

# AUTOMOTIVE

Drive operational excellence



**LECTRA.**

Cutting room technology

# Be prepared for the new normal of disruptions

## Control and efficiency to overcome uncertainty

The global pandemic has brought about the direst economic uncertainty in decades. In the current business environment, in the absence of market growth, reducing operational costs is the only way for automotive suppliers to ensure competitive advantage. The automotive industry's new normal requires rethinking strategy and redesigning the operating model to overcome production challenges and seize business opportunities.

Despite instability, new opportunities are emerging. Demand for electric vehicles and renewed interest in hygienic interiors are driving growth. Technology-led innovations like autonomous driving, alternative powertrains and connectivity continue to reshape supplier ecosystems.

Many industry players are leveraging new technologies to improve plant operating efficiency. To remain competitive and keep pace with digital transformation in the 4.0 era, reinvesting in the manufacturing base will prove critical.



## The authority on seating, interior and airbag design and cutting

For automotive suppliers who need to take their products to market quickly in a fast-moving business environment, Lectra Automotive is ideally positioned to support them, with industry experience reaching back to 1991. Lectra's extensive expertise in 3D/2D automotive product design and development and cutting room processes enables manufacturers of fabric seating and interiors, automotive leather and airbag cushions to achieve long-term operational excellence objectives while building a pathway to future manufacturing standards, all without compromising quality.

**Our solutions draw on more than 30 years of experience in the automotive industry and come backed by a worldwide team of experts with in-depth knowledge of local market requirements.**

*"From our point of view, Lectra is the only company that can provide the cutting accuracy and cutting quality to fulfill our customer requirements."*

**Jan Alber**  
Industrial Engineer  
BOS Group



## CONTROL PRODUCTION COSTS

The automotive cutting room is an overlooked area with potential for cost savings. Implementation of advanced-technology cutting equipment enables suppliers to cut costs by reducing labor, eliminating waste and optimizing material consumption.



## MAXIMIZE PRODUCTION EFFICIENCY

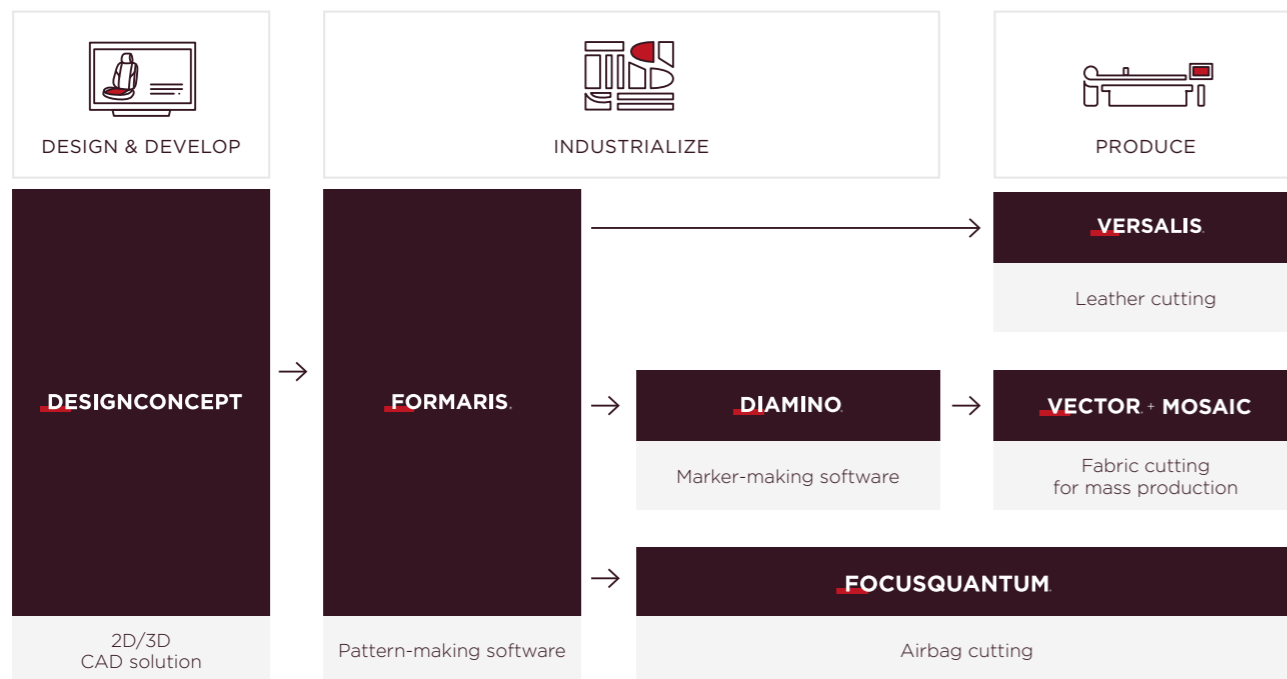
Production efficiency has never been more important in the automotive industry. An agile cutting room can maximize efficiency by optimizing all steps in the end-to-end cutting process. Digitalized processes eliminate errors, improve quality and increase productivity.



## DRIVE FUTURE PROFITABILITY

Automation technologies and digitalized processes are key to achieving increased efficiency. They can also improve operational efficiency by lowering capital and operational costs. Digitalization can drive improvements that boost competitiveness and position companies for long-term success.

# Lectra solutions for automotive manufacturing



## DESIGNCONCEPT

### 3D/2D product development software



How can you satisfy changing consumer tastes quickly and profitably? Where should you begin to improve product design processes and decision-making?

With Lectra's virtual modeling and prototyping solution, you can create viable, high-quality designs as of the first physical prototype. DesignConcept for automotive lets you boost your innovation process, slash development and production costs, streamline internal processes and expedite time to market.

*"The 3D virtual prototype has proved to be an excellent communication and negotiation tool. By presenting concrete visual aids and detailed data support, Johnson Controls is able to work very proactively and collaboratively with its customers on design. We present all this information and the prototypes within a day of receiving the style definitions."*

**Charles Gillig**  
Engineering COC Foam Director  
Johnson Controls



#### MAKE IT RIGHT THE FIRST TIME

Reach process excellence by creating viable trim cover designs ready for manufacturing, as of the first 3D/2D virtual prototype.



#### BOOST INNOVATION AND EASILY MANAGE VARIANTS

Quickly and easily compare design variants to determine which ones suit styling, feasibility and preliminary costing objectives.



#### MEET COST TARGETS AND PRODUCE RFQS FASTER

Benefit from rapid, precise and accurate preliminary costing for each new model with streamlined processes for quick RFQ turnaround and efficient communication with customers and subcontractors.



#### DRIVE DOWN PRODUCT DEVELOPMENT LEAD-TIME AND COSTS

Accelerate trim cover design cycle times with fewer product development iterations and physical prototypes.

# VECTOR

## Low to high-ply fabric cutting solution

What can you do to prevent rising costs from affecting your bottom line? How can you manage complexity profitably and at scale?

With Lectra's advanced fabric-cutting solutions, you can cut more fabric faster, at a lower cost. The Vector automotive range lets you better manage fluctuating production batches with fast, flexible changeovers. Enhance your performance by optimizing material usage while improving cut part quality.

*"Being a flexible supplier means we can more easily win contracts. With the Vector fabric-cutting solutions we have today, we can easily handle all of the different options that were not available 20 years ago."*

**Willy van Looy**  
Global Director, Advanced Manufacturing Engineering, Cut & Sew Operations  
Johnson Controls



### MAXIMIZE MATERIAL SAVINGS

Meet cost challenges with technically advanced fabric-cutting equipment.



### PREVENT FAILURES AND DOWNTIME

Gain the peace of mind of preventive and predictive maintenance.



### DRIVE MANUFACTURING PRODUCTIVITY

Achieve the lowest possible cost per cut part with best-in-class cutting room technology.



### ACHIEVE THE HIGHEST LEVEL OF QUALITY

Cut a wide range of upholstery materials with accuracy approaching zero defects.



## Performance to improve bottom-line profitability

Since 2007, Lectra's best-selling **Vector** has pushed the boundaries of speed, quality and reliability. Committed to helping automotive suppliers achieve operational excellence and profitability, Lectra recently expanded the Vector family of solutions with equipment and software engineered to improve cutting room performance.

Lectra introduced the **Vector Automotive IP series** in direct response to the cost challenges faced by vehicle seating and interior suppliers. Because automotive upholstery represents their most significant manufacturing expense, Lectra developed zero-buffer cutting technology that enables suppliers to achieve critical savings while minimizing the impact on their margins.

To help suppliers maximize cutting room performance, Lectra also launched **Vector Dashboard**, a cloud-based application that allows users to monitor each installed unit of cutting equipment by tracking key performance indicators. Centralized data analytics enable suppliers to identify key areas of improvement, focus on value-added activities and expedite decision-making.



## BRIO

How can you reduce costs in the automotive cutting room? What can be done to lower the scrap rate and improve quality?

With Lectra's Brio spreading solution for automotive upholstery, you can optimize material usage and achieve measurable fabric savings. Brio delivers the accuracy and control to improve fabric handling throughout cutting operations, laying the foundation for perfectly cut parts.



### ENHANCED ACCURACY

Perform tension-free upholstery spreading with real-time adjustment of speed and spread height controls.



### PERFECT HANDLING

Strike the perfect balance between speed and accuracy no matter how challenging the upholstery characteristics.



### SAFETY AND EASE OF USE

User-centered design enables maximum operator control and the highest possible level of safety for workers.

# VERSALIS

## Digital leather-cutting solution

How can you reduce time-to-market and control costs? What's the most effective way to improve productivity and standardize product quality?

With Lectra's fully integrated solution, gain the agility and control to manage the complete end-to-end process, from hide digitization to the offloading of cut parts. Handle increasing complexity without compromising quality, even when managing fluctuating production batches.

*"The advantages of digital leather cutting include improved productivity, improved efficiency in terms of the use of raw materials and leather, and, of course, greater flexibility to respond to customer requirements, which are constantly increasing."*

**Alberto Silvagni**  
Head, Automotive Business Unit  
Gruppo Mastrotto



### GAIN MANUFACTURING FLEXIBILITY

Handle increasing model complexity with automated processes and faster changeovers.



### MAXIMIZE HIDE EFFICIENCY

Optimize your material consumption by deriving more cut parts from each hide.



### ACHIEVE FLAWLESS CUT PART QUALITY

Produce perfectly cut leather parts no matter what the hide type or leather grade.



### OPTIMIZE THE MANUFACTURING PROCESS

Meet all your operational excellence objectives with a 4.0-ready digital leather-cutting solution.

# FOCUSQUANTUM

## Airbag cutting solution

How can you gain competitive advantage on the airbag market? What does it take to ensure long-term profitability and growth?

With Lectra's state-of-the-art laser-cutting equipment for one-piece woven (OPW) and cut-and-sew airbag fabric, you can maximize cutting capacity and drive up productivity. FocusQuantum enables you to significantly reduce your cutting cost while achieving airbag cushion quality nearing zero defects.

*"When we compare the unit output and unit cutting cost, we see a real improvement over the previous generation, so we are quite satisfied with FocusQuantum. It's more reliable and productivity is significantly higher."*

**Sky Yang**  
General Manager  
GST China



### ACHIEVE OPERATIONAL EXCELLENCE

Available for one-piece woven (OPW) and flat fabric, the FocusQuantum laser-cutting solution enables suppliers to achieve operational excellence throughout every step in the airbag cutting process, from costing to manufacturing.



### MAXIMIZE PRODUCTIVITY AND AVAILABILITY

FocusQuantum incorporates high-precision laser cutting capabilities and remote monitoring for significantly enhanced performance ensuring the highest possible rate of productivity.



### ATTAIN QUALITY NEARING ZERO DEFECTS

FocusQuantum features proprietary technologies designed to help airbag manufacturers overcome the constraints of OPW and flat airbag production to eliminate defects, for complete control over cutting quality.



### LOWER YOUR CUTTING COST PER AIRBAG

FocusQuantum delivers unparalleled productivity and cutting precision together with the enhanced reliability of predictive maintenance, enabling a high level of manufacturing excellence at an optimal cost per airbag.

# Services 4.0



## Your success is our priority

We provide all the support and guidance our customers need to make the most of their Lectra solutions and equipment. Our training and technical support programs were developed based on more than 30 years of experience working with renowned automotive suppliers around the world.

Our advanced services, expertise, data analysis and comprehensive technical support ensure that our customers fully adopt our solutions and achieve their objectives.



### IN-DEPTH KNOWLEDGE

Digital resources and face-to-face sessions enable you to set and accomplish your training goals at every stage of implementation and adoption. Our training methodology was designed to guide you through quick wins and practical application, which helps you gain independence quickly.



### CONTINUOUS INNOVATION

We give our customers immediate access to the latest functionalities incorporated into our solutions, as well as helpful information aimed at familiarizing them with new features. Continuously create value by working hand-in-hand with us to improve operations based on current best practices.



### EQUIPMENT AVAILABILITY AND QUALITY

Sensors in our equipment help us anticipate technical issues and take preemptive measures remotely to minimize machine downtime. Preventive maintenance and regular audits ensure consistent cutting quality, which helps you reduce waste and lower costs.



### EQUIPMENT PERFORMANCE ANALYSIS

Benefit from easy access to centralized data. Define and track your production key performance indicators (KPIs) to quickly identify areas for improvement.

## They trust us

ADIANT AUTOMOTIVE SYSTEMS

BOS GROUP

CHANGCHUN FAWAY

DANI AUTOMOTIVE

DRAEXLMAIER

ECA

GRUPPO MASTROTTO

GLOBAL SAFETY TEXTILES

GUANGZAN

HMT NEW TECHNICAL MATERIALS

ISI AUTOMOTIVE

JIANGSU XINQUAN AUTOMOTIVE TRIM

JINZHOU JINHENG AUTOMOTIVE SAFETY SYSTEM

KUANGDA

MARIO LEVI GROUP

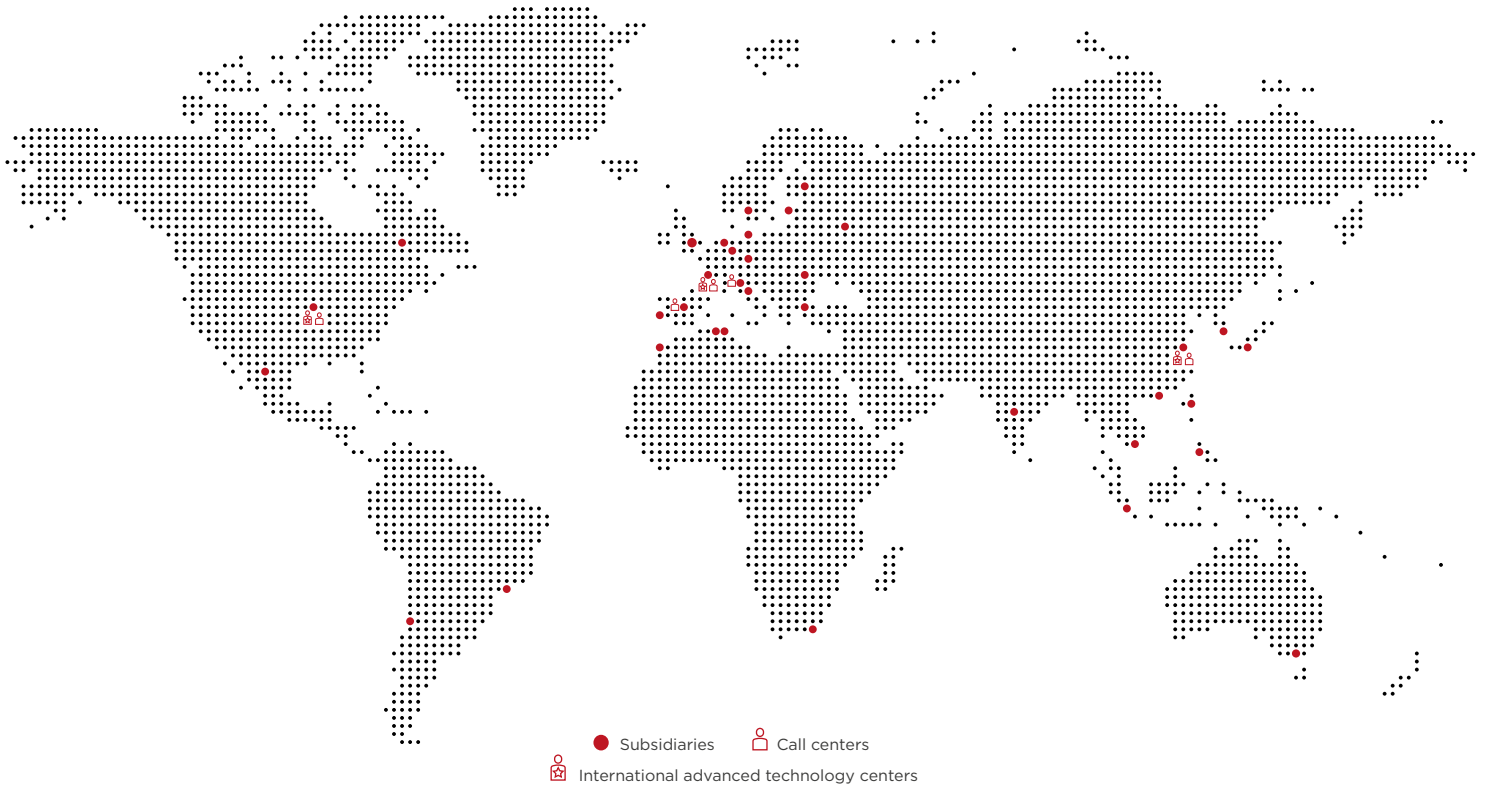
RINO MASTROTTO GROUP

SPECIALISED COVERS

YANFENG AUTOMOTIVE INTERIORS

Lectra offers the expertise, technology and industry knowledge to support you, starting with the definition of a solution suited to your needs and throughout the life of your cutting room, from implementation to support and process optimization.

## Empowering customers through industrial intelligence



### About Lectra

For companies that breathe life into our wardrobes, car interiors, furniture and more, Lectra is crafting the premium technologies that facilitate the digital transformation of their industry. Lectra's offer empowers brands and manufacturers from design to production, providing them with the market respect and peace of mind they deserve.

For more information, please visit [lectra.com](http://lectra.com)