

Maschio Gaspardo

Industrial Equipment Case Study



Challenge

Employees at Maschio Gaspardo's globally distributed subsidiaries needed access to centralized product data and intellectual property to speed development and manufacturing of its agricultural equipment.

Solution

The Italian manufacturer uses the 3DEXPERIENCE Platform from Dassault Systèmes and its Single Source for Speed industry solution experience.

Benefits

Working on a unique platform helps mechanical designers and engineers to efficiently collaborate on a global scale, to access more than a century of accumulated intellectual property, and to forego physical prototypes thanks to 3D virtual modeling.

Collaborating around the globe

With roots dating back to the 19th century, Maschio Gaspardo SpA today has a global presence with subsidiaries and sales distribution centers in Europe and Asia, in addition to its main offices in Italy. Successful expansion was possible thanks to a winning combination of business vision and technology.

In recent years, Maschio Gaspardo has experienced double-digit growth, mainly abroad. "We have expanded into foreign markets by opening two sites in China, one in India and one in Russia," Massimo Crozzoli, Corporate IT Director, Maschio Gaspardo, said. "As a result, we now have decentralized technical centers of excellence. These centers have remote access to our Italian headquarters, which maintain full control of all design operations."

At Maschio Gaspardo, the intellectual property is Italian, but each site has its own design resources to fine tune products to respond to local market requirements, available supplies and to local standards. "We have now entered the second stage in our evolution," Crozzoli continued, "in which our decentralized offices also develop real projects aimed at product improvement and cost reduction. However, they are still under the technical supervision of our Italian office, which manages and monitors the entire project and is responsible for all approvals."

"In the early nineties, we were one of the first companies in Italy to choose 3D as the common language for our organization," Crozzoli recalled. "Our ultimate goal was to integrate our technical department with the rest of the company. From the very beginning, we used the 3DEXPERIENCE Platform CATIA application for our mechanical design needs. We obtained immediate results," he said.

Accelerating product development

When CATIA was deployed throughout the entire group, the benefits were immediate. "We noticed right away that it took less time to build a model," Crozzoli said. "CATIA is a highly visual application that clearly shows if a project is going in the right direction, without the need for physical prototypes. Another advantage was the reduced learning curve, which enabled the company to reinvest the resources saved on training. Finally, with the 3DEXPERIENCE Platform, all work can be shared; one engineer designs the engine, another the propeller, and a different one the various components. An engineer in Italy can work in parallel with one in Romania. We hear so much about collaboration. With Single Source for Speed, collaboration really works," Crozzoli said.

Global scale management

The equipment manufactured by Maschio Gaspardo can be very complex because it includes mechanical, electrical, hydraulic and pneumatic parts, sheet metal, cabling, automation mechanisms, and load-bearing frames that require structural analysis. Some 3D models have up to 5,000 parts. So, the next step in the company's product development strategy was to combine the mechanical design and simulation software with a product lifecycle management application. Massimo Crozzoli calls this step a "momentous change". The group adopted the 3DEXPERIENCE application ENOVIA.

"ENOVIA keeps track of all modifications and versions, maintains a well-ordered repository of a huge quantity of files, streamlines information search and, as a result, minimizes redundancies and the risk of having to redesign existing parts. We maximize design reuse and benefit from our intellectual property."

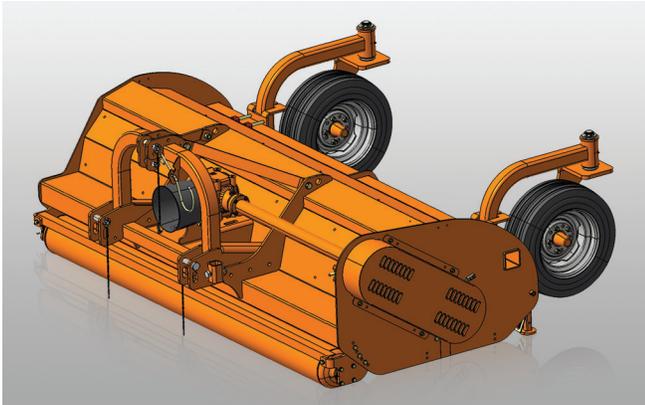
Unlimited collaboration

The organization needed a suitable tool if it was to engage in collaborative innovation. "We could have continued with Dassault Systèmes' Version 5," Crozzoli said, "but when we discovered Version 6's Single Source for Speed industry solution experience, and that it was natively designed for distributed collaboration, we had no doubt that it was time to transition to this new version." Maschio Gaspardo created its first Version 6 prototype in July 2012, with a pilot machine in Italy and six working machines in India. A few months later, the Indian research and design



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The Maschio Gaspardo product range includes more than 500 models.

office was fully operational, controlled by two machines installed in Italy for all monitoring and training tasks.

Management at Maschio Gaspardo immediately appreciated the benefits of Single Source for Speed and now that the pilot phase is complete, plans to extend the industry solution experience to all R&D offices. "We have reduced airline travel abroad by 60 %," Crozzoli said. "Product managers and especially our chief technical officer can interact directly with Indian mechanical designers without leaving the office in Italy. We can easily estimate the benefits in terms of operating efficiency and cost savings after we extend the 3DEXPERIENCE Platform to all our sites in India, China, Romania, North America and Russia, in addition to our five sites in Italy."

With its centralized approach, Single Source for Speed provides Maschio Gaspardo with a unique and worldwide data source for product creation and change throughout complete product life cycle. It also reduces the need for heavy investments in IT infrastructure. "This Industry Solution Experience is very light and uses few resources," Crozzoli confirmed. "We now have a single repository in Italy, from which all remote offices obtain information. This industry solution experience runs on the same infrastructure we already had, with no impact on the efficiency of our other applications." Maschio Gaspardo's infrastructure currently consists of a management server at each site, connected to the database server in Italy, where all data is centrally stored.

Consistent experience

With the 3DEXPERIENCE Platform applications CATIA and ENOVIA, Maschio Gaspardo's technical directors have launched a 3D migration process and homogenization of the company's CAD/PLM data throughout the group, including several companies it acquired in 2012. Looking ahead, this will maximize project reuse and help leverage the expertise and 3D models developed in each country.

Dassault Systèmes' 3DEXPERIENCE Platform provides employees with an advanced training experience. "A pilot project we ran in India proved that designers, assisting remotely from Italy, can acquire specific know-how very quickly," Crozzoli said. "They were up and running on the new platform in just three days. With this approach, any R&D engineer abroad can be virtually supported by the central R&D department in Italy, developing skills and expertise very quickly."

"We attribute our overall success, in part, to the amazing support we received from Dassault Systèmes. For a large-scale implementation like the one we had planned, they installed a sort of laboratory on our premises, proving their determination to work with a customer that presented interesting opportunities."

Focus on Maschio Gaspardo

Founded in 1964, Maschio Gaspardo specializes in the production of agricultural machinery.

Products: Rotary tillers, power harrows, precision planters, cereal seed drills, combination cultivator-drills, flail-mowers and minimum tillage equipment, mulchers and sprayers
Revenue: €235 million (2012)
Employees: 1,300
Headquarters: Campodarsego, Italy

For more information
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Dassault Systèmes, the 3DEXPERIENCE Company, provides business and people with virtual universes to imagine sustainable innovations. Its world-leading solutions transform the way products are designed, produced, and supported. Dassault Systèmes' collaborative solutions foster social innovation, expanding possibilities for the virtual world to improve the real world. The group brings value to over 150,000 customers of all sizes, in all industries, in more than 140 countries. For more information, visit www.3ds.com.

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