

Module 14

Digital Transformation and Innovation for Enabling Reconfigurable Production Systems

Welcome to Module 15, Digital Transformation and Innovation for Enabling Reconfigurable Production Systems. This module consists of 5 parts as follows:

1. Manufacturing Digital Transformation
2. Modapto under the lens of Digital Transformation
3. Innovations in Manufacturing Business Models
- 4. Assessment Questionnaire for Reconfigurable Manufacturing Maturity of SMEs**
5. Business Models of MODAPTO
6. References – Extra Reading Material

Each has its own set of slides and accompanying explanations that you can read in parallel. To do so in this series of accompanying texts the Reference Slide is presented in line with the supportive text.

14.4. Assessment Questionnaire for Reconfigurable Manufacturing Maturity of SMEs

[Slide #4-#6]

To enable the identification of the current status of a given factory and the degree of its readiness to introduce a MODAPTO-like solution a questionnaire on Reconfigurable Manufacturing (RM) maturity can be a valuable tool for these medium-sized enterprises (SMEs) to assess their current capabilities and develop a roadmap for future improvements.

By using the questionnaire, factories can systematically evaluate their readiness across key dimensions of RM, such as **Operation performance of manufacturing systems, Resilience, Modularity, Integrability, Customization, Adaptability and Diagnosability**. The results will thus provide a clear snapshot of their strengths and weaknesses, allowing them to identify specific areas that require investment or strategic focus. For example, a factory might discover it has high modularity in its machines but low digital integration, guiding them to prioritize the implementation of a Manufacturing Execution System (MES). Ultimately, this data-driven approach enables factories to move from an ad-hoc, reactive

state to a proactive, strategic plan for adopting RM, which can lead to increased agility, reduced costs, and enhanced competitiveness.