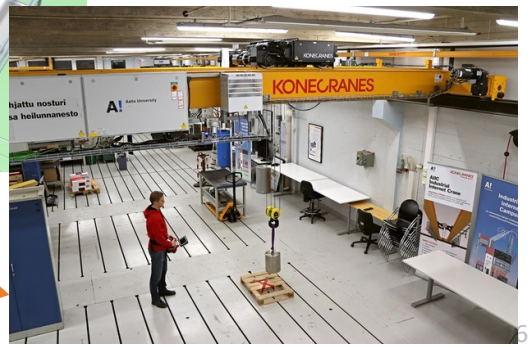
VTT

Business models

IDEAL GRP

REMION

Software and applications



A!

Aalto University

Aalto Industrial Internet Campus

Thank you! Questions?

Our experts can reply your questions in the following presentations:

- Communication of digital twin
  Riku Ala-Laurinaho & Joel Mattila, Aalto University
- A time machine for the digital twin in process simulation
  Harri Taskinen & Niclas Busck, IDEAL GRP
- Future of crane digital twins and their connectivity with ecosystems
  Valtteri Peltoranta, Konecranes
- A mixed reality interface for digital twin based crane
  Tu Xinyi, Aalto University
- Scalable IoT data pipeline with Apache Flink @ AWS
  Miika Valtonen, Remion
- A sneak peek: Online high-dimensional modeling of industrial crane data
  Tuomas Keski-Heikkilä, Aalto University
- Virtual grinding machine
  Thomas Widmaier, RollResearch International
- GraphQL interface for OPC UA
  Riku Ala-Laurinaho, Aalto University