

CONSUMER PACKAGED GOODS & RETAIL /
INDUSTRIAL EQUIPMENT CASE STUDY
WESTROCK



Challenge:

Global packaging leader WestRock needed to develop innovative, consumer-driven secondary packaging solutions 33% faster to address fast-moving consumer goods manufacturers' challenge of speed to market.

Solution:

WestRock chose the **3DEXPERIENCE®** platform based on V6 architecture for every step of the package development process, from brainstorming marketing concepts through 3D design, simulation and manufacturing.

Benefits:

With the **3DEXPERIENCE** platform, WestRock has compressed the packaging timeline from 18 to six months by developing more efficient business processes and streamlining 3D data from product design to manufacturing.

MARKET LEADERSHIP THROUGH PACKAGING INNOVATION

Many beverage companies expect a package that is low-cost and efficient to produce and deliver. WestRock, formed from leading global packaging companies MWW and RockTenn, goes far beyond that simple formula. Its market insight and innovative solutions make it a packaging partner of choice for leading beverage brands around the world.

"We do everything," said Gérard Louret, who heads WestRock's machinery development operation. "We do consumer testing, we design the packages, and we design and manufacture the machines to make those packages. Where we differ from our competitors is that we integrate absolutely all of the aspects from brand engagement to the supermarket."

In 2011, WestRock launched Insight to In-Market, a fully integrated approach designed to provide solutions that differentiate on shelf while providing customers with speed to market, flexibility and agility. The Insight to In-Market approach is rooted in consumer and market insights. The findings help identify opportunities to develop engaging packaging designs that strengthen the brand experience and loyalty.

"For our customers, the package is becoming an integral part of their equity. They're increasingly interested in how the entire package can help them increase the consumption of their product," explained Bill Cecil, vice president of machinery and automation for WestRock's beverage business.

"Consider the beverages in your neighborhood market," he continued. "The retailer spends millions in developing its product, and the can or bottle design (the primary packaging) for that product. But it devotes virtually no resources to the secondary packaging – typically the cardboard case – that consumers see on a store shelf. Designing and producing that case is left to the packager."

WestRock recognizes that the secondary packaging is a prime marketing opportunity that distinguishes the brand in the consumers' eyes. "What retailers lose sight of is that packaging is a very efficient advertising vehicle," said Cecil. "100% of purchasers interact with the package. That's not true of their television ads, print ads or billboards. So packaging is an amazingly important and efficient advertising vehicle."

RAPID INNOVATION WITH 3DEXPERIENCE

To support its Insight to In-Market strategy, WestRock added experts from well-known global CPG companies with backgrounds in consumer insights, market intelligence and branding. The results of their work are brand-centric packaging strategies that meet and exceed expectations for the consumer, the retailer and the brand.

Efficiency of the whole process is critically important. Typically, the timeline for new package development ranges from 12 to 18 months, with the norm being closer to 18 months. "Our goal is to go from 18 down to just six months," said Cecil.

How will WestRock achieve that? Through collaborative design, linked directly to manufacturing, all enabled by Dassault Systèmes **3DEXPERIENCE** platform.

"What's different about the **3DEXPERIENCE** platform is that the design and production tools are all integrated," said Cecil. "That's particularly important to WestRock because we design and manufacture packages all over the world – from China to Japan, Australia, Europe and the Americas. The collaborative nature of Dassault Systèmes' solutions was critical for us."



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Louret concurred, "We chose this platform because it corresponds exactly to our end-to-end strategy. Today, the platform offers complete integration and provides us with full seamless compatibility between modules. We have something completely integrated and completely compatible."

COLLABORATION PAYS

The rollout started with a small pilot program in France, then involving design teams in Australia, the U.S.A., China, Germany and Brazil. Designers in the various locations worldwide can work together smoothly and collaboratively using the platform.

“For our customers, the winning formula is speed combined with the quality of our solution,” said Cecil. “It’s developing the right package for their brand for their consumer, that’s efficient and automatable on a global scale.”

It all starts with one-on-one meetings with clients. WestRock and its customers used to show up for such meetings with little more than a sketchpad. Now, they bring the full force of the **3DEXPERIENCE** platform for collaborative innovation.

A primary solution that has made an impact is Concept Development, part of the Perfect Package Industry Solution Experience. “In the past, we would sketch on paper or a white board or a flip chart. It was a great creative process. But when we were done, we didn’t have anything that immediately translated to a final design,” noted Cecil.

CREATING THE “PERFECT PACKAGE”

But today, using Concept Development in those brainstorming sessions enables the WestRock team to evaluate a broader range of design alternatives. They can rotate an evolving model and explore options with the customer, all in 3D. They can save an early design option as a base option, then move on to numerous alternatives – from a 3D sketch concept to tested, customized packaging renders in only 30 minutes.

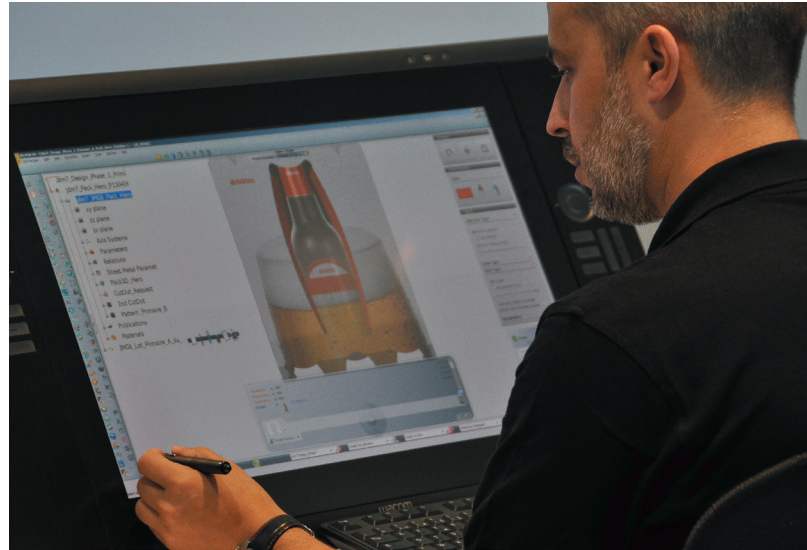
“What used to take days now only takes an hour,” Cecil said. “Working with the **3DEXPERIENCE** platform accelerates the design process and helps us to investigate multiple options, and then move on to the best solution quickly.”

Complementary to Perfect Package, the Perfect Shelf Industry Solution Experience enables WestRock’s designers to simulate and display a package design, and then place it on a virtual store shelf surrounded by competitive products. “One of the weaknesses of traditional product design is that packaging is created in a vacuum,” Cecil said. “This solution reminds us how our package compares with the rest of the market, and encourages us to seek new ways to differentiate it.”

“This marks a real advance for the client as well as for the engineers,” added Louret. “With the **3DEXPERIENCE** platform, we have an accurate 3D representation of the package that enables clients to virtually visualize and analyze it, and eventually compare it with other available solutions before they even have the package in their hands.”

NEW VERSATILITY IN MANUFACTURING

Working in 3D not only allows designers to better visualize the package they’re creating, but it also enables a smooth and rapid transition to manufacturing that package. Once the design itself is finalized, WestRock develops machines to convert raw materials and create the package.



The **3DEXPERIENCE** platform enables designers to sketch a concept in 3D and then test a customized packaging render in only 30 minutes.

INDUSTRY SOLUTION EXPERIENCES

WestRock uses the following Industry Solution Experiences from Dassault Systèmes to help them meet their Insight to In-Market strategy:

Perfect Package: Enables Brand Manufacturers, Design Agencies, Packaging Suppliers and Artwork Studios to create breakthrough designs by rapidly iterating new designs from initial concepts to validated designs on one platform.

Perfect Shelf: Enables Retailers and CPG Brand Manufacturers to enhance the consumer shopping experience at the point of purchase through immersive, life-like 3D technology designed to maximize revenue, profit, quality of execution and brand equity.

Single Source for Speed: Enables companies to manage their entire product development process – from idea to design, production and servicing – across all geographic locations.

Smart and Synchronized: Enables companies to synchronize all participating engineering disciplines on a single collaborative platform, and ensure full traceability from needs identification to product validation.

Focus on WestRock

MWV and RockTenn have combined to form WestRock, a leading global packaging company. Its market insights, innovative solutions and global expertise make it a packaging partner of choice for the world's most-admired brands. The company helps its customers from the manufacturing floor through the supply chain and into their consumers' homes.

Products: Packaging and specialty chemicals

Revenue: \$5.4 billion

Employees: 15,000 in 30 countries

Headquarters: Richmond, VA

For more information
www.westrock.com

"Since the 3DEXPERIENCE platform digitally integrates all the generated data, the final 3D design goes onto automation, and now our machinery engineers have a real digital facsimile to engage the machine, which is designed with the Single Source for Speed and Smart and Synchronized Solution Experiences," said Cecil. "The link across the business processes is a tremendous time savings. We're cutting 50% to 60% of the time out of that process."

"It's a revolution," said Louret. "From the moment that we develop the package in three dimensions, it's fully compatible with the machines. We can take the 3D package and put it directly into the machine and there's no reprocessing to do. It is a huge step forward for our engineers."

SIMPLIFYING 21ST CENTURY MANUFACTURING

WestRock's move to the 3DEXPERIENCE platform also gives it added versatility in designing and manufacturing its packaging machinery for 21st century customers.

"Our latest generation of machinery is based on the idea that our customers will need flexibility and agility to adapt as the market changes," explained Cecil. In the past, many of the operations required to produce a carton have been designed into the machinery itself. But modern machines are software-driven, so WestRock utilizes manufacturing software and embedded robotics to update the machines.

"Now we can design a machine that will produce 30 different packages," Cecil said. "As a customer's needs change and we design new packages to address those needs, we can simply use the 3DEXPERIENCE platform to modify the software, enabling an existing machine to produce the new package. It saves our customers time, it saves them money, and it simplifies the process of moving to a new generation of packaging."

In addition, testing the software modifications at the customer's manufacturing site would be impractical. So WestRock maintains a virtual copy of the packaging machine in the 3DEXPERIENCE platform. As WestRock modifies the software to produce a new package, the company tests its performance on the virtual machine. The platform simulates the entire production process, including optimal die cutting and palletization.

"Again, this saves a significant amount of time because the machines are quite complex," Cecil said. "It might take three weeks to physically debug a machine on the customer's floor; now we can accomplish the same process in a virtual setting, and do it much faster, without ever setting foot at the customer site."

THE PERFECT FIT

Cecil points out that WestRock's integrated, end-to-end approach to packaging – from consumer research through product design to manufacturing – makes it a perfect fit with Dassault Systèmes.

"The collaborative nature of the Dassault Systèmes solutions, as well as the connectedness of every tool was absolutely critical to allowing us to pursue our strategy," said Cecil. "We found our cornerstone in the 3DEXPERIENCE platform."

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

Dassault Systèmes, the 3DEXPERIENCE® 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 190,000 customers of all sizes in all industries in more than 140 countries. For more information, visit www.3ds.com.



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