

## PRESS RELEASE

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# Whitepaper: Agile Innovation – Design Fields of Agile Product Development

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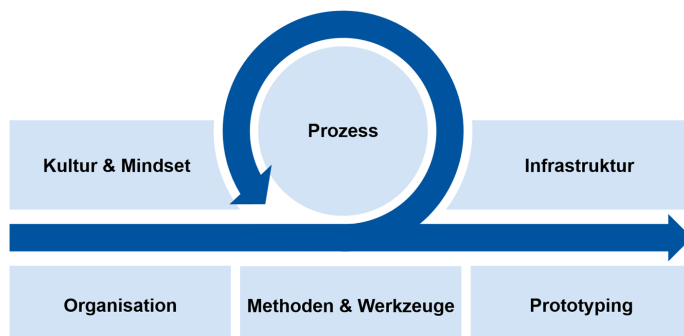
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Agile product development - an overrated hype or future-oriented guarantor of success? This is the question addressed in the newly published whitepaper "Agile Innovation - Design Fields of Agile Product Development", the contents of which were developed in joint work at the Fraunhofer Institute for Production Technology IPT and the Laboratory for Machine Tools and Production Engineering (WZL) of RWTH Aachen University.

Today, manufacturing companies operate in a global environment characterized by high competitive pressure and volatile customer requirements. Often, this initial situation results in late changes in the course of development projects, which pushes the previously used, plan-driven development approaches to their limits. To counteract this, manufacturing companies are increasingly relying on agile principles from software development for the development of physical products.

In contrast to classic, plan-driven development, no complete requirements definition is required at the start of the project. In addition, customers are integrated into the iterative process flow of development projects at regular intervals. These new approaches result in a large number of potentials, but also challenges, which form the focus of the whitepaper "Agile Innovation - Design Fields of Agile Product Development".



The six central fields of action in agile product development (© WZL)

The explanations in the whitepaper are based on two consortium benchmarking studies on the topics of "Agile Invention" and "Agile Product Development", which were carried out in collaboration between the Fraunhofer Institute for Production Technology IPT and the Laboratory for Machine Tools and Production Engineering (WZL) at RWTH Aachen University.

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More than 300 companies in the manufacturing industry were surveyed on the agile development of mechatronic products. From the results of the study and the practical examples of particularly successful companies, such as TRUMPF GmbH & Co. KG, ASML Holding N.V., CLAAS KGaA mbH, Philips GmbH, Deutz AG and Voith Paper GmbH & Co. KG, 20 success factors of agile product development could be derived, which are explained in detail in the whitepaper. The success factors fill a framework consisting of the following fields of action:

- Culture & Mindset
- Organization
- Process
- Methods & Tools
- Infrastructure
- Prototyping

In addition to these six central fields of action for agile product development, the Aachen scientists were able to determine that a holistic and consistent implementation of "Sustainable Agility" can only be successfully carried out with the support of top management.

The whitepaper "Agile Innovation - Design Fields of Agile Product Development" is available for download at [www.wzl.rwth-aachen.de/agile-innovation](http://www.wzl.rwth-aachen.de/agile-innovation).

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### Laboratory for Machine Tools and Production Engineering

The Laboratory for Machine Tools and Production Engineering (WZL) of RWTH Aachen University enhances the innovative strength and competitiveness of the industry with trend-setting basic research, applied re-search and the associated consulting and implementation projects in the field of production technology. In the research fields of manufacturing technology, machine tools, production engineering, gear technology as well as production metrology and quality management, practical solutions for rationalizing production are developed with industrial partners from a broad range of branches.