

ARTICLE

HOW LECTRA EMPOWERS INDUSTRY LEADERS TO ACHIEVE SUSTAINABILITY SUCCESS

PART 1

FOUR WAYS TO IMPLEMENT MORE SUSTAINABLE FURNITURE PRODUCTION WITH LECTRA SOLUTIONS

Respect for the environment and employee well-being have always been core values at Lectra. We are dedicated to making sustainability a central pillar of our business strategy, backed by five areas for action. Designing eco-responsible offers that will help our customers reduce the environmental impact of their operations is one of those action areas.

Purpose-driven consumers—those that prioritize brands that align with their values—are beginning to outnumber value-driven consumers (44% vs 37%).

This underscores the urgent need for sustainability initiatives in the furniture, fashion, and automotive industries.

This article is the first in a 3-part series that will detail how Lectra helps customers in each of its main markets surmount sustainability challenges with industry-specific solutions.

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LECTRA

Sustainable change in furniture production

More and more people are making purchasing decisions with the environment in mind. Growing concern about climate change issues is leading to new demands from furniture consumers, such as higher standards in terms of **supply chain transparency, eco-friendly production, and fair labor practices.**

Some furniture companies may fear that sustainability projects will be too costly. However, in addition to building better brand reputation, increased sales and improved customer loyalty, bringing in more sustainability also helps companies save costs on materials and energy consumption.

Lectra's furniture-specific design, development and production furniture solutions help companies **maintain profitability while promoting social and economic responsibility.**

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Automatic nesting can reduce material consumption by up to 10% compared to manual nesting.



#1

Reduce fabric waste

Textile waste contributes significantly to greenhouse gas emissions and environmental degradation. In Europe alone, 10 million tons of furniture is discarded every year, the majority of which is destined for either landfills or incineration. Lectra offers a solution to optimize fabric use and reduce waste at each step of the furniture production process.

Rather than building single-use samples composed of wood and foam that will then be disposed of, using our virtual prototyping solution, **DesignConcept**, allows designers to create virtual models, evaluate feasibility constraints, and calculate preliminary manufacturing costs, all before producing the first physical model. Virtual prototyping with DesignConcept can reduce the use of physical prototypes and pattern-making iterations by 50%.

At the cutting stage, the advanced technology integrated into our fabric-cutting solutions, **Vector** and **Gerber Paragon**, enables furniture companies to use their fabric to the fullest.

Highly precise, minimal buffer cutting and automated marker making ensure that manufacturers limit both waste and cost per cut part. Automatic nesting can reduce material consumption by up to 10% compared to manual nesting.

Furniture On Demand by Lectra, our single-ply fabric-cutting solution, also minimizes waste due to the ability to nest more pieces on a single layer, use long-life, rather than single-use, consumables, and cut without using paper or plastic. Cutting with zero buffer between parts also maximizes hide yield, increasing hide savings by up to 10%. Using Furniture On Demand by Lectra has allowed Zanotta, a renowned Italian furniture manufacturer, to reduce fabric waste and production cycle times by 35%.

Versalis, the leather-cutting solution, uses artificial intelligence (AI) to ensure high quality pieces, minimize the need for recuts, and reduce energy consumption. Versalis' AI tools help operators quickly detect leather defects and avoid the production of defective pattern pieces.

Source www.furn360.eu

#2

Produce only what customers want

The United States Environmental Protection Agency estimates that 9 million tons of furniture are thrown away every year. Moving to a demand-based production model means moving away from the waste generated by 'fast furniture' and push production in general. The traditional 'push' production model depends on demand forecasts, which are often inaccurate or unreliable in times of unforeseen crisis. A pull model matches supply with demand, therefore generating zero waste.

Not only is on-demand production better for the environment, it is also better for a company's bottom line. It is less risky for furniture companies, as they are producing exactly what their customers want (no forecasts needed), in terms of quantity and quality. This means smaller inventories and fewer markdowns. Furniture companies are no longer gambling with their profit margins by predicting trends.

Furniture On Demand by Lectra helps you successfully and sustainably implement made-to-order production. Our on-demand production solution allows you to **go from order reception to cutting in minutes** by automating and streamlining the entire manufacturing process for one-off products and small series.

There are also workflow benefits with the pull system. In this process, each successive stage of production only begins when the previous stage is completed and the required materials or components are available, which results in **improved process efficiency**.

#3

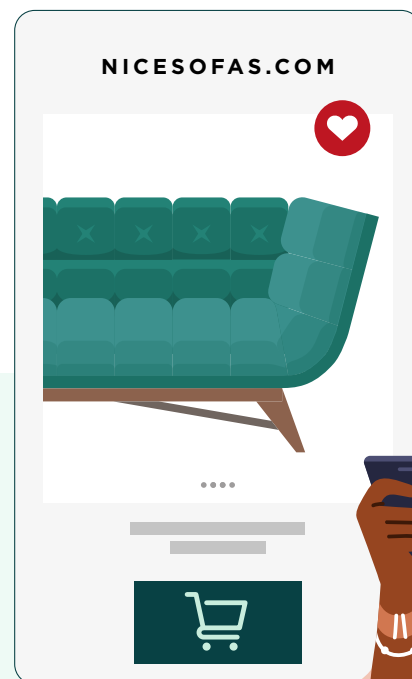
Focus on employee wellbeing

In an industry grappling with a shortage of qualified employees, providing an attractive work environment is crucial for recruitment and retention. Furniture On Demand by Lectra was developed with employee safety and comfort in mind.

The offloading and feeding processes are often the most physically demanding for cutting equipment operators. Ergonomic, intuitive equipment and technology lighten operators' daily workload by automating non-value-added tasks. This, paired with our 'My Lectra' portal for digital support, online guides and tutorials, can make the onboarding process easier and less stressful for newcomers.

Sources

- [Lectra Versalis benchmark](#)
- [Customer Story Zanotta](#)
- www.epa.gov



#4

Invest in energy-efficient equipment and implement predictive maintenance practices

With each new generation of cutting solutions, Lectra's R&D teams focus on reducing the environmental impacts of the solutions, including reducing the energy consumption of cutting equipment. For example, applying eco-design principles when developing one of our solutions resulted in a more energy-efficient turbine that reduces idling time, **lowering power consumption by 30% to 40%**. By investing in energy-efficient cutting machines with higher production capacity, companies can produce more cut pieces within shorter periods, reducing the CO₂ emissions rate for each one.

Our machines have up to **200 embedded sensors**, which are required for real-time reporting, analysis and predictive maintenance. Predictive maintenance ensures that the equipment remains reliable and working in optimum condition throughout its lifespan. These sensors help us anticipate technical issues and take pre-emptive measures remotely to minimize machine downtime. Maximizing machine uptime and preventing breakdowns with predictive maintenance help eliminate errors that create waste in terms of material, time and money.

Becoming
a **CSR leader**
in the furniture
industry.



As expectations on corporate responsibility increase, it is driving a significant transformation of the furniture industry. Furniture companies around the world are making sustainability a focal point of their corporate strategy and taking new steps towards developing more sustainable operations.

Lectra's advanced software and cutting solutions can help furniture manufacturers achieve their sustainability targets by optimizing material consumption, eliminating production of defective pieces, increasing use of long-life consumables, and improving the comfort and contentment of workers.