

RDD ITALIA



CUSTOMER STORY

LECTRA®

RDD ITALIA HELPS UPHOLSTERED FURNITURE COMPANIES BRIDGE THE SKILLS GAP AND ADOPT A DESIGN-TO-COST APPROACH WITH DESIGNCONCEPT

Design office RDD Italia intervenes in the critical product development and prototyping phase providing hard-to-find, highly specialized technical talent in computer-aided drafting and virtual prototyping.



Lectra solution **DESIGNCONCEPT**

The challenge

To manufacture profitably, upholstered furniture companies must aggregate exacting production planning specifications. Essential to the process, product prototypes allow flaws to be corrected before production even begins. Although virtual prototyping **offers the most cost-effective way to fine-tune designs**, a labor shortage in Italy prevents companies from hiring these specialized talents.

Lectra's reponse

Drawing on the advanced CAD/CAM capabilities of DesignConcept, RDD Italia provides digital product design and virtual prototyping services to upholstered furniture companies in the Murgian business cluster. The solution's integrated costing capability enables RDD Italia **to carry out costing estimates enabling accurate, efficient production planning**.

Results

DesignConcept shortens production cycles for RDD Italia's clients by accurately calculating manufacturing costs during the manufacturing industrialization phase, before negotiations with upholstery suppliers. **This saves time and resources otherwise allocated to trial manufacturing runs.**

Lectra solution:

DesignConcept V5R1

The Italian upholstered furniture industry is currently undergoing a critical shortage of virtual prototypists. RDD Italia was founded in 2020 to satisfy this need and **help upholstered furniture companies benefit from digital design in the product development and prototyping phase**.

RDD Italia serves the Murgian upholstered furniture cluster in the Bari-Matera region of southern Italy. In the 1950s, the local furniture industry was characterized by the production of traditional sofas and armchairs by skilled artisans. Manufacturing took on a different course altogether starting in the 1960s, when a local entrepreneur set out to produce leather-upholstered furniture on an industrial scale.

By the 1980s, rapid growth gave rise to a concentration of small and medium-sized companies that were to form the Murgian cluster. Today, as **one of the world's most prominent furniture-manufacturing clusters**, Murge serves North America, Europe and Asia, with high demand in China.



01

ITALY'S DIGITAL PROTOTYPING SKILLS GAP

Although leading companies in Murge have automated some processes with advanced technologies—such as CAD/CAM cutting systems—production remains **a relatively labor-intensive process with varying degrees of standardization**. A labor force skills gap furthermore makes it exceedingly difficult to hire virtual prototypists in-house, preventing furniture makers from benefiting from the efficiency and cost savings of digitalized design processes.

“Digital product development is a critical issue for Italian furniture companies. Our company was born from the idea of combining manufacturing expertise with the most advanced modeling, engineering and industrialization processes. Our customers have the unique talent of being able to transform a captivating design into a commercial product. When you’re too focused on the creative side, however, it isn’t easy to incorporate digital design principles that must be rigorously adhered to. Digitalized processes structure furniture-making, delivering real business benefits in the process.”

Vito d’Amato,
Chief Executive Officer, RDD Italia

02

EXPERT INTERVENTION AT A CRITICAL PHASE

RDD Italia's prototype development activities incorporate verification and validation methodologies using **virtual simulations whose high level of accuracy** is confirmed by actual production of the first piece.

"The most critical phase of the process is when the designer's idea arrives at the design office and is then industrialized. In fact, in this process, the original project can undergo substantial changes. If a project is not well calibrated, major inconsistencies can occur. It can't be emphasized enough that upholstered furniture, in addition to being attractive, must also be comfortable. If the changes are significant, the customer, hand-in-hand with the design office, must revise the initial draft to reincorporate an acceptable level of comfort. This can greatly impact the aesthetics of the original proposal."

Vito d'Amato,
Chief Executive Officer, RDD Italia



"RDD Italia intervenes precisely in this phase, working on either a concept imagined by our designers, who create our collections, or concepts initiated by our customers. At this point, we work on the modeling and move on gradually to the next steps. In both cases, we take into account the design characteristics—including height, depth and comfort—based on analyses performed together with the designer to arrive at a three-dimensional model that will serve as a master file for digital development and industrialization using DesignConcept."

Vito d'Amato,
Chief Executive Officer, RDD Italia

03

SIGNIFICANTLY REDUCED DEVELOPMENT TIME AND COSTS



In d'Amato's view, DesignConcept accelerates the iterative design process, minimizing the number of physical prototypes required to finalize designs. This shortens time to market considerably while at the same time reducing development costs. DesignConcept furthermore enables RDD Italia's customers to transform their business operations by adopting a fully digitalized and more efficient design process, as well as **by applying industry best practices in costing methodologies.**

RDD Italia's proprietary system exports an Excel file containing all product specifications by manufacturing phase, with quantities and standard costs for each requisite element. **File data are updated automatically after each revision, for accurate product costing at all times.**

"Today at RDD Italia, we are able to define what we refer to as the standard cost," notes d'Amato. "With the use of three-dimensional modeling, we have built a proprietary system that interacts and interconnects with DesignConcept to consolidate all information relating to the use of materials, cutting and sewing, assembly, leather and fabric consumption in a bill of materials. We are then able to say that a specific product with set technical characteristics will have a certain cost. If you decide to change the upholstery filling, polyurethane density or upholstery material, the system can re-assess and update product manufacturing costs accordingly in real time."

Vito d'Amato,
 Chief Executive Officer, RDD Italia

04

IMPROVED PROFITABILITY THROUGH DIGITALIZED PROCESSES

For d'Amato, accurate cost assessments are an increasingly pressing need in today's market. By helping upholstered furniture makers achieve efficient production planning with DesignConcept, RDD Italia is helping customers become more competitive. Now that they can calculate manufacturing costs during the industrialization phase, they can better negotiate material orders with suppliers to maintain a profit margin.

"Design Concept is currently the only design software enabling intervention in all areas of furniture manufacturing, especially upholstery. All activities are managed using a single solution—components, ideas, logic and variants. This is very advantageous because using multiple tools necessarily increases the risk of error or data loss. What's more, DesignConcept lets us digitally conceptualize designs from start to finish, with all the elements required to produce on an industrial scale."

Vito d'Amato,
Chief Executive Officer, RDD Italia

Digitalized processes based on DesignConcept's 3D capabilities have also enabled RDD Italia to broaden its own service offering.

"The experience we've had with our own collections has been overwhelmingly positive. When prototyping is coordinated properly, the time required to create the prototype and develop variants is significantly reduced. Development of an average model can require 15 versions and 25 to 28 working days, standard cost and 3D rendering included. In addition to providing 3D models presented on a neutral background, we are also developing a new three-dimensional visualization service using augmented reality viewers."

Vito d'Amato,
Chief Executive Officer, RDD Italia





About RDD Italia

RDD Italia offers digital prototyping and industrial design solutions to upholstered furniture companies. Its design office makes master models with high levels of precision for the validation of all design, engineering, ergonomics and comfort parameters. The firm's style center also creates original collections made available for sale to customers, and develops models imagined both by customers and by designers.

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Vito d’Amato,
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www.rdditalia.com/en/

ABOUT DESIGNCONCEPT

DesignConcept is an all-in-one virtual prototyping, preliminary costing, product development and pattern preparation solution that enables you to quickly manufacture high-quality products without going over budget. It offers unique flexibility for optimizing styles, generating technical specifications and controlling manufacturing costs.

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