

SAP Case Study



mySAP™ SUPPLY CHAIN MANAGEMENT AT HENKEL

THE BEST-RUN BUSINESSES RUN SAP



AT A GLANCE

Strategic Goals:

- Strengthen the competitive position of Henkel's detergents division by supplying high-quality brand products that are produced and distributed at a competitive cost using a flexible and, at the same time, stable process
- Reduce associated costs by systematic improvement of the supply chain processes, first in Europe, then worldwide

Approach:

- Evaluate the existing supply chain planning processes in detail
- Introduce a new, automated – “seamless and touchless” – supply chain planning concept, according to the “cornerstones” methodology. Henkel defined three categories, for standard, promotional, and “exotic” products
- Implement supply chain planning using SAP® Advanced Planning and Optimization (SAP APO), the main planning component included in mySAP™ Supply Chain Management
- Monitor and control the supply chain business process improvements through process performance measurements (KPI reporting) with SAP Business Information Warehouse (SAP BW)

Results:

- Achieved a uniform and automated pan-European planning solution: lower costs due to standardized processes, reduced manual effort, and accelerated planning
- Improved transparency of the whole process of demand planning to production planning for all markets and production sites, based on commonly defined rules and standardized systems
- Increased in-full and on-time delivery service level in the range of 97% and 100%
- Reduced production changeover efforts by 13% (without changing quantity and product range)
- Reduced overall supply chain costs by 4%
- Achieved over 80% production reliability, resulting in a smoother production flow
- Improved overall supply chain planning performance, with constant inventory levels

STARTING SITUATION

HENKEL – A BRAND LIKE A FRIEND

The company motto “Henkel – A Brand like a Friend” positions Henkel as a brand that is a friend to its customers, making their lives easier, better, and more beautiful. As a supplier of brand products and solutions for international markets, Henkel is particularly determined to quickly identify and fulfill consumer needs. Therefore, scientists from Henkel's R&D department constantly create innovative products and technologies that will ensure the company's long-term economic success.

FOCUS ON MARKETS AND TECHNOLOGIES

In 2002, the 48,000 employees of the Henkel Group achieved revenues of €9.7 billion. The company has identified three strategic areas of competence: home care; personal care; and adhesives, sealants, and surface treatment. Henkel's headquarters is in Düsseldorf, Germany, and international subsidiaries represent the group in more than 75 other countries. Over 75% of Henkel's employees are situated outside of Germany, making Henkel one of the most internationally minded German companies.

Henkel bucked the difficult economic trends in 2002 and plans to follow that strong year with even more ambitious growth and revenue goals. Information technology and its strategy, structure, and systems will play a major part in realizing these goals. Therefore, the company has devised its “Vision 200X,” which will use cutting-edge IT solutions to improve key business processes and consolidate and harmonize the system landscape. These changes will also affect Henkel Detergents, the company's largest division.

PROJECT PRINCIPLES AND CONCEPTS

FOCUS ON COMPETITIVE TOTAL COSTS

Henkel's supply chain project INSTREAM was initiated to strengthen Henkel Detergents' long-term competitiveness – specifically by targeting a competitive total cost of the supply chain. As an established SAP® R/3® customer, Henkel chose SAP Advanced Planning and Optimization (SAP APO), the planning component contained in mySAP™ Supply Chain Management, and the data warehouse SAP Business Information Warehouse (SAP BW).

KPI REPORTING SYSTEM CREATES TRANSPARENCY

The prime objective of the INSTREAM project was to implement ideal seamless and automated supply chain processes using the standard functionality of SAP APO. Also, a KPI reporting system that could map material flow using centralized materials management had to be established in parallel. This transparency was to contribute to a continuous improvement of “data intelligence.” SAP BW was chosen to carry out KPI reporting.

BASIC PRINCIPLES OF INSTREAM

Henkel Detergents has set the following basic principles as the foundation for the INSTREAM project to achieve:

- A harmonized supply chain process for all of Europe
- Pan-European integrated mapping of total demand
- European cost allocation according to standardized rules

PROCESS DESIGN

“CORNERSTONES” CONCEPT

The intended structure of the supply chain process derives from the knowledge that a considerable number of products have a consistent level of baseline sales – so called “background noise” sales (see Figure 1). Therefore, a four-step “cornerstones” process was designed to be carried out every quarter.

Step 1 – The Segmentation Cornerstone

Henkel defined three quantity profiles:

- Standard quantities for products that are produced continuously
- Promotion quantities for products that are temporarily sold in larger promotional quantities
- So-called “exotic” products (make to order) that are normally not planned far in advance and are only produced on request

“The segmentation according to the cornerstones concept helps us to focus on important planning criteria,” explains Gerhard Losekamm, manager of production planning. “We look at the volatility of the products based on past sales figures and determine their planability from that.”

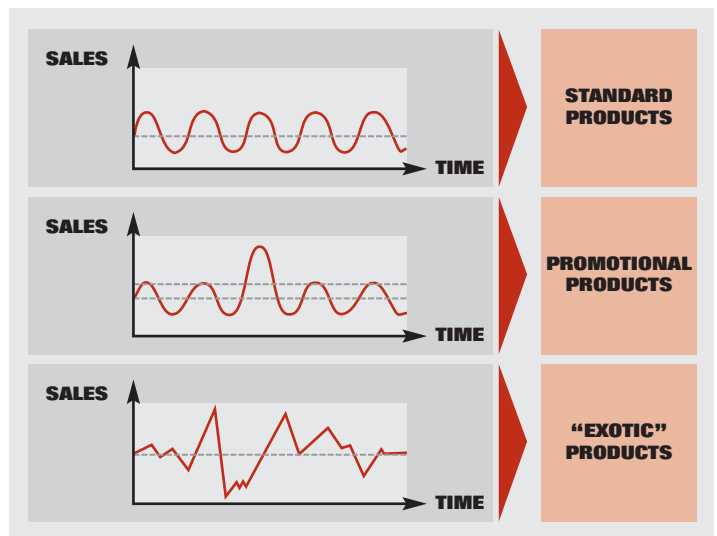


Figure 1: Product segmentation

Steps 2 and 3 – The Product Parameterization Cornerstone

The required parameterizations were derived from the cornerstones concept and were fully supported by SAP APO:

- Various types of prognoses for demand planning
- Mapping collaborative processes
- Managing product distribution between source and target locations according to specific rules
- Consideration of product frequencies and periods as well as defined inventory ranges
- Management by exception

“Our team determined the ideal supply chain process for Henkel and implemented it using standard SAP functionality,” says René Michel, Henkel’s project manager, about the balance between creative process design and the possibilities of the standard software.

Step 4 – The Master Plan Cornerstone

The results of the segmentation according to the cornerstones concept are the basis for the master plan. The master plan itself is one cornerstone for the supply chain planning process, as it assures the reliability of the long-term production plans. This includes keeping to standard lot sizes as well as adhering to the most cost-effective production plans and detailed schedules. Once per quarter, products are reclassified or resegmented and the master plan for the next three months is set out.

“Continuous production of standard lot sizes means that short-term variations in demand do not have major effects on production levels, since the demand volatility is counteracted by an inventory buffer,” say Harald Bessert, Sabine Busch, Ilka Erkens, and Christof Steinmeister, the team of rollout managers.

IMPLEMENTATION

DARING TO STRIVE FOR THE PERFECT PROCESS

Before the implementation of the SAP APO project could begin, a concrete supply chain planning process had to be defined and validated (see Figure 2). When an international corporation such as Henkel has grown organically, there is a danger that employees cooperate only over the lowest common levels.

Because the project aimed to avoid this sort of situation at Henkel, an ideal process based on the actual requirements had to be designed. “We built everything from scratch, but without reinventing any parts,” says René Michel about this key phase of the project. The next step was to validate this ideal process, thereby showing that the new process and its rules could be executed and add value at Henkel.

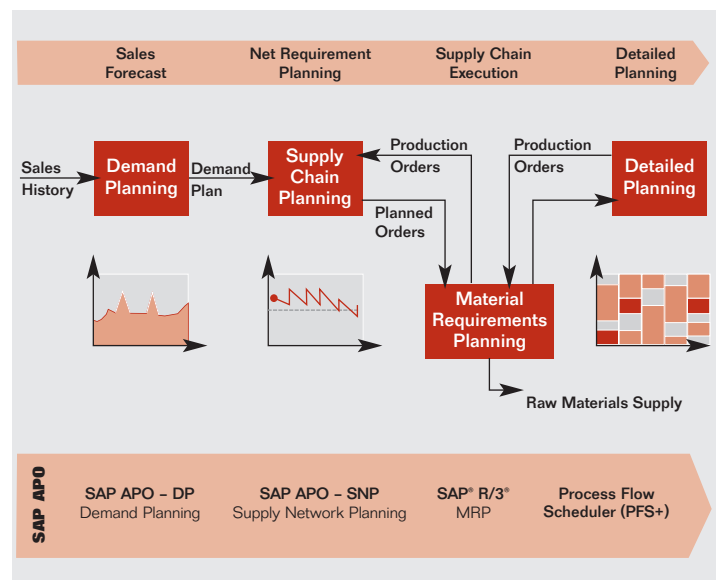


Figure 2: The planning process

The INSTREAM project started in mid-2001. The first step was a detailed analysis of the quantity profiles and the planning process using the ABC/XYZ method, whereby the XYZ was governed by the sales volatility (relevant promotions). It was apparent that 70% to 80% of sales displayed high continuity at the points of sales. Therefore, those quantities could be produced continuously and integrated into the sales process.

PASSED THE TEST

In the implementation phase, the project team had to find a stable way to map the ideal process in SAP APO. Although the interactive push-pull concept in INSTREAM presented many challenges in SAP APO, all required scenarios for the rolling and periodical supply chain process were realized.

“This was a decisive phase of this project, since at this stage we could prove that the system’s data was correctly mapped and used by SAP BW to produce information, such as the inventory corridor. This was carried out based on a continuous push principle and pull effect,” say Thomas Pflug and Axel Richter, IT rollout managers. Therefore, KPI information became the decisive factor for the validity of the processes through the adoption of management by exception (MBE).

Henkel refers to MBE as “traffic-light logic.” Any exceptions are highlighted and color-coded. A yellow signal warns of potential problems, while a red signal indicates that threshold values have been breached and that a reaction is needed. This led to the creation of exception lists in SAP BW, for example, sharing alerts in case inventory is outside the inventory corridor. Among other things, these lists contain a special capacity check for use in rough planning. These so-called “Planner’s Laundry Lists”¹ cover, among other things, special capacity checks in rough planning horizon.

HIGHLY DYNAMIC ROLLOUT

Due to time and financial restraints, the rollout of the processes and the organization of the new supply chain processes began in Genthin, Germany, in December 2001, even though the final touches were still being put on the solution. A total of eight German production plants are now live, and the rollout in France, Spain, and Belgium is underway.

In just a few weeks in mid-2003, Henkel also implemented the collaborative planning capability of SAP APO application, based on the SAP Internet transaction server. Now, all sales organizations in the delivery network enter their requirements online in SAP APO.

By late 2004, around 100 users will be using the SAP APO system with the following functionality (see Figure 3):

- The old demand planning system that was based on spreadsheets is now replaced by SAP Demand Planning, which uses historical sales data to generate sales forecasts. Standard and promotional quantities are now defined and used in the forecast processes. The sales planning data is now available for use in requirements planning using the supply network planning capabilities of SAP APO.
- For demand planning, the European affiliated companies also use the collaborative planning capability of SAP Demand Planning.
- Using the supply network planning capabilities of SAP APO, Henkel plans the net requirements for the products. The lot sizes and manufacturing periods that were determined by the segmentation and the master plan are also considered, as is the data relating to inventory ranges. With the supply network planning capabilities, the networks of ordering and manufacturing locations as well as contract manufacturers are mapped as n:m relationships. In case of bottlenecks or manufacturing outages, exception management and its “traffic-light system” are used. The requirements for exotic quantities are planned on a make-to-order basis.

¹ Creative and self-explanatory naming is welcomed by the Henkel users

- Detailed planning – formerly a manual process – is carried out on a weekly basis, with a four-week horizon, and is now automated using Henkel’s Process Flow Scheduler (PFS+) solution. Equipment is allocated based on the master plan and the optimum frequency and production sequence. Resource planning also takes place on this level.
- SAP BW is the main information management tool. It is used to create reports on predefined KPIs and monitor their changes, thereby enabling management by exception and the traffic-light system. Additional functions, such as root cause analyses and other graphical analyses, are easy to display, and n:m situations can be controlled with little effort.

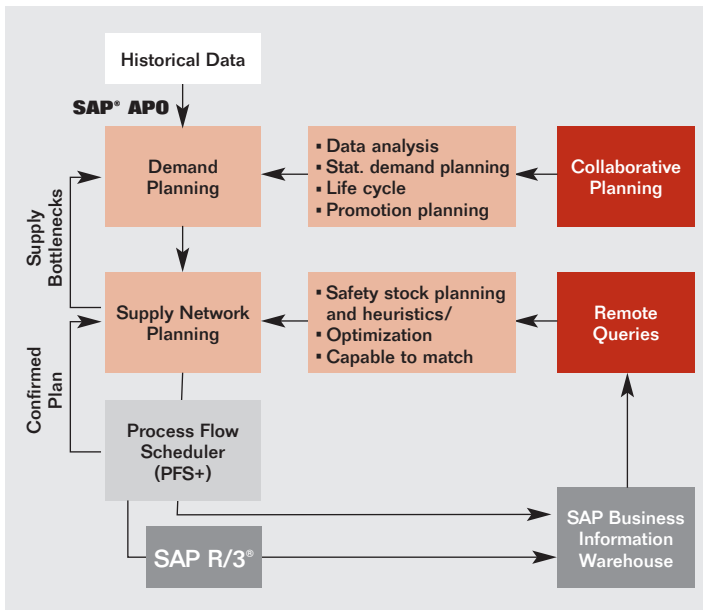


Figure 3: SAP APO components in the INSTREAM project

RESULTS

The Henkel Group’s affiliated companies are now able to create and submit a rolling demand plan for the following 16 weeks. These are used to create a weekly detailed production plan so that products are delivered to the subsidiaries on time. Everyone involved in the processes benefits from complete transparency of all costs and information. The processes have established an automated order flow throughout the entire Henkel group.

BOTTOM-LINE PROFITABILITY

One of the main responsibilities of the INSTREAM project team was to ensure that the investments in the new supply chain process would be returned as quickly as possible. Henkel’s new KPI system monitors their progress towards this goal. “The results so far are encouraging and support our plans to continue driving the rollout at full pace,” says Wolfgang Haumann, corporate vice president – detergents. “Our company grew organically, and there were definite eccentricities in some areas.” The INSTREAM project successfully accelerated the process of permanently optimizing the supply chain.

Quantitative Improvements

- Increased in-full and on-time delivery service level in the range of 97% and 100%.
- Reduced production changeover efforts by 13% (without changing quantity and product range).
- Reduced overall supply chain costs by 4%.
- Achieved over 80% production reliability, resulting in a smoother production flow.
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Qualitative Improvements

- Better data transparency facilitates decision making for management (see Figure 4).
- SAP BW controls processes, thereby achieving excellent application efficiency using management by exception. Special lists focus on exceptions and potential problems so that planners can easily adapt detailed plans.
- The new transparency makes the best possible use of data intelligence, as exceptions can be dealt with quickly.
- Consistent tools lower the error rate and ease communication.
- Harmonized processes and “one voice” communication increase the whole organization’s efficiency.
- Automation and a reduced number of interfaces make planning more convenient.

USERS CONFIRM THE ADVANTAGES

The users are also quick to confirm the advantages of the new supply chain process. Udo Bradl from sales planning – detergents says, “With SAP APO, we finally have a system that is integrated with our business system and simplifies or eliminates a lot of steps in data collection. We have seen considerable improvements in transparency and quality, both for the overall plan and for promotion planning at the customer level, as our planning is much less subjective. SAP APO also holds significant potential for the future.”

Key Conclusions

- The most obvious solutions were not always the best. In the end, a constructive exchange of ideas between project members found new ways of doing things in SAP APO and offered the most rewards.
- The practice of having IT specialists and line of business users collaborate to define tasks has proven itself and will be continued in all subsequent rollouts.
- Defining and sticking to KPIs requires great discipline and responsibility, but leads to fast results.
- As in many change management projects, the most difficult factor for Henkel was adapting the organization to the new process and systems. A simple introductory workshop is not enough: systematic education is required.

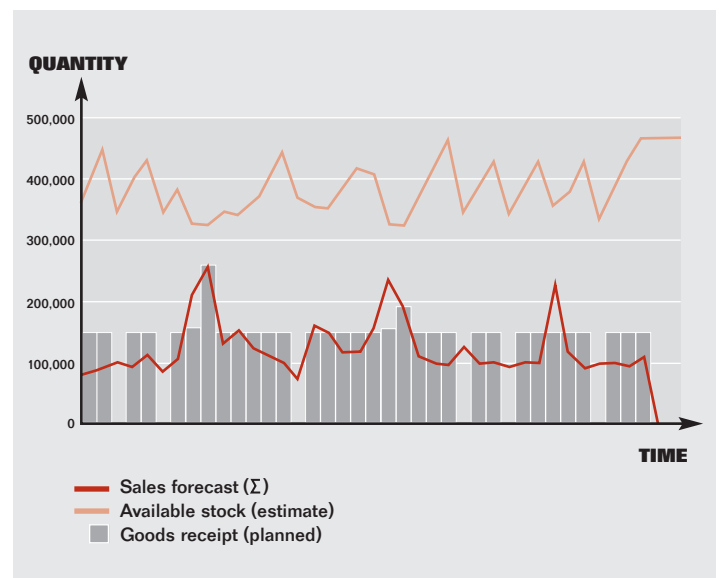


Figure 4: Processed planning results

WHAT COMES NEXT

As part of the harmonization and consolidation of the Henkel IT system landscape, INSTREAM is now used as the European business blueprint for the supply-chain processes at Henkel's detergents business unit. "We will continue the European roll-out with persistence and great enthusiasm" says Klaus Morwind, member of the board. Simultaneously, the systems' development continues to fill the gaps that were knowingly left open due to time constraints. "Working in parallel is one of the strengths of this project. This way, we can deal with activities in our company that can only be explained with fuzzy logic," says Wolfgang Haumann. "We are limiting technical discussions to a minimum and use reality as our reference for continuous improvement."