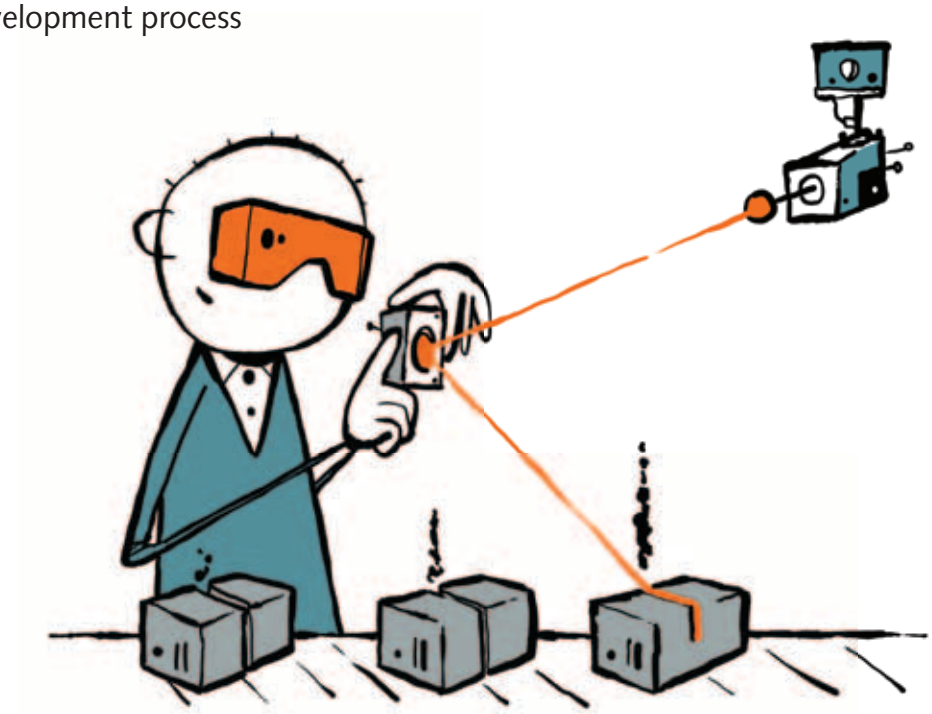
AS PRECISE AS A LASER SWORD

SCANLAB gears its product development process towards global growth



Lasers have fired people's dreams for decades. Hardly any other technology has shaped our image of the future so much as the highly concentrated beam of light. And lasers have enormous potential even beyond the realms of science fiction. Laser technology has become an enormously important cross-sectional technology – from highly efficient lighting systems and medical and physical applications to solutions in mechanical engineering, for example for cutting and welding. As a tool, light offers seemingly inexhaustible areas of application, where its speed and precision play the leading role. SCANLAB AG, founded in 1990, is part of this development. The company from the greater Munich region is primarily concerned with the development and production of galvanometer scanners, scanning heads and scan solutions for industrial laser material processing and for biotechnology and medical devices.

Rapid growth puts structures to the test

The quality of SCANLAB's products and its high innovative capacity have ensured the company's rapid global growth over recent years but now call for existing company structures to be reconsidered. With this in mind, the company's management decided on a comprehensive revision of SCANLAB's processes and organizational structures in order to make it fit for further growth. "In the last few years SCANLAB has become an international supplier that has been confronted with increasing organizational complexity – in particular in production and development," explains Ernst Wilhelm Böckler, who is responsible for the area of application within the development department as well as for the project management. "We were faced with the task of ensuring smooth communications processes and minimizing foreseeable disruptions and inefficiencies. We also recognized the need to match processes and structures within individual departments and throughout the company to future requirements in the best possible way. In short – we needed to gain foresight."

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Head of Applications,
SCANLAB AG

Product development process as the basis for change

The product development process was chosen as the pilot project, which was systematically restructured and reconstructed with newly defined roles, responsibilities and interface description with the support of ROI consulting from November 2012 onwards. The aim was to create the procedural basis for efficient product development and launch focusing on four topics.

First, it was important to secure the timely involvement of the function concerned via the process structure. The measures aimed to introduce a phase model for work packages and decision points for approving project phases and to implement binding reviews of the quality assurance results achieved – important steps in the foresighted 'handling' of growth.

The second topic was efficient project management with a manager for each project taken from the project manager pool and with a team put together specifically for each project. This resulted in goals being pursued cross-functionally and in relief for the line functions. Collaboration was also to be simplified by the introduction of standards, in particular through clear and explicit role definitions, process descriptions, tools, checklists and filing structures. And finally, the project was to enable continuous process improvement, which was to be achieved principally through the specification of clear process and tool responsibilities and the central maintenance and provision of tools.

"The product development process is an essentially critical discipline for a technology company such as SCANLAB that plays a major role in its future success," explains Ernst Wilhelm Böckler. "We wanted to become the benchmark in this field – with efficient multi-project management, smooth, cross-functional collaboration, excellent quality management and the ability to further develop and optimize the newly established structures on a continuous basis."

Four steps to process excellence

The first phase of the project involved an analysis of the existing development process. An area of focus here was an analysis of orders (categorization, number, size, characteristics) together with an analysis of current processes based on a sample of representative projects. There was also an assessment of current strengths and weaknesses which formed the basis for the definition of key areas for action.

This was combined with plans for a target product development process for both internal development projects as well as for customer projects. It involved the preparation of a draft design for the project organization and the formulation of an implementation plan. In addition, resilient team structures were set up. Then began the pilot phase for selected projects where the newly created structures were tried out and the new tools and methods subjected to testing in everyday practice. The company-wide roll-out commenced after the successful completion of the pilot phase and is likely to conclude in March 2014.

"The measures supporting the project were of great importance for its success," states Ernst Wilhelm Böckler. "They were used to inform sales and development staff about the progress of the project and to solicit feedback. Furthermore, ROI consultants trained the nominated project managers and provided coaching for the pilot projects. Our intention was not only to secure the long-term efficacy of the organizational changes and the permanent transfer of knowledge but also to achieve a high level of acceptance for the changes."

Between best practice and individuality

The tasks and challenges faced by SCANLAB are not unique. They are typical of any expanding technology company. This is why it is vital to address the organizational and procedural implications of growth and the use of industry-wide process benchmarks at an early stage in order to make the necessary 'culture change' possible.

"However, the project team was conscious of the fact that our individual and evolved success factors had to be integrated with the development of the future process," sums up Ernst Wilhelm Böckler. "It is because we succeeded in combining the specific qualities and strengths of SCANLAB's development culture, the trusting interaction with our customers and the balance between technology pull and push that we have been able to create the stable basis for sustained and structured growth."

SCANLAB

SCANLAB AG is an OEM manufacturer that develops and produces scan solutions that deflect and position laser beams. The company is a leading international supplier producing over 15,000 scanning solutions each year. Its innovative products turn lasers into highly dynamic and flexible tools for materials processing. This is achieved via moving mirrors and optical elements that quickly, precisely and reliably position laser beams in three dimensions.
www.scanlab.de