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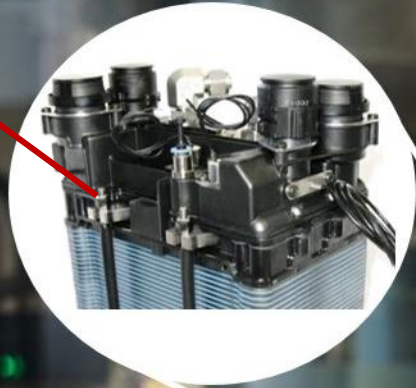


An innovative design of a flexible, scalable, high quality production line for PEMFC manufacturing

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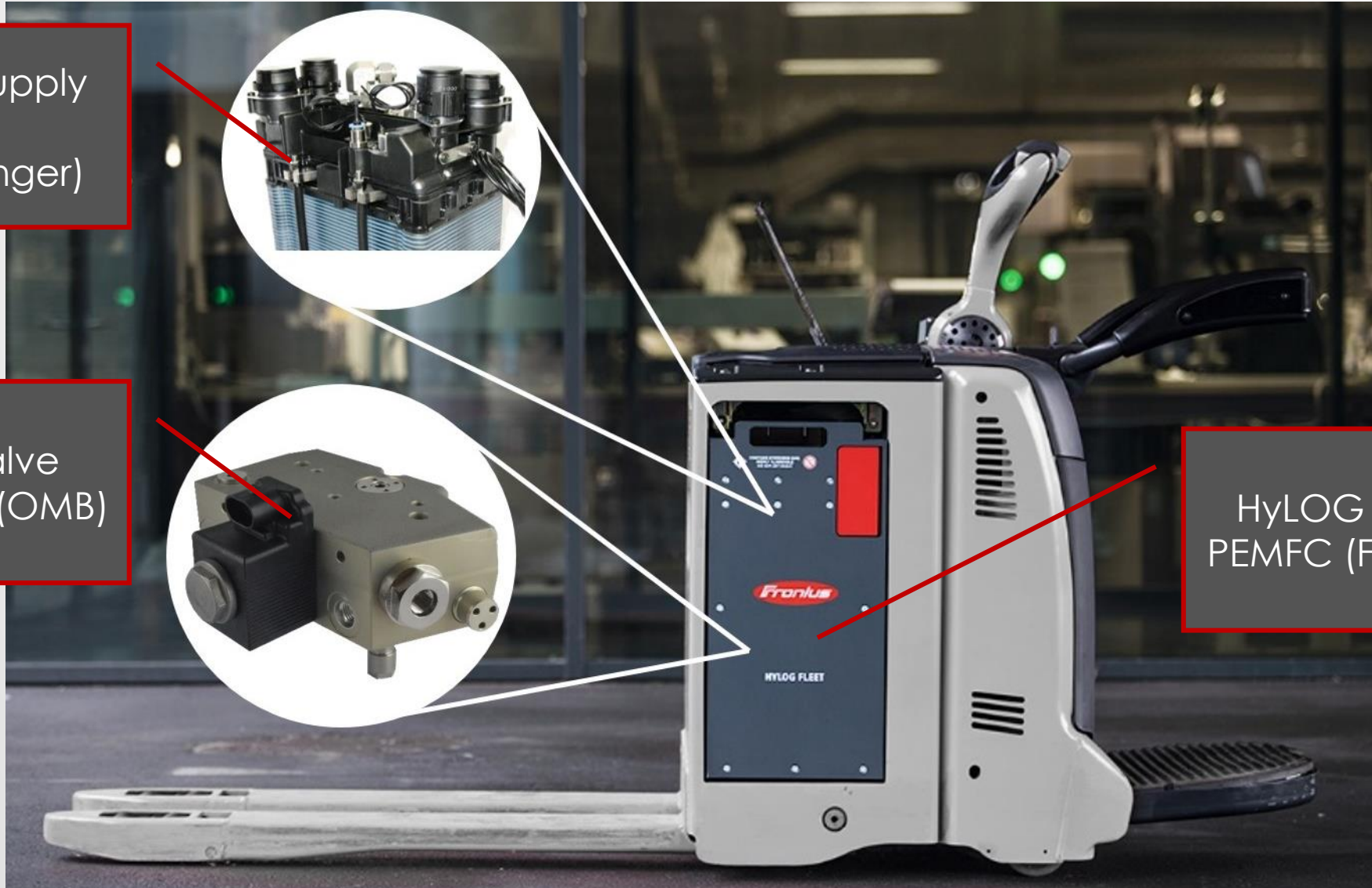
Media Supply Unit
(EiringKlinger)



Tank valve regulator (OMB)



HyLOG Fleet
PEMFC (Fronius)



ABOUT

The project aims at the development of a **design of a flexible, scalable, high quality production line (process steps) for the manufacturing of PEMFC's (Proton Exchange Membrane Fuel Cells).**

The spectrum of tasks for automation of fuel cell manufacturing investigated in the project includes:

- Process designs enabling **scalability to 50.000 parts per year**
- Definitions for **automatic quality control strategies and processes**
- The development of **flexible assembly stations**
- Traceability requirements based on **tracking methods of parts, assembly data collection and documentation**

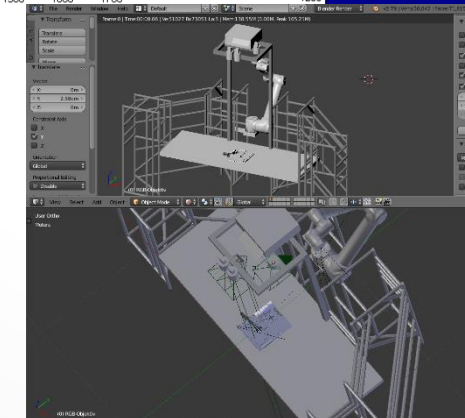
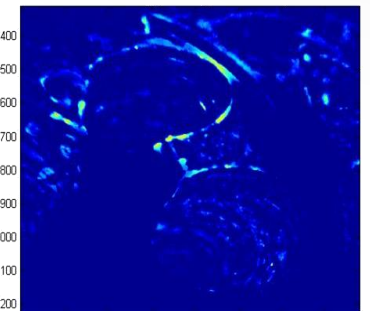
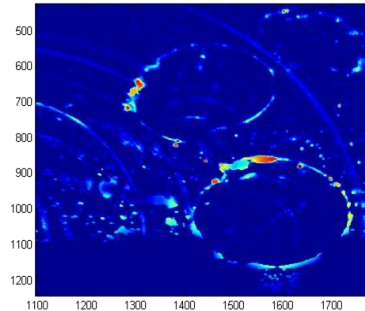
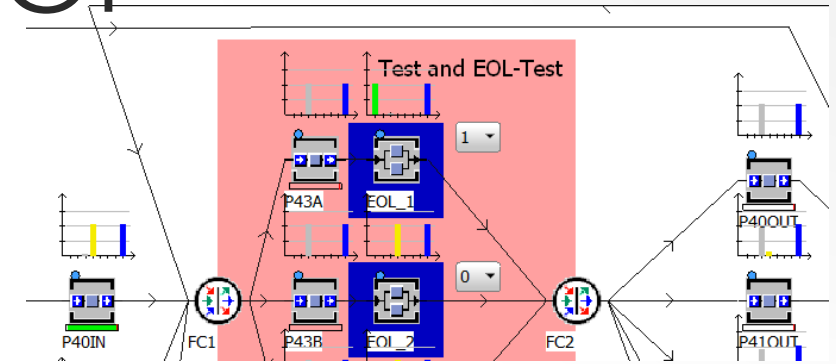
The INLINE manufacturing process has to meet both small and very large PEMFC system production.

OBJECTIVES

- **Objective (A): Redesign of the media supply unit** will decrease cycle time and manufacturing costs.
- **Objective (B):** Development of **automated quality inspection methods** will ensure **traceability of critical components** and reduce the need for making time-consuming measurements.
- **Objective (C): Scalability of the manufacturing process** through integration of assistance systems and new development of the **350 bar H₂ tank valve**.

CURRENT STATE OF PROJECT

- Full simulation model of the production process
- Initial tests for non-destructive inline quality control sensors
- Concept for assisted assembly step finished
- Concept for redesign of MSU and tank valve finished



→ IN LINE →



CONSORTIUM



→ **INLINE** →

FUNDING



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Project end: 2020-01-31