



SUCCESS STORIES OF THE DIGITAL NOW

# Siemens Healthineers transforms its PLM system end-to-end



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| <b>The Reference</b><br>Siemens Healthineers, a leading medical technology company, has stood for innovative products, services, and solutions for more than a century. | <b>The Challenge</b><br>Implementation and continuous further development of a high-performance PLM Teamcenter solution from requirements engineering to manufacturing. | <b>Solutions and Results</b><br>Through the introduction of the Siemens Healthineers Integrated Tool Landscape (ITL) and the transition to the agile SAFe framework with eight teams focusing on different core functionalities, Siemens Healthineers has realized a range of benefits. | <b>Project History</b><br>Before a great product is created, thousands – perhaps even millions – of decisions must be made. |
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## THE REFERENCE

# Siemens Healthineers

Siemens Healthineers is a global provider of devices, solutions, and services in the healthcare sector. The company is active in more than 180 countries and has a direct presence in more than 70 countries. As a leading medical technology company, Siemens Healthineers is committed to improving access to healthcare for underserved populations worldwide and overcoming the most serious diseases. The company primarily operates in the fields of imaging, diagnostics, cancer treatment, and minimally invasive therapies, complemented by digital technologies and artificial intelligence.

## THE CHALLENGE

# Implementation and continuous further development of a high-performance PLM Teamcenter solution from requirements engineering to manufacturing



The Teamcenter installation at Siemens Healthineers was launched in the mid-2000s. Initially, the system was mainly used for CAD management and simulations. However, the scope of requirements and use cases continued to grow steadily. One of the key challenges was developing a system that not only met the needs of individual business units but could also be used company-wide.

## Some of the challenges:

Adapting the existing Teamcenter installation to increasing requirements

Coordinating projects and challenges across different business units

Ensuring interoperability between ECAD and MCAD systems

Continuous adaptation and integration of new requirements and functionalities

Establishing a standardized process across all business areas



# Solutions & Results

By implementing the Siemens Healthineers Integrated Tool Landscape (ITL) and transitioning to the agile SAFe framework with multiple teams focused on different core functionalities, Siemens Healthineers has realized a number of benefits. The ITL enables better coordination and a greater focus on company-wide use, resulting in significant efficiency gains. The coordination of BOM management projects will lead to a single source of truth in the future, improving transparency and agility in the processes.

## Some business benefits at a glance:

- A centralized source of information and processes for PLM and engineering development
- Significant efficiency gains through coordinated use of the Siemens Healthineers Integrated Tool Landscape (ITL)
- Increased transparency in bill-of-materials (BOM) management
- Efficient management and integration of MCAD and ECAD data
- The future vision: an integrated end-to-end PLM platform from requirements engineering to manufacturing based on SAP ERP

## Three benefits at a glance

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Significant time savings through automation

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Greater transparency and speed throughout the entire PLM lifecycle

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Reliable consistency and security

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# Project History

Before a great product is created, thousands – perhaps even millions – of decisions must be made. These are not only the major decisions that mark project milestones, but also many smaller ones. Anyone in the company can make a decision at any time that helps determine the success or failure of a product or solution.

In addition, products are becoming increasingly complex. Mechanics, software, and electronics must interact optimally. Interfaces between components and systems play a decisive role well into the late stages of the development process.



“The colleagues at valantic were and continue to be a key pillar of our PLM program. Through a trusting collaboration, a comprehensive PLM system has been created that is one of the flagship projects at Siemens Healthineers. We continuously drive the program forward to further harmonize our businesses and realize the full benefits of the PLM system.”

Thomas Kübel,  
Siemens Healthineers

## Digital thread for all product information

Teamcenter brings together all required product information and processes for globally distributed development teams in a centralized system. Teamcenter standardizes the product lifecycle and connects all process steps—from idea generation and requirements engineering through implementation to usage—like a digital thread.



## Process Topics in which valantic was involved:

### Requirements Engineering – solution design and implementation

Around 2015, the need to replace outdated requirements management tools became evident. After several analyses, the decision was made to adopt Teamcenter's requirements management model. Later, for reasons of improved user experience and acceptance, the decision was made to use Polarion ALM instead of Teamcenter RE.

### BOM-Management – solution design and implementation

In 2017, the need for smoother handling of SAP material masters in connection with existing CAD data was identified. To address this, Siemens Healthineers and valantic launched another project focusing on parts and BOM management.

### Engineering Change Management – solution implementation

The goal of change management using Teamcenter is to manage changes efficiently, effectively, and sustainably while supporting both the organization and its employees. This is intended to secure and improve the company's competitiveness in the long term.

“With the introduction of parts and other PLM objects into the system, a reliable process for controlling and managing changes was of paramount importance. The goal was to develop a cross-BU and organization-wide template.”

A PLM Consultant at valantic



From 2016 onward, I was involved in the efforts to introduce the Teamcenter RE module at Siemens Healthineers up to the establishment of the ITL program. It was a new process whose requirements and system capabilities I had to understand. It was very exciting and ultimately the foundation for a long-term collaboration with the customer.

Christoph Dengler  
Director PLM Operations valantic

## Administrative Topics in which valantic was involved:

### System operations and maintenance

The development of a comprehensive PLM system includes the operation and maintenance of multiple systems. In addition to the productive environment, additional systems are required. These include a test system, multiple environments for training, demonstrations, and proof-of-concepts, as well as maintenance of virtual clients for the implementation teams. To optimize operations, automated integration builds and deployments as well as client distribution were established over time.

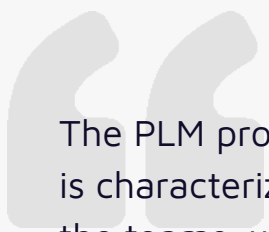
### Rollout – Rollout-Management

Siemens Healthineers follows the approach of gradually making functionalities available to additional business units and departments. New “customers” are shown the current functionality, followed by a fit-gap analysis to identify and add any missing functionalities or process steps if necessary. For each new business unit or department wishing to join the system, a rollout project is set up to manage introductions in a structured and well-defined manner. Coordination between the ITL and stakeholders is handled by rollout managers, who primarily act as intermediaries.

### Testing – functional tests, verification and acceptance tests

Over the years, the functionality of the Teamcenter system grew immensely. Since healthcare is a highly regulated environment, validation and verification (also known as testing) must be precise and comprehensive before new versions can go live. For a long time, testing was the responsibility of the implementation teams. To increase test quality and better support implementation colleagues, the test concept was adjusted and dedicated testing was introduced into the program.

On average, seven employees were involved in the overall project, with peaks of up to 18 employees. Including additional partners, a total of 50 to 70 consultants and experts were driving the project forward during peak periods. Greater agility, increased transparency, and a “single source of truth” for all involved business units are among the core benefits achieved through the project.



The PLM project with Siemens Healthineers is characterized by a deep trust between the teams, which is based on mutual competence and understanding.

Shahin Khazanbeik  
Managing Director at valantic

**valantic Supply Chain  
Excellence GmbH – vPLM**

Birketweg 21  
80639 München  
Deutschland

[info-plm@sce.valantic.com](mailto:info-plm@sce.valantic.com)

**[www.valantic.com/en](https://www.valantic.com/en)**



#### **About valantic**

valantic is one of the fastest growing digital solutions, consulting, and software companies on the market. More than 500 blue chip clients rely on valantic, including 33 of 40 DAX companies and many leading international companies as well. With more than 4,300 specialized digitalization experts and net sales of approx. EUR 650 million in 2025(e), valantic is represented in 20 international locations around the globe.

More than 2,000 digitalization projects over the past five years have shown that valantic understands the business challenges of its customers. From strategy to tangible implementation, they have the necessary expertise to accompany projects from start to finish and make them successful. In this, valantic combines technological expertise with industry knowledge and the human touch.

valantic consults companies on all challenges of digital transformation, helps them to better manage their corporate performance and leverage the potential of data and artificial intelligence. In addition, valantic supports its customers in optimally shaping the customer experience, profitably using core digitalization technologies and optimizing company processes from end to end.

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