



# MAKE IT THE RIGHT QUALITY

## MAKE IT WITH LECTRA

Making visible quality a key differentiator for upholstered furniture manufacturers.



**Fabrizio,**  
Quality Control

## How upholstered furniture manufacturers can differentiate their brand

Today's upholstered furniture manufacturers have to find ways to satisfy several seemingly contradictory demands.

Consumers demand more visible quality and shorter delivery times, but are not willing to pay high prices for something they are likely to replace in 5-7 years. This means rising labor and raw material costs cannot be passed on.

Therefore manufacturers have to differentiate themselves through better quality and service. But because different brands have different quality requirements, manufacturers have to be able to adapt in order to provide just the right level of quality. Too high and you incur unnecessary costs – too low and consumers may reject your goods.

Drucker's statement implies that furniture manufacturers should be consumer-driven, rather than product-driven, showcasing quality and offering a wide range of styles, designs, and technology at a price their target consumers consider value for money. In this way, those same consumers become brand advocates, using social media to take 'word of mouth' to a whole new level.

When consumers love a product, they are more than happy to convince everyone they know to love it, too.

### FAST FACT

When choosing furniture, Chinese consumers attach most importance to 'quality' and 'style'.  
(Source: Hong Kong Trade Development Council)

For modern consumers, furniture is yet another way to express their own individual style. They want more visible comfort and a wider range of choice. They want sophisticated, modular pieces, recliners with moving parts and seating with embedded audio-visual technology. They may even want one-off models, made to specific dimensions. Quality is a key differentiator and, as such, has to be taken into account throughout the entire production process, from design to upholstery, so that it is visible to and appreciated by the end-consumer.

"Quality in a product or service is not what the supplier puts in. It is what the customer gets out and is willing to pay for. Customers pay only for what is of use to them and gives them value. Nothing else constitutes quality."

**Peter F. Drucker**





## Achieving the ultimate goal

So, how do you achieve, and sustain, finished product quality? Three key areas to consider are error proofing your processes, standardizing procedures, and ensuring repeatability. Removing errors automatically increases quality. Standardizing processes ensures best practices are replicated throughout the workplace, ensuring quality, shortening cycles and reducing costs. Continuous improvement and repeatability make quality self-sustaining over the long term. When teams understand that quality is the ultimate goal, they will no longer be tempted to make tradeoffs and let quality slip.

Philip Crosby, inventor of the zero-defects concept said "Quality has to be caused, not controlled." In this lite paper, we will concentrate on maintaining and improving quality and performance while overcoming the main challenges facing furniture manufacturers today: shortening time to market; protecting data integrity, improving uptime, performance and quality (OEE) and reducing costs.

## Ensuring quality while shortening time to market

These new trends in furniture consumption mean that you have to maintain or even improve quality levels, while taking as many models, variants and options to market as quickly as possible. By creating an integrated software chain, you can avoid human error caused by ambiguous communication and ensure end-to-end data quality. Automating crucial processes with Lectra's 3D virtual prototyping solution saves time and eliminates the errors that often occur when data is manually updated.

With an optimized, flexible and efficient process, you can avoid errors and save the time you waste correcting them, so that you can reduce product development time and be first to market. When combined with automation, standardization helps ensure consistent quality, and can be applied to products, procedures and even manufacturing processes.

For example, a library of standard parts, already validated in production and with known costs can be used to create, modular and sectional units, variants,

such as recliners, and customized models quickly, easily and within budget.

Using standard parts not only shortens product development time, it also helps reduce the costs of product development, production, warehousing and distribution.

## FAST FACT

In 2014, a Boston Consulting Group survey found that 54% of companies planning to re-shore cited quality as one of their main reasons for doing so.

## FAST FACT

In China, families replace their furniture every 7.6 years on average, giving a potential market of around 61 million households each year. This is in addition to middle class families who are simply upgrading their furniture.



### Protecting data reliability and coherence

The number of possible combinations of model, material, variant and functionality, including making to size is almost infinite, and the mass of manufacturing data to be managed, shared and updated has increased exponentially, and with it the risk of error. From the design phase, through pre-production, costing and production itself, data constantly moves back and forth, and with each manipulation errors have the opportunity to creep in.

As the ultimate goal is a zero error rate, it is important to automate data generation and transfer wherever possible. In upholstered furniture production, it is now possible to take a 2D sketch and transform it into a 3D virtual prototype. Advanced parametric modelling simplifies modification by linking the 2D/3D to the rest of the process, ensuring that any changes are automatically carried over to the related elements. For example, in a parametric model, all pieces that are involved in a modification are automatically updated across all the related files and documentation (BOM, 2D pattern, variants...).

Modifications to the data are quickly and effectively transferred from CAD systems to pattern-making, nesting and cutting. This automatically generates bills of material, assembly instructions and other technical documentation - using the same data.

In production, accurate performance data and traceability are essential as part of a continuous improvement approach.

Analyzing operations and processes will help you better understand the critical elements of your operations and enable you to determine when improvements are being achieved, and when it's time to change.

Your consumers' requirements evolve with time and are affected by what your competitors are doing. They may create a customer 'need' tomorrow that may not exist today, and you need to be able to anticipate these changes, and react quickly with a better quality product at a competitive price.

**DesignConcept**  
**Furniture is Lectra's solution for costing, 3D virtual prototyping and development of upholstered furniture models.**



### **Improving uptime, performance and quality (OEE) while reducing costs**

Let's look at it another way: you can't afford to ignore quality. As a manufacturer you have to deliver the right product quality and sell it at a price which enables you to achieve your margin. To do this, you have to find the optimum balance between design, production constraints and cost targets. Reducing costs without compromising on quality is a key operational requirement. So, how can your production processes and tools be made more efficient to remove errors and increase productivity? Here are four ways you can maintain quality and reduce costs:

- Look at your product: think finished quality from the design stage onwards – mistakes caught early cost less to correct, and helps prevent others before they happen.
- Look at your process: ditch a linear, sequential and time-consuming product development process in favor of one which is flexible, optimized, concurrent and collaborative.
- Look at your production tools: think availability. Ensure you constantly achieve optimum performance and cost efficiency by using up-to-date software and the latest hardware, with intelligent and well-maintained fabric spreading, leather and fabric cutting systems.
- Look at your teams: have they been correctly trained? Training is an investment which soon pays dividends. A well-trained team produces quality results more efficiently, and in less time.

“With Lectra's Versalis solution, our productivity has doubled and quality increased. Today we have a cutting solution which is perfect.”

**Dean Leullier,  
Production Manager,  
Duvivier Productions, France**

### **GET IN TOUCH**

**To discuss any of the issues covered in this Lite Paper in more detail, contact us at:**

**<http://makeitwith.lectra.com/en#contact>**