HOME & LIFESTYLE

FOSTER INNOVATION TO ANSWER CONSUMER EXPECTATIONS

PLM and the **3D**EXPERIENCE platform

DASSAULT SYSTEMES

INTRODUCTION

Whether it's furniture, leisure goods, sanitary equipment, or hand tools, consumers are in perpetual pursuit of the products—and services—that deliver the best experience and suit their lifestyle. Winning brands and maufacturers in Home and Lifestyle put consumers at the center of the innovation process to win and retain their loyalty. Industry leaders are digitally transforming their businesses, leveraging technology to improve collaboration across all stakeholders, boost innovation and release the right products to market at the right time. A Product Lifecycle Management solution (PLM) is a critical first step to extend the innovation ecosystem and fulfill this "right-to-market" strategy, but it takes more to satisfy the demands of an increasingly volatile business environment.

This white paper discusses the role of PLM to address product development challenges and the imperative to think beyond PLM connecting the entire value network to foster innovation and deliver on business objectives.

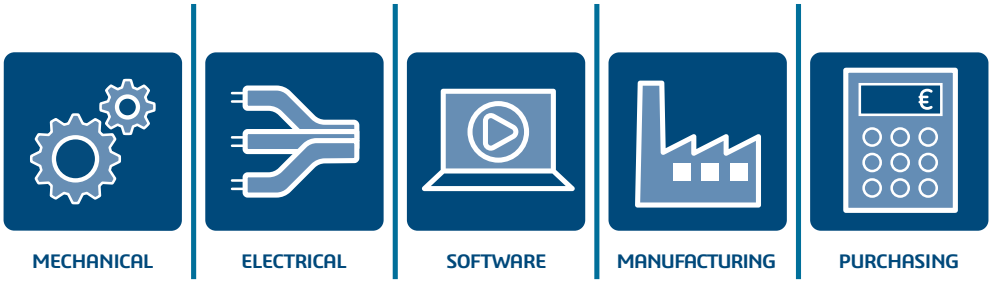
THE ROLE OF PLM

Product lifecycle management is a systematic approach to manage the entire lifecycle of a product from inception, through engineering design and manufacture, to service and end-of-life of manufactured products. PLM comprises an integrated set of software tools for managing critical information generated by product development organizations, marrying this data with associated engineering and business processes. Common PLM processes include design management, engineering change and configuration management, as well as bill of materials management.

These common processes have been the foundation for many companies that have made significant productivity, quality, and time-to-market gains from successful PLM adoption. In today's economy, however, companies need additional capabilities to address rising complexity and to support additional business processes such as portfolio and program management, quality management, customer relationship management, supplier collaboration and manufacturing execution.

PLM has become more than part of an IT infrastructure; it should now be part of an overall strategy for sustainable growth and competitive differentiation. Now, more than ever, it is critical to evaluate your current and future business needs to ensure your PLM strategy aligns with your business strategy.

Creating sustainable growth and competitive differentiation requires aligning your PLM strategy with your business strategy.



CHALLENGES TO THE INNOVATION PROCESS

To stay ahead of the competition and meet increasing consumer expectations, Home and Lifestyle companies must continue to innovate. A sustainable innovation process requires early and on-going cross-discipline contributions from consumers, R&D, marketing, category management, quality, costing, manufacturing, and service organizations. Unfortunately, many PLM solutions were initially developed to only support the mechanical design process, and are not well suited to manage and include this wider set of contributors in the product development process. Consequently, these extended disciplines typically maintain their set of product data in their own system and database, creating silos of information and various file formats all representing some aspect of the product under development.

For brands and retailers with multiple sites and/or globally dispersed sets of partners and suppliers, even sharing basic design information is challenging at best. When information is stored in silos this creates work duplication, errors and wasted time as stakeholders search across the enterprise for the latest information.

A single real-time view of product definition fosters collaboration by doing away with information silos.

Centralizing product design around a single, consolidated, and real-time view of the latest product definition fosters collaboration while eliminating the burden of time-consuming, error-prone data synchronization.

BEYOND PLM

Home and Lifestyle companies must find ways to address today's business challenges that include the need to significantly **increase innovation, rapidly address consumer demand, and successfully mitigate the rising business, process and product complexities**. Many companies are increasingly taking advantage of digitalization to improve the way they do business. Digitalization means sharing information through digital data and processes, rather than through the copying of electronic files. Digitalization facilitates exchange between project stakeholders because it does not involve cumbersome, high-friction file exchanges. Instead, every stakeholder can immediately access and leverage the latest data whenever and wherever they need it, increasing collaboration and fostering innovation.

Since product ideas can come from anyone in the value network, a single, up-to-date digital master becomes essential to define the product at any one point in time. Combining inputs from design, engineering, sales, supply chain, end-consumer or after sales creates a "holistic digital product definition" that evolves with every new stakeholder contribution. To encourage and enable these contributions, a solution must be user-friendly and offer instant communications, real-time collaboration and real-time updates of data.

Even though PLM systems today manage product development well, alone they lack the ability to connect the entire value network through digital continuity and to manage a single, holistic representation of the product.

THE NEED FOR AN INNOVATION PLATFORM

To manage the innovation process, more and more companies are adopting a platform business approach to spur innovation and remain competitive as well as support their move to digital. According to Accenture[1], by 2020, 25% of the world's economy will be digital and in this digital age, companies' success hinges on enabling people to learn, adapt and propose new solutions with the help of technology. Ideas can come from anywhere creating a context for social collaboration.

[1] Click here for reference.

Through a single holistic system, with apps that connect various stakeholders into that system, an "innovation platform" delivers the critical capabilities necessary to create exceptional products and delightful consumer experiences. An innovation platform allows stakeholders to leverage the holistic digital product definition, in real-time, to virtually create and validate their experiences.

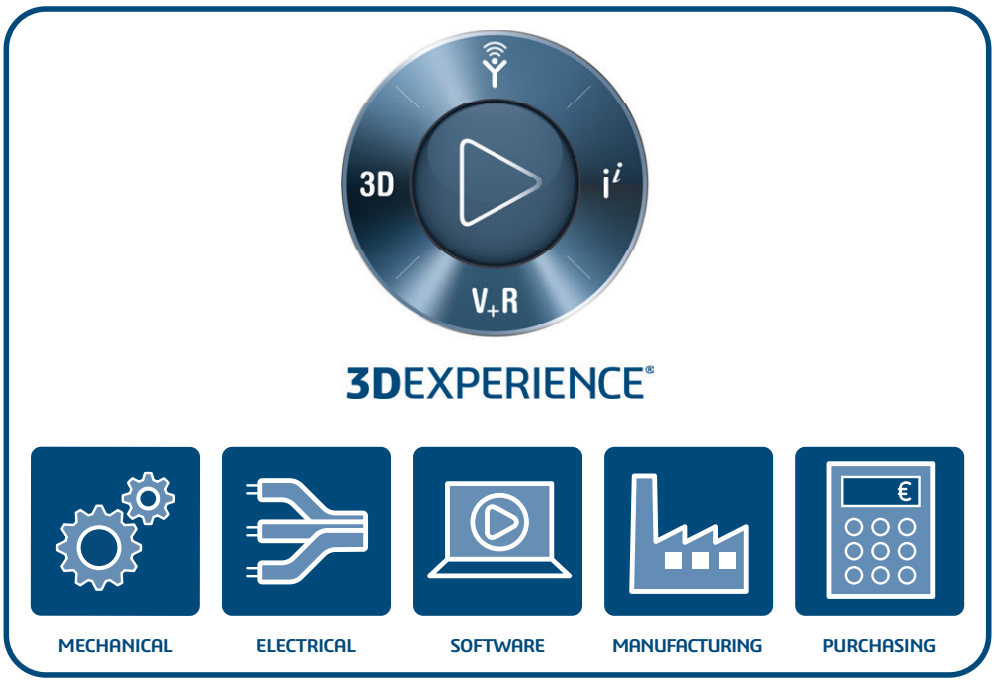
> **An "innovation platform" weaves a live digital thread throughout the value network.**

Platforms provide the structure and flexibility to link stakeholders 24/7/365 from diverse locations. They allow the capture and sharing of knowledge and expertise, while managing intellectual assets and processes throughout a product's lifecycle. Platforms become the corner-stone for digital business transformation that weaves a live digital thread through all the functionalities and organizations involved in a product's lifecycle, from development to commercialization, as well as all upstream and downstream applications.

Digitalizing a business is moving from a document-based, "siloed" system to a data-driven environment that fosters innovation and increases productivity across functional, role-based domains. In a file-based world, electronic documents such as PDF files do not automatically update when data changes, and require processes for data synchronization and the creation of new file versions. However, digitally connected applications update in real-time because they are data-driven and always are views on the latest digital product definition. At the core is a virtual representation of the real-world object, allowing those in the value network to explore and contribute to the product definition throughout the development process. The virtual representation acts as the single source of truth for companies to optimize their innovation process. Unlike a value chain, which connects and collects contributions in a serial way (up and down the chain), the connected value network works in parallel with each other to drive innovation and readily adapt to new contributions and changes because everyone experiences them in real-time.

From the most remote sales office to the edge of the supply chain, platforms eliminate silos by providing a single, up-to-date holistic view of the product definition to foster collaboration and optimize the development of products and experiences that exceed consumer's expectations.

Because it is increasingly difficult to develop tomorrow's products with yesterday's solutions, Home and Lifestyle companies' must adopt **a platform-based strategy** that connects the value network and supports their critical applications. A platform can be implemented in phases, starting out small and progressively bringing different functions on board as benefits are realized and the company's needs evolve.



THE 3DEXPERIENCE PLATFORM

According to Joseph Pine II and James H. Gilmore in *The Experience Economy*, **memorable experiences have become the predominant offering in today's economy**. Consumers want more than products and services, they want exceptional *experiences* tailored to their needs, and often pay extra for the higher value these superior experiences bring them. In such a fast-moving and competitive business context, Home and Lifestyle companies need to look beyond their PLM strategy and consider how their business can sustainably deliver the products that provide consumers with the best experiences.

The **3D**EXPERIENCE® platform is an innovation platform developed by Dassault Systèmes to enable companies to embrace their value network to explore their possibilities in a social way. The platform provides companies with a holistic approach to creating value by enabling all the players in the innovation process from ideation, design, engineering, manufacturing, marketing, sales and services to share a single source of truth and collaborate more effectively. In addition to being data-driven, the **3D**EXPERIENCE platform adds model-based capabilities to define a **3D**EXPERIENCE twin—which provides more than a virtual representation, it offers ways to create and test new possibilities, new innovations, and new enhancements. It comprises applications to model, simulate and virtually perfect all aspects of the consumer experience before launching a product on the market.

> With the virtual **3D**EXPERIENCE twin, companies model, simulate and perfect the consumer experience before releasing a product to market.

With the **3D**EXPERIENCE platform, an enterprise is digitally connected through its **data-driven apps** working from a single and complete product definition with different functional views on the same data, rather than separate data repositories for each function. This real time access to the digital product definition helps Home and Lifestyle companies accelerate the digitalization of their businesses to support a sustainable innovation process. The **3D**EXPERIENCE platform supports **multiple disciplines** with data-driven and model-based apps for:

1. **Product modeling** with design, engineering and systems engineering applications that revolutionize the way organizations conceive, develop and realize new products and that support additive and subtractive manufacturing;
2. Stakeholder collaboration and sustainable innovation across the **global ecosystem**;
3. **Manufacturing excellence** by enabling brands and retailers to plan, manage and optimize their global industrial operations through virtual simulation of their production environment;
4. Accelerating the process of evaluating the performance, reliability and safety of materials and complex assemblies before committing to physical prototypes using **simulation technology** for structures, fluids, plastic injection molding, acoustics and structural applications;
5. Gathering, aligning and enriching **big data**—whether internal or external, structured or unstructured, simple or complex and delivering that information in a way that supports real-time information intelligence.

Existing CAD systems can be connected to the platform, providing designers the benefits of the platform and additional capabilities without requiring them to change their CAD application, migrate data or author designs in a new environment.

The **3D**EXPERIENCE platform natively supports social networking and information intelligence for instant communication and data access throughout the extended enterprise. Project teams can, for example, engage in social collaboration, share, view and simulate 3D models on line and transform big data into insights in the context of a user's needs through the creation of customized business dashboards—all in the same environment.

The **3D**EXPERIENCE platform offers a part supply marketplace. This **3D**EXPERIENCE Marketplace offers a comprehensive and intelligent catalog of components for designers to search, download and insert into their designs. The marketplace also includes a seamless way to get parts made and collaborate with leading digital manufactures world-wide.

PLM AND THE 3DEXPERIENCE PLATFORM

One key set of apps on the **3D**EXPERIENCE platform are *PLM Collaboration Services*. These services provide a comprehensive and robust set of capabilities for product lifecycle management. With PLM capabilities on the platform, digital continuity ensures PLM data is accessible by everyone in the value network and that all relevant stakeholders are included in the PLM processes. For example, notification of a design update is delivered to all the team members who need to be informed of an update, some of whom may be outside of the design and engineering department in manufacturing, purchasing or service organizations.

The **3D**EXPERIENCE PLM Collaboration Services provide capabilities for management of designs authored with CATIA V5, **3D**EXPERIENCE CATIA, SOLIDWORKS and 3rd-party CAD tools. Additional PLM applications include change management to provide an enterprise-wide change and notification process to address increased product complexity; configuration management to efficiently manage product variants for faster delivery of personalized products to market; Bill of Materials management to ensure everyone has their required view on the holistic digital product definition; and document management for version and change control.

The platform also provides a host of model-based business applications to improve product planning and ensure proper governance of data and processes. These include the ability to translate the "voice of the consumer" into data-driven requirements that define new products; plan product portfolios and efficiently manage projects and programs; classify, protect, and reuse intellectual property (IP); enforce common quality processes and support global and local regulatory requirements; and establish a well-defined process for requesting, reviewing, and approving a material's compliance with regulations.

In short, the advantage of PLM on the **3D**EXPERIENCE platform is the availability of a comprehensive and robust set of capabilities to meet all current and future needs.

HOME AND LIFESTYLE INDUSTRY ADOPTION

Consumers want more than products and services, they want experiences forcing Home and Lifestyle companies to re-shape how they engage with consumers to win their loyalty and business. They are challenged to accelerate development of appealing products that cater to fast-changing trends. This means cultivating relationships with their consumers, to better understand constantly evolving requirements and relying on digitalization to facilitate and enhance the way products are designed, produced, marketed, delivered and disposed of.

ENOVIA's powerful technical and business applications help companies increase customer engagement.

The **3D**EXPERIENCE platform provides brands and retailers with the opportunity to realize this integrated digital journey with their consumers, placing consumers at the heart of the product development process. It allows Home and Lifestyle companies to go from ideation to final delivery in one virtual environment. Insights across the corporate ecosystem are captured and the product digitally verified with the consumer before actual production. Through the broad ENOVIA portfolio of technical and business applications that include powerful requirements and change management features, configuration and project management, and collaborative capabilities, Home and Lifestyle companies can engage with their consumers to help ensure that designs comply with consumer needs. Through closer collaboration with the Home and Lifestyle company, consumers gain confidence that the solution will meet their needs. The result is higher consumer satisfaction that deepens brand loyalty and drives a Home and Lifestyle business' revenue growth.

HOME AND LIFESTYLE PERSPECTIVE: NOWY STYL GROUP

Nowy Styl Group is a European leader of furniture solutions and Europe's N° 3 producer of office furniture with subsidiaries in 17 countries. Its customers range from small businesses to large companies whose clients' diverse cultures and locations demand customized solutions to their office needs. "In the past, customers selected their furniture from our catalogue. Now they're pushing us to engineer products to order," Tomasz Bardzik, COO & CTO, Nowy Styl Group said. "In this respect, we strive to be leaders, not followers."

For Nowy Styl Group, delivering the right products to their customers lies with innovation and improving efficiencies to accelerate time to market. Implementing the **3D**EXPERIENCE platform was instrumental to achieving these goals. "Dassault Systèmes understood our business goals," Bardzik said. "The **3D**EXPERIENCE platform is a really good tool to build, quickly and precisely, the answer to our customers' demands."

To improve innovation and efficiency, Nowy Styl Group sees **3D**EXPERIENCE as a platform where engineers and product managers, who may be geographically apart, can collaborate to design a fast and accurate definition of a product. "We also manage our product portfolio, whose growth has seen an increase in product and project data. We must structure and manage this information and I believe the **3D**EXPERIENCE platform is the right solution."

The **3D**EXPERIENCE platform allows Nowy Styl Group to share its experience and knowledge directly with its customers. "Thanks to the **3D**EXPERIENCE platform, we have a direct connection from the heart of our company to our customers," Bardzik said.

Read full case study here.

"Dassault Systèmes understood our business goals. The 3DEXPERIENCE platform is a really good tool to build, quickly and precisely, the answer to our customers' demands."

— Tomasz Bardzik, COO & CTO, Nowy Styl Group

CONCLUSION

Product lifecycle management must be a key component of a Home and Lifestyle product development process. However, increasing business, product and process complexity demand implementing a platform-based approach to connect the value network and drive sustainable innovation. The **3D**EXPERIENCE platform provides value to every stakeholder, connecting everyone to a single source of product definition. The platform provides digital continuity across a comprehensive and robust set of data-driven applications, ensuring everyone is working with the most up-to-date information resulting in increased efficiency, improved collaboration, faster time-to-market as well as a stellar consumer experience.

Home and Lifestyle companies searching for a PLM solution to address today's challenges should ask themselves if the solution they select is able to manage the innovation process required to be competitive today and in the future. While solutions exist today to independently manage the product development process, only the **3D**EXPERIENCE platform connects the entire value network to a single version of the truth. As their business objectives evolve, companies can rely on the **3D**EXPERIENCE platform's robust and flexible architecture and breadth of applications to solve today's, and tomorrow's, challenges. It is the foundation upon which companies can deliver true innovation.

Ready to learn more?

See how your organization can make a significant change in the way you work and engage with customers.

Our **3D**EXPERIENCE® platform powers our brand applications, serving 12 industries, and provides a rich portfolio of industry solution experiences.

Dassault Systèmes, the **3D**EXPERIENCE® Company, provides business and people with virtual universes to imagine sustainable innovations. Its world-leading solutions transform the way products are designed, produced, and supported. Dassault Systèmes' collaborative solutions foster social innovation, expanding possibilities for the virtual world to improve the real world. The group brings value to over 220,000 customers of all sizes in all industries in more than 140 countries. For more information, visit **www.3ds.com**.

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