PRODUCTION 4.0 – AGILE PLANNING AND FLEXIBLE PROCESSES

BY LINKING PRODUCTION CONTROL SOFTWARE, SENSORS, ROBOTICS

Application for manufacturing industry

SUMMARY

Continuous optimization of production processes in a high mix/low volume production environment can be supported by the use of control software, sensors and robotics.

Currently the implementation and continuous updating of these technologies requires considerable effort, which does not seem to be economically viable particularly for small batch sizes and constantly changing products.

This project analyzes and evaluates these barriers, in order to facilitate entry for industrial companies thanks to improved products from technology providers.

PARTNERS

Production control

Sensors

Assembly

Robotic

PROJECT DESCRIPTION

For the kickTrike start-up project, a flexible assembly line was built for initial production.

LEAN methods are used for work planning, work plan data is captured during initial production, including capture of potential improvement measures. At the same time, sensors are installed to capture the as-is state and deviations from the target state are automatically visualized.

Certain work processes are automated by the use of robotic elements.

CONTACT

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INDUSTRIE 4.0 – FEATURES

Lowering the barriers to use of the tested technologies by SMEs thanks to improved Industrie 4.0 products with increased flexibility in implementation and greater ease of use for users.

STANDARDIZATION APPROACHES

Analysis and evaluation of the interfaces between control software, sensors and robotics with the aim of defining an appropriate user interface for improved ease of use of the different technologies and also analysis and evaluation of the flexibility of the technologies deployed.