



ReCaM

Rapid Reconfiguration of Flexible Production Systems

Project Goals

To develop and demonstrate the next generation of versatile production systems based on reconfigurable modular production resources.

- ◆ Economic production of smaller lot sizes and higher number of variants
- ◆ Reduction of the set-up, changeover times and costs
- ◆ Reduction of average energy consumption
- ◆ Support for standardisation of communication protocols, data structures and tool connectivity

The ReCaM Approach

The approach is grounded on the development of techniques for the design, reconfiguration and management phases of production systems.

ReCaM RESEARCH PROJECT Developing a new manufacturing system

TIME-SAVING
Intelligent modules reduce setup time and result in less downtime

PLUG AND PRODUCE
The system can identify the manufacturing modules, which are connected and communicate with each other

MANY PRODUCT VARIANTS
Faster and more efficient manufacturing down to batch size one

VERSATILE
assembly thanks to intelligent manufacturing modules

- ◆ Capability-based system reconfiguration
- ◆ Automatic adaptation of resource capabilities
- ◆ Auto-programming of mechatronic objects (MOs)
- ◆ Rapid reconfiguration of the system according to product requirements
- ◆ Engineering methods for the integrated reconfiguration and production planning

Demonstration Environments

The ReCaM solutions will be implemented and demonstrated on two industrial environments and one lab demonstrator.



1. Bosch Plant Demonstrator



2. CESA Plant Demonstrator



3. Bosch Lab

Image provided by Robert Bosch GmbH

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Consortium Partners



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