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SUCCESS CASE

KNORR-BREMSE

Field Service Process Redesign for Knorr-Bremse

A success story of VASS delivering a global and integrated solution for Field Service Management

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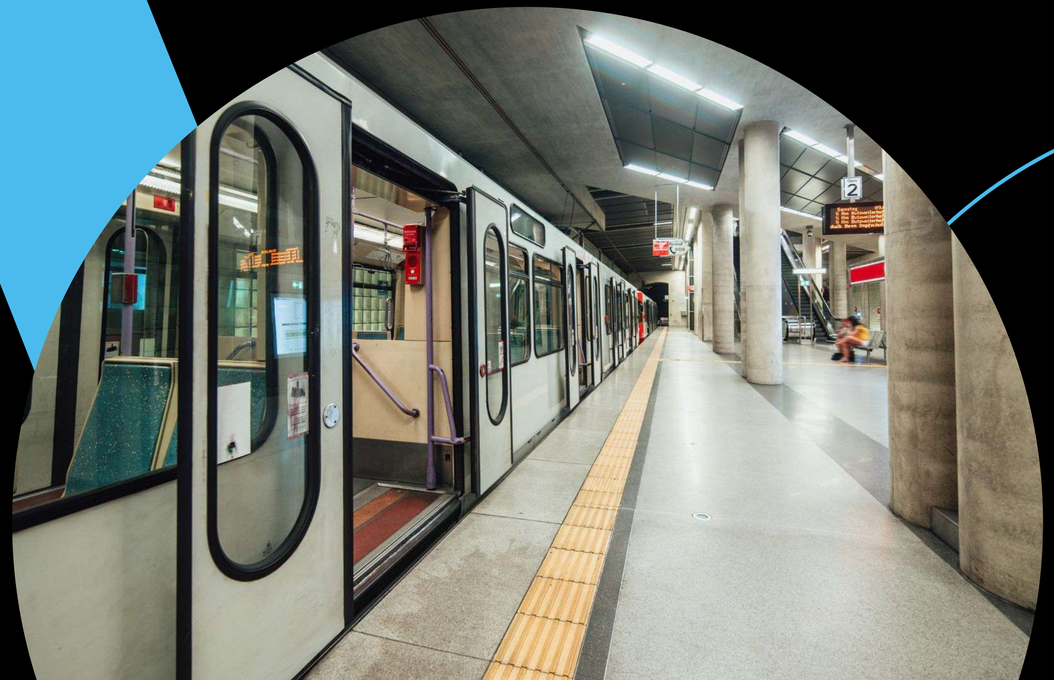
Challenge

Knorr-Bremse, the world's leading manufacturer of braking systems for rail and commercial vehicles, was facing a growth challenge in its Field Service operations.

The number of **Field Service Technicians was increasing** and expected to grow further, but the tools they were using were outdated and inefficient.

The Field Service jobs were managed in different ways across regions and business units, resulting in **inconsistent customer service and quality standards**. Customer complaints were not recorded systematically, and there was no clear visibility of the Field Service activities and performance.

Moreover, **the Field Service process did not support the collection and analysis of field and quality data**, which is essential for product improvement and quality issue resolution. The data was tracked in various systems and handled differently in each region, creating data silos and gaps. There was also no centralized database for customer and system information, which hindered the Field Service Technicians' access to relevant and up-to-date information.



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The challenge was identified as an opportunity to improve the efficiency, transparency, and quality of the Field Service process, as well as to enhance the customer satisfaction and loyalty. The specific goals the client wanted to achieve were:

1. To create a **harmonized and standardized process** for Field Service activities across regions and business units.
2. To enable **optimized and paperless processes** for Field Service Technicians, reducing manual work and errors.
3. To support the **collection of field and quality data by Field Service Technicians and its transfer** into the SAP ERP system for further analysis and action.
4. To provide **checklists to enforce occupational safety on the job**.
5. To improve the **communication and transparency** with the customers and stakeholders.

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The potential impact of not addressing the problem

- Loss of customer satisfaction and loyalty, leading to reduced revenue and market share.
- Decreased efficiency and productivity of the Field Service Technicians, resulting in higher costs and lower margins.
- Missed opportunities for product improvement and quality issue resolution, affecting the innovation and competitiveness of the company.
- Increased risks of occupational accidents and injuries, affecting the safety and well-being of the Field Service Technicians.

Limitations and dificulties

- **The complexity and diversity of the Field Service operations** across regions and business units, requiring a flexible and scalable solution.
- **The integration of the Field Service solution** with the existing SAP ERP system, ensuring data consistency and accuracy.
- **The change management and adoption of the new solution** by the Field Service Technicians and other stakeholders, requiring effective communication and training.

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Daniel Meerkamp
Director Sales & Service Solutions at Knorr-Bremse

"We wanted to improve our Field Service process to provide better service to our customers and to collect valuable data for our product development and quality management. We needed a solution that could integrate with our SAP ERP system and that could support our Field Service Technicians in their daily work.

We also wanted to standardize and harmonize our Field Service activities across regions and business units, to ensure consistent and high-quality service."

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How did we do it?

We used the VDSM (VASS Delivery Success Model) methodology to address the problem, which is a hybrid project approach that combines agile and waterfall principles.

The VDSM methodology consists of **four phases: Initiation, Design, Build, and Deploy**. Each phase has a set of deliverables, activities, and checkpoints to ensure the quality and success of the project.

Initiation

A **kick-off meeting** was conducted with the client to define the project scope, objectives, timeline, and governance. A fit-gap analysis was performed to assess the current state of the Field Service process and identify the gap with the desired state. A **solution design** was then proposed, **based on SAP FSM and SAP ERP**, to address the gap and meet the client's requirements.

Design

The solution design was **validated and refined with the client using workshops, and demos**. Functional and technical specifications, integration scenarios, test cases, and a training plan were also defined. The client's approval for the solution design and project deliverables was obtained.

Build

The SAP FSM and SAP ERP systems were configured and customized according to the specifications and integration scenarios. **Interfaces, reports, and checklists were developed and tested**. Unit testing, integration testing, and user acceptance testing were performed to ensure the quality and functionality of the solution. Training sessions were conducted for end-users and key-users to prepare them for the solution adoption

Deploy

The solution was deployed in the production environment following a cut-over plan and a go-live checklist. **Post-go-live support was provided to ensure the stability and performance of the solution**. **Feedback from end-users and key-users was collected, and necessary adjustments or enhancements were implemented**. A project closure meeting was conducted to review the project results and lessons learned.

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The challenges encountered during the process and their solutions

1 **The complexity and diversity of Field Service operations across regions and business units** required a flexible and scalable solution to accommodate various scenarios and workflows.

This challenge was overcome by using **SAP FSM**, a cloud-based solution that allows for easy configuration and customization. End-users and key-users were involved in the solution design and validation to ensure it met their needs and expectations.

2 **The integration of the SAP FSM and SAP ERP systems** required a robust and reliable interface to ensure data synchronization and consistency.

This challenge was overcome by using **Standard SAP Interfaces**. Extensive testing and monitoring of the interface were also performed to ensure its functionality and performance.

3 The change management and adoption of the new solution by Field Service Technicians and other stakeholders required **effective communication and training**, as well as a clear demonstration of the solution's benefits and value.

This challenge was overcome by **delivering the solution incrementally, and providing early feedback and validation from key-users**. Training sessions, and user manuals were provided to prepare end-users and key-users for solution adoption. The benefits and value of the solution, such as improved efficiency, transparency, and quality of the Field Service process, as well as enhanced customer satisfaction and loyalty, were highlighted.

The alignment with the client's objectives was ensured by following the VDSM methodology, which involved regular and transparent communication with the client, as well as frequent feedback and validation of the solution design and delivery.

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The measures taken to manage change during the project

Establishing a clear and consistent communication plan, which involved regular meetings, reports, and updates with the client and the stakeholders, to keep them informed and engaged throughout the project.

Developing and executing a communication strategy, which involved defining and delivering the key messages and information about the project and the new solution, using various channels and formats, such as newsletters, emails, webinars, and presentations.

Developing and executing a training strategy, which involved defining and delivering the training content and methods for the end-users and the key-users, using various formats and tools, such as training sessions, user manuals, and support materials.

Developing and executing a reinforcement strategy, which involved defining and delivering the actions and incentives to sustain and enhance the adoption and usage of the new solution, such as feedback surveys, and improvement suggestions.

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The communication and transparency with the client was maintained by following the VDSM methodology, which involved **regular and transparent communication with the client**, as well as **frequent feedback and validation of the solution design and delivery**.

We also used a project management tool, which allowed us to track and share the project status, issues, risks, and deliverables with the client and the stakeholders, as well as to collaborate and communicate with the project team.

Key learnings

The importance of **involving the end-users and the key-users** in the solution design and validation.

The importance of **using a hybrid project approach**, which allowed us to deliver the solution in an iterative and incremental manner.

The importance of **using SAP FSM** to accommodate different scenarios and workflows.

The importance of **using SAP Standard Interfaces** for ensuring data synchronization and consistency between the SAP FSM and SAP ERP systems.

The importance of **using the VDSM methodology** to ensuring the quality and success of the project, as well as the alignment with the client's objectives and expectations.

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Results

The solution provides a global Field Service Management and work process solution covering all relevant Field Service business activities.

The process are supported by an IT solution that is fully integrated into Knorr Bremse's SAP ERP system and allows mobile access by Field Service Staff. The process solution includes a collection of field & quality data by Field Service and it's transfer into the SAP ERP system.

"It was a challenging and rewarding project, where we had to deal with complex and diverse Field Service operations, as well as with the integration of SAP FSM and SAP ERP systems.

We also used SAP FSM, providing a mobile app for Field Service Technicians, and a web portal for managers and planners, as well as a flexible and scalable solution that can accommodate different scenarios and workflows.

We also used the VDSM methodology, which is a hybrid project approach that combines agile and waterfall principles, ensuring the quality and success of the project, as well as the alignment with the client's objectives and expectations. The result was a global and integrated solution for Field Service Management, that improved the efficiency, transparency, and quality of the Field Service process, as well as enhanced the customer satisfaction and loyalty"

- Team Member of the project

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Technology

SAP Field Service Management (FSM):
a cloud-based solution that enables **end-to-end management of Field Service operations**, from planning and scheduling, to execution and reporting. SAP FSM provides a mobile app for Field Service Technicians, allowing them to access and update information on the go, as well as a web portal for managers and planners, allowing them to monitor and optimize the Field Service activities.

SAP ERP (ECC):
the existing enterprise resource planning system of Knorr-Bremse, which **manages the core business processes, such as finance, sales, procurement, and production**. SAP ERP was integrated with SAP FSM, ensuring **data synchronization and consistency** between the two systems.

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We are a leading digital solutions company headquartered in Madrid, Spain, present in 26 countries in Europe, the Americas, and Asia; with more than 4,900 professionals. We help large companies in their digital transformation process, developing and executing the most innovative and scalable projects, from strategy to operations.

All our growth comes from our talented people, passion for innovation, and a constant search for improvement, always the VASS way: "Complex made simple".

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