

Automaker Improves Research and Development with Project Management



Overview

Country or Region: France

Industry: Manufacturing

Customer Profile

Paris-based PSA Peugeot Citroën Group is Europe's second largest car manufacturer, selling more than 3 million cars in 2003. The manufacturer has more than 200,000 employees worldwide.

Business Situation

To support increased new model production, the research and development department wanted a centralized solution that could better track all of the company's automobile development projects.

Solution

With the help of various Microsoft® Certified Partners, PSA customized and deployed the Microsoft Office Enterprise Project Management (EPM) Solution.

Benefits

- Significant time-to-market improvement
- Infrastructure that grows with the business
- More efficient operation
- User satisfaction

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Frederic Laforce, EPM General Manager, PSA Peugeot Citroën Group

PSA Peugeot Citroën (PSA) Group, the world's seventh largest automotive manufacturer, wanted to find a way to better manage 15 vehicles programs (more than 2,000 projects) in its research and development (R&D) department. To achieve this goal, the company felt it needed an easy-to-use, server-based management tool that could supervise projects ranging from the development of individual vehicle components to entire vehicle designs. Working with various Microsoft® Certified Partners, PSA implemented the Microsoft Office Enterprise Project Management (EPM) Solution. As a result, the R&D department has found new functionality that provides the automotive manufacturer with the ability to easily share information among and within projects more efficiently. For PSA, these types of benefits lead to faster time-to-market and greater new product development success.

Situation

PSA Peugeot Citroën (PSA) Group is Europe's second largest automobile manufacturer, selling more than 3 million vehicles worldwide in 2003. Based in France, the car manufacturer offers an array of automobiles to 140 countries under either the Peugeot or the Citroën brand name. Since 1998, PSA has built both car brands at 11 assembly plants. This merging of resources has helped increase production at the company's assembly plants by 50 percent to an output of approximately 14,000 cars per day.

In 2002, PSA set a goal of increasing annual sales to 4 million cars by 2006. To this end, and to satisfy a wide range of customer expectations, PSA plans to launch 26 new models—a 40 percent increase in vehicle designs—during a four-year cycle that started in 2003 and ends in 2006. A key ingredient of the company's strategy is the research and development (R&D) department. PSA uses the 17,000 engineers and technicians within the department to rethink, design, and subsequently propose vehicle architecture for future Peugeot and Citroën components and automobiles. The R&D department works on 15 concurrent vehicle programs (more than 2,000 concurrent projects) concerning all automobile development areas, including architecture, ergonomics, and manufacturing processes. On average, the duration of a project is 1,000 days.

The R&D team consists of 44 business units engaged in smaller projects for each vehicle concept. Distributed among the business units are more than 2,000 different project managers working to meet company goals. The success of this multilevel development style strongly depends on the ability to effectively share information about these projects. For example, centralizing and distributing information such as dates, names of plans, programs involved, and the percentage of completed work could make

both a business unit and, even more importantly, a department run more productively. To put management efficiency in perspective, consider that a single day of delay is estimated to cost the company approximately €1 million (U.S.\$1.3 million).

The R&D department lacked a centralized, easy-to-use project management solution. As a result of the various solutions in place from project team to project team, information sharing was limited, business intelligence was difficult to obtain, and benchmarking progress against goals was nearly impossible.

PSA wanted a solution that would help increase supply without incurring additional R&D costs. To that end, the company searched for a server-based tool that would aid each project manager in effectively directing activities and resources by making information sharing possible at all levels of the R&D department's large staff—both within and among projects.

With plans in place for continued expansion, PSA also wanted a solution that could grow with the business and be functional at all levels—from large overall vehicle designs to development of small components for those vehicles. In addition, to remain competitive with other auto manufacturers currently using more sophisticated technology, PSA needed the extra functionality offered by a project management tool.

To meet its objectives, PSA focused on defining project manager responsibilities and providing managers with a more efficient means of accomplishing their goals. After it achieved these aims, PSA could take this body of practices, procedures, and rules and combine them into a set of working methods. This new methodology could then in turn be deployed within the R&D department.

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Olivier Gamot, Information Technology
Department Manager, PSA Peugeot Citroën
Group

Solution

In July 2002, PSA defined a three-year plan, dubbed Planification, to implement an enterprise project management (EPM) solution. PSA then turned to various Microsoft® Certified Partners for help with putting its plan into motion by deploying the Microsoft Office Enterprise Project Management (EPM) Solution. The EPM Solution provides a centralized warehouse for project information such as schedules. With the EPM Solution, project managers can obtain a view of project details in real time and provide more accurate metrics by having a central point to find up-to-date information. “The choice of the Project Server solution was linked to user accessibility and the ability to share information needed to make decisions,” says Bertrand Leinen, Information Technology Manager for PSA Peugeot Citroën Group.

Training Project Managers

Included within the deployment were 3,000 employees from all 44 business units and three pilot vehicle projects. These employees were divided into smaller groups and trained on both the company's methodology and the new project software. By 2004, PSA had finished training more than 50 percent of the original 3,000 participants. The three initial pilot vehicle projects included in the test were extended to 10 programs. Over the course of 2005, the company plans to increase deployment to 15 vehicle projects. By the end of that same year, PSA also expects all 3,000 employees involved with the original EPM deployment to have completed training on the methodology and software.

Each of the business units has a dedicated person responsible for managing methodology, organization, and the use of the EPM Solution within that unit. Currently, there are 2,000 project plans and 4,400 employee names, equipment, and material resources stored in 12 Microsoft Project Server

databases. Eventually, R&D would like to include all of its employees as resources in the EPM Solution database.

Storing More Than 2,000 Plans

Since the start of deployment in 2003, PSA has stored more than 3,540 vehicles and component plans in Project Server. On average, 1,350 users view project information generating more than 450 users per day on the server computers. Within two years, PSA projects the numbers to increase to 8,000 users and 750 users per day. During the same period of time, the number of vehicle and component plans stored on the computers running Project Server will increase to 7,000.

Building a Custom Portfolio Web Site

Because of the large number of concurrent projects distributed across 10 computers running Project Server databases, PSA developed a custom portfolio Web site to display all of the company's projects and project plan outlines. After a project manager enters durations and task dependencies for tasks, the computer calculates the start and finish dates for each individual work item referred to as a task. After creating a schedule, a manager can incorporate any changes. The current schedule is then updated to reflect these changes. Users can browse through the Web site and select any project plan that is accessible to them.

Benefits

For PSA, the EPM Solution provides every project manager with a holistic view of every program and initiative. With the ability to track all aspects of a project as well as reallocate time and tasks, PSA anticipates a significant improvement of time-to-market. The EPM Solution provides the company with a technology infrastructure that can grow with the business as it increases product output. By combining methodology improvement and commitment to the EPM Solution, and

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despite the fact that this solution is not yet measurable in terms of financial savings, PSA management feels that a strongly organized and efficient company infrastructure leads to a better product, which means increased revenue.

Improve Time to Market

With the EPM Solution, each project manager now has the ability to monitor and control plans. In addition, the new functionality provided by the solution is up-to-date. If anything relating to the project changes during production, such as estimates of the project completion date, the user can update the tasks, and the Project Server tools will accordingly adjust the schedule. “The real-time access to materials provides us with the means to deal with situations before they become time-consuming problems,” says Frederic Laforce, EPM General Manager for PSA Peugeot Citroën Group. For example, project managers create weekly and monthly status reports to keep upper management abreast of a program’s progress.

PSA also uses project baselines, comparisons of original plans to current plans, to assess project performance after completion of an assignment. As a result, PSA anticipates a significant improvement of time-to-market. Project managers can also use the EPM Solution to quickly accomplish tasks such as defining projects. After a task is completed, they can use tools found within the EPM Solution to enter project information such as tasks, equipment, and required materials.

Infrastructure That Grows with the Business

The EPM Solution not only can accommodate the range of large and small current projects, but also can support the planned growth of PSA in numbers of projects and resources in the future. “Scalability is an important point for PSA because of the very large number of both tasks and users,” says Olivier Gamot,

Information Technology Department Manager for PSA Peugeot Citroën Group. “This EPM solution provides us with the necessary means for our solution to grow with our company.”

PSA is midway into a four-year, vehicle-development cycle that aspires to more than double the number of new models outputted compared to the same period of the previous cycle. Although executives at PSA feel it is too early to evaluate all the ramifications of the EPM Solution, they are optimistic that they can reach their targeted production numbers. “We are happy with the gains we have made in management scheduling, and we look positively to the future,” says Pascal Oriot, Project Office Manager for PSA Peugeot Citroën Group. “We feel that the EPM Solution will improve the practice of project management within our organization, which will in turn help us continue to grow and reach our time-to-market goals.”

Organization Operates More Efficiently

With the EPM Solution, PSA enjoys enhanced visibility and communication among the many projects and levels within the corporate hierarchy. “We’ve improved the culture of our project management,” says Oriot. “The EPM Solution provides more than software tools and features. It helps change, according to the methodology study, the way we run our business.” For example, having the capability to track any task or individual within a project—or even an organization—makes every employee at every level more responsible for his or her actions. As a result, departmental issues can be much more easily and quickly resolved before they expand into organizational problems. The ultimate goal is for employees to take personal responsibility to help PSA build a better product. At the same time, by using the EPM Solution to simplify and encourage communication, the company as a whole operates more efficiently. “The main objective

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is to give all stakeholders the tools with which to manage their activities and reach their goals," Oriot says.

User Satisfaction

Although the full range of functionality of the EPM Solution is not yet being used, managers report that user satisfaction is favorable. "Today, we have 600 people connected to the EPM Solution on a daily basis," says Laforce. "The level of satisfaction with the solution is quite good. After two years, the global perception of the solution is very positive."

In the Future

PSA hopes to fully incorporate its human resource units into an EPM environment, obtaining the same types of gains with resource management. "Deploying resource management within the EPM Solution is a challenge because we have 16,000 resources to manage. But it could be an important source of benefit," says Oriot.

Overall, PSA is very satisfied with its results. The EPM Solution reaps numerous rewards for the business, which the company hopes to translate into bigger business opportunities. "Our expectations have increased because of the Microsoft EPM solution," says Gamot. "But so have our results."

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