Project: Smart Product Solutions

Course Description

Smart product solutions can increase the efficiency of existing business models in the context of digital transformation. In addition to the expansion and optimization of traditional business models, smart product solutions also create completely new business models in which, for example, revenues are not linked to the transfer of ownership of the product but to its use. In practice, however, the design and analysis of smart product solutions and their business models create difficulties for many companies because the complexity of such solutions hinders their implementation due to insufficient methodological know-how. Against this background, students will apply various instruments and modeling tools to describe and analyze smart product solutions within the framework of a practical project.

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▪ By using an agile engineering approach, students learn about the complex interrelationships of smart product solutions in a project-oriented setting. In addition to the structural description, students also gain a comprehensive insight into the quantitative modeling of the dynamic interrelationships of smart product solutions and their business models at the level of a specific product solution. The consistent application of techniques and tools from the engineering construction kit of smart product solutions enables the development of new business models and the adaptation of existing business models through the flexible configuration of interdependent components. Radical innovations with completely new benefits are just as possible as incremental adjustments in a more evolutionary transformation process. Through the abstract description of the architecture and the dynamic modeling of the mechanics of the smart product solutions and their business models, students learn the basics of decision support in practice, which ensures continuous learning in a digital world with growing dynamic complexity.