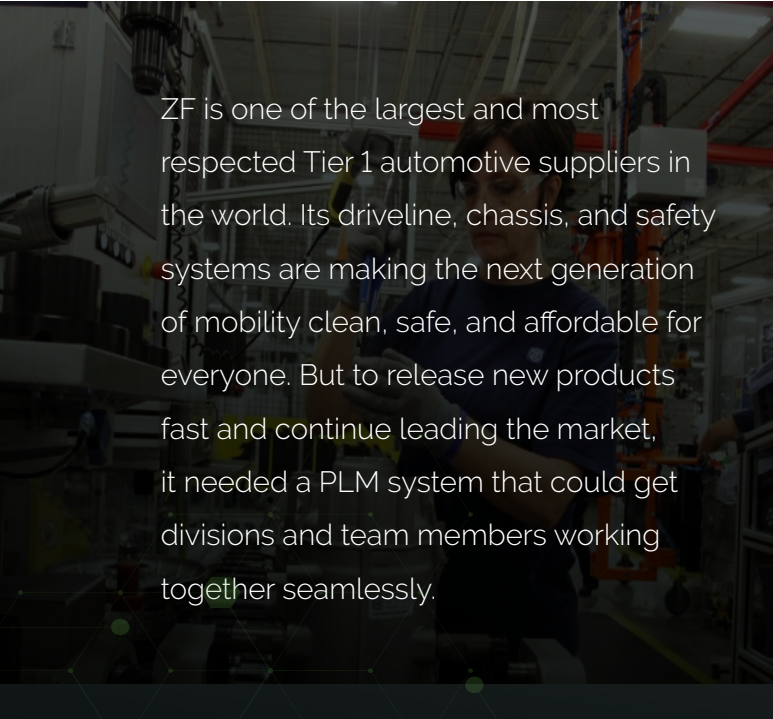# ZF Breaks Down Silos and Brings Divisions Together with PLM

Leading the way to clean, safe, and affordable mobility for everyone

ZF is one of the largest and most respected Tier 1 automotive suppliers in the world. Its driveline, chassis, and safety systems are making the next generation of mobility clean, safe, and affordable for everyone. But to release new products fast and continue leading the market, it needed a PLM system that could get divisions and team members working together seamlessly.

The automotive industry moves fast: electrification, autonomous driving, integrated safety, motion control – every day, new innovations hit the market. And yesterday's innovations quickly become standard for today's drivers.

Which means companies like ZF have to keep their foot on the gas if they want to stay competitive. In over 100 years of operation, ZF has always led the way, seizing every opportunity for entrepreneurship and excellence. Today, the company supplies systems for passenger cars, commercial vehicles, and industrial technology around the world, from autonomous driving technology to electric mobility, safety measures, and motion controls.

ptc

## New technology, old ways of working

ZF might be at the forefront of innovation, but its team was mired in traditional ways of working.

Each division of the company – from electronics and software engineering to the IT value center – worked independently. Each team would complete its own stage of the product development process before passing the product on to the next division.

Its IT environments were just as fragmented. Each individual department used a wide range of tools, many of which didn't mesh easily with one another – not to mention with tools from other divisions.

All of which meant that teams often found themselves working from data that was already weeks old by the time it hit their inboxes.

But modern product development is rarely so linear or siloed. The work of one division often influences another. Data gathered during testing can refine designs made earlier in the development process; adding a new capability to software might change the makeup and mix of electronic components.

In today's product landscape, where new advancements need to reach the market faster than ever, this kind of siloed workflow could have held ZF back from market leadership.

## See, think, act: the ZF approach to product development

The team needed a way to break the divisions out of their silos.

They moved from working as "divisions" to working as "system houses." As system houses, all of the divisions work together on a single system simultaneously, with data, insights, and actions flowing freely both up and downstream.

ZF's goal is to help vehicles see, think, and act, and it approaches its product development with those same principles in mind. Which meant any solution had to be able to help the ZF team:

### SEE

Product information has to be easily accessible for anyone who needed it, without compromising security.

### THINK

Team members need to be able to extract insights and share updates with ease, allowing them to constantly create and update strategies to ultimately deliver better products.

### ACT

Team members need to be able to turn all of this added information and communication into action – not just making data-driven decisions, but acting on them rapidly.

With these principles firmly in mind, ZF began to look for a product lifecycle management (PLM) solution that could enable this kind of collaboration.

### A single source of truth for everyone

To create a truly open, flexible product development process, ZF turned to two PTC products.

**Windchill**, our out-of-the-box PLM platform, became the bedrock of ZF's transformation. Windchill became a single source of truth for every aspect of the product development process, bringing together data from a huge range of tools and processes across the whole product lifecycle.

On top of this strong foundation, ZF built up a suite of Windchill apps that gave divisions seamless, integrated access to multi-CAD and PDM functionalities and document management.

While Windchill allows ZF divisions to work together on product development tasks, **ThingWorx Navigate** helps get the most up-to-date PLM data into the hands of those that need it most – including non-technical teams.

## Breaking down silos and smoothing out roadblocks

What ZF needed most was a single, authoritative source of truth: a place where every team member could go to share or access any data that is relevant to the system they're building.

By implementing Windchill, ZF revolutionized its operations in three areas.

## One source of truth. One fluid process.

With Windchill breaking down old roadblocks and speed bumps, ZF's engineers can now follow a truly iterative, adaptable, and flexible product development process.

It's easy to share bills of materials between divisions and factor testing data into designs earlier in the development process.

Data can flow upstream too; if the team building a steering system needs to request a change in components from the electronics team, they simply request the change directly through Windchill. And, with seamless access to all of the electrical team's plans and databases, they can see the change straight away.

## Many tools. One home.

When each team uses its own tools (sometimes using multiple types of software for the same process within the same team) it's easy for details to fall between the cracks. And it's almost impossible for ZF to get the kind of visibility it needs to truly collaborate.

ThingWorx Navigate allows ZF to integrate data – not just from Windchill, but also from:

- Other legacy PLM systems
- Program management systems
- ERP systems

The result? One complete, clear picture of every system. Data from across the product lifecycle is unified on one platform with no need for team members to give up the tools they've always relied on.
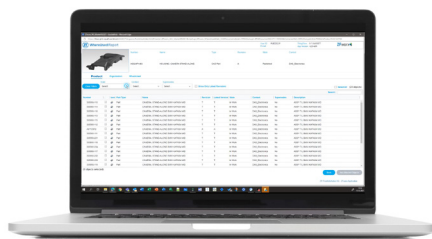
## Data accessible for everyone

Many downstream stakeholders at ZF only need access to specific types of product data, so giving them full access to Windchill is inefficient and, for many, overwhelming.
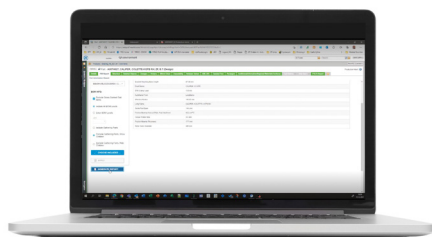
Using ThingWorx Navigate, ZF can now rapidly build custom apps for small user groups. These self-service applications allow employees around the globe to access the rich, up-to-date product data they need for their roles.

In the past, building one app like this might have taken weeks of assembly and testing. Now, thanks to ThingWorx Navigate's low-code platform approach and reusable UI components, building a new app takes just hours.
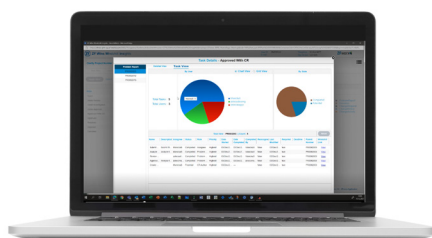
Within a year of implementing Windchill, the electronics team had delivered 24 stand-alone apps for team members. The apps include:

**The "Where-Used" app**, which allows business users to pinpoint where a particular part is being used in the product delivery process, from planning to assembly to the end product.

**The "Part Information Report" app**, which allows users to view summarized information on a particular machine part, without having to search in multiple systems or product interfaces.

**The ZF Windchill Insight app**, which summarizes product information for users. The app brings key analysis to the surface, allowing users to make informed decisions without spending hours combing through product data.

This new level of access has transformed the way ZF puts product data into action, making both data and insights easily accessible to everyone.

## See, think, act: ZF still leading the way in automotive technology

With a flexible, open, accessible PLM system in place, ZF's product teams can work together to constantly refine, adapt, and update every system. Now their products can hit the market faster, with every detail carefully considered and meticulously tested.

As innovation in the automotive sector continues to pick up speed, ZF's new agility allows the product team to do more than just keep up with the competition. They're empowered to lead the way to affordable, clean, and safe mobility for all.

## Discover how a PLM system can transform how your business innovates

Getting divisions working together with everyone informed and on the same page is no mean feat. But for today's product development teams, it's essential.

An integrated, adaptable PLM system can supercharge the product development process, giving multidisciplinary teams easy, secure access to the data they need to work faster and make more informed decisions.

To learn more about how Windchill is helping ZF revolutionize every aspect of the product development process, read the full ZF story here. Or head directly to the Windchill product page to see how a powerful PLM system can transform your business.

**www.ptc.com/en/case-studies**