**SIEMENS** 

Siemens PLM Software

# Consumer and industrial electronics

Meeting the challenges facing a dynamic industry

siemens.com/plm



We are convinced that a unified PLM approach will help us bring better products faster to the market with lower costs... Our competitive strategy for the future includes an integrated product lifecycle process and system working closely with Siemens PLM."

Korhan Sevenler Director, Product Lifecycle Management Xerox

## **Business challenges**



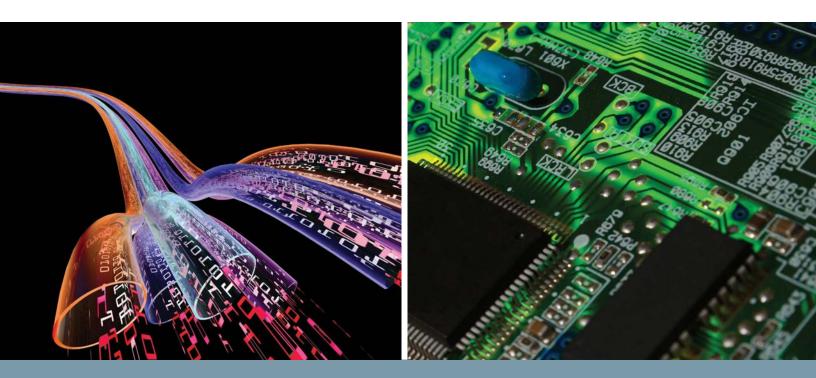
Time-to-market, pricing pressures, speed of technology change, global markets and supply chains are the top drivers that highlight issues facing consumer and industrial electronics companies today. Whether it's a home appliance, computer, cell phone or a controller driving a factory line, individual product lifecycles continue to shorten, while bringing increasingly complex products to global markets entails more effort and risk. How do you address these pressures? How do you manage product content and collaborate with all stakeholders to reduce the risk, time and cost, while improving quality and aligning products to customer demands?

Planning, designing, manufacturing and servicing products must be managed in unison with each other to provide products that not only work, but also meet customer needs, hit price points and align with regulatory requirements. Siemens PLM Software provides product lifecycle management (PLM) solutions that enable consumer and industrial electronics companies to drive the development and manufacturing of increasingly complex products. This enables you to develop the right product and ensures you build that product right.

## Facing the challenges

Consumer and industrial electronic products today are composed of mechanical, electronic and software elements. Software is taking on a significant role to help differentiate products, define functionality and extend the product lifecycle. But smart decisions across all design disciplines are important, as changes in one area frequently affect another.

Four key challenges electronics companies face today:



#### Time-to-market

Late is late. Poor decisions can cost your company the firstto-market position, decreasing total revenue and premium margins. Reducing time-to-market requires coordination and inclusion of all stakeholders, productivity in every step, with efficient processes that remove waste without excessive overhead or management effort. Integration of all stakeholders is crucial.

#### Complexity

With increased electronic, mechanical and software content in today's products, a change made anywhere seems to have impact everywhere. Managing the complexity of products and processes is required for quality, regulatory compliance, sustainability and reputation. Whole product management captures all design and product information into a common framework to manage mechanical and electrical CAD, software and other documentation to ensure there is a single source of information about the product. Designing for sustainability requires whole product management to validate design content against evolving global regulations and customer-driven requirements.



## Optimization of innovation pipeline

Companies cannot afford to reinvent the wheel. Intellectual property investments must be captured, evaluated and exploited through re-use. But you have to select the right products to develop in order to reduce product costs, maximize ROI and profitability while delivering products that capture market share. In other words, bet on winners.

### Globalization

No company does it all on their own. Suppliers and partners contribute to development and manufacture of products. Time zones, geographic and other boundaries inhibit collaboration. Co-design, contract manufacturing or your dispersed organization must synchronize their efforts and collaborate securely. Globalization continues to increase in importance.

## High definition product lifecycle management

"With Siemens' PLM solution, the unique capabilities of our different sites now complement each other. And because they can work together, we can get products to market sooner."

Frank de Jong Research and Technology Manager FEI Siemens revolutionizes the way electronics companies develop and manufacture products through smarter decision-making. It starts with a collaborative decision support platform that aligns work streams to accelerate development and empower decision making. We call it high definition PLM, or HD-PLM.

HD-PLM is achieved by harnessing the complexity of information and processes in product development and manufacturing, and then presenting that information in an active, intuitive, in-context user experience that supports smart decisions, anywhere and anytime.

Our solutions capture requirements from all your sources: business and voice-ofthe-customer, as well as environmental and regulatory sources, driving product efforts from design to validation, manufacture and support, confirming all stakeholders are aiming at the same target. But success requires more. Time-tomarket, quality, sustainability, supply chain collaboration and complexity all weigh on your efforts. Siemens PLM Software's integrated information environment helps you manage and capitalize on your intellectual property (IP) by enabling strategic re-use of design IP and components. By providing information where it's needed, in a form that facilitates smart decisions, you can reduce the time to make decisions and improve the quality of those decisions.

Additionally, integrating processes and people guarantees collaboration and understanding for all contributors, thus taking time and costs out of the product development lifecycle to shorten time-to-market, while also enhancing quality.

Requirements-driven processes, integrated information and collaboration contribute to building the right product and building the product right. You can get there with a future proof, scalable architecture that delivers an HD user experience, protects your investment and maximizes the benefit.









## Smarter decisions mean better products

Time, cost and quality determine the success of a product. Making smarter decisions yields better products and greater success. These decisions govern which projects to invest in, how product requirements are supported in design, how products are manufactured, what life extensions will be planned into products, what changes to make to products and more. These decisions are critical to time, cost and quality. But how can you improve them?

Through a secure integrated information environment, Siemens PLM Software links all your product data, processes and people across your global value chain. Information created is shared to support collaborative decision making at all levels, removing time and error from the product development process. Miscommunication is minimized to reduce rework and eliminate duplicate effort in product design. Decisions are made with the latest, most accurate information, yielding smarter decisions and better products.

## Keys to success

"Now, we actually have a negative project slip rate. We're not just meeting our promised delivery dates – we're beating them, thanks in part to an improved engineering change management process. That's one of our most important improvements, because it makes it possible for us to hit critical market windows for our products."

Bill Duggan Engineering Manager Teradyne Siemens PLM Software is the leading provider of unified solutions to plan, develop and manage products across the entire lifecycle for electronics companies. Our solutions address key aspects of your business to increase your business success.

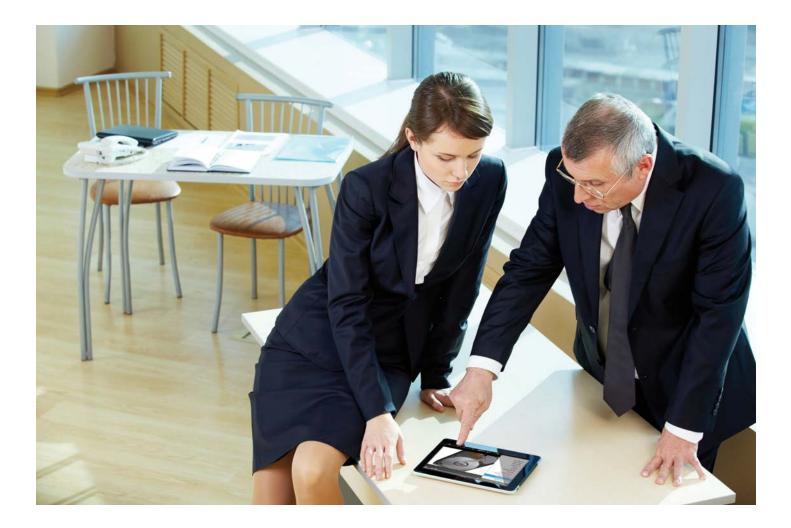
## Optimizing the product innovation pipeline

Product success rates, time-to-market, and profitability increase as you focus your resources on winners. Siemens PLM Software solutions help optimize your product development, enabling you to identify and commercialize the opportunities with the highest probability of success.

**Improving product quality** employed across all design disciplines enables whole product management to improve product quality and configuration accuracy. You can reduce cost and time-to-market by driving re-use initiatives and virtual prototyping, capitalizing on existing intellectual property and early virtual validation of product characteristics and performance, reducing the dependence on late and costly physical prototypes.

Synchronize and secure collaboration across the global value chain will help you achieve business requirements for on-time, on-cost and on-quality product delivery. Through a single source of product knowledge and processes, you will achieve effective collaboration with all stakeholders in the success of your products.





**Invisible PLM reaches** all product contributors by leveraging applications and tools they use every day, providing PLM-based information to stakeholders outside of the traditional engineering roles, without burdening them to learn PLM based clients and processes.

## Facilitate design-for-sustainability

to enable processes and information that ensure your products align with regulatory and business objectives for sustainability, reducing the chance of redesign, recall or barred markets.



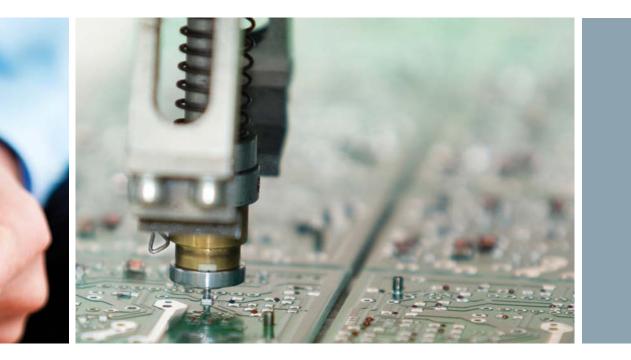


Siemens PLM Software solutions improve time-to-market, reduce product lifecycle costs and improve quality to increase return on your innovation investment, allowing you to bring the right products to market faster. Through our continued focus on technology innovation and best practices, we continue to provide customers with greater:

- Product success through enabling virtual validation of products reducing the time and cost associated with physical prototypes which helped one of our customers improve time-to-market and quality by 30 percent
- Collaboration across the global supply chain by classifying all parts in a single secure source accessible to all product contributors. One customer reduced the number of parts by 29 percent and accelerated the part verification and validation process by 50 percent

- Productivity for people and processes with a single source of product knowledge and process. A customer was able to reduce search time by 50 percent, allowing them to focus on value added tasks
- Production efficiency through integration information and engineering processes. Another of our customers was able to reduce engineering change cycles from 3 months to 14 days

What can we help you achieve in addressing your challenges with our solutions?





## Siemens PLM Software delivers

"Moving so quickly to a completely new enterpriselevel development process would have been impossible without the valuable contribution of Siemens' technology."

"Siemens' PLM solution is a very powerful engine for Changhong. Using Teamcenter for knowledge management and collaboration, we are now in position to move boldly forward amid the first tier of global PDP competitors."

Zhao Yong Chairman Sichuan Changhong Group For consumer and industrial electronics companies, Siemens PLM Software delivers. In fact IDC, an analyst firm covering the industry, has ranked Siemens #1 for ten consecutive years as the market leader and pace setter in product lifecycle management. Siemens delivers on its vision with a comprehensive portfolio and unwavering customer commitment that has earned it strategic positions in:

- 8 of the top 10 global electronics OEMs to drive R&D effectiveness and efficiency
- 8 of the top 10 home appliance companies to realize end-to-end product lifecycle process optimization

Success for our customers is achieved through our open, scalable, secure and future proof architecture that assures your investment will pay off today as well as in the future. Our solutions allow you to implement what you need immediately, and then continue to grow your product development environment as you incorporate more product processes and disciplines. You have the flexibility to integrate what you have today and enable additional technology innovation tomorrow.



#### About Siemens PLM Software

Siemens PLM Software, a business unit of the Siemens Digital Factory Division, is a world-leading provider of product lifecycle management (PLM) software, systems and services with nine million licensed seats and 77,000 customers worldwide. Headquartered in Plano, Texas, Siemens PLM Software helps thousands of companies make great products by optimizing their lifecycle processes, from planning and development through manufacturing and support. Our HD-PLM vision is to give everyone involved in making a product the information they need, when they need it, to make the smartest decisions. For more information on Siemens PLM Software products and services, visit www.siemens.com/plm.

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