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Torsten Niemietz, Chief Information Officer, Nordzucker AG

## AT A GLANCE

### Company

- Name: Nordzucker AG
- Location: Braunschweig, Germany
- Industry: Consumer products
- Products and services: Sugar
- Revenue: €1 billion (2005)
- Employees: 2,800
- Web site: www.nordzucker.de
- Implementation partner: SAP® Consulting

### Challenges and Opportunities

- Stagnant market with increased margin pressures and competitive threats
- Extensive and complex supply chain
- Need for rapid, informed decision making to deal with new marketplace dynamics

### Objectives

- Increase profit margins by improving process efficiency
- Improve supplier loyalty by providing better information and services
- Help management make better, faster decisions through rapid presentation of all necessary information in one place

### SAP Solutions and Services

- Enterprise service-oriented architecture (enterprise SOA) development on the existing SAP NetWeaver® platform and the SAP ERP and SAP Supply Chain Management applications
- SAP Consulting services

### Implementation Highlights

- Created environment for improved access to corporate information, applications, and reporting
- Built foundation for improved operational procurement and inbound logistics
- Developed system for improved manufacturing execution
- Implemented new roles and processes by integrating SAP and non-SAP applications using enterprise SOA

### Why SAP

- SAP was already a proven partner.
- Enterprise SOA provided the integration required to create new processes.
- SAP Consulting built confidence that corporate goals were achievable.

### Benefits

- Management is equipped to make better, faster decisions.
- Employees are saving time and avoiding errors with a single, reliable, electronic source for vital information.
- Production plant personnel see information on crop arrivals within 30 minutes, eliminating the need for weekly and monthly reports.
- Farmers learn their expected revenues from shipments within 30 minutes of arrival, versus up to a month.
- Paperwork costs are greatly reduced.

### Existing Environment

- SAP NetWeaver, including the SAP NetWeaver Application Server, SAP NetWeaver Portal, SAP NetWeaver Business Intelligence, SAP NetWeaver Exchange Infrastructure, and Knowledge Management components
- SAP ERP
- SAP Supply Chain Management
- SAP Customer Relationship Management application
- SAP Supplier Relationship Management application

## NORDZUCKER

### Enterprise Service-Oriented Architecture Extends Portal Benefits

Nordzucker AG, one of Europe's largest sugar producers and distributors, is using enterprise service-oriented architecture (enterprise SOA) to integrate its SAP® and non-SAP applications to realize more value from them in its fight to remain prosperous in the face of very serious market pressures. By taking advantage of enterprise SOA, Nordzucker is going beyond the automation of existing processes that an earlier investment in the SAP NetWeaver® platform made possible, and into the creation of completely new processes and roles for the people who execute them. As a result, Nordzucker's employees perform their jobs more efficiently than ever, and suppliers can access information and services never before available, increasing their loyalty and helping the firm weather the marketplace's difficulties.

With 2,800 employees and annual revenues of over €1 billion, Nordzucker is a giant in Europe's sugar products industry. The company manufactures more than 1.9 million tons of sugar and sweetening products a year at its headquarters in Braunschweig, Germany, and at satellite operations throughout central and eastern Europe. Nordzucker operates an extensive supply chain network in which farmers deliver sugar beets to distributors, who, in turn, deliver them to the firm's processing plants. In addition, seed suppliers deliver seeds directly to farmers, and Nordzucker itself provides them with fertilizer and animal feed derived from sugar beet processing.

Fast delivery and processing of beets are important because their sugar content drops rapidly after harvest. Therefore, Nordzucker pays close attention to its processes for handling and expediting shipments. Just as important are the company's internal business processes in the increasingly competitive European sugar industry, especially with the recent decline in consumer demand and the relaxation of government restrictions on imports.

### **Adding Efficiency with Portals Enabled by SAP NetWeaver**

Faced with the prospect of decreasing margins, Nordzucker in recent years redoubled its zeal to improve efficiency and turned to SAP, its partner for business solutions since the early 1990s, for

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help. The firm added the SAP NetWeaver platform to its SAP solutions portfolio, an investment that has paid off handsomely. Using the SAP NetWeaver Portal component, Nordzucker built a pair of portals to expedite business operations. One of them, the Transaction and Information Portal (TIP), combines information from many sources to provide management with up-to-date, in-depth information for improved decision making. TIP also provides all employees with a single, trusted source for IT

resources, resulting in a 20% drop in calls to the IT help desk, among other benefits. Using TIP, employees can take advantage of the efficiencies of self-service to perform tasks that previously entailed considerable administrative time and paperwork. They also use the portal's collaboration tools and virtual project rooms to expedite team activities, saving time and travel expenses.

The second portal, called the Farmer Portal, provides farmers and distributors with online fulfillment, inbound delivery, and billing functions, while improving communication among all parties involved in the sugar production process.

### **Improving Access to Corporate Information, Applications, and Reports**

Not satisfied with merely improving its existing processes, however, Nordzucker devised a set of completely new processes and roles that promised to deliver even more efficiency. Because of its strong partnership with SAP, Nordzucker turned to the natural source for advice on how to go about implementing these roles and processes: the SAP Consulting organization.

“SAP consultants explained that while SAP NetWeaver provided us with the platform we needed for unifying disparate technology components, the next step was to implement an enterprise SOA upon it and use it to integrate all the heterogeneous technologies required to enable the new business processes we had in mind,” says Torsten Niemietz, chief information officer at Nordzucker. “Since the SAP Consulting experts inspired such confidence, and because they performed such an excellent job helping us build the original versions of our portals, we naturally chose them to be our implementation partner in taking full advantage of enterprise SOA.”

With help from SAP Consulting, Nordzucker commenced building its enterprise SOA using SAP NetWeaver as the platform and integrating functionality from the SAP ERP and SAP Supply Chain Management applications, along with reports provided by the SAP NetWeaver Business Intelligence component. Next, Nordzucker combined information from these integrated applications

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in new ways to build an enhanced version of the Transaction and Information Portal, called TIP2, which is more process-oriented than the original version and extends the functionality of TIP to plant personnel throughout Germany. Like its predecessor, TIP2 presents the key information employees need in one place via single sign-on, but the portal now takes advantage of the full functionality of the Knowledge Management component, including taxonomies, to facilitate sharing of unstructured data and prevent information loss – a problem in the past.

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### **Improving Operational Procurement and Inbound Logistics Through Collaboration**

With new processes for communicating with farmers and distributors that Nordzucker created using enterprise SOA, the Farmer Portal has also grown extensively in functionality and value. Farmers enjoy a single user interface to order animal feed and fertilizer – products that Nordzucker produces – as well as seeds. The portal automatically passes seed orders on to third-party suppliers. Nordzucker’s custom-developed Sugar Beet Management (SBM) system, which is based on SAP ERP and tightly integrated with the portal via enterprise SOA, automatically processes orders for Nordzucker products. The SBM system automatically places seed orders with suppliers, pays for them, and deducts the amounts from the farmer’s account with Nordzucker. The SAP NetWeaver Exchange Infrastructure component manages electronic communication with many suppliers’ own business systems, including both SAP and non-SAP software systems.

In addition, farmers use the portal to access reports about the quality and quantity of their deliveries to Nordzucker and the amount of money they can expect to receive from them. This information is computed and displayed within 30 minutes of the beets’ arrival on Nordzucker’s dock – information that used to take as long as one month to generate.

The portal also provides farmers with quota information, recommendations on seeds to use, and information on their rights as shareholders in the company. In addition, farmers can use the portal to interactively specify times and places for future pickups.

With so many of the farmers' processes automated and expedited, their efficiency is greatly improved – as is their loyalty to Nordzucker, the company that made it all possible.

### **Streamlining Manufacturing Execution**

The internal version of the Farmer Portal improves efficiency for Nordzucker's own personnel, who enjoy additional functionality as a result of the application integration that enterprise SOA makes possible. Within 30 minutes of a crop's arrival at a production plant, new data about the shipment is available, eliminating the need for all the paperwork, faxing, and e-mailing that used to be performed weekly and monthly.

Nordzucker created a service-based portal interface for the PDAs carried by beet lifters and loaders so they can readily see quantity, position, and loading data. Armed with this information, they quickly determine the quantity of beets in a delivery as well as their sugar content, the measure of quality. This makes it possible to provide the report to the farmer online within just 30 minutes.

Nordzucker is planning to make the portals even more valuable to its suppliers and customers by integrating functionality from the SAP Customer Relationship Management and SAP Supplier Relationship Management applications into its enterprise SOA.

“When we implemented SAP NetWeaver, we were confident we had taken the right path,” concludes Niemietz. “With our enterprise SOA concept, we are realizing additional benefits that true integration makes possible.”