Executing these concepts vastly improved takt-timing and prioritization, and the department was able to increase the number of projects it finished on time.

So far, only a few companies are using the concept of agile product development in industrial practice, but more are examining this concept. Success will require your organization to investigate how products can be developed in cycles with short sprints. You also will have to define the length of a sprint to synchronize activities. Moreover, changes in the process flow require the involvement and training of employees.

The concept of agile product development also implies that research and development managers hand responsibilities over to single developers, as each developer handles tasks in his or her respective sprint.

That is why success depends on the concept gaining acceptance among all stakeholders. Your organization will need clear communication to allay the fears of managers who must give away responsibilities to developers, along with the developer’s doubts about assuming those responsibilities.

**Agile can be your future**

Retrospective and prospective value stream analyses are suitable instruments to avoid waste in product development. A comprehensive value stream analysis as part of a continuous improvement process can enhance the efficiency of your organization’s product development.

Furthermore, the development process can be optimized by synchronization and takt-timing. Agile product development that makes use of the scrum method, stronger cooperation between team members and short sprints create a continuous workflow that can reach overall goals faster and more efficiently (see Figure 3).

Control of the project relies on synchronization points, which structure the process in manageable subscopes, and sprints that are executed by different developers. This supports a paradigm change from the question “How much time per task?” to the question “How much task per time?”

Agile product development, a highly iterative method, is currently the exception in manufacturing industries. However, this concept will gain significance in the future if your organization is going to compete in an increasingly complex world with increasingly complex and more numerous product development projects.

VALUABLE TOOLS TO TRANSFER

Figure 3. Transferring the principles of value stream analysis and agile product development can help your enterprise manage complex development projects.