



Customer Success Story: Brembo

Overview

Brembo was founded in 1961 as a small mechanics garage outside Bergamo, Italy. In 1964 it began manufacturing the first Italian brake discs for the aftermarket. Brembo is now a global leader in designing, developing and producing high performance braking systems for cars, motorcycles, commercial vehicles and for racing. It is a 600 million Euro organization, listed on the Borsa Italiana, with over 3,900 employees in 14 countries. Brembo's customers include the leading brands in the automotive industry, such as Ferrari, Maserati, Porsche, DaimlerChrysler, Ducati, Aprilia, Yamaha, Ford and BMW. Numerous F1, Indy, NASCAR and Rally Teams, the majority of the Motorcycle World Championship Teams and the Superbike, Enduro and Motor Cross champions rely on Brembo for braking and winning, in safety.

Challenge

In an extremely competitive market Brembo has an excellent reputation for quality, and protecting and enhancing this reputation is vital for the survival of the business. The processes used in its factories have always been highly efficient, well-designed and documented; however, the processes on the design side of the business were traditionally more unstructured and paper-based, relying on individuals to manually record their own work. Fast growth in the organization meant that this was no longer possible.

Mistakes made during product development can be very costly to both Brembo's reputation as well as its financial performance. Once a product has gone into production, making changes to the design has a huge impact on costs, not only because of repeated work, but because alterations have to be made to the production plant. For this reason it is vital that the final product exactly meets customer specifications and does the job they expect.

Highlights

Manufacturing, Retail,
Distribution

Processes Enabled:

- New Product Design and Introduction
- Risk Management

Customer Benefits & Results:

- Lower costs, higher quality
- Reduced risk
- Ensures the quality of product development matches quality in its factory

In 2002 Brembo decided to look for a solution that would automate its product development process. Its vision was an integrated solution linking together the various systems used in the process, most specifically with their Document Management solution.

Solution

New Product Design & Introduction

Recognizing that its reputation depends on the safety, quality and performance of its brakes, Brembo invested in Metastorm BPM® to bring the quality of its new product design and development process in line with the quality of its physical manufacturing processes. Brembo selected Metastorm, a leading BPM product to develop 'Butterfly', its automated New Product Development Process. Metastorm BPM was chosen as an alternative to a Product Lifecycle Management product because of its compatibility with Document Management solutions and because it is flexible enough to automate processes of all kinds, while a specialist software package would only be appropriate for one area of the business.

Butterfly tracks new product development from the moment a customer places an order, through design and development, and for 3 months after the product has gone into production. The solution also feeds into other functions linked to production, including engineering, purchasing and safety.

Risk Management

Concurrently, Brembo has developed a process to automate risk management for each design project. It has put a new set of rules in place for project authorization and has used Metastorm

BPM to completely redesign the way that authorizations are managed. Now managers at different levels in the organization have different sign-off points for projects. If the cost of a project exceeds the manager's approval limit it needs the signature of his or her manager or of someone higher in the organization.

To ensure that people are carrying out the correct checks and balances at each stage of a project, a mandatory checklist is generated when a project passes a 'gate'. Entries at each gate are saved and dated to create an audit trail. The project manager can only move to the next phase of the project when a score of 100% is obtained at a gate. This gives a very clear view of the risk associated with each project – each time 100% is achieved at a gate it means that the risk regarding this project so far is 0.

If 100% is not achieved, there are rules in place to define the right level of authorization to go ahead with the project. At each gate managers are forced to use the formal, audited technique for evaluating the risk of each project, and in each case the right person can make an educated decision on whether to continue, having factored in the risk of project failure.

Management by Objective

Brembo has also tackled its Human Resource processes using Metastorm BPM, specifically 'Management by Objectives' (MBO), holiday requests, overtime requests and other administrative procedures. As the number of managers using MBO to motivate teams has recently increased, the paper-based process for recording and managing teams was no longer sufficient.

Brembo Senior Management formulate company objectives on a yearly basis, using defined rules, and these objectives filter down through immediate reports to all levels of the organization, thus ensuring that throughout the hierarchy individual objectives contribute to those of the manager above and so on. For each organizational level, a member of the HR team also has sign-off for objectives. Metastorm BPM facilitates this matrix approach so that the relevant person is able to review, check and validate the objectives that a manager has set for his or her team. Once they receive their objectives and details such as project, date required, and related documents, an individual is able to respond to confirm agreement with each objective, or to make comments. On completion of this process the Vice President must approve all of the objectives. As the objectives are achieved, notes can be added to create an audit trail of progress. Each team member can also see the overall strategic, corporate level objectives, the percentage that have been achieved, and rules used to define achievement.

Results

Lower Costs, Higher Quality, Lower Risk

"Two vital traits make up Brembo's DNA," says Pierpaolo Crovetto, ICT Director at Brembo "One is innovation, and the other is quality. In 2001 we were awarded a Global Excellence in Operation Award by AT Kearney, and we won this award because of the quality of our manufacturing processes. Butterfly is our way to ensure that the quality of our product development and HR processes matches the quality of the processes in our factory."

Using Metastorm BPM, one of the biggest benefits for Brembo is that by enabling the automation of all processes associated with the design and development of a product, it is impossible to move a project forward without sticking to the rules defined by the system. This has given Brembo more control over its business. "Brakes are the key safety components of a vehicle," continued Mr. Crovetto. "So, when you factor in the costs associated with making a mistake, you start to see the potential savings."

Brembo has also seen an impact on its people and the culture of the organization. By automating administration, creative energy is channeled into design – employees are no longer encouraged to spend time in their comfort zone on the sometimes 'easier' administrative work. "Creative people are not necessarily suited to doing repetitive administrative work. Now we don't have to rely on them to remember to do it – the process just happens, and they can concentrate on what they are good at," says Mr. Crovetto. "In fact, having a framework in place has allowed them to be freer in the way they operate."

This framework also means that a project cannot progress without a manager's signature. Using a digital signature managers must commit to the fact that they are aware of the progress and risk associated with a project and take responsibility for going ahead with it in spite of the risk present. It is no longer possible to take shortcuts, and when management are aware that a project is moving forward with only a low percentage at a certain gate, they can balance the risk by either planning other activities to balance the risk or by taking corrective action to eliminate the risk and bring the situation back to 100%.

"When I think about how we used to manage these processes, doing it all on paper which had to be signed by hand, it seems crazy!" concludes Mr. Crovetto.

In the future Brembo plans to link Butterfly with its CAD environment, so that engineers will be able to use Metastorm

BPM to manage the Bill of Material and provide a 3D view of the product. This will provide complete transparency of the process for everyone in the organization.

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