

abat

# LOGISTICS



*abat*  
*Full Service from one source –  
from strategy to realisation*

# SAP Integration

CUSTOMIZED BY ABAT

# FOREWORD

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The demands in logistics continue to increase. It is to become even more efficient, more precise and more flexible. At the same time, the complexity of the processes is increasing in the globalised markets. Intelligent planning and management therefore become all the more important. Raw materials and goods must be reliably available in the required quantity and quality where they are needed – at the right time and at efficient costs. SAP offers a way to meet the high demands and the targets set with its logistics solutions.

Large automotive manufacturers rely on abat and SAP in many areas in order to overcome current and future challenges. Daimler uses SAP's extended warehouse management to manage the material flow efficiently for a compact warehouse directly in the production hall in its Mercedes Benz plant in Bremen, Germany.

*“Full Service from one source –  
from strategy to realisation”*

Also medium-sized service companies, such as VS Heibo Logistics show what possibilities the use of SAP offers. The company has used the software in its warehouse management for many years. Successfully - not only did the solution grow with the company, but rather contributed considerably to it.

The Business Area Materials Services of ThyssenKrupp has introduced successfully the SAP Transportation Management (TM) solution in the field of global trade with raw materials and resources. On the one hand, the aim was to manage an international forwarding company more efficiently, and on the other, to arrange the freight cost management more efficiently.

Three different companies and examples that demonstrate how abat supports companies both large and small with SAP solutions in order to optimise processes in intralogistics and transport management and seize opportunities.



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# DAIMLER

## IMPLEMENTATION OF SAP EWM IN THE COMPACT WAREHOUSE MERCEDES-BENZ BREMEN PLANT



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Daimler AG was looking for a system to manage material flows for the new building of a compact warehouse in the Mercedes-Benz plant Bremen, Germany. The standard software SAP EWM 7.0 for logistics processes was the solution. The SAP consultancy abat performed the implementation. After about 4 months, the go-live took place, since then the plant benefits from uniform standards and efficient processes in the warehouse for production supplies.

Ever more complex supply chains and a more intensive competition increase the demands in the automotive production. At the same time ever-changing customer needs are heightening the economic requirements on production. Automotive manufacturers must therefore optimise their cost structure by organising their processes in all areas even more efficiently. One field with large savings potentials is internal logistics procedures. There are modern software solutions with which complete divisions and individual tasks can be efficiently organised. SAP Extended Warehouse Management (EWM) is one of these applications. The system for warehouse management and control is suitable for nearly all warehouse sizes and requirements. Due to its scalability and many configuration possibilities, EWM can be adapted to practically every requirement and

can, for example, be efficiently used as a total solution for highly complex warehouses and for individual functions, such as a tool purely for materials flow management. As standard software application, the SAP programs have the advantage that the user is independent when choosing a service provider. In addition, important requirements such as multi-language systems, security and authorisation systems are covered. Processes can additionally be standardised.

### **A solution for new requirements**

When deciding to use SAP EWM in the new construction of the Mercedes-Benz compact warehouse in the plant in Bremen, Germany, the standardised handling was an important criterion. The new compact warehouse was erected in 2012 directly in the production hall for the body shop of the series 231 (SL). It replaced the previous storage of pressed parts in conventionally operated warehouses. Since then up to 1000 lattice boxes with materials for the production plant are stored there in a small area and over five levels. Each compartment holds three to five units, depending on the lattice box size – in contrast to high-rack facilities that only hold one box per compartment. The close proximity to the body shop ensures short distances, fast deliveries on short-term



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## „A STRATEGIC WAREHOUSE SOLUTION FOR EFFICIENT PROCESSES HAS BEEN CREATED“

Anika Madaus

demand, and the optimum utilisation of resources. Based on our many years of experience both in the automotive branch and also with SAP EWM, abat received the assignment to implement the material flow management system at the automobile manufacturer.

### Implementation of the IT solution

A team of five abat consultants and one developer implemented SAP EWM at the customer in only 4 months within the specified budget and completely without change requests. Even functions that were planned for a follow-up release could already be made available with the first go-live. The materials flow management was newly set up during the commissioning of the new warehouse. Additionally, there were existing systems in use in production, to which interfaces had to be created: The goods receipt was for example already posted using the previous version of SAP Warehouse Management (WM) and was to remain in this form. In addition, a communication between SAP EWM and the programmable logic controller (PLC) was only permitted using a specialized communication standard, due to corporate guidelines. „The challenge here was to be as minimally invasive as possible and integrate the new processes with the old ones without changing them,“ says Anika Madaus, Senior Consultant and expert for SAP EWM at abat.



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### The solution: abat creates interfaces

The solution by abat comprises two parts: First, EWM was installed as a pure material flow system and the information from SAP WM was redirected to EWM. The software's scalability and the decentralized architecture also permit operation in conjunction with several Enterprise Resource Planning (ERP) systems. So, the production processes continue to run on ERP, the storage and dispensing of the warehouse is now managed using the EWM application. The operating interfaces of the mobile terminals, such as those for forklift movement-jobs, remain unaffected and the employees continue to work with the familiar systems - the entire conversion ran smoothly in the background. As a second part, abat programmed an adapter for the communication between EWM and the SPS, which functions as an individual „translation program“. This means that the IT requirements and communication standards of the customer could be met. Here, not only the EWM expertise of abat, but also the many years of service in various IT projects of the automotive manufacturer, paid off.

This proves that the company, and its consultants are already familiar with the requirements and standards.

„THE CONSULTANTS WERE DIRECTLY ON SITE AND THE DECISION PROCESS WAS SHORT - AN IMPORTANT FACTOR FOR SUCCESS“

Anika Madaus



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One of the project's challenges was that the lattice boxes are stored behind one another in the rack compartments. This space-saving solution has its specific challenges: If material from the rear boxes is required, the front units must be stored temporarily at a transfer point. This approach exceeds the standard scope of SAP EWM, so that a special sub-program was required. At the same time different lattice box sizes must be handled in the system. In order to utilise the space optimally, either three large or five small lattice boxes can be stored in each compartment. So the system must know, at any given time, which box sizes are in the compartments and accordingly supply the same size to the specific compartment. Not a big problem for people, however, the software required special plug-ins to handle this task. In order to prevent bottlenecks, redundancies were included in the storage planning; the same materials are stored on different levels respectively. Should a technical problem arise on one level, the required material is still in stock on another level and the production supply is ensured. The project team found a solution for another problem, without additional coding. Due to the lattice forms, the storage boxes are difficult to scan since they do not have a solid surface. The solution: The boxes were lined with cardboard and so are reliably recognisable for the sensors.

### Go-live after 4 months

The go-live test meant a first test run for the system under real conditions. The go-live tests were intended to determine whether the storage facilities and devices could work accurately together. It is common practice to schedule several go-live test dates during normal warehouse operations. In contrast to changeovers in warehouses that must continue to operate normally, in this case the processes could be slowly ramped up due to the fact that the warehouse was new. One reason for this is that not all materials had to be immediately stored and retrieved. The stock-levels could be increased step by step. Nevertheless, progress was also swift here and production could be supplied using the new system before long. Nowadays, the system has reliably supported all warehouse movements and logistics processes within the warehouse.

# VS HEIBO LOGISTICS

MEDIUM-SIZED LOGISTICS SERVICE PROVIDER  
IS SUCCESSFUL WITH SAP



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## VS HEIBO Logistics utilises the opportunities of SAP in cooperation with abat

Since 2004 VS HEIBO Logistics GmbH has used SAP in warehouse management. In cooperation with the SAP solution provider abat, the medium-sized logistics service provider has since created processes that provide answers to the challenges of the branch. And since this cooperation, it can be seen that the switch was and remains a successful investment in the future.

Is SAP worthwhile for us? This was the question facing VS HEIBO Logistics at the turn of the millennium. Back then, the medium-sized company from Verden had around 60 employees. As a logistics service provider, the company mainly supported a large, international manufacturer brand. The tasks included goods receipt, storage, display packaging as well as quality control and shipping. Until then, VS HEIBO Logistics GmbH used a self-developed EDP system for warehouse management. When the major customer changed its processes to SAP, the service provider faced the decision: Continue to rely on their own software or join the customer in this move? VS HEIBO decided to convert its warehouse management to SAP.

As its partner, the service provider selected the SAP solution provider abat.

### Lean and fast implementation

„We were looking for a solution that enabled a high system-availability, transparency across processes, as well as a high stock accuracy,“ says Jens Nitzpon, Managing Director of VS HEIBO Logistics. The service provider found the answer in the software SAP R/3 Enterprise 4.70, which contains all of the necessary modules for a complete warehouse management. These include the Logistics Execution System, Sales and Distribution, Warehouse Management and Materials Management. The implementation was entrusted to a team of five from abat with comprehensive logistics know-how. At VS HEIBO, the core team was made up of the Head of Administration, the Warehouse Manager and the Chief Information Officer. Further employees, such as shift supervisor and IT specialists, were involved as required. Within six months the project team had implemented the SAP solution.

### Standard for individual requirements

One reason for the fast implementation was the straight-forward structure of functions with manageable user profiles. This meant that less individual adjustments were necessary compared to major enterprises with many more users.



© VS HEIBO

## „WITH ABAT WE HAVE THE RIGHT PARTNER AT OUR SIDE“

Jens Nitzpon

Additionally, the company purposely decided to address many requirements using standard functions. „For us, it is important that SAP is not rigid, but rather that we can meet the individual demands of our customers using system-integrated solutions in cooperation with abat,“ emphasises Jens Nitzpon, Managing Director of VS HEIBO Logistics.

### Answers to new challenges

VS HEIBO Logistics has been using SAP for its warehouse management already for many years. „With this system we achieve an inventory and delivery accuracy of over 99.8 per cent,“ says a satisfied Jens Nitzpon. In order to meet the new demands of the branch and customer, abat continually developed the solution for VS HEIBO. The adaptations in recent years included the integration of a permanent inventory for individual packaging and connection to an online shop for advertising materials. Further innovations included the connection of a Pick-by-Voice solution and RFID gates for real-time check on receipt and discharge of goods at the loading ramps. abat also implemented a solution for the production tracking of parts suppliers, from the dispatch to dealers with corresponding functions for quality control. One of the most recent adaptations is the connection of a production plant for master batches over the module Production Planning-Process Industry (PP-PI).



© VS HEIBO



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### Shared basis for growth and success

Meanwhile the logistics service provider could gain new customers and expand its workforce to more than 180 employees. Simultaneously the company has switched three further warehouse locations to SAP. „Not only did the SAP solution go along with this growth, it made it feasible through intelligent and efficient processes“, underlines Jens Nitzpon. Also, in the future, the service provider will rely on the software and plans to also switch a consignment warehouse for packaging materials with 50 different suppliers. „With abat we have the right partner at our side,“ says Jens Nitzpon. „The consulting service is very practice-oriented due to its expertise in logistics. We are constantly coming up with new ideas together and solutions for our challenges.“

Overall, the capacity of VS HEIBO Logistics increased, from about 40,000 pallet storage spaces to 65,000 today.

# THYSSENKRUPP

„WE WANT TO OPTIMISE OUR CORE PROCESSES IN ADMINISTRATION AND OPERATIONS WITH SAP TM“

Thomas Rücker



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The Business Area Materials Services of ThyssenKrupp trades globally with materials and resources. The division managed by ThyssenKrupp Materials International GmbH also provides technical services for producing and processing companies. The provider employs around 26,000 people, in 500 companies and subsidiaries in 40 countries. To further optimise the processes, the company plans to implement SAP TM in cooperation with abat. In an interview the CTO Heiko Hüber and Thomas Rücker, Head of Transport and Freight Management of the Business Area Materials Services, talk about the project.

## Why did you decide to implement SAP TM?

**Thomas Rücker (TR):** As a business area the Materials Services of ThyssenKrupp trades globally with materials and resources and operates as a provider of complex services. We perform the distribution and sales of rolled and stainless steel pipes, NE-metals and plastics. Additionally, we offer services for production plants and in logistics up to the warehouse and inventory management including entire supply chain management. Transport and freight cost processes are core tasks for us. With the SAP module Transportation Management (TM) we would like to further optimise our processes.

**Heiko Hüber (HH):** We pursue a clear SAP strategy within the company and work with an SAP template. Until now we used the functions of SAP ERP for handling transport. With great interest we followed SAP's strategic expansion of its TM module. From the IT perspective, we now have the possibility to make a modern platform available to transport management. So not only can we replace existing solutions, we can also take the next step to enable new scenarios such as the use of mobile devices.

## For which areas is SAP TM to be implemented?

**TR:** Two areas of SAP TM are especially interesting to us. Firstly, the pure transport management that we wish to handle using the solution. Our aim is to implement an efficient management of the forwarders. Here we also want to use mobile devices. The second area is freight cost management. There we wish to reduce our administration expenditure using the automation functions provided by the software. The costs are to be calculated automatically and the credit items posted to the service providers over EDI. The primary objective is the complete integration of the Transport and Freight Management in all business processes along the delivery chain.



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## „AN IMPORTANT POINT FOR US WHEN SELECTING THE SERVICE PROVIDER WAS CUSTOMER ORIENTATION“

Heiko Hüber

### How did you prepare the implementation project?

**HH:** We pursue a closely coordinated strategy that involves all parties. It is crucial to the success of the project that we, IT and Specialist Areas, work closely with our service providers, from management to the users, as well as with abat during implementation. After a preliminary study has been completed, we plan to start the project in 2014. At first, our aim is to realise a pilot project to achieve a proof-of-concept. In this phase we want to investigate the interaction of the TM module, our SAP template and innovations such as mobile devices. Based on these results, we will plan the implementation in Germany, later in the USA and finally the global rollout.

### Which demands does the Specialist Area have on the solution?

**TR:** In the end, all international demands on transport and logistics must be covered by our decentralized organisation. Our planners should see the advantages in managing the logistics service providers. SAP TM offers large potential for this with its cockpit system. All orders and resources, in addition to, planning and handling of transport management can be monitored at a glance. Also, the users at our forwarders should reap the benefits.



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The use of mobile devices will certainly involve changes for them. For us as the Specialist Area, it is important that they are also closely involved in the implementation process. Here we see the overall project communication working very well.

### Why did you choose abat as the partner for the SAP TM implementation?

**HH:** At first, we started a completely normal bidding process. To this purpose we developed an assessment system for service providers. The criteria included alongside SAP and Logistics expertise, existing resources, preparation of offers and system specifications. However, not only the technical details were of importance to us, in this respect. We also paid attention to whether the provider would have its own staff on location with us. Another important point for us was customer orientation. How specifically does the service provider address our requirements? In abat, we have found a partner that fits this profile. Our experience from the preliminary study shows that we can be certain of that. We feel the strong commitment of and appreciate the close cooperation with the abat Management.

# ABAT

WE STAND FOR SUCCESSFUL SAP SOLUTIONS IN THE AREAS OF  
AUTOMOTIVE, DISCRETE MANUFACTURING AND LOGISTICS

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abat is a leading international SAP solution provider for the logistics and automotive production sectors. As a consultancy and system integrator with profound branch expertise, the company successfully supports the implementation of optimisation and change processes.

abat was founded in 1998 in Bremen, Germany. Today the company is a service and ramp-up partner of SAP and has SAP recognised expertise for automotive as well as travel and transportation. We have also been supporting our customers with nearshoring models and application management services for many years through our subsidiaries BELabat (Belarus) and MEXabat (Mexico). In addition, our companies in the USA (abatUS) and Mexico implement complete SAP products for Germany and local OEMs and suppliers. The product house abat+ GmbH in St. Ingbert in the Saarland region of Germany has also been part of abat since 2009. With PLUS, abat+ offers a unique high-availability solution for production planning, production control and quality management for production control in the discrete industry. PLUS is used as a worldwide standard software solution in all divisions of Mercedes Benz passenger cars as well as at Smart and Qoros for production control of the assembly plants.

## Success with comprehensive branch expertise

abat supports companies in the logistics, discrete production and automotive sectors based on a profound understanding of their processes and structures. We combine this with excellent knowledge of SAP technology and architecture. This is meaningfully supplemented with long-standing experience in supply chain management, distribution and procurement logistics, project management and maintenance. Our customers also benefit from abat AG's knowledge in matters relating to accounting and controlling. A further key benefit of our range of services: Where other SAP automotive specialists stop at production control, abat+ closes this gap with PLUS. abat's customers include Audi, BMW, Daimler, MAN, Qoros, VW, BLG, Deutsche Post, DHL, nobilia, Schnellecke Group, ThyssenKrupp and VS HEIBO Logistics.

## Services for more performance

abat advises logistics and automotive companies and realises efficient total solutions for them. In so doing, we optimise processes along the entire supply chain from the product development to logistics and production. We take over responsibility for the concept of process design as well as the software implementation and the integration in the corporate structures.

An excerpt from abat's range of services:

- Project management (e.g. SCRUM, ASAP, Activate)
- Consultancy and the development of solutions from the product definition process to production
- Production planning and control with MES PLUS
- Specialists in SAP PLM (Product Lifecycle Management), especially iPPE and PVS
- Management of the logistical supply system of plants

## OUR CORPORATE CULTURE GUARANTEES SUCCESSFUL PROJECTS – IN THE LONG RUN!

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- Warehouse management with SAP WM and SAP EWM
- Transport management with SAP TM
- Configuration, monitoring and roll-out of international templates
- On-site and/or nearshore custom development according to the latest technologies
- System management and optimisation
- Application management services
- Performance optimisation and quality management of SAP systems and customer-specific SAP developments
- Integration of SAP solutions in complex, heterogeneous customer systems

### **High commitment for your success**

abat consultants have many years of international project experience. They provide advice during the optimisation of work processes and realise the resulting concepts by applying SAP standard functions or by programming customer-specific add-ons. They communicate openly and address the respective needs of the customers. This is reflected in their satisfaction and long-term partnership with abat because abat's corporate culture guarantees successful projects - over the long term. abat offers absolute transparency regarding offers, costs and in project realisation. This way abat provides a comprehensive overview and achieves high quality results regarding time and budget.

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THE SAP PROFESSIONALS

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