



## Leather in the automotive interior of the future

*Lectra's automotive conference in March had as its main focus how the significant changes this industry is going through – which include the development of electric-powered vehicles and the advancements in autonomous driving features – will change the way automotive interiors are designed and made. Opinions were divided on what the impact will be on leather's position in this sector.*

Cutting solutions provider Lectra held its fifth annual automotive conference in March at its advanced research centre in Cestas, near Bordeaux. Marc Douay, the group's automotive marketing director, noted the global character of the event, pointing out that there were industry figures from 15 countries. It represented an excellent opportunity to bring the automotive community together to talk about the important shifts taking place in the industry and to exchange ideas about how to adapt to them.

Lectra had widened the scope of the event to include more aspects of vehicle interiors. Speakers were invited to talk specifically about fabrics and about other components, such as airbags. Several based their presentations on how the design of car interiors will be affected by the growth of autonomous and electric-powered vehicles.

Given the standing of leather in the automotive sector it featured in many presentations, although there were some suggestions that the prospects for this material may not be entirely positive in the face of rising vehicle autonomy.

### The case for leather

One way of looking at leather's role in the automotive industry of the future is that as autonomous driving becomes more widespread, the interior of a vehicle will become an extension of its owner's home. With the car itself now largely in charge of the driving, passengers (which now include the person who would have previously been the driver), will begin to see it as a living space and will expect the same comfort and luxury there as they have in their homes. This would bode well for leather as an interior material.

Madris Hamitouche, a senior component forecasting analyst with research and information group IHS Markit, described the car interior of the future as "a third living space", reaffirming a statement made Mr Douay. He said

*The leather-clad interior of the new Range Rover Evoque, the new luxury SUV from Land Rover.*

CREDIT: NICK DIMBLEBY/LAND ROVER



this would be a direct consequence of the new “driving experience”.

Similar sentiments were expressed last year by Ray Scott, chief executive of seating developer Lear Corporation. He suggested that, as being in a vehicle becomes less about the physical driving of it, consumers will begin to demand more luxurious interiors. His feeling was that this would result in leather being paired with “premium textiles”, although he was quick to stress at the time that leather would remain a must in high-end models.

Another speaker, Graeme Stewart of Tier 1 seating and interior component supplier Tachi-S, predicted that as autonomy advances, automotive interiors will become more akin to those found within aircraft. His reasoning for this was that activities like sleeping and relaxing will become more commonplace than driving. He also mentioned that increased autonomy could lead to more car sharing. This would result in a higher usage rate for individual vehicles, meaning a need for greater durability of interior features. Given leather's well-known qualities, it could easily satisfy this need.

Responding to a question from *World Leather* about how sharing of vehicles could affect leather usage, Mr Stewart said thicker leathers could be used in order to increase durability and abrasion resistance. He added that this may mean a move away from thinner, grain leather in favour of more robust leathers, giving the example of the leather commonly found in protective motorcycle clothing.

During a presentation to introduce the new version of Lectra's Versalis automated leather cutting solution (see panel), Vicente De Oliveira, who is in charge of product marketing for the company's leather offer, said the challenges posed by vehicle autonomy should be viewed as a “new opportunity for leather interior designers”. He also made reference to the growth in sales of sport utility vehicles (SUVs) and of premium cars, two automotive segments in which leather usage is typically higher. He added, however, that leather will face challenges from “hybrid” materials.

### Not all good news

The comments made by some speakers, however, painted a less positive picture for leather. Mr Hamitouche said while leather is currently a very important material for interior component makers, this will not always be the case.

He suggested that once vehicles reach autonomy level 4, at which point driver supervision would not be required (although there would still be some geographical or weather-related restrictions to a car's autonomous capabilities), manufacturers will likely only favour leather for seat covers and inserts. Other aspects, such as the console or door trim panels, would be made from synthetic materials that he said would make it easier to integrate connected features. This could include touch-screen control panels.

For reference, the industry is currently at autonomy level 2, with vehicles being able to self-drive in some circumstances, for example, cruise control and parking assist features. Level 3 is not far away and this will see cars being capable of taking control for extended periods of time as a result of highly advanced road, lane and vehicle detection systems. As yet, it is unclear when full autonomy



Marc Douay, Lectra's automotive marketing director, said the car interior will become a “living space” in the future. CREDIT: LECTRA

(level 5) will be reached, but some estimate it will be a reality by 2030. This is little more than a decade away, so carmakers already have to consider the implications to their business.

Juan Antonio Islas Muñoz, from the University of Cincinnati College of Design, Architecture, Art and Planning (DAAP), was part of two presentations examining how vehicle interiors will change in the future. During the second of his interventions, he said the rise of shared autonomous vehicles may mean manufacturers begin to favour “advanced” materials that are better at repelling water or dirt. He explained that this would be required due to the higher usage of them. He echoed Mr Hamitouche's comments that textile materials will be more suitable when it comes to embedding smart features into future car interiors.

Representatives of a European seat manufacturer told *World Leather* they do not agree that the move towards autonomous vehicles will be bad news for leather and insisted that high-end vehicle makers will continue to use leather for many years to come. They also questioned the accuracy of comments made by speakers regarding leather's supposed unsuitability for the connected features the car buyers of the future will demand. The example they gave in defence of leather was the integration of heated seats into many of today's luxury models.

Interestingly, the environmental issues often wrongly attributed to leather were not suggested as a potential barrier to its inclusion in car interiors moving forward. There was no indication from the speakers that carmakers are considering turning away from leather in favour of materials that are often held up as being more friendly to the environment. The reality is that these alternatives are mostly plastic-based, meaning increased usage of them



### Lectra updates Versalis for 2019

The latest version of the company's Versalis was presented. Launched in 2011, this leather cutting solution and the accompanying operating software, known as LeatherSuite, have gone through many changes. The 2019 version promises increased productivity, improved yield and enhanced cutting quality, among other benefits.

The new system is available in three configurations, depending on the size of the parts the customer needs to cut. The options are one, two or three cutting heads, with better throughput offering respective productivity gains of 2%, 10% and 17% compared to the current version. This is achieved in a variety of ways, including by eliminating Y-clipping and through the use of adaptive cutting windows.

In terms of yield, Lectra has said it offers a 1% improvement. This is driven by nesting improvements and by new rotation nesting strategies. The enhanced yield efficiency has been measured through testing on more than 2,000 hides.

Cutting quality has been improved with the addition of a larger pressure foot, which is designed to reduce wrinkles, decreasing the need for recuts. It also aids cutting precision.

Lectra has also updated the LeatherSuite software. Mr De Oliveira, who counts marketing for Versalis among his responsibilities, said the update has brought a "significant performance improvement". It includes an upgraded connection interface, making it easier to integrate the technology into a customer's existing system.

In order to enhance reliability and reduce machine downtime, a range of hardware and software updates have been made, many of which are based on customers using the system.

The most interesting enhancement for 2019 comes at the offloading stage. After being cut, the hides are marked up using projectors, with pieces of different dimensions highlighted in different colours (pictured). This makes the process of offloading and organising the cut pieces less time-consuming as the operator can easily see where the different pieces are and in which category (e.g. size, shape, etc.) they belong.

Delegates also had the opportunity to see the system in action, with a number of experienced Lectra employees on hand to explain in detail the different stages of using it.

The company has said the system is already available to order, with delivery expected in this June. The new features of Versalis 2019 and LeatherSuite V7 can be integrated into existing installed base models, which Lectra says allows all its customers to experience the benefits of the latest improvements.

would exacerbate the problem of plastic pollution.

As it stands, leather looks well-placed to continue to be the interior material of choice for high-end vehicle brands. Whether it can adapt to the changing demands that will naturally come with the move towards autonomous vehicles

is yet to be seen, but what is clearer is that tanners are highly unlikely to give up on this vital sector without a fight and so will make the required adjustments to ensure their material can fulfil the needs of the automotive interior of the future. 🌱