



- Project duration: 01.01.15 – 31.12.17
- Grant amount: € 5.1 m

Customer-driven design of product-services and production networks to adapt to regional market requirements

WP3: Distributed Production Network Design and Management

The ProRegio project provides a manufacturing intelligence based product-service, which enables companies to deliver to a globally distributed network of customers, with strongly differing regional requirements regarding product design and functionality.

Main Objective and Benefits

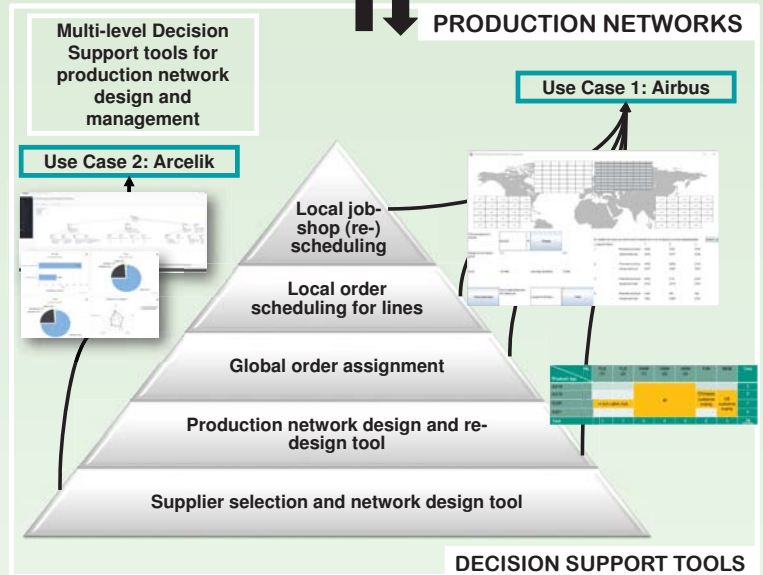
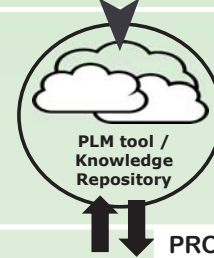
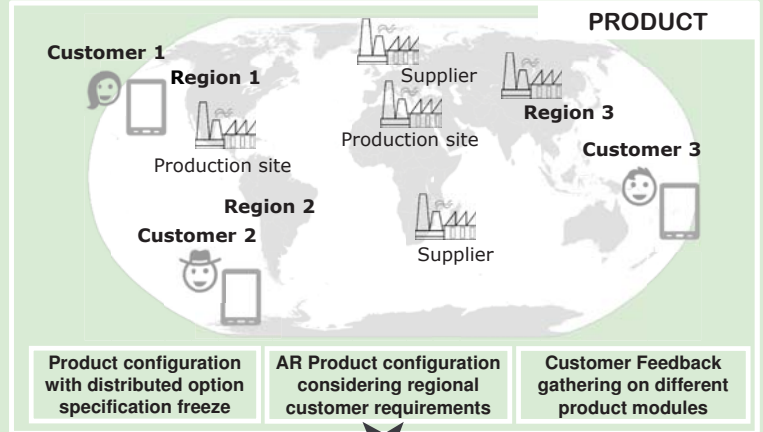
WP3 addresses the design and management of production networks for the manufacturing and final delivery of innovative products and services:

- Strategical, tactical, and operational planning of production networks
- Design and re-design of production networks
- Multi-objective assessment and evaluation of production networks
- Consideration of customer requirements and regional production capabilities in the design of the production networks
- Customer involvement in the order-fulfilment process

Tools and Methodologies

- Supplier Selection and Network Design**
Multi-criteria evaluation for supplier selection and frugal production network design and management
- Production Network Design and Re-design**
MIP-Optimization of product-to-plant allocation and production network design and re-design
- Global Order Assignment**
MIP-Optimization of the assignment of customer orders to plants and production periods
- Local Order Scheduling for Lines**
MIP-Optimization of the assignment of customer orders to mixed-model assembly lines and cycles
- Local Job-Shop (Re-)Scheduling**
Job-shop scheduling on cycle-independent stations and re-scheduling based on real-time information

The Approach



Project Sponsor

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