SUPRAJIT
Case Study

Photo courtesy of Suprajit

Challenge

Suprajit Engineering, India's largest cable maker and global leader in the two-wheeler cable market, wanted to boost productivity, reduce product development cycle times and meet its customers' requirements in a cost-efficient way.

Solution

The company is using Dassault Systèmes' **3D**EXPERIENCE platform for improved product and process management and advanced product quality planning processes.

Benefits

Suprajit Engineering benefits from an integrated solution, providing a centralized 'single source of truth,' which syncs multi-site projects, development changes, product data and requirements management in real time, while shortening new product development.

HIGH PERFORMANCE IN MOTION

Automotive cables must endure the harshest of environments. They are responsible for controlling functions in automobiles, such as doors, brakes, gears and clutches, and operate in high and low temperature conditions and oily environments while being repeatedly exposed to constant flexing and abrasion.

While generally unseen by the consumer, these cables are the backbone of effective automotive performance, and manufacturers in this segment are pushing the boundaries of innovation to be in sync with the latest end-user specifications.

One such manufacturer is Suprajit, India's largest producer of automotive cables. The company is part of the Suprajit Group—a global leader in the automotive cable and halogen bulb industry with one of the largest manufacturing capacities in the world, producing around 300 million cables and 100 million bulbs per year.

"Cables are not fancy parts. No one really sees them; they are always hidden away," said Ashutosh Rai, head of the Suprajit Technology Center. "But you will find mechanical control cables pretty much everywhere, around 20-25 in an average car and five to seven in a two-wheeler, and they are doing a lot of important work in all types of functions like safety, comfort, body and others."

Suprajit takes its role in the industry as a trusted supplier to automotive equipment manufacturers (OEMs) seriously. It is continually pushing to be the best, committed to expanding its customer base and portfolio, and innovating new products, while keeping in mind evolving customer needs.

COST-EFFECTIVE CUSTOMIZATION

There is no such thing as standardized products in the cable market. Businesses like Suprajit set themselves apart from their competitors by building rich portfolios of cables of varying designs, sizes and dimensions suitable for a broad range of requirements. At the same time, manufacturers must be flexible and adaptable, able to cater to their original equipment manufacturing (OEM) clients' specific demands. "When it comes to cable, it is usually designed last," Rai said. "You design the wheels, the engine, the brakes—and then you say I need to connect all these things together using cable. This

means it's a very highly customized product. You can't go from one customer to another and standardize the product. They need someone they can work with closely and rely on to be flexible, and that's where we come in."

But high customization comes at a price. Suprajit wanted to be able to continue to meet its customers' demands, but also achieve efficient and cost-effective manufacturing with lower procurement costs and rationalized engineering and production resources.

"The end customer today can see what is happening all over the world, and they don't want to compromise," Rai said. "They want the best features, they want the best gadgets. So that is our real challenge: to bring in products that are of international quality, but at a price that is affordable."

To achieve this, Suprajit needed a centralized platform that could give it greater control over its data, improve its intellectual property security, give it a mechanism to track changes and monitor project schedules, help it to standardize parts and reduce duplication and redundancies. It found the answer in Dassault Systèmes' **3D**EXPERIENCE® platform.

GREATER SECURITY AND VISIBILITY

When deciding which platform would best suit its needs, Suprajit was looking for a technology provider that could guarantee the security and integrity of its data, and help it to keep better track of product information and project timelines.

"We chose the **3D**EXPERIENCE platform for many reasons, the primary one being the safety and security of our data," Rai said. "We had data all over India and the world that we wanted to have in one safe location, and that was the big reason why we implemented the **3D**EXPERIENCE platform."

Before using the **3D**EXPERIENCE platform, Suprajit's data was stored in silos across its manufacturing units, and engineers had no visibility over who was working on what.

"Previously, each engineer kept information in their own system with their own data in different places," said Jagadeesh A, PLM project manager at Suprajit's Technology Center. "We did not know what it was, where it was and who had it. Now, it's kept centrally and we can keep track of every update."

Suprajit now has far greater control over product data, helping its engineers to work productively with information they can trust.

"Once a part has been released, a user cannot delete it," Jagadeesh said. "Users can now see the complete history of a product, track edits and adhere to the proper change order."

It also means engineers are less likely to make repeat mistakes. "We now know all the product changes that have been made and why, so designers in the future can avoid making the same mistakes again, and clearly see where design issues arose," Jagadeesh said.

CENTRALIZED R&D

Engineers working in Suprajit's 16 plants across India now have a common interface to share ideas, work on and reuse designs and easily share product updates.

"The biggest improvement the platform has brought is that we don't do the same work twice," Jagadeesh said. "If someone in our plant in the north has done a certain development for a customer, it has already been proven. Then someone in the south can look at that work, take inspiration from it and use it to solve their own problem. Before, all our plants were working in silos, and they were all doing their own research and development (R&D). Certain parts were being developed more than once, meaning we have used our engineering resources more than we needed for the same problem. This issue has been solved with the **3D**EXPERIENCE platform."

A natural by-product of effective information sharing is that Suprajit is now not only able to help minimize design duplication, but cut down on part duplication across the board too, saving unnecessary development time and significant manufacturing costs.

"Cost control is very important to any customer or supplier," Jagadeesh said. "If we already have one product developed in our plant and another unit doesn't know about it, they could end up developing another similar part for which you must consider the lead time, the supplier assessments and so on. But through better information sharing, we can avoid unnecessary development activities, saving everyone time and reducing costs."

## AGILE AND ATTENTIVE CUSTOMER SERVICE

As a domestic and global supplier, Suprajit needs to be able to keep up with its clients' unique requirements, which vary from location to location.

With ENOVIA on the **3D**EXPERIENCE platform, Suprajit is now able to take advantage of of applications, that specify individual customer processes and nomenclature, track milestones and revisions and ensure information requirements are met at every stage.

"Each OEM requires us to follow their quality processes. Using the project management application, we can feed customers' own nomenclature into the system and work from that, ensuring we never miss any tasks, quality gates or milestones. We have improved efficiency in this area by more than 30%," Jagadeesh said.

These industry-specific features are helping Suprajit to ensure quality throughout the product development cycle, respond quickly to request for quotes (RFQs), meet client deadlines and optimize change management.

"The thing I like the most about the **3D**EXPERIENCE platform is that we are able to create customer milestones, which are really helpful and encourage us to be more alert to customer
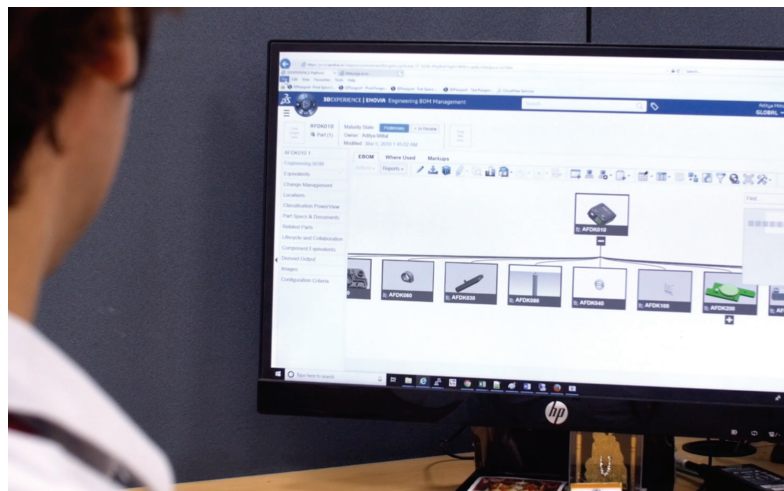
Top image: The secure collaboration on the platform allows progress tracking, product data and requirements management in real time.

Bottom image: ENOVIA Engineering BOM Management on the platform helps to collaborate across the company from a single definition of engineering parts and bill of materials

requirements," said Ganesh Naidu, senior assistant general manager of Design and Development at Suprajit Automotive. "It helps ensure we don't miss any critical customer milestones."

Suprajit leaders also feel more supported when managing projects and carrying out ongoing monitoring. "We can now easily see what activities need to be completed per week and receive alerts about what needs to be done," Naidu said.

When it comes to RFQs, Suprajit is now fully aware of when they need to be completed by, what needs to be done and easily check and compare with previous quotes to ensure they are priced fairly and competitively. Jagadeesh estimates that the platform has led to a more than 50% increase in efficiency when processing RFQs.

"Before, we did not know what was happening with RFQs, what was quoted, how many were pending, what was the status," Jagadeesh explained. "Now, with a single click, we can identify how many are quoted, what the status is (i.e. pending,

sent to customer, signed, frozen) and all relevant corresponding documentation. We can also easily compare each RFQ."

Customers are kept fully up to date throughout the product development and manufacturing process. Any changes they request are logged and tracked with ENOVIA and actioned.

"Change management has been made very easy, as whenever a change is made the responsible change leader ensures that it is updated in the system and we regularly check what needs to be done," Naidu said.

Jagadeesh believes that the company has seen a 20% increase in efficiency across its change management processes.

"The reason why we are so strong is because we can respond to the customer quickly and give them the customized product as quickly as possible," Rai added. "The **3D**EXPERIENCE platform has definitely streamlined our processes."

CHANGING PERCEPTIONS

EDS Technologies, a Dassault Systèmes business partner, helped to not only change perceptions across the company about how the **3D**EXPERIENCE platform could support them, but led Suprajit through the implementation journey to make it as smooth as possible.

"For us the software was completely new, and because we were implementing it across our whole organization, we were apprehensive," Rai said. "EDS Technologies was very successful in helping us to see that this platform would be a benefit and were on hand throughout the whole process, including post implementation to sort out any issues quickly and efficiently."

In an industry where product durability and innovation are key, Suprajit feels confident that it now has the platform it needs to continue to innovate and diversify its product portfolio to cater to the industry's needs and react quickly to OEM demands. "My focus has always been to see where we can achieve greater efficiencies and shorten product development lifecycles. We will take any opportunity to gain an advantage and the **3D**EXPERIENCE platform gives us that," Rai said.

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