



BOEHRINGER INGELHEIM

INCREASING EFFICIENCY AND SPEED WITH SAP® ERP AND SAP MANUFACTURING

QUICK FACTS

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Thomas Weber, Project Leader, Boehringer Ingelheim Pharma GmbH & Co. KG

Company

- Name: Boehringer Ingelheim Pharma GmbH & Co. KG
- Location: Ingelheim, Germany
- Industry: Life sciences
- Products and services: Pharmaceuticals and healthcare products
- Total revenue: €2.45 billion
- Employees: 9,952
- Web site: www.boehringer-ingelheim.com
- Implementation partners: SAP® Consulting, J&M Management Consulting AG

Challenges and Opportunities

- Automate paper-based batch record-keeping process across all 15 German production units
- Enhance statistical process control to allow faster data analysis

Objectives

- Digitize records to reduce manual effort and associated errors
- Raise speed and efficiency through automation
- Enable timely analysis of production data via statistical process control
- Increase transparency

SAP Solutions and Services

- SAP ERP application
- SAP Manufacturing solution

Implementation Highlights

- Conducted pilot at aerosol manufacturing and packaging plant
- Gained expert advice on change management from SAP Consulting
- Rolled out solution at 4 production facilities to date, with full implementation slated for 2009

Why SAP

- Favorable results of feasibility study
- Functionality available to meet all key requirements
- Positive experience with other SAP solutions

Benefits

- Implemented a completely electronic and more comprehensive documentation process
- Improved accuracy, speed, and efficiency
- Achieved significant time savings across the documentation process, including the ability to review documents more quickly
- Ensured greater visibility by establishing the basis for powerful reporting and analysis

Existing Environment

- Paper-based legacy solution
- SAP software employed widely for other key business processes



By introducing electronic batch records based on the SAP® ERP application and the SAP Manufacturing solution, Boehringer Ingelheim Pharma GmbH & Co. KG has reaped a number of business benefits: fewer errors, higher speed, greater efficiency, and enhanced visibility. And the solution has been a big hit with front-line users, too.

Top 10 in Germany, Top 20 Worldwide

Located on Germany's river Rhine, the city of Ingelheim is not only famous for its fine red wines and asparagus, it is also home to Boehringer Ingelheim, an independent manufacturer of high-quality medicines and healthcare products. Since it was established back in 1885, the research-driven company has emerged as a global force, fueled by a powerful mix of organic growth, acquisition, and partnerships. Today it is one of Germany's top 10 pharmaceutical players and ranks among the top 20 worldwide, with a global headcount of 9,952 and a total revenue of around €2.45 billion.

Time to Digitize Batch Records

In the pharmaceutical industry, accurate documentation is mission-critical. It is essential for Boehringer Ingelheim to keep track of how and when it manufactures its products to ensure that their quality meets the exceptionally strict legislation governing this sensitive industry. However, until recently the company's production batch records were paper-based, derived from printed forms completed by hand. While this manual approach worked, it was cum-

bersome, costly, and prone to error. And it was a major obstacle to the end-to-end visibility needed for sound decision making.

As Thomas Weber, project leader at Boehringer Ingelheim, explains, "We wanted to introduce electronic batch records across all pharmaceutical manufacturing locations in Germany to improve accuracy and reliability. And we wanted support for statistical process control to enable timely analysis of production data and rapid corrective action when there was a danger of downtime."

SAP Software Comes Out on Top

Boehringer Ingelheim has been using SAP software since the turn of the millennium to underpin vital business processes throughout the group. But this was no shoo-in for the world's number one vendor of enterprise solutions. Boehringer Ingelheim performed a rigorous feasibility study, comparing SAP software with a rival solution. SAP ERP and SAP Manufacturing came out clear winners. By supporting end-to-end processes in product development and manufacturing, SAP ERP and SAP Manufacturing enable companies such as Boehringer Ingelheim to implement highly effective and transparent produc-

tion and quality management processes. "SAP ERP and SAP Manufacturing delivered practically all the key functions we required," Weber explains. "Plus the software promised seamless integration with our existing landscape. What's more, we already had a long-established positive working relationship with SAP."

A Major Undertaking, Handled with Care

The New Batch Record (NBR) project kicked off in earnest in the summer of 2005. As this was a major undertaking that involved all of Boehringer Ingelheim's 15 German production units, the first step was a pilot installation at the company's aerosol manufacturing and packaging plant. This went live in December 2006. Looking back on a job well done, project manager Kerstin Trenz recalls, "The pilot was very important. It not only involved configuring the entire system, it also enabled us to gain hands-on experience with the new software." Given its success, the pilot laid a firm foundation for the global implementation of SAP ERP and SAP Manufacturing in support of the NBR project. This is now well underway and slated for completion in 2009.



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Thomas Weber, Project Leader, Boehringer Ingelheim Pharma GmbH & Co. KG

In light of the sheer scale and pioneering character of the NBR initiative, SAP was actively involved throughout. This helped Boehringer Ingelheim get most project activities right from the outset and quickly resolve any issues that did occur. As Trenz is quick to emphasize, “We have a very good solution – and that’s due in no small measure to our on-site SAP consultant and direct contact with SAP developers.”

In fact, things went so well that Boehringer Ingelheim added to the scope of the project. “We seamlessly integrated the quality management functionality of SAP ERP into the new electronic batch record-keeping process,”

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says Weber. “We saw we could leverage tight integration with our existing SAP environment to provide valuable features we hadn’t originally considered. In this respect, the new solution delivered a lot more than we expected.”

One of the most important features of SAP ERP used at Boehringer Ingelheim is the functionality for creating process instruction (PI) sheets. These guide the staff through all tasks associated with manufacturing a specific product. PI sheets are not simply digital replicas of

their hard-copy predecessors. Based on modular data objects known as XSteps, they are powerful electronic tools that help to eliminate error and ensure high quality throughout the production process.

Quicker, Simpler, Better

Boehringer Ingelheim has achieved what it set out to achieve, and much more. Fully electronic batch records have replaced a time-consuming, paper-based workflow. The documentation process is now quicker, simpler, more accurate, and more comprehensive. The company can now collect much of its production information automatically, and built-in

plausibility and variance checks prevent many of the most common mistakes. As Weber explains, “The SAP software immediately alerts the user if an entry is incorrect, eliminating errors at the source.”

Boehringer Ingelheim can now forward, search, and process documents electronically – accelerating the review and approval processes. “When it comes to reviews, we have already seen significant time savings at the first production facility where we rolled out the project,”

Trenz says. “We are confident of achieving similar results at the other facilities, too.”

But that is not all. SAP ERP has also created the basis for powerful, timely statistical process control. “In the past, production data was entered manually into a dedicated database,” says Weber. “Now the system captures this data automatically, including information that was not recorded in the past. When we have the corresponding functionality in place, we will be able to run reports and analyses right after production is completed – and not weeks or months down the line.”

SAP ERP and SAP Manufacturing have not just led to improvements in post-production. They have also enhanced the company’s manufacturing process. “The SAP software enables us to generate product recipes more easily,” Weber explains. “While defining the necessary XSteps initially involves specialist staff training and additional effort, this pays off in the long run – allowing us to roll out these recipes very quickly.”

The NBR project has not just been a matter of bits and bytes. Soft factors have also played a pivotal role, with SAP Consulting providing advice on change management and training key users. “Many staff on our production line had little or no experience with computers,” says Weber. “So intensive training was essential to ensure they had the skills needed for their day-to-day tasks. But our efforts really paid off. Users enjoy working with the new

software. In fact, they've told us there's no way they would want to go back to paper-based documentation." And as Trezn adds, "The new solution is clearly structured and user friendly."

More Good Things to Follow

The NBR project is currently around 25% complete. Four production units have already migrated to electronic batch records, with the remaining units planning to do so over the next 18 months. This will involve implementing 4,000 product recipes – a mammoth task, but one that does not daunt Trezn. "The new XStep functionality will provide a firm foundation for these activities," she explains. "We'll have to create many new building blocks to deal with complex processes, but we will be able to reuse around 80 of the 100 or so already defined to date."

Based on the success of the project, the NBR team already has plans to further enhance the company's new electronic documentation process. These include automatically importing data from testing and production equipment, such as scales, into the PI sheets and scanning

bar codes for material identification. "While we are currently focusing on the primary goals of the NBR initiative, our SAP solution offers considerable opportunities for additional process improvements down the line," explains Weber.

In other words, the project has not just been about rectifying the inefficiencies and inaccuracies of the past, but about opening up new opportunities in the future. All in all, it has been a dose of the right medicine for Boehringer Ingelheim.



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