**Challenge:**
To satisfy growing global demand for natural cosmetics and fragrances, Laboratoires M&L, the manufacturing division of L’Occitane Group, needed to improve production planning flexibility to deal with the fluctuations in natural raw materials and to deliver its products on time to support its solid sustained growth.

**Solution:**
The company uses Dassault Systèmes’ DELMIA Apriso to help optimize its global production and logistics operations from raw material reception, weighing, production, packaging, and storage as well as to anticipate early, issues that can adversely affect the quality and delivery of its products to market.

**Results:**
With real-time availability of information, Laboratoires M&L has more foresight thanks to better planning and the availability of information in real time, which also improve decision-making, while reducing the rate of non-quality, waste by 50% and production interruptions for inventory purposes. Employees find themselves offered new career opportunities thanks to improvements in their day-to-day productivity.
A DREAM ROOTED IN HIS LOVE OF PROVENCE

In the early 1970s, 23 year-old Olivier Baussan wanted to put forth the benefits of his native Provence in France by distilling rosemary to create essential oils that he sold in local markets. In 1976 he realized his dream and founded L’Occitane en Provence, manufacturer of cosmetics, soaps, oils and fragrances made with natural ingredients. One might say that his dream was premonitory: over 40 years later, consumers are more conscious than ever about their health and the products they use. It is no wonder that L’Occitane Group has blossomed into a high-end global brand seducing consumers not only by their natural products - every 3 seconds a tube of Shea Butter hand cream is sold somewhere in the world - but also by the eco sustainability of its sourcing and production methods.

L’Occitane has its own distribution network as well as 3,000 boutiques in 90 countries worldwide, which gives them direct access to their consumers. All product formulas are produced on 20 production lines in their Manosque and Ardeche factories in France and shipped to their three regional logistic platforms in Asia, Europe and the United States for distribution to their boutiques. “L’Occitane commercializes six international brands and our products are identical regardless of where they are sold,” Richard Vinardi, Industrial director of the Laboratoires M&L, said.

“More than 90% of our business is generated abroad. We control the entire value chain from receipt of more than 300 types of plant-derived ingredients [...] to the sale of our products in our store.”

— Richard Vinardi, Industrial Director, Laboratoires M&L, L’Occitane Group

We need to ensure consistent quality despite these changing conditions. For example, lavender may not have the same color from one year to another or not be as potent, which obliges us to strictly control every batch because there may be differences between them.

In 2013, Laboratoires M&L adopted DELMIA for its manufacturing operations. “Our major challenges were traceability and security from raw material procurement all the way to delivery of the finished product to our boutiques,” Vinardi said. “DELMIA is able to manage a large spectrum of activities related to the way we work.”

“Keeping track of over a thousand suppliers of raw materials, managing the frequent launch of new products, as well as numerous quality controls to ensure consumer safety and delivery to our regional platforms - in essence our entire manufacturing execution system (MES) and our logistics execution system (LES). It was, and still is, the most flexible tool on the market.”

“DELMIA is able to manage a large spectrum of activities related to the way we work”

For example, with DELMIA we control the entire raw material process from reception to selecting and analyzing samples to weighing and labeling each raw material,” Vinardi said. “Raw materials then continue on to production where 2 to 3-ton batches are produced and packaged in jars or tubes which are then sent to our distribution centers around the world. This traceability, entirely managed by DELMIA, is essential to maintaining the quality required by our consumers.”

Foresight as well as flexibility were needed to allow a quick response to consumers’ changing demands and these qualities were delivered by DELMIA. However, it also required internal process improvements and employee training to enhance the company’s industrial performance. “The difficulty with any new approach was two-fold: we needed to increase the maturity of the software solutions placed at our employees’ disposal and to improve their skills so that they use these new solutions efficiently,” Vinardi said. “With the help of DELMIA’s experts, we can proudly say we’ve reached our goal.”

“Thanks to DELMIA’s real-time KPIs, the quality of execution and our capacity to better manage our resources improved our industrial performance. Moreover, we’ve reduced disruption to our supply chain and slashed the rate of non-quality and waste by 50%.”

— Richard Vinardi, Industrial Director, Laboratoires M&L, L’Occitane Group

Raw material discrepancies can impact quality

“For many years, we have been experiencing double digit growth, which put pressure on our factories to satisfy increasing global demand. However, as our raw materials are provided by artisans and farmers whose harvests are climate-dependent, we have to make sure the quality of their productions are up to par and in sufficient quantities. In effect, too much rain or on the contrary, drought, both have an impact on the quality and quantity of raw materials we receive and use to manufacture our products.
A CAREFULLY EXECUTED BIG BANG

With DELMIA, Laboratoires M&L manages production and procurement flows with real-time output of KPIs and reports of actual on-site activities. “Before switching to DELMIA, we created test scenarios with “Go/No Go” decisions along the way, which were executed in the two months before the final “Go Live”. Once validated, we proceeded to train everyone - over 800 people - at the same time on our new ERP solution and DELMIA. We then gave ourselves one weekend before transitioning from our old system to DELMIA without the possibility of turning back. We were confident, however, because all scenarios were already tested and approved and in five weeks everyone was operational,” Vinardi said.

Thanks to DELMIA, production planners have information such as how much was produced, when the products will be available, where they stand with raw material procurement, all in real time. “DELMIA is the heart of our operations and even feeds our ERP system, Vinardi said. “Moreover, we have total control over supply management, allowing us to limit the risk of shortages. Without real-time knowledge of where we are, this would not be possible,” he said.

Examples of common issues and their solutions are as follows: “A quality control engineer who detects a problem with a raw material will now block it from being used in all products, thereby reducing waste due to rejected batches. By the same token, information about an operator who drops a container, thereby rendering it unusable, is communicated in the system in real time. By seeing right away that this raw material is no longer available, planners can anticipate and adjust production accordingly,” Vinardi said.

Vinardi also mentioned, thanks to better inventory flow, that they are now able to perform inventory management without interrupting production.

“In the past, we had to stop production when we had an audit. This is no longer required,” he said.

BETTER INDUSTRIAL PERFORMANCE, LESS WASTE, NEW CAREER OPPORTUNITIES TO SUSTAIN GROWTH

In all, Laboratoires M&L derived considerable benefits with DELMIA. “The quality of execution and our ability to better manage our resources improved our industrial performance by more than two digits per year for the first three years since implementing the solution,” Vinardi said. “Moreover, we’ve reduced disruption to our supply chain thanks to real-time analytics. We also slashed the rate of non-quality and waste by two. Finally, we’ve enabled our employees to evolve to new, more value-added careers that are necessary to support our exponential growth.”

After more than five years using DELMIA, Laboratoires M&L wants to improve its capacity to anticipate even more by implementing a digital factory of its physical production entity. “In the past, we would do something and if there were any issues, we would detect them too late,” Vinardi said. “Now our objective is to make the right decisions early and anticipate any events before they happen in the real world. Therefore, we are currently creating digital models of our plants that we will use to virtually pre-test our production lines before physical set-up. This digital factory will be the reference for all our production sites,” he said.
As of today, for Vinardi and his team, a new era in manufacturing and logistics planning has been ushered in and there is no turning back. “We are 100% paperless, all our reports, daily KPIs and operator updates go through the system. From the start, managing change was something we all took to heart, it encouraged our teams to move forward and view the transition in a global way.

In effect, our approach was to change both our internal processes and the tool required to manage them. We had everyone on board all sharing common goals and we provided them with the necessary training to help them get to where we want them to go. This not only motivated them, it improved their performance and provided them with new career opportunities. We know we made the right choice with DELMIA. It is a strong foundation upon which we can rely to face the challenges of our fast-moving business” Vinardi said.