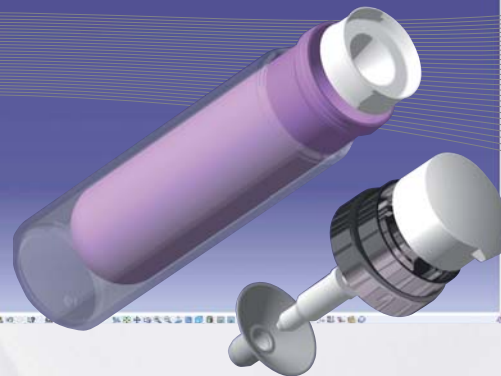




Patented packaging by L'Oréal.

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feature

L'ORÉAL
Produits Grand Public

3D
CATIA

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By Dora Laine

Technology at the Service of L'Oréal

"L'Oréal Produits Grand Public" in Paris uses CATIA to design all the packaging for its products in Europe. Bottles for shampoos and conditioners, mascaras and lipsticks are some of the packaging products they design for L'Oréal brands such as L'Oréal Paris, Maybelline, Garnier, and LaScad.

At the service of L'Oréal's creams, shampoos and cosmetics globally recognized for their high quality and efficiency, the package is an essential part of L'Oréal's products and the first contact the consumer has with the product even before using the formula inside. A successful package is one that consumers find nice to look at and touch, that enables the consumer to apply the formula with as little effort as possible, that is easily recognizable on the store shelf and that incites the consumer to buy the product. The package must also be functional because it has to deliver the product in the most optimum way, it sometimes has to be airtight to protect the formula, and

it has to inform the consumer by way of its label. Respecting essential requirements and regulations are also of utmost importance. Packaging must be manufactured so that the packaging volume and weight is limited to the minimum amount needed to maintain the required level of safety, hygiene and acceptance for the packaged product and for the consumer.

A CREATIVE PROCESS BORN IN MARKETING

Launching a new product is a creative process that begins in marketing and enhanced with input from different teams. The result of extensive market research, an idea for a new product is submitted to the packaging department as a mock-up or sketch, with specifications on what

the future product should do. "Our job is to design the most appropriate package for the product in the shortest amount of time to satisfy consumer buying preferences and technical accuracy," said Gilles Baudin, Packaging Director Europe, L'Oréal Produits Grand Public. "We also have to take into account the aesthetic, functional and regulatory constraints inherent to all mass market products."

ANTICIPATING DOWNSTREAM NEEDS EARLY ON

The packaging department also has to satisfy constraints imposed by L'Oréal's production units. "Anticipation is key," said Dominique Noël, Design Manager, L'Oréal Produits Grand Public. "We have to incorporate, early in our designs, features that will counterbalance any adverse effects a package may be subjected to during production and that can slow down the production process." For example, by adding a rib on the neck of a bottle it will increase its structural integrity when the different parts of the bottle are assembled and prevent it from buckling when the cap is placed on the bottle. "This 'trick of the trade' allows us to make a thinner bottle overall and reduce material usage and costs," said Gilles Baudin.

BETTER COLLABORATION THANKS TO CATIA

With 3D as its principle design vector, designers use CATIA to facilitate communication with marketing as well as with suppliers that produce the different packaging components. "Our job is to transform a dream into reality," said Gilles Baudin. "CATIA makes it easy to exchange ideas with our colleagues and partners thus increasing innovation," said Dominique Noël. "We can show marketing any suggestions we may have on their initial idea, directly in 3D, in a matter of minutes. In one afternoon of brainstorming our designers can show the impact each design decision has on the overall package and create a virtual mock-up that incorporates everyone's ideas," said Dominique Noël.

Since packaging components are produced by suppliers that use a wide variety of technologies, the packaging department has to ensure that each part fits seamlessly together as if the entire package were produced in one place. There must be continuity between the surfaces of the cap and the body of a bottle once it is assembled. Working in a virtual 3D environment makes it possible to perform simulations that ensure this before actually assembling the package together.

"Package strength and resistance to shock, compression, and other forces are virtually tested using CATIA Finite Element Analysis," said

Dominique Noël. "We also simulate the position of the label on the bottle using the Develop function to create a flattened image on which we position the label. If there is any problem, we are better off finding it in CATIA than on the production line," he adds. With CATIA designers can rapidly create several versions of the same package (200ml, 300ml, etc) in anticipation of a possible future request to change its capacity.

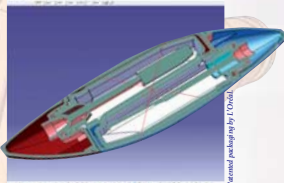
INCREASED PRODUCTIVITY

Designing in 3D has dramatically improved productivity. Its four designers are able to handle all of L'Oréal Europe's packaging design needs. "L'Oréal launches many new innovative products

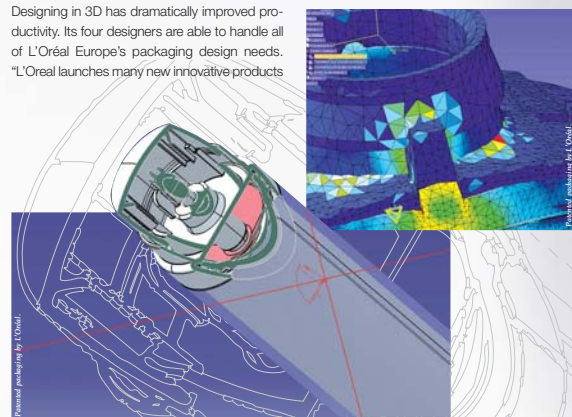
each year, which requires us to design new packaging at a fast pace. Thanks to CATIA, with the same number of designers we have been able to multiply by 2 the number of 3D designs we can deliver," said Gilles Baudin. In effect, with CATIA, collaboration, exchanging of ideas and the speed at which these new ideas take shape have added a new dimension to the way the designers approach each new project - with passion •]

More about L'Oréal

As the world leader of the cosmetics industry, L'Oréal is dedicated to serving all forms of beauty around the world. The Group owns an unrivalled portfolio of 25 international, diverse and complementary brands, and employs more than 60,000 people. With the biggest R&D budget in the beauty industry, L'Oréal places innovation at the heart of its strategy in order to constantly anticipate consumers' expectations and to offer them products of the highest quality and value. www.loreal.com



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