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Lothar Hafner, Lead Project Manager, INVISTA

INVISTA RESINS & FIBERS GmbH

High Availability for Around-the-Clock Operations with Smooth Upgrade

When the international chemicals manufacturer and distributor, INVISTA Resins & Fibers GmbH decided to upgrade its SAP® software, it needed to ensure the least possible disruption to its dynamic operation. A “one-stop” package from SAP provided the services INVISTA needed for a smooth transition.

High-Quality Products from a Global Player

Clothing made from LYCRA®, and TACTEL®, sportswear made from COOLMAX®, PET bottles for beverages – these are typical INVISTA products found in items of everyday use, such as home furnishings, bedding, clothing, and sports and leisure apparel. The company has successfully established a comprehensive portfolio of global brand names and operates manufacturing and distribution sites in all the world’s major markets and fiber regions. Headquartered in Wichita, Kans., with European administrative offices in Hattersheim am Main, Germany, INVISTA is one of the world’s leading manufacturers and distributors of fibers, raw materials, polymers, and intermediates made from polyester and nylon.

New SAP Software for Europe

Highly integrated SAP solutions have been supporting core processes at the INVISTA sites in Germany and the Netherlands since 1998. The company’s European headquarters saw the impending discontinuation of maintenance for their existing SAP R/3® software as the ideal time to take advantage of the technological innovations in SAP software that are now available in the mySAP® ERP solution.
INVISTA defined the upgrade from the older solution to the new one as primarily a technical migration. “We were happy with the previous release. The applications satisfied our business requirements and enabled a high level of automation in many areas of the company. When we upgraded to the new [software] system, we had to be sure our key business processes would continue to function as effectively as before, without any constraints or major changes. For a producer of chemicals like ourselves, it is vital to have a high-availability solution that operates smoothly around the clock, because we must avoid downtime,” says Lothar Hafner, lead project manager, INVISTA Resins & Fibers GmbH.

“One-Stop Package” from SAP Wins the Day
INVISTA specified the conditions for the complex software upgrade in its invitation to bid for the contract, in which 11 vendors participated. The winner was required to migrate the software on a tight budget and to simultaneously provide intensive training for all personnel affected within a short time frame.

“We opted for the ‘one-stop’ SAP solution because we liked the package SAP offered, consisting of SAP expert knowledge, professional project management, training expertise, and automated test tools,” says Hafner.

The one-stop package from SAP fit the bill precisely: it included consulting services, expert testing support in preparation for live operation, and the design and implementation of a comprehensive training program. To plan and manage the many activities, SAP appointed an experienced project manager whose tasks included coordinating and monitoring the total package.

As Hafner explains, “Apart from the deployment of SAP solutions, our organizational structure is based to a large extent on outsourcing. Knowing that the upgrade would be a very complex project, we decided to get experienced specialists on board to ensure that the process would go smoothly. Senior SAP consultants, competent support from our outsourcing partner, in-house SAP consultants, plus key users from the departments provided the foundation for a successful migration to the new [software] system.”

Until now, SAP had acted solely as a technology vendor for INVISTA, but this time the company asked SAP to take on a wider role. SAP services were tapped to develop new training courses, deliver tools for administration and test automation, and provide a professional project management team that coordinated consulting and education services. “It was the first project of this type and magnitude we had undertaken with SAP Consulting, and it was a major step for us,” says Hafner.

Detailed Road Map Supports Low-Risk Upgrade
Following a strategy to involve senior experts, the INVISTA project manager put together a high-caliber team made up of internal IT managers, key users, SAP consultants, SAP instructors, and application engineers from the IT service provider EDS. All team members collaborated closely to draw up a detailed project plan for the upgrade and associated subprojects.

SAP Consulting contributed implementation consulting expertise, extensive SAP software know-how, and experience from similar migration projects. After performing a thorough risk analysis, the SAP consultants designed a road map that defined each step of the technical upgrade in detail. The road map proved essential to the project’s success. The new software went live on time and within budget and was completed in 26 hours instead of the 30 hours originally budgeted.

Key Role of Test Management
The test management team from SAP Consulting had a key role in this project. Long before the software went live in April 2004, the team was advising INVISTA on selecting test cases and ensuring the transparency of the test procedures and results.
Working with INVISTA, the team also automated complex integration scenarios using the test workbench from SAP that was delivered with the SAP solution and ready for use without any additional license costs. In addition, the test organizer from SAP, which enables monitoring of test progress and transparent display of test results, and the SAP test automation tool, eCATT, played an important role in supporting structured and reproducible regression test procedures.

At the beginning of the upgrade project, the SAP Consulting team analyzed the project and test procedures that INVISTA had been using. They then drew up a timetable based on the overall project schedule that both enabled optimal deployment of test tools and achieved maximum synergies between subprojects. All test cases that had previously been performed manually were modeled as catalogs in the test workbench from SAP.

Test Automation Yields Time Savings
The team developed modular test scripts that INVISTA staff first used to test individual components in SAP solutions. As test activities progressed, the scripts were linked together to form whole test scenarios. This method supported the monitoring of entire business process chains and the timely identification of potential sources of errors across all applications and interfaces. It led, for example, to the discovery of inconsistencies when additional INVISTA systems were set up — errors that would normally have been spotted only through extensive manual testing.

Hafner is enthusiastic about how automation optimizes test procedures and provides real value to INVISTA. He says, “Although our key users are highly qualified, manual testing is extremely time-consuming. The eCATT scripts cut the time needed to test complex processes to a few minutes and reduced the number of testers needed. If the automated tests run error free right through the software, then I can be almost 100% certain that my subproject processes will work properly.”

Given the successful use of automated test scripts during the upgrade, INVISTA plans to use them on a regular basis in the future to safeguard operation. For example, automatic regression tests will support the import of support packages, resulting in significantly faster and better implementation into the live system environment. Encouraged by its positive collaboration with the test management team from SAP Consulting, INVISTA has decided to extend its test automation activities.

Transfer of Expert Knowledge to INVISTA
Close coordination of all the implementation activities for the new SAP software was critical during the project. In addition to implementation and the associated tests, a third process played a key role in ensuring the upgrade went smoothly — the carefully prepared transfer of expert knowledge to the INVISTA organization.

Managed by SAP Education, knowledge transfer was necessary for two reasons. First, as a result of enhancements to the interface and process sequences, the new SAP software differs significantly from prior versions used at INVISTA. The company thought it vital for users to feel comfortable with the new solution from day one, and this involved training 500 employees at INVISTA sites in Germany and the Netherlands within a short period of time. A second goal of the training program was to give INVISTA staff an opportunity to review and extend their SAP solution knowledge.

Smart Knowledge Management
With these specifications and a requirements analysis, SAP Education specialists designed a training program tailor-made to INVISTA’s specific needs. The customer identified “super” users, who went through a train-the-trainer program to become “knowledge multipliers.” They built up the skills needed to train staff in the departments. In addition to the training program for end users, the team used the SAP Tutor tool to develop numerous INVISTA tutorials, creating a company-specific electronic instruction manual that exactly mirrors the company’s business processes right down to the last input field.

“Using SAP Tutor, we recorded each mouse click and each step in each application with our key users, generated training material from the results, and published it on our intranet to help our SAP [software] users. These tutorials are both an electronic work of reference and an excellent source of information, especially for new members of the staff,” says Hafner.
Initially, the tailor-made tutorials were used to enhance end users’ knowledge of the SAP solutions right at their desks, to quickly fill in any gaps, and to train new INVISTA staff. Hafner believes the tutorials have additional uses, for example, as demonstration tools that can give personnel in other INVISTA regions insight into the integrated business processes supported by SAP solutions.

**The Bottom Line: Successful Knowledge Transfer**

In total, 67 days were invested in training key users and end users. The instructors were a mix of key INVISTA users who were previously trained by specialists from SAP Education and IT service provider EDS. Hafner thinks that knowledge transfer was successful because training content was tailored specifically to target groups, the program focused on essentials, and INVISTA processes were clearly explained in the training material.

At the end of the day, how does Hafner view the project? “We accomplished the training goals we set for ourselves. The train-the-trainer workshop for our key users was a real highlight. It achieved its purpose so effectively that we have decided to extend this very successful program. Eventually, our key users will be so well trained that they will be able to teach other employees to work with our SAP [software] system.”