

Teamcenter

Mahindra Group's Automotive Sector

Faster to market with vehicles that delight

Industry

Automotive

Business initiatives

New product development
Value chain synchronization
Commonization and re-use

Business challenges

Ensure innovation and customer delight
Bring new models to market sooner
Increase number of product variants

Keys to success

Knowledge capture and re-use
Multi-site, multi-CAD data interoperability
Concurrent design across multiple facilities
Complete elimination of non-value-added activities

Results

25 to 40 percent reduction in time from concept to product launch
Engineering change cycle reduced by half

Siemens' Teamcenter software helps reduce new development time by 25 to 40 percent

Innovation and customer satisfaction

The Mahindra Group's Automotive Sector is India's fourth-largest automaker and the country's second-largest independent OEM. The company is in the business of manufacturing and marketing utility vehicles and light commercial vehicles, including three-wheelers. It has been the market leader in utility vehicles in India since its inception and currently accounts for about half of India's utility vehicle market. A strong product portfolio and a philosophy of customer satisfaction have driven solid growth in domestic sales (23 percent CAGR) over the past four years. The company employs 11,600 people.

Mahindra's automotive business views innovation and customer delight as the keys to continued growth. The company is continually working to bring new models to market sooner and to create more product variants. It is also working to eliminate nonvalue-added activities and to improve its ability to operate at multiple sites in multiple countries in the development of its vehicles.

Broadly implemented PLM

Since 1998, Mahindra's Automotive Sector has been

using product lifecycle management (PLM) technology from Siemens PLM Software to address these challenges and to ensure a product development environment in which innovation thrives. Specifically, Mahindra is using the Teamcenter® software to enable: lifecycle data support, platform and variant management, multi-site data notification and synchronization, change management and support for concurrent development, project execution and monitoring, internal value chain support and support for business partners.

This solution was chosen based on the breadth of Teamcenter functionality. The installation, which was done in phases, required minimal customization and was



Results *continued*

Concerns resolved twice as fast

50 percent reduction in BOM creation for prototypes and variants



Solutions/Services

Teamcenter
www.siemens.com/teamcenter

Customer's primary business

The Mahindra Group's Automotive Sector is India's fourth-largest automobile company.
www.mahindra.com

Customer location

Mumbai
India

Special recognition

Winner of
AP PLM Innovation Award
2007

"For the organization as a whole, what Teamcenter means is a huge reduction in the time needed to bring a new vehicle from concept to launch."

Prakash Deshkar
Senior Manager, PLM
Mahindra & Mahindra

performed by an internal PLM support team using the implementation methodology and assistance from Siemens PLM Software. Teamcenter has now been deployed at eight locations, with 600 people taking advantage of its collaboration functionality, 30 people using its project management functionality and 150 using it for engineering-related activities.

Today, Mahindra has a seamless, integrated environment for new platform development. Using Teamcenter, Mahindra has achieved multi-site and multi-CAD interoperability with complete project security and concurrent design across multiple locations. CAD, product, project and process data are managed in a single information vault. CAD data is available to each site on a real-time basis, and the company is now able to do packaging studies and clearance analyses across different CAD systems. The use of the JT™ format and Teamcenter visualization capability is helping meet the company-wide strategic initiative of eliminating 2D drawings.

Strong, documented benefits

Mahindra's automotive sector credits many documented improvements to the use of Teamcenter. On an individual level, the company has seen an increase in productivity per employee. It attributes this productivity gain to effective document management and to the automation of routine tasks, which releases skilled personnel to perform their primary business



functions. Nonvalue-added activities such as CAD data conversion to IGES or STEP, have been completely eliminated.

In the design arena, both engineering change time and the time needed to resolve project concerns have dropped by 50 percent due to improved collaboration. Analysis preparation time has shrunk by 40 percent, and the creation of digital mock-ups goes twice as fast as previously due to the real-time, multi-CAD data integration and release management that is now handled by Teamcenter. The time needed to create bills of material for both prototypes and variants has dropped by 50 percent.

"For the organization as a whole, what Teamcenter means is a huge reduction in the time needed to bring a new vehicle from concept to launch," says Prakash Deshkar, senior manager, PLM, Mahindra & Mahindra. On the present program, Teamcenter is reducing that timeframe by 25 percent. For future projects, the company predicts a reduction of as much as 40 percent.

Siemens Industry Software

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