

## INCREASED EFFICIENCY THROUGH A ROBUST PLM SYSTEM

Wipro helps a Global Tire manufacturer with a robust PLM system



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### INDUSTRY LANDSCAPE

As the automotive industry emerges from recession, the new breeds of buyers are more discerning in their decision making process and seek good value for their money. This has intensified competition among auto manufacturers and has resulted in demand for multiple derivative products from their suppliers. Tier-1 suppliers like tire manufactures who form an integral part of the value chain are now forced to roll out the product variants quickly at the right price point. A robust forecast of raw materials, production capacity, collaborative design and process management is needed for optimizing productivity and efficiency of the manufacturing process. Consequently, manufacturers are looking towards innovative solutions such as Product life cycle management (PLM) to remain competitive in the market place.

The client's vision for implementation of a robust PLM system over a period of three years went much beyond the traditional usage of PLM modules. The end goal was to create a centralized system to manage plant specifications, raw materials, compounds and assembly of Tires. The benefits of such a system included improvement in R&D and plant process efficiency, reduction in operational & maintenance costs and support for evolving global design specification across all plants.

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### THE OPPORTUNITY

A robust PLM environment would address the challenges and issues centered around legacy systems over the last fifteen years like TBS 1, CBS1, CBS2 & other mainframe applications. These legacy systems handled their version of data separately across different applications and locations. Each plant had a different specification system and shop floor system with little linkage between plant process data and their specifications. Systems like TBS1 had no capability to store or link the data for easy access. This resulted in multiple interfaces and user logins and was compounded by the huge complexity of the data used for collaboration by business and R&D users. Some of the complex challenges included inability to map business processes from R&D until production under a single system, inflexible raw material management, inefficient vendor management and under-optimized recipe management.

The client was looking for a vendor who could design a PLM model that would be robust, agile and specifically address their dynamic business needs and priorities like collaborative development, synchronization of design with manufacturing, accelerated development to optimize the potential of available resources in their organization.

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### CLIENT BACKGROUND

The client is a leading European manufacturer based with a wide customer base including major Auto OEMs, catering to the global markets with more than 60 Locations for production and R&D with 40000 employees in the tire division across 35 Countries. Market segments include passenger cars, light trucks motorcycles, race cars, and off-road vehicles. The company is committed to contribute safe, economical and ecologically efficient mobility with their products and services.

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## SOLUTION

The client chose Wipro as its strategic partner for a long term IT and R&D services with an initial horizon of four years. Qualifying criteria included proven expertise in product lifecycle management (PLM), and end-to-end customized global PLM platform Solution based on the Teamcenter engineering PLM system. Wipro's technology rich solution was further enhanced with additional features to ensure that the products and services conformed to the highest standards of reliability in design and production.

Wipro adopted the Accelerated Agile Iterative Methodology to evaluate the key steps and processes to implement the solution within stringent time lines. The solution provided a single centralized system along with customized Raw material(RM) specifications and Compounds (CP) specifications that managed tire related product data throughout the tire manufacturing life cycle.

iLog-business rule engine was integrated with the PLM model to manage tire raw material business rules, new Explo, a tire cut viewer, iDocs for data exchange, transfer and automation, SAP ERP and other systems were integrated into the centralized system.

Wipro's Teamcenter PLM center of excellence (CoE) built cook books and frameworks templates that reflected best practices which helped in implementation of the solution and migration from the legacy systems. This avoided multiple rounds of discussion with each third-party software vendor as customized integration would have been necessary in the absence of best practice templates.

In addition Wipro has developed density calculation and price roll up modules.

## BUSINESS IMPACT

The client has realized significant benefits from the implementation of the solution by Wipro. Immediate cost savings by more than one million Euros, increase in efficiency by ~10%, and reduction of management effort of by ~25% IT staff, helped to achieve the strategic goals of the company.

The client's old infrastructure of multiple systems and logins, were replaced by a single integrated system with single login which helped to avoid data duplication and data breach. At the same time, efficient and error free master data creation and parts tracking helped the client to reduce its inventory by ~8%.

The sharing of data between Teamcenter PLM and SAP ERP has really accelerated the client's return on investment, as well as their ability to integrate third-party solutions like the new EXPLOR viewing software thus reduced significantly the time for search & find process and product relevant data.

Among the immediate benefits, complete data traceability right from raw material stage to the finished product stage, helped to increase the accuracy in demand forecasting and advance price estimation and consequently, faster time to market for its products.

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## About Wipro

Wipro Technologies, the global IT business of Wipro Limited (NYSE:WIT) is a leading Information Technology, Consulting and Outsourcing company, that delivers solutions to enable its clients do business better. Wipro Technologies delivers winning business outcomes through its deep industry experience and a 360 degree view of "Business through Technology" - helping clients create successful and adaptive business. A company recognised globally for its comprehensive portfolio of services, a practitioner's approach to delivering innovation and an organization wide commitment to sustainability. Wipro Technologies has 130,000 employees and clients across 54 countries.

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