



Q-DAS Products Support Product Lifecycle Management

Product lifecycle management (PLM) is the concept of integrating any information generated and provided in the entire lifecycle – from engineering design and manufacture through distribution and application to disposal. PLM integrates suitable processes, methods and tools creating an infrastructure required to provide a product information backbone gathered in and outside the company. The respective information is available in the requested quality and at the right time.

“Phase model of product development“, “product lifecycle“ or even “quality loop“ (according to Masing) are the names of similar approaches. Examining the entire lifecycle of a product systematically offers a high potential for optimization, cost reduction and continuous improvement of products, at least from a quality management perspective. This is where Q-DAS products contribute significantly to product lifecycle management since they acquire knowledge by processing collected quality information.

Many quality assurance tasks intertwine in all phases of the product development process – from product design to the actual application. Different tools and procedures are used including statistical methods evaluating and qualifying equipment and processes relevant to production and inspection. The same applies to process optimization.

Many ISO standards (International Organization for Standardization) describe (as shown in Figure 1) how to use statistical methods in the single phases of the product lifecycle.

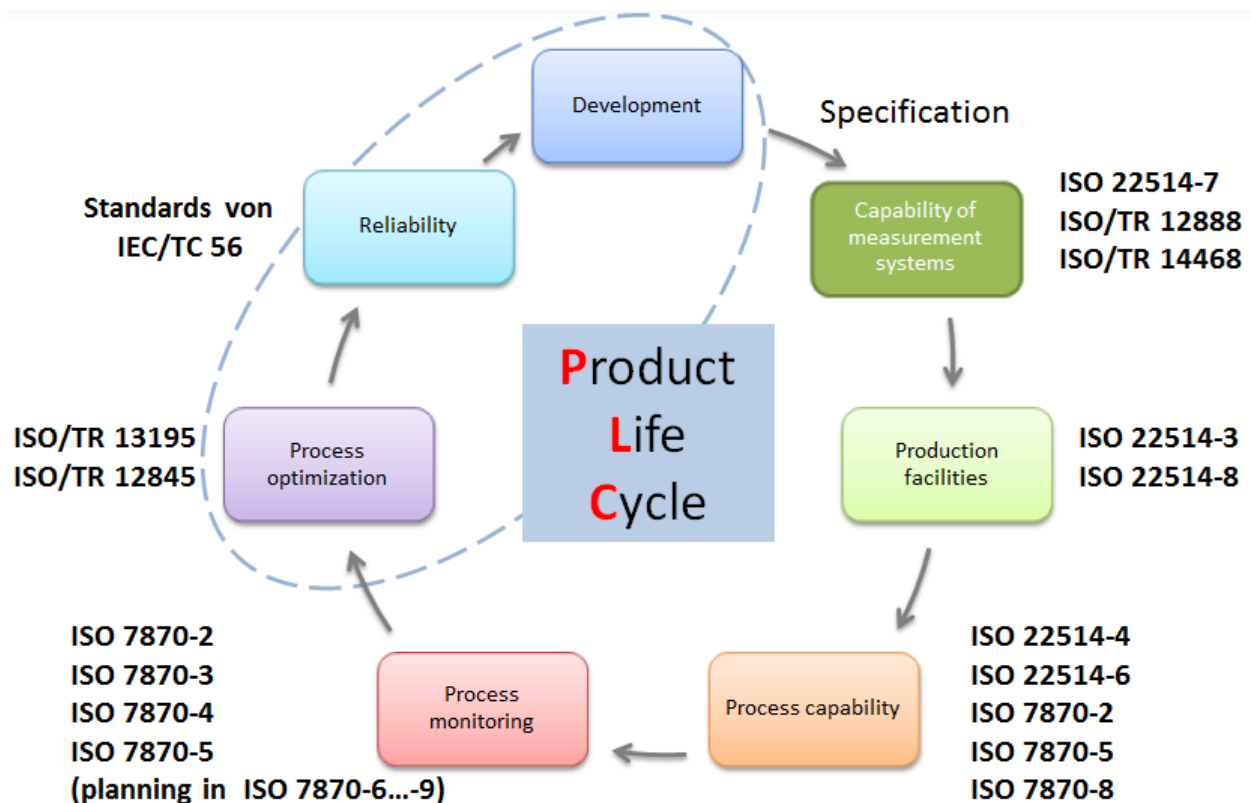


Figure 1: ISO standards

The automotive industry has specified the statistical methods and procedures to be applied many times, especially in association or company-specific guidelines (Figure 2).

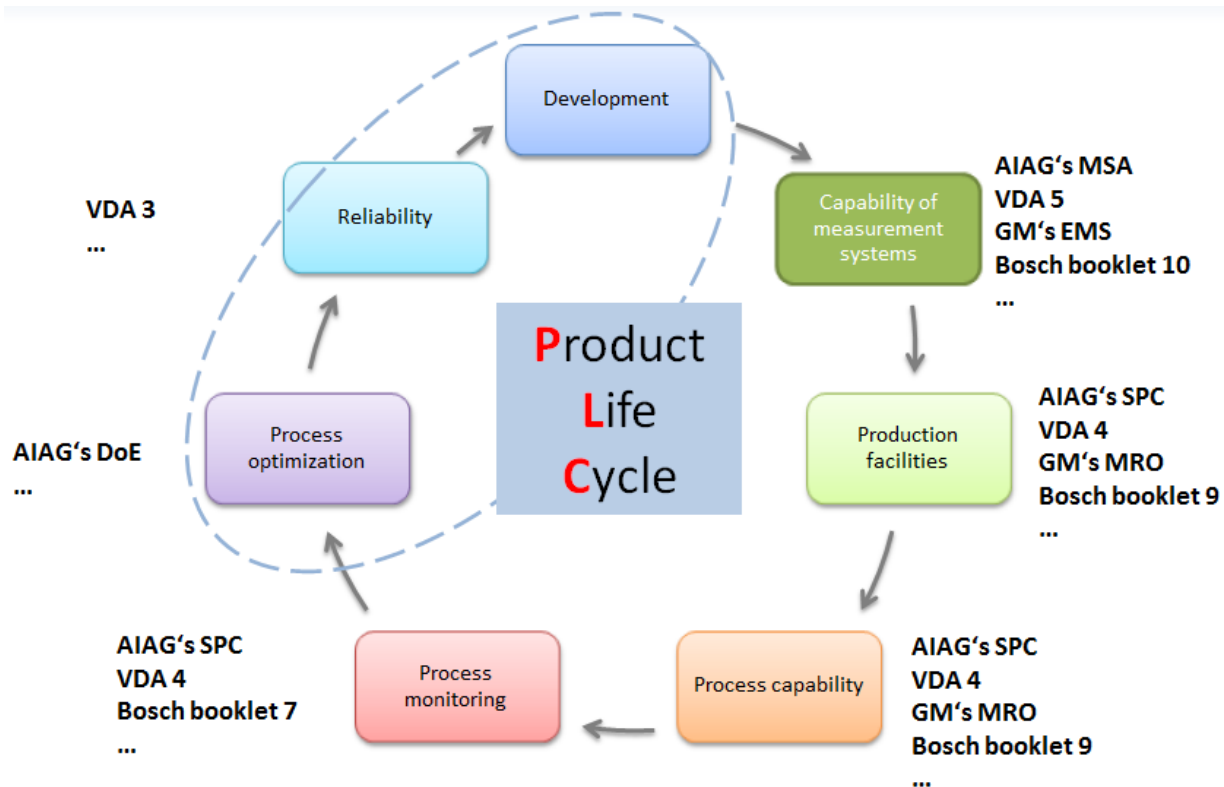


Figure 2: Association and company guidelines

Capability analyses for processes, facilities or machines, in particular, require clear specifications in order to calculate correct statistics. Such standards help to reach the demanded level of transparency and reproducibility of results. Transparency and reproducibility are crucial for demonstrating the effectiveness of optimization measures.

Q-DAS software products meet these very requirements. The integration of international standards, association guidelines and company guidelines helps to apply statistical methods efficiently – they are applied automatically, correctly and reliably.

Particularly in the automotive industry, suppliers have to face the automakers' requirement to establish product and process quality based on these individual specifications. Many specifications of well-known companies are implemented in the Q-DAS software in the form of evaluation strategies; users just select the respective strategy to calculate statistics. These strategies provide accepted and reliable results for a harmonious relationship between suppliers and customers.

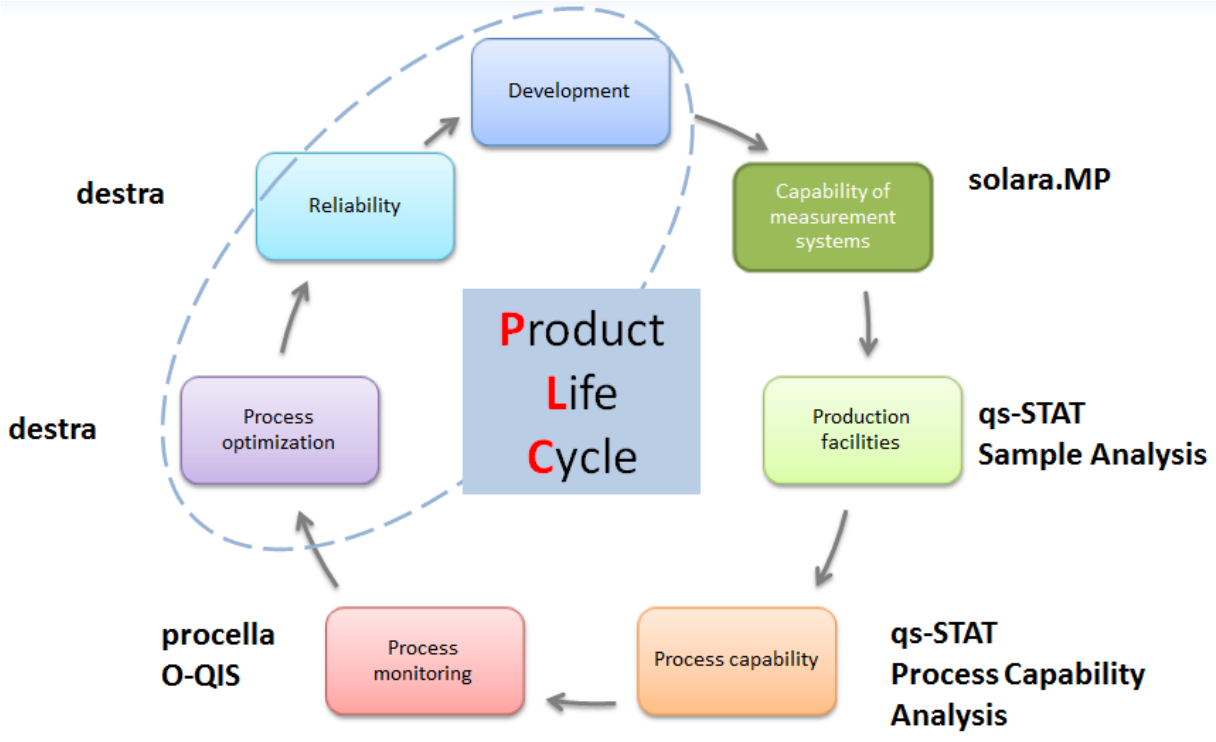


Figure 3: Q-DAS software products supporting the product lifecycle



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