BorgWarner TURBO SYSTEMS

AUTOMOTIVE SUPPLIER STEPS UP PRODUCT DATA MANAGEMENT WITH SAP® PLM

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Bernhard Luy, IT Manager for Global PLM Systems, BorgWarner Turbo Systems

QUICK FACTS

Company
- Name: BorgWarner Turbo Systems
- Headquarters: Kirchheimbolanden, Germany
- Industry: Automotive
- Products and services: Development and manufacture of turbocharging systems for commercial vehicles and industrial, locomotive, and marine engines
- Revenue: US$5.7 billion (parent company BorgWarner Inc.)
- Employees: 4,400
- Web site: www.borgwarner.com

Challenges and Opportunities
- Ensure reliable product lifecycle management (PLM) processes across the business
- Integrate and streamline design processes across multiple sites
- Prepare for future business growth
- Enable effective version management of technical design data
- Centralize all data within a single system

Objectives
- Replace existing product data management (PDM) solution with the SAP® Product Lifecycle Management (SAP PLM) application
- Consolidate data from 3 applications into 1 solution

SAP Solutions and Services
SAP PLM

Implementation Highlights
- Implementation that was on time and within budget
- Smooth cutover to the new solution
- High user acceptance

Why SAP
- Integration with existing SAP software–based landscape
- Strong basis for future growth
- Standardized solution that enables end-to-end processes

Benefits
- Greater visibility into data
- Improved change management
- Faster approval processes
- Higher data quality and consistency
- Effective collaboration between engineers at global sites

Existing Environment
- Legacy third-party PDM solution
- SAP ERP application

BorgWarner Turbo Systems

SAP Customer Success Story
Automotive

Effective management of mission-critical product data such as technical drawings, design specifications, and materials lists is key to business success. And smooth, effective collaboration between the employees who rely on these facts and figures can accelerate innovation and time to market. To achieve all this, global automotive player BorgWarner Turbo Systems decided to replace its legacy product data management system with the SAP® Product Lifecycle Management (SAP PLM) application – and is reaping a wealth of benefits.

Headquartered in Kirchheimbolanden, Germany, BorgWarner Turbo Systems is a subsidiary of BorgWarner Inc., a key international player in advanced technologies and systems for the automotive industry. BorgWarner Turbo Systems is a leading global supplier of turbochargers for diesel- and gasoline-powered passenger cars, light trucks, and commercial vehicles. A pioneer in turbocharging technology, BorgWarner Turbo Systems continues to lead advances in the industry with innovations designed to improve fuel economy, reduce emissions, and optimize vehicle performance. The company employs a workforce of 4,400 at 14 sites in 12 countries around the world. In 2010 its parent company BorgWarner Inc. posted consolidated revenues of US$5.7 billion.

IT: A Driving Force

In the fast-moving, innovation-driven automotive market, it is vital that suppliers have the right tools and mechanisms to keep in the acceleration lane. A stable IT environment is key to this aim. BorgWarner Turbo Systems has an extensive landscape based largely on the SAP ERP application. Bernhard Luy, IT manager for global PLM systems, explains, "We first implemented SAP software back in 1998. And we haven't looked back. Gradually, we've increased our SAP footprint at our sites around the world, and now all 14 are hooked up to a single instance of SAP ERP. We leverage this successfully for all our core business processes."

In the mid-'90s, BorgWarner Turbo Systems began to look at the new hot topic of the day: product data management (PDM). The company was somewhat of a pioneer in this space in Germany, implementing a large-scale dedicated PDM solution in 1995. "This served us well for a good 10 to 12 years," stresses Luy. "However, after this time the PDM application began to show its age. And we realized we needed a more up-to-date way to meet our growing business needs."

Luy and his team scrutinized their existing environment and started to draw up a wish list. The new solution needed to offer a long-term answer to the company's challenges and dynamically keep step with rapid growth, it needed to dovetail with the existing IT platform and integrate the company's multiple CAD systems, and it needed to support global product development processes.

A Best-Fit Solution

Following in-depth analysis and evaluation, the IT manager opted to introduce SAP PLM. His motivation was this: "SAP PLM ticked all the boxes. It is a flexible, reliable solution that integrates with our extensive SAP ERP application environment. It provides the functionality we need, in particular version management and CAD data conversion, and it delivers support for change management as well as global engineering processes and cross-border collaboration."

SAP PLM gives BorgWarner Turbo Systems 360-degree visibility into all product-related processes – from the drawing board to the manufacturing plant. The application integrates technical specifications with production data such as bills of materials, improving transparency across the board. It helps the automotive supplier design, develop, and deliver competitive products that are in line with customer demand. In addition, SAP PLM optimizes collaboration processes, helping engineers work more efficiently and bring innovations to market more quickly. "It is a flexible,

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modular solution that will grow with our business," adds Luy.

Effective Knowledge Transfer

As a large SAP customer, BorgWarner Turbo Systems had already established its own in-house SAP technology expertise. Luy explains, "We had extensive knowledge and hands-on experience with SAP software and with the processes involved in product data management. The only thing lacking at the time was the specific skill set required for SAP PLM."

To bridge these knowledge gaps, IT decision makers at BorgWarner Turbo Systems called in external implementation partners. "In the initial stages, we worked closely with a number of partners at our various sites. Thanks to this support, we were able to build up a new pool of internal resources. So by the time we embarked on the later implementations, we could rely almost exclusively on our own specialist team."

The project kicked off in 2007 at one of BorgWarner Turbo Systems' U.S. sites, where a partner assisted with initial planning, data migration, and the pilot. Following the successful outcome of this first phase, the solution was rolled out to three further facilities in Germany, the United Kingdom, and the United States. Today all nine engineering locations across the globe are hooked up to SAP PLM. "This makes us one of the largest users of SAP PLM worldwide," underlines Luy.

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Learning by Doing

The international rollout of SAP PLM was handled in several stages, and BorgWarner Turbo Systems was able to acquire a great deal of knowledge along the way. "The fact that we could do so much ourselves was a real highlight," explains Luy, "Once we'd established the basics, it was relatively straightforward to introduce SAP PLM at sites around the world." In addition, thanks to accurate planning, all subprojects were completed within budget and on schedule – no mean feat for an undertaking of this scope.

Effective change management processes and cooperation from employees contributed to the smooth running of the projects. "User acceptance of SAP PLM was very good from the outset," explains Luy. "Our engineers found SAP PLM very intuitive. We also noticed an immediate, significant improvement in response times compared to our legacy PDM software."

Greater Transparency, Leaner Processes

Since SAP PLM has been up and running at all engineering facilities and available to almost 300 users, BorgWarner Turbo Systems has been reaping considerable benefits. Professionals at offices on opposite sides of the world can now view the same documents simultaneously. "The solution also supports different time zones so engineers have no problems working together across international borders. Collaborative engineering has become a reality for BorgWarner Turbo Systems since we've introduced SAP PLM," remarks Luy. "It is a major advantage."

In addition, staff have quick and simple access to the latest documents. They can now request and grant approvals more quickly, streamlining and accelerating workflows. Moreover, the quality and consistency of data has greatly improved as all metrics are stored in a single, centralized database, which has also eliminated data redundancy.

A further benefit of the SAP PLM application for BorgWarner Turbo Systems is its support for fully integrated change management. In the past, this process was handled by a stand-alone, third-party application with no interface to the PDM or the SAP software. Today, it is an integral part of the PLM environment. "Integrated change management in SAP PLM gives us greater flexibility and a stronger and more reliable basis for decision making," says Luy. "The time it takes

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to deal with product or raw materials change requests has halved."

Strategic Road Map

Executives from BorgWarner are in close contact with developers from SAP with a view to enhancing SAP PLM in line with real-world future needs. "We're looking to upgrade to the newest version of SAP PLM and have discussed our requirements and our own PLM strategy with representatives from SAP," explains Luy. "Now that the rollout is complete, we're working on optimizing our new PLM landscape to gain even greater benefit."

SAP PLM will be implemented at new BorgWarner Turbo Systems engineering sites as a matter of course. It has quickly become the new standard and is already an indispensable part of product data management. Based on this success, the automotive supplier is gearing up to implement SAP PLM at further BorgWarner subsidiaries. "Next in line is our sister company BorgWarner Emissions Systems," says Luy. "And we're expecting this project to yield the same positive results as we've seen at BorgWarner Turbo Systems."

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