Can we fix it?

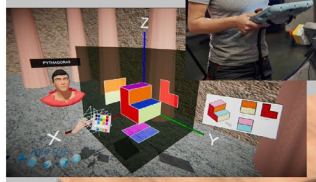
RE/manufacturing Lab

Update Semester 1 2022/2023

DE HAAGSE HOGESCHOOL

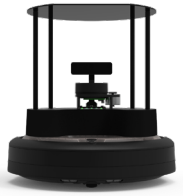
Goal for September 2024

Assisted Assembly



Picking Robot

Smart Storage

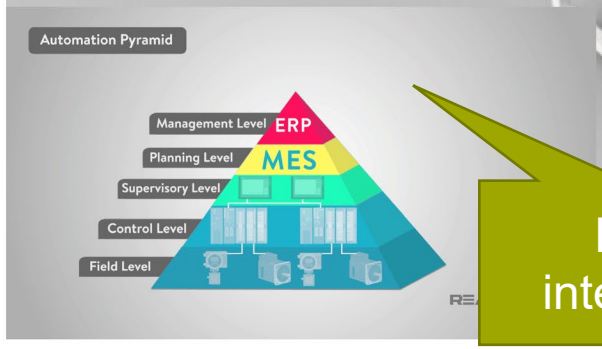


Autonomous Mobile Robot

Spare Part Printing

Disassembly Station

Repair

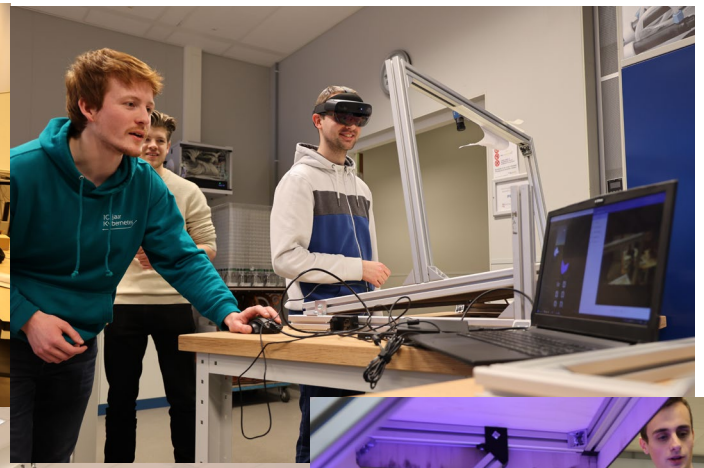


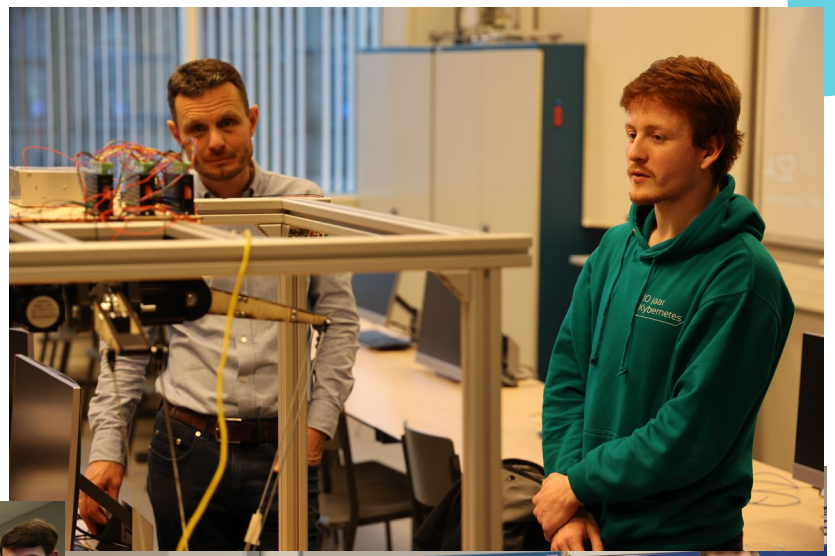
IT/OT integration

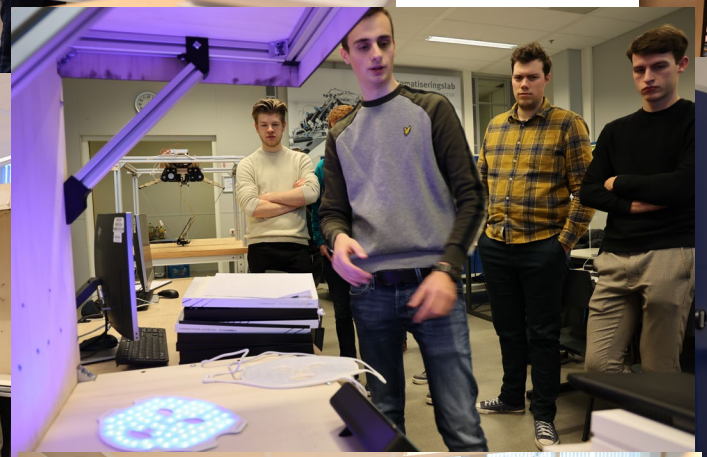
Transport System

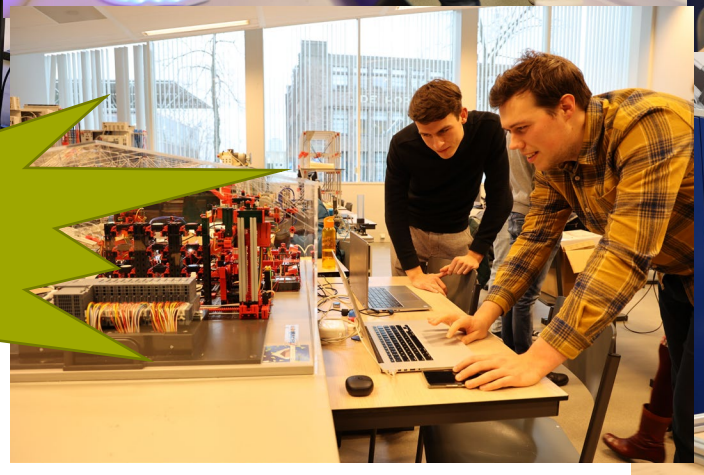
IoT/Tracing

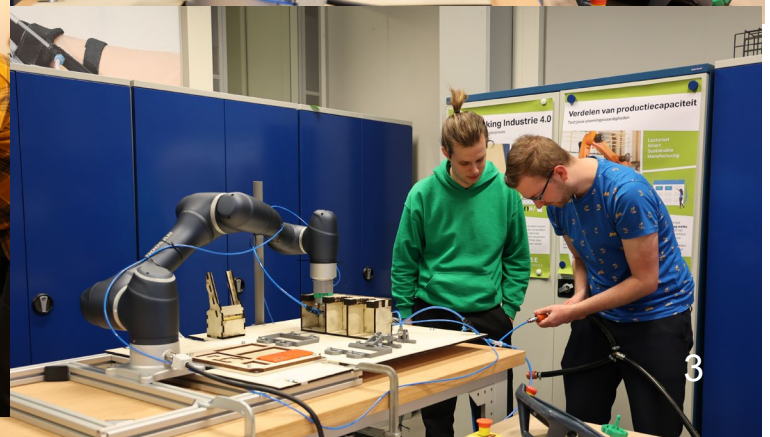
Results Feb 2023







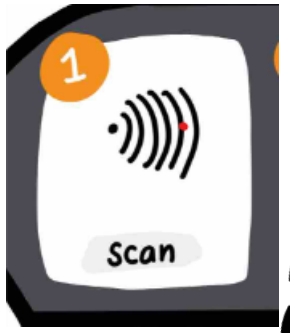




RE/man Heroes

Watch the videos

- Disassembly Station 1.0
- Disassembly Station 2.0
- Pick & Place Station Work-in-Progress
- Led Grid Checker
- Digital Shadow
- Operator Assistance for Assembly 1.0



Problem

Ambitions

1

Status Quo?

2

Best-Practices on offer? (digitalization, circularity, manufacturability?)

3

Problems Perceived?

Possible Next Step?

Inspiration

PRODUCTION SYSTEM

TRACEABILITY

TRIGGERING

MANUFACTU-RABILITY

DASHBOARD

PRODUCT-CENTREDNESS

COMPUTER INTEGRATED MANUFACTURING

HORIZONTAL INTEGRATION

VERTICAL INTEGRATION

Toolkit

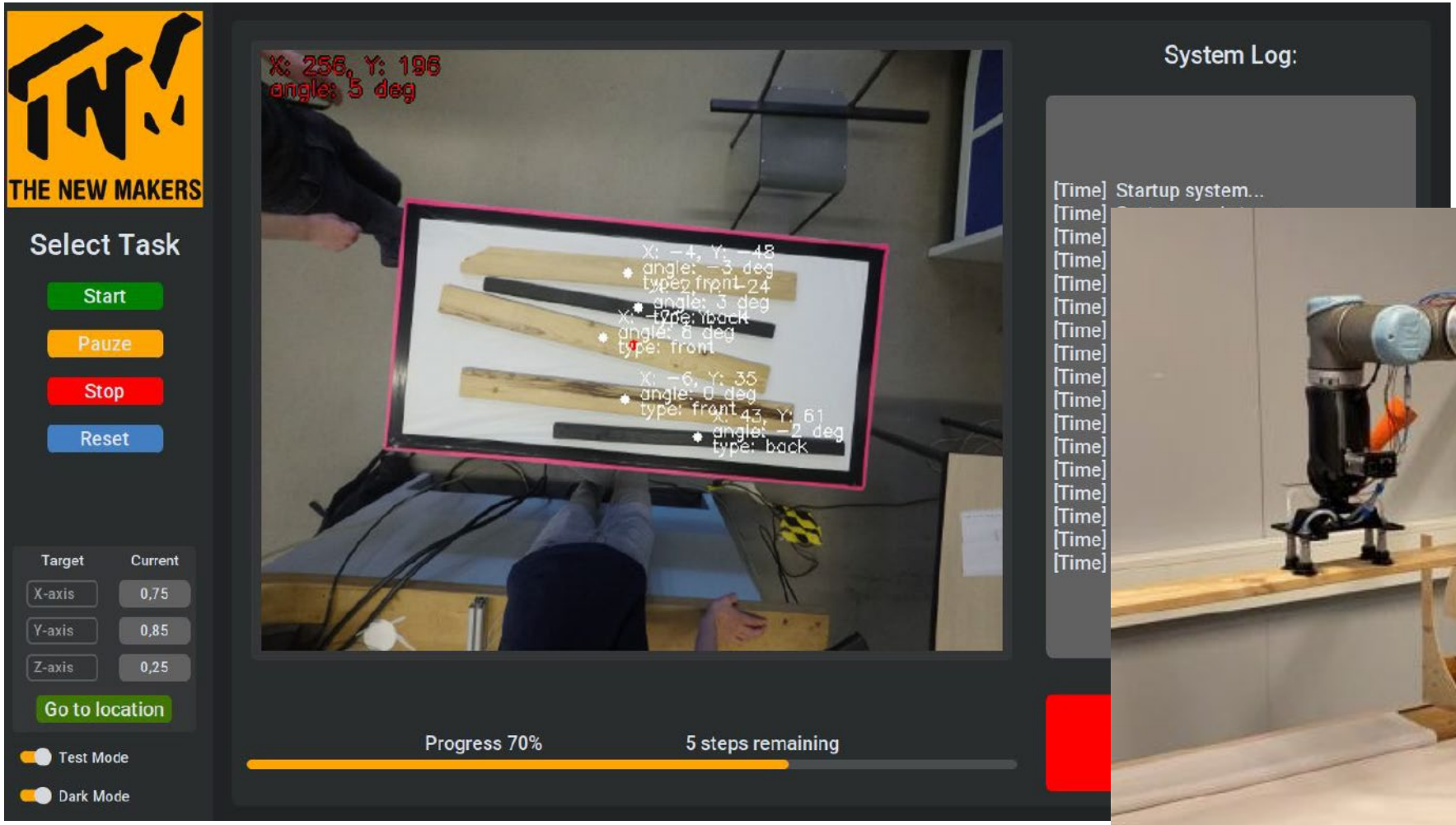
Advanced Manufacturing

Digital Factory

Smart Working

Digitisation-scan

Parallel Projects in the field...



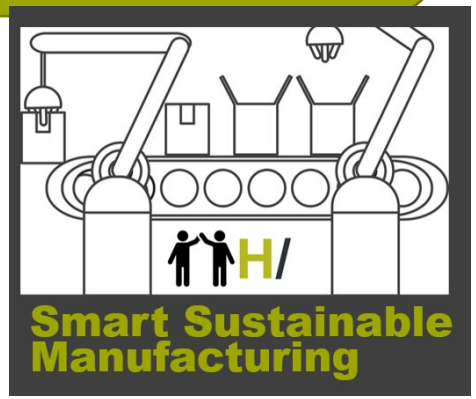
Societal Challenges

RE//manufacturing LAB

Research

Education

Professional Practice



- Climate: energy & materials transition
- Future of Work (workfloor, process & employee)
- Digitization (SMEs)

Footprint

Source: based on Circularity Gap Report (2021)

Critical Raw Materials

Bron: Bewerking van Circularity Gap Report (2021)

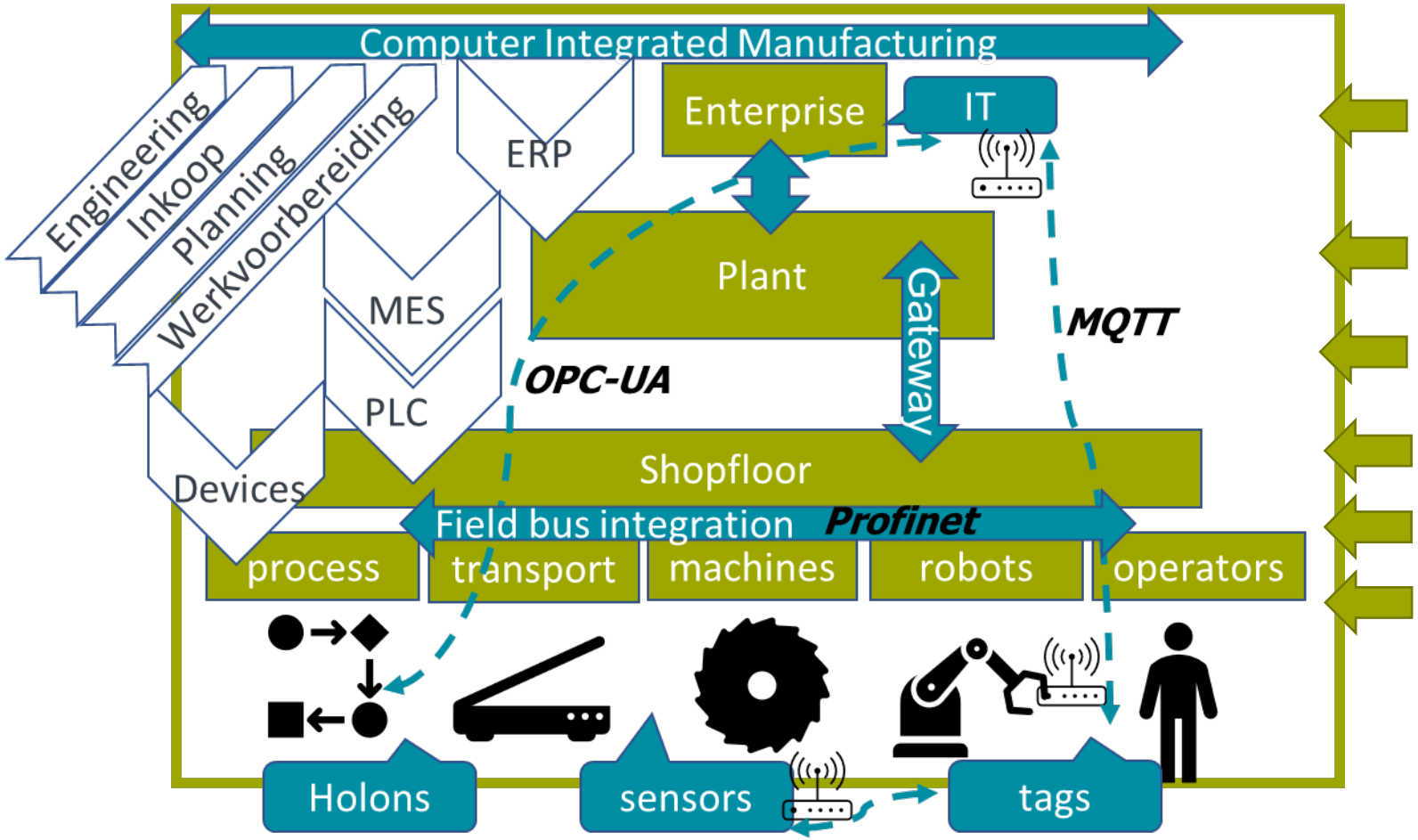
Future of Work

Bron: Romero, D. et al (2016)

Smart Industry: a lot to do

2020-2021	
Percentage NL Manufacturing Companies	
Additive Manufacturing	16%
Robots	25%
IoT	6%
AI/Big Data/Analytics	23%
Cloud	50%
Has heard about Smart Industry	62%
Knows what Smart Industry is	44%

Digitisation->Mainly Integration Problem
Multi-Disciplinary



- Master Next Level Engineering
- Industrial Engineering
- Applied Mathematics
- ICT
- Mechanical Engineering
- Mechatronics

Can we fix it?

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