

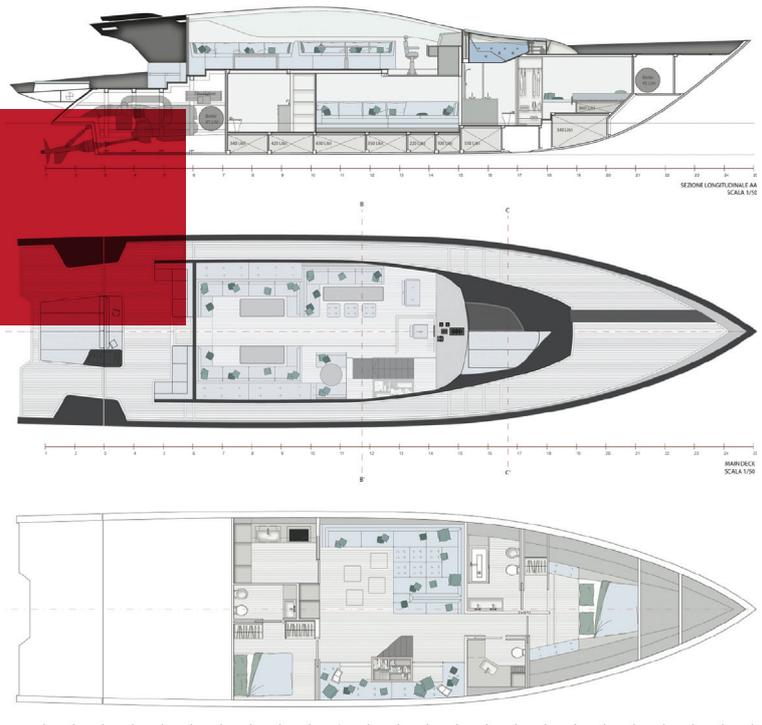
Isurus - MYD XXII edition; Designers: T. Božca, F. Cima, F. Bianchi, M. Baroni, M. Aguiar; Coordination: M. Gregori Grigic



ISURUS  
 ISURUS POWER YACHT  
*Power. Beauty. Soul.*

## Politecnico Di Milano

Shaping nautical industry experts



### Profile

Politecnico di Milano is one of Italy's largest technical universities, teaching over 38,000 engineering, architecture and design students from around the world. In 2002, the school founded the Master's program in Yacht Design to respond to the strong demand for training in the yacht sector. The program intersperses classroom work with design exercises, visits to shipyards, companies active in the industry and applied research institutes.

### Location

Milan, ITALY

### Highlight

Students in the program develop a thorough understanding of the technical and artistic elements of styling pleasure-craft interiors and management of composite materials used during production. The program's comprehensive academic curriculum is enhanced by access to the latest tools and techniques for handling the complex design and construction process of sailboats and motor yachts. In addition to Politecnico's partnership with Lectra and use of the solution provider's cutting-edge 3D software suite, DesignConcept, the program's professors are actively engaged in research and incorporate their findings into the courses.

### Lectra Solutions

# DESIGNCONCEPT

*"The boating market has changed over the past few years. There is no room for inefficiency; product quality and speed to market are non-negotiable. After seeing demonstrations of Lectra's DesignConcept solution, I saw how close it comes to solving the problems of shipyards and yacht companies."*

**Andrea Ratti**

Director of Politecnico's Yacht Design master's program

## Forging industry innovators

The Yacht Design program's chief aim is to train professionals capable of solving industry problems. The 26 students admitted to the program in 2016 represented 15 countries from Europe, Asia and North America. "The training is based on three areas: architecture, engineering and design. The synergy between the different fields gives our students a holistic vision of the industry and a flexibility that allows them to use their skills in a variety of positions in the nautical industry," says Andrea.

The Yacht Design program's partnership with Lectra provides its students with the knowledge and technical skills to optimize the entire boatbuilding process as well as familiarity with one of the most widely used technology solutions in the sector. "Our partnership with Lectra enhances our students' ability to rationalize and manage the entire boatbuilding process," declares Andrea.

## The 3D difference

DesignConcept is a natural fit with the program's focus on process optimization and creative problem solving. "Working with Lectra's digital solutions gives students the capability to drive innovation in the companies they will work with in the future. Rather than developing these skills on the job, they acquire them before they graduate," explains Andrea.

Practical, hands-on assignments like the small boat design and construction project enable students to experience the production process step-by-step and discover how they can streamline and improve each phase with advanced technology. During the project, students use DesignConcept to design the construction kit, evaluate material strength, flatten the 3D model into 2D patterns, and perform the nesting. Even

though this exercise concerns the building of a one-off boat, students also gain an understanding of how to adapt these techniques to the industrialization process.

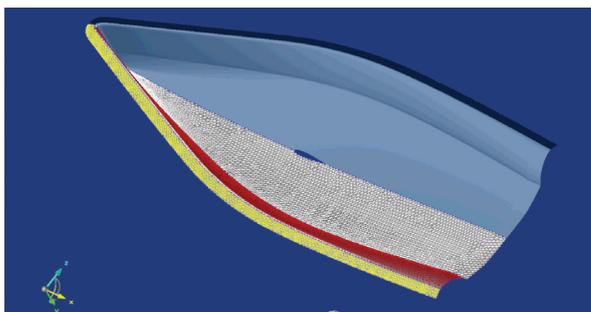
Creation of virtual prototypes reduces the amount of material waste, enabling nautical companies to build boats using better performing materials at the same cost as lower-price materials.

Digital transfer and standardization of lamination plans, as well as automated creation of the Bills of Material and Labor, reduce the risk of operator errors in the shipyard, resulting in better quality. "With DesignConcept, the students see how use of this solution makes it possible to accelerate, or even skip, the physical prototyping stage," explains Arianna Bionda, Yacht Design mentor and teaching coordinator.

## Real-world skills for real-world jobs

Students apply skills they gain in the classroom during an internship with one of the program's 127 partner companies, such as Ferretti and Azimut Benetti. The internships are an opportunity not only for the students, who work on concrete problems that companies face, but also for the mentor company. "Our students have been very successful in transferring their experience with Lectra's solution to the companies they work with. These companies now know that they can expect a very high skill level from our students," concludes Andrea.

### DesignConcept



*DesignConcept, Lectra's comprehensive 3D/2D product development solution, transforms the way companies create, cost, develop and prepare their products for manufacturing. Users can simulate new designs, create virtual prototypes, optimize production costs and study technical feasibility, all in one program.*

**The Hive**   
**@LectraOfficial**   
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### About Lectra

For forward-looking companies that breathe life into our wardrobes, car interiors, furniture and more, Lectra is committed to 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. Supporting the furniture industry, Lectra offers CAD software, cutting room solutions and expert services dedicated to upholstered models. Founded in 1973, today Lectra has 32 subsidiaries across the globe, serving customers in over 100 countries. With more than 1,700 employees, Lectra reported revenues of \$313 million in 2017. Lectra is listed on Euronext (LSS).

**LECTRA**