EDEA

SHIFT REPORTING FUNCTIONALITY IN SAP® ERP IMPROVES POWER PLANT OPERATIONS

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>
> **Jos Bodden,** Production Operations Manager, EdeA

QUICK FACTS

Company
- Name: EdeA
- Location: Geleen, Netherlands
- Industry: Utilities
- Products and services: Generator of electricity and steam power for chemical manufacturing facilities
- Employees: 250
- Web site: www.edea.nl
- Implementation partner: Atzeni Consulting

Challenges and Opportunities
- Improve efficiency and safety of daily plant operations
- Eliminate highly manual and repetitive shift reporting processes
- Integrate plant operations with a single solution vendor

Objectives
Replace multiple shift reporting systems with a single solution that leverages data and functionality in the deployed SAP® ERP application

SAP Solutions and Services
Shift reporting functionality in SAP ERP

Implementation Highlights
- Functional specifications and prototype development led by plant production team
- Train-the-trainer approach used for company-wide training
- Reporting functionality in SAP ERP available through the SAP enhancement package

Why SAP
- Ability to meet requirement for full integration with SAP ERP
- Functionality that aligns with business requirements
- Intuitive, highly configurable user interfaces
- Functionality that is part of SAP ERP, so no additional purchasing costs
- Trusted partner since 1996

Benefits
- 50% reduction in outstanding maintenance requests in 1st month of deployment
- Complete plant production, distribution, and maintenance information available through the solution
- Maintenance cycles reduced
- Single source of truth for entire organization
- Intuitive user interfaces that help business users eliminate duplicate entries and link shift incidents to specific assets in the plant
- Operational visibility improved across shifts, facilities, and physical assets
- Daily operations closely aligned with larger strategic goals
- Support from a single software vendor

Existing Environment
SAP ERP

SAP Customer Success Story
Utilities

As a highly innovative and environmentally responsible power company, EdeA relies on the SAP® ERP application to help streamline plant operations. By implementing the latest SAP enhancement package for SAP ERP, the company continues to innovate by improving shift reporting, hand-over processes, and incident resolution. "The reporting functionality in SAP ERP has enabled us to be more proactive in addressing outstanding issues and improving overall plant operations," says W. G. J. (Willy) Maesen, IT manager at EdeA.

Dedicated to Efficient, Low-Emission Energy Operations

EdeA is a joint venture of Essent RWE and DSM in the Netherlands. The utility-based firm operates a cogeneration plant and several boiler plants, as well as other utility plants to power 52 chemical manufacturing plants on the Chemelot site in Geleen.

Ensuring the safety and efficiency of the plant's day-to-day operations is critical for EdeA. One area of improvement identified by the company was its shift reporting practices, which was an aspect of the plant's operations that had not kept up with EdeA's rapidly evolving business processes. Important information required for the shift change was spread across different systems, requiring plant operations staff to enter information multiple times without the ability to verify or validate the information they were entering. "Shift report information resided in three different systems, and none of them were integrated," says Jos Bodden, production operations manager at EdeA. "It was a very manual, inefficient process that increased the likelihood of entry errors and inconsistencies."

The Need for Integrated, Low-Cost Shift Reporting

EdeA wanted to eliminate the manual shift reporting practices at all of its plant facilities. To get there, the organization needed a complete shift reporting solution that would serve as a single source of information and data input and would fully integrate with the SAP enterprise software already deployed. After piloting several alternative solutions, EdeA selected the shift reporting functionality in the SAP ERP application.

The decision to choose SAP software rested with the plant operations staff. "Our SAP representative provided our plant production team with a demonstration of the shift reporting functionality in SAP ERP," says Maesen. "The team was impressed that the solution could meet virtually all of our business requirements including fully integrating with SAP ERP, eliminating redundant shift entries, and establishing a single technology foundation for our operations." EdeA's plant operators liked the fact that the solution fully leverages information already residing in its SAP ERP deployment as well as the solution's highly intuitive user interfaces. In addition, because the shift reporting functionality is already included in SAP ERP, EdeA would incur no additional software purchasing costs. "We have been using SAP enterprise software since the company was started in 1996," says Maesen, "and we have always relied on SAP to help us improve operational efficiency."

Close Collaboration by Plant Operations Staff

A single consultant from SAP implementation partner Atzeni Consulting worked with eight key business users from EdeA's plant production team to develop functional specifications and to validate those specifications through a prototype of the solution. "Ensuring that user interfaces were highly intuitive was a key requirement throughout the project development process," says the consultant, Francesco Atzeni. "We also like the fact that the user interfaces are highly configurable." The on-time, within-budget implementation took three months to complete and required installing the latest SAP enhancement package for SAP ERP. The solution was validated through a comprehensive user-acceptance testing process by the plant production team, as well as a period of parallel deployment with the legacy solution.

A train-the-trainer approach was used to get everyone at EdeA up to speed on the deployed solution. One challenge was

accommodating staff schedules, given the fact that plant production personnel were deployed in different shifts. This required over a dozen training sessions conducted over the course of two months to ensure that all team members were comfortable with the new solution. "Implementing the shift reporting functionality in SAP ERP was very smooth," says Maesen. "Best of all, we are fully capable of supporting the solution ourselves without the need for outside consultants."

Shift Reporting That's Fully Integrated with Plant Operations

Today all 235 users across the whole company have successfully transitioned to the new shift reporting solution. Because the solution can now

Reducing the Maintenance Queue by Half

The software has enabled EdeA to reduce the maintenance issues that remained unresolved in the legacy solution. "In just the first month after deployment of the shift reporting functionality in SAP ERP, we cut our outstanding maintenance requests in half," says Bodden. "We are continuously shortening our maintenance cycles because the solution allows us to be far more responsive to issues." The solution's user interface is a key reason for the success. For example, the interfaces include traffic-light-style notifications when issues stay unresolved over a specified length of time. In addition, a shift book report interface provides business users with drill-down and roll-up

SAP ERP is improving operational visibility as well. EdeA is identifying recurring maintenance issues across specific facilities, assets, and shifts. The organization is also better managing plant assets, because the details behind each asset are available through SAP ERP so managers know when assets need to be serviced or replaced. "Integration and a complete view of our operations are important," says Bodden. "But drawing the correct conclusion when issues arise is much more important. Today we can draw the right conclusion because we have the right information."

Moving Toward Total Plant Management with SAP ERP

EdeA continues to configure the shift reporting functionality in SAP ERP to improve operational efficiency and safety at its facilities. It is currently incorporating alternative installation instructions to accompany the standard installation manuals for each asset tracked within SAP ERP. These alternative instructions are to support temporary changes to plant equipment that are required for particular shifts. Maesen and his team are also configuring the solution to streamline work authorizations and improve the safety inspection process. These critical processes, including all documentation and electronic signatures required to ensure compliance with company and regulatory standards, will be supported within SAP ERP. "Ultimately, we want to use the shift reporting functionality in SAP ERP as a single point of entry for all relevant information required to operate the plant," says Maesen.

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leverage data in SAP ERP, including the company's plant production, distribution, and maintenance information, EdeA's shift reporting is more efficient and accurate than ever before. The entire physical composition of the EdeA plants and their supporting facilities is captured in SAP ERP through a hierarchical plant breakdown structure. "With just a few mouse clicks, every incident and item in our shift reports is associated to a specific asset in the plant," says Bodden. "Before using the shift reporting functionality in SAP ERP, we simply could not make those linkages."

functionality to view shift details by notification, asset, or facility.

Single Data Repository Enhancing Operational Visibility

Because all shift reporting now resides within SAP ERP, EdeA has a single source of truth for the entire organization. Plant managers are no longer compiling and validating information from separate, non-integrated systems. "Everyone operates from the same set of facts," says Maesen. The reporting functionality in

Atzeni Consulting

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