

Knowledge Management at Daimler-Benz's Passenger-Car Division

Karin Bergmann

Daimler-Benz has long been a leading-edge manufacturer of high-quality luxury passenger cars, with a tradition of exceptional engineering, performance, and safety. The technological edge was the company's critical success factor and a structural barrier to market entry for potential competitors. In recent years, however, changing customer needs and competitor behavior have required a different approach to the market. In response, Daimler-Benz has started a radical repositioning process: from manufacturing only luxury cars to becoming a premium full-line manufacturer, offering high-quality vehicles in several market segments.

This strategic move has added three new products to the traditional portfolio: the ML-class (a sports-utility vehicle produced in Tuscaloosa, Alabama); the A-class (a sub-compact car); and SMART (a small two-seater introducing a new mobility concept for urban areas). These new vehicles have been developed and manufactured in a project-based organization that differs radically from Daimler-Benz's traditional functional-line organization.

In early 1997, Daimler-Benz's management recognized that its new-car projects – and the new ways of doing things it developed concurrently with the new cars – held rich learnings the company did not want to lose. So they decided to have a team look into the transfer of learning from these projects. While the immediate objective of the project was to identify, codify, document, store, and transfer learning from the passenger-car division's three *new-car* projects into other new and existing ventures, its overriding objective was to establish a continuous learning process within the passenger-car division that would support the sharing of experience and knowledge among all parts of the division. In this article, we describe the process Daimler-Benz undertook, the key learning tools it developed, and what it learned along the way.

Getting Started

Dr. Herbert Kohler, Head of Strategic Product Planning for the passenger-car division, was asked to lead the project. He formed a 15-person project team that included representatives of the new-car projects as well as of all the major functional areas involved in car development and manufacturing. The team asked Arthur D. Little to support its work. „The question was one of getting support for approaching an issue like this. For this completely different task of collecting knowledge, we felt we needed some methodological input,“ says Dr. Kohler. I was pleased to represent Arthur D. Little in assisting the work of the team.

The initial question was how to focus the project. Team members began by asking, „What do we want to know?“ They identified nine fields that are strategically important in the passenger-car business: organization, cultural diversity, strategic planning/product development, marketing, production, logistics, supply chain management, customer management, and cross-functional areas. For each strategic learning field, they then defined knowledge objectives (key learnings from the new projects). The challenge was to capture, document, and store this knowledge in an optimal way for knowledge transfer, which they understood as taking place in a six-phase process (Exhibit 1).

Next, team members were assigned to individual learning fields, which they began to explore by interviewing members of the three new-car projects to identify important issues. The team called these issues, which arose in areas where learning actually took place, „learning objectives.“ Within these learning objectives, they examined the processes used, ranked them by priority, and created what they called a knowledge map. „The next step was to decide where we wanted to dig deeper – so the team went through another focusing exercise,“ explains Dr. Kohler. In the second iteration, the team set out, together with experts from the car projects and the line organization, to define selected key learning processes. They had three criteria for selecting a process as „key“:

- Were the methods/practices different from what had been done before?
- Did the methods/practices influence the overall project result?
- Acid Test: „You have 10 minutes to explain the most important issues from your field to a board member. Which ones do you choose?“

„We wanted a knowledge base that was not necessarily exhaustive, but that would provide insights into the essential learning experiences – those that had influenced the timing, quality, or cost of the car projects.“ The team developed standardized process descriptions for about 100 key learnings that were thought to have had the biggest impact on the projects' success.

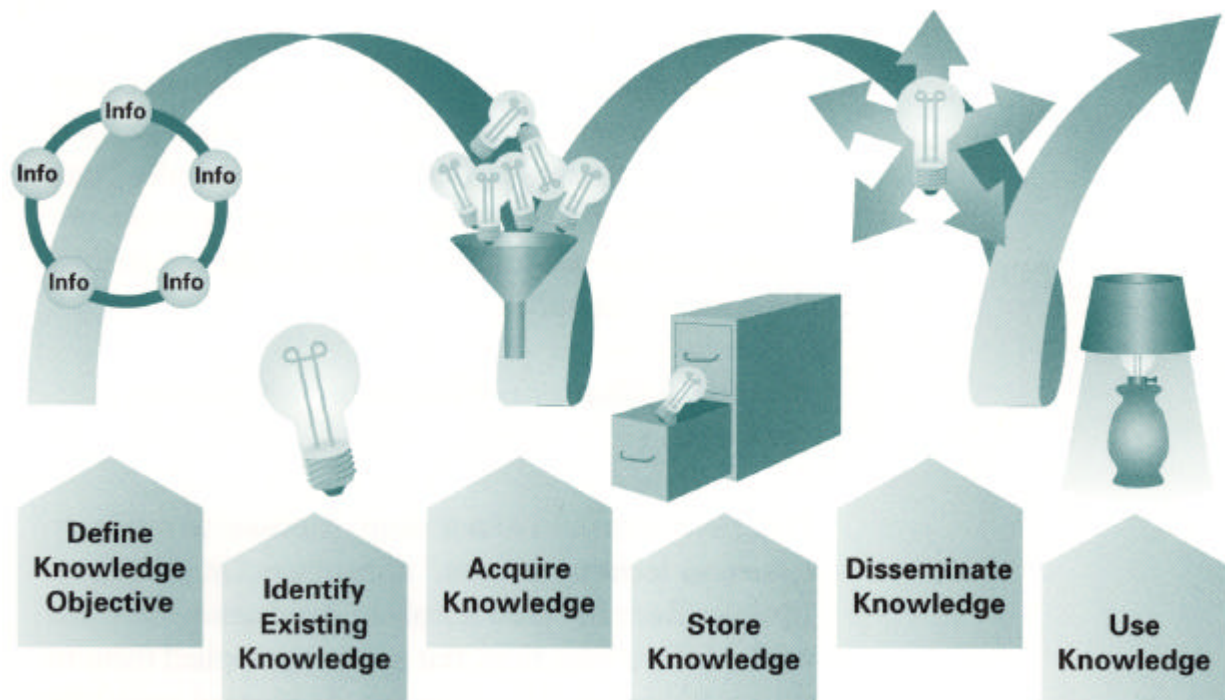
Choosing the Transfer Medium

An important task was choosing an appropriate storage and transfer medium for the information that would be generated by the project. This task in turn raised the question of the target user group for the new knowledge base. Says Dr. Kohler, „We decided to address the top two management levels first. Within Daimler-Benz,

people watch their leaders very carefully and follow their example. We also counted on the multiplication effect: if we offered useful knowledge data to the managers, they would go out and encourage their teams to use our knowledge base.“

Exhibit 1

The Six-Phase Learning Process



Interviews with top management produced a clear picture of what the medium should look like and the requirements it would have to meet. These interviews with top managers were also the first step in making them aware of the initiative and involving them in the process. „Top managers expressed a lot of enthusiasm for our mission – we used these conversations to pull them into our boat,“ says Dr. Kohler. After thoroughly reviewing what Daimler-Benz’s in-house systems had to offer, the team chose to use an existing intranet system, which fulfilled all the requirements the team had identified.

The Main Challenge: Initiating a Learning Process

„We never lost sight of our main objective: to initiate a *continuous* learning process,“ remembers Dr. Kohler. Daimler-Benz has used learning organization ideas and methods for a long time, but had never applied them to the knowledge-exchange process. As physical availability of the database approached, the team asked with increasing urgency, „But how will we get people to use it?“

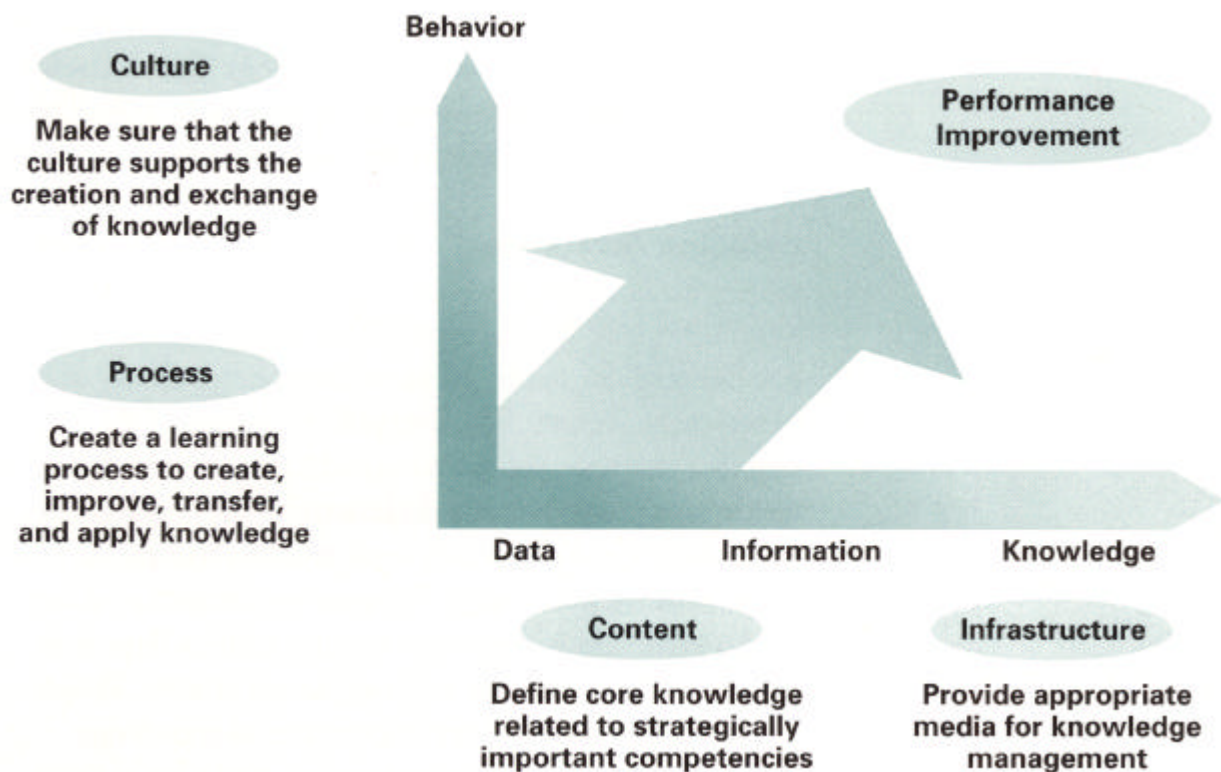
After talking to other Arthur D. Little clients who had been through similar processes, the team realized that the success of the learning process could be measured in terms of three indicators:

- Continuously increasing involvement of resources (people and money) in the process
- Continuously increasing „knowledge turnover“ (e.g., number of documents in the database, number of participants in learning events)
- Ensuring independence – the ability of the process to run without a specific project team supporting it

The team knew it had to tackle the behavioral and cultural side of the issue (Exhibit 2). Members set out to design a learning program that would give the process the necessary momentum.

Exhibit 2

Addressing Behavior and Culture



An appraisal of the unwritten rules of the game¹ among the target group, conducted by Arthur D. Little, helped Daimler-Benz understand the barriers to learning within the organization. (This appraisal reveals the motivations driving people's actual behavior within an organization, beyond the official code of conduct and rules.) Getting a clear picture of the unwritten rules makes it easier to align any measures taken to reach the company's goal – in this case, to enhance learning and knowledge exchange – with its culture. Dr. Kohler admits: „We were curious what would come out of this study. In an engineering-driven environment like Daimler-Benz's, cultural issues are not a top priority. I was surprised to see how clearly our culture was described in the end – people must have been very open about their motivations and concerns within the organization.“

The challenge was to design a set of methods that would help align the goal – to initiate and foster learning and knowledge exchange – with the findings of the study, and thereby overcome the barriers to learning. On that basis, the team designed a Master Plan for Learning that addressed not only the four critical dimensions of knowledge management – content, process, culture, and infrastructure – but also the organization's learning behavior (Exhibit 3). (See discussion of the four critical dimensions in the articles by Friedrich Bock and Laurence Chait in this issue of *Prism*)

Creating Awareness

Simultaneously, the team created awareness of the initiative by using communication measures targeted not only to top management, but to all potential users of the system. For example, the team created a project newsletter, which turned up on many desks around the organization. Dr. Kohler began to get calls from people who were curious about what we were doing. „In these conversations I discovered a tremendous awareness within Daimler-Benz that we needed a better knowledge-exchange process. People are very much aware of the importance of knowledge exchange for our competitive position, and a lot of them felt we could do better in that field. However, if people are not given an incentive to participate in that process, it will be very hard for them to change.“

Pulling It All Together

The team had a very clear understanding of how the knowledge database and the learning process were connected. The database was not aiming to provide a „cookbook“ for building cars, or even to describe the key

processes in a way that allowed somebody to replicate them. Rather, the database was designed as an „appetizer“ to show people the richness of experience within other areas and projects of their company.

Exhibit 3

The Master Plan for Learning and Its Methods

Content	Culture	Process	Infrastructure
<ul style="list-style-type: none"> • Initiate learning events connected to daily work; have teams solve issues in a new way • Encourage promoters and early adopters to implement selected key practices in their areas 	<ul style="list-style-type: none"> • Conduct “Unwritten Rules of the Game” assessment • Find strong promoter of a learning culture within the organization • Adjust incentive and reward systems to expected learning behavior • Design learning events to enhance voluntary attendance • Launch pilot learning programs led by promoters 	<ul style="list-style-type: none"> • Focus on early adopters • Initiate mentoring program • Include learning behavior in performance review • Allow time for experiments and discussion during work hours 	<ul style="list-style-type: none"> • Work with existing systems project that fulfills requirements (Lotus®/Intranet) • Define roles in knowledge management system • Coach users of the system

„In the end, it is all about bringing people together and making them look at new ways of doing things. We do not want to force ‘best practices’ on people – we want to encourage them to talk to their colleagues, think about others’ experiences, and learn,“ clarifies Dr. Kohler. To address these issues, the team worked out various detailed measures, such as a revised reward system designed to encourage the desired knowledge-sharing behavior, the inclusion of learning events in the product development process, and the appointment of a „learning promoter“ at the senior-management level.

An important issue is the definition of responsibilities in the knowledge management system. Beyond the tasks of managing the hardware and software, who helps people get their specific knowledge into the system? Who trains new users? Who sets and monitors quality standards? These responsibilities must be defined – and names attached to them – very early in the process. Another issue is coaching: as people set out to do things in a new, learning-friendly way, they need help and advice. Daimler-Benz, fortunately, can draw on in-house experts in the learning organization field who have extensive experience in coaching such learning processes. However, the challenge of pulling together the content and cultural dimensions of knowledge management requires a powerful process driver.

The project team decided not to dissolve after six months, as had been originally planned, but to manage several follow-on tasks. These included input into and follow-up of important management decisions, such as changing the incentive and reward system, and designing pilot learning and knowledge-exchange sessions at specific milestones in the car-development process. As Dr. Kohler puts it, „The team has prepared the ground for a better knowledge exchange. Our long-term success will depend on how we build on this ground.“

The team is proud of the fact that its project has sparked a lot of interest within Daimler-Benz. Learning and knowledge exchange have moved into a much higher position on people’s agendas. The necessary changes in the incentive systems have been initiated, and project plans and schedules have been adapted to learning needs. The design of the knowledge management system, specifying all roles and responsibilities, is under way, and the team is now working on pulling more and more colleagues into the process.

Dr. Kohler prefers to call the team's work an „initiative“ rather than a project. „We want to make clear that this is not a project in the usual sense, with a defined beginning and end. Our work is just the kick-off for a much longer process – the better use of the enormous knowledge on car development and manufacturing we have accumulated within Daimler-Benz. The value of this work comes from the people involved and their willingness to share their knowledge and accept their colleagues' expertise. Without sharing what we know, we will not be able to keep our position in tomorrow's markets.“

¹ See *The Unwritten Rules of the Game*, by Peter Scott-Morgan, McGraw-Hill, 1994.

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