smartShift

How **Enercon** Partnered with smartShift for an SAP Quality Award-Nominated S/4HANA Conversion

4.7 Million
Lines of code analyzed
within days

124,000
Custom code
fixes completed

"It wouldn't have been possible to do our SAP transformation as well or as fast without smartShift."

Phillip Eisenhauer,
SAP Development Team Lead, Enercon

Enercon is a wind turbine manufacturer based in Lower Saxony, Germany. It has been the market leader in Germany since the mid-90s. Enercon has production facilities in Germany, Brazil, India, Canada, Turkey, and Portugal.

Highlights

Challenges

- Upgrading legacy SAP ERP to S/4HANA to improve business stability
- Transforming over 4.7M lines of custom code accrued over three decades of business
- Lacking in-house bandwidth to handle such a labor-intensive and project-critical workload alone

Solution

Enercon partnered with **smartShift** who:

- Carried out discovery to understand systems and define project scope
- Used **smartShift Intelligent Automation®** to analyze 4 million lines of code, instantly understand all of its interdependencies, and make it S/4HANA-ready
- Provided responsive support throughout testing and go-live
- Implemented all transformed code in Enercon's production environment with zero issues

Results

- Finalist in SAP Quality Awards for implementation excellence
- Accelerated, de-risked, and improved quality of SAP transformation
- Corrected 124,000 issues with a 0.0005% error rate

Challenges

Transforming a complex central SAP landscape into S/4HANA

Enercon needed to upgrade its existing SAP landscape to ensure compatibility with future technologies, generate faster analytical insights, and ensure that the digital backbone of its business gained long-term stability.

With a large number of global SAP users depending on the system for every aspect of operations, the business had an enormous challenge on its hands.

"We've been using SAP as our ERP system since 1995," says Phillip Eisenhauer, SAP Development Team Lead at Enercon. "Today, our business is international and we do everything ourselves, from manufacturing, to distribution, sales, and service. So there's a huge amount of technologies, systems, interfaces, and data in our ERP."

Implementing such a comprehensive global system transformation brought considerable risk for Enercon. If it underestimated the scope of the project, or failed to plan comprehensively, conversion costs could spiral, and extended system downtime could bring the business to a halt.

To de-risk the road ahead, Enercon decided on a two-step 'brownfield' transformation, with an initial HANA migration followed by an S/4HANA conversion. This gradual approach would allow the system's underlying database to be migrated while Enercon's developers simultaneously re-evaluated business processes and refined them to meet future needs.

Reconciling decades of custom development

Enercon recognized that one of its biggest challenges was transforming the huge volume of custom code the business had accrued in the three decades since SAP was first implemented.

> "Over the years, whenever standard SAP processes couldn't meet our departments' needs, we did a lot of custom development," says Phillip. "So we had a huge amount of technical debt to reconcile."

Every line of custom code would need to be analyzed, then either transformed or decommissioned. Enercon estimated that they had nearly 50,000 custom objects; a vast digital ocean of more than 4 million lines of code!

There was no way Phillip's lean in-house development team could reconcile and upgrade that much custom code manually.

> "With so much planning and other cutover activities to do, we didn't have the resources to look into over 4 million lines of code," says Phillip. "We knew that we couldn't handle this alone and needed to find support from outside the business to help us accelerate the project and unlock the benefits of SAP modernization."

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Solution

Using automation to turn months of manual work into days of custom code transformation

When Enercon encountered smartShift at an industry event, they learned of its unique automation-centric approach that cuts the cost, risk, and time involved in transforming custom code.

Trust is everything when selecting a partner to provide critical business support. Enercon was immediately reassured because smartShift has significant experience remediating custom code for some of the world's largest companies.

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> "We instantly had confidence in smartShift, because they had already modernized 1,000s of SAP systems," says Phillip. "It was far from their first SAP conversion project. Whereas for us, it was the first and only one. So that already gave us a good perception of things."

Automated Custom Code Remediation

To initiate the project, smartShift met with Enercon to fully understand its systems and define the project scope. This clarified which code needed to be transformed and which code could be safely decommissioned.

Next, smartShift set up a sandbox system to analyze and transform Enercon's code for real-world validation of the quality and effectiveness of the unique automated approach before starting the full implementation.

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> "smartShift used a sandbox system, so we could get a view of what will happen, without affecting our live production system," says Phillip. "This gave us an idea of what else we might need to consider during the real conversion."

Once Enercon was comfortable with the approach, smartShift Intelligent Automation® analyzed and transformed Enercon's custom code in days, rather than the months that a manual approach would have taken.

smartShift's algorithms combed through all 4 million lines of custom code, discovering every issue and dependency in it, and automatically remediating all of it to be fully compatible with HANA and S/4HANA.

To optimize testing and ensure full traceability, smartShift provided Enercon with detailed reports of everything they'd found and remediated.

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"smartShift's automations resulted in very low error rates of around 0.0005%," says Phillip. "We then had calls with smartShift to discuss steps to fix any remaining bugs. The quality of smartShift's work was very good and I had a very good feeling through the whole project."

Because smartShift freed Enercon's developers from so much repetitive code remediation, they could focus fully on strategic, value-added work. Specifically, they were able to start leveraging S/4HANA's process innovations and new functionality to increase business efficiency and productivity.

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"We had more time to focus on new innovations and complex tasks during the upgrade, because smartShift did so much of the technical and repeatable stuff," says Phillip.

The accuracy and quality of smartShift Intelligent Automation® saved Enercon even more time.

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"SAP provided us with a list of potential objects to investigate before the project started," says Phillip. "Investigating them ourselves would have taken up more of our capacity. Luckily, smartShift identified all those issues and more. We could skip investigating those problems as smartShift already had the solution."

Results

Quality Award-nominated SAP transformation powered by smartShift Intelligent Automation®

By partnering with smartShift and utilizing its automation capabilities, Enercon accelerated, de-risked, and improved the quality of its SAP transformation journey.

With smartShift Intelligent Automation®, Enercon eliminated months of manual custom code remediation effort. Specifically, smartShift:

- Corrected more than 17,000 SAP HANA compatibility issues.

- Fixed over 20,000 S/4HANA compatibility issues.

- Addressed more than 100,000 code modernization issues.

- Used an algorithmic approach to ensure almost error-free results. **Testing uncovered only 12 errors in 124,000 fixes.**

SAP Quality Award-nominated transformation

Enercon's SAP transformation project—supported by smartShift—was so successful that it was named one of the finalists in the Business Transformation category at the prestigious SAP Quality Awards. SAP recognizes just a handful of businesses each year for achieving implementation excellence.

Finalists and winners are selected for delivering stringent project planning and fast, cost-effective implementations.

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> "Of all the finalists, our transformation was one of the biggest that demonstrated such high quality," says Phillip. "smartShift's support in delivering custom code conversion so quickly and accurately was instrumental in our success."

Phillip recommends smartShift to any IT decision-maker looking to strip time, risk, and cost from their SAP transformation.

"Without smartShift, we would've been really busy doing repetitive tasks. It wouldn't have been possible to do our SAP transformation as well or as fast without them," he says.

"Without smartShift, we'd have had to buy additional resources to cover different aspects of the transformation, which would have been more expensive. It was a real win to work with smartShift."

Carsten Melzer, Head of Department SAP Operational Service at Enercon, adds: "The SAP S/4HANA go-live went exceptionally well and there was no incident at all in the area of custom code. Many thanks to smartShift and its team for their successful, professional and pleasant cooperation."

With SAP S/4HANA implemented quickly and smoothly, Enercon, its employees, and its customers have already begun to experience the benefits of SAP's platform for digital enablement, with much more to come...

Now, Enercon has an SAP ERP system that enables them to adapt in a rapidly-changing world, innovate faster, and create more business opportunities and value.

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Find out how your business can accelerate and de-risk its digital transformation.

Schedule a consultation

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