



Paris, France – June 30, 2010

ESI is the pioneer and world-leading solution provider in virtual prototyping.

Market Data

Listed in compartment C of NYSE Euronext Paris

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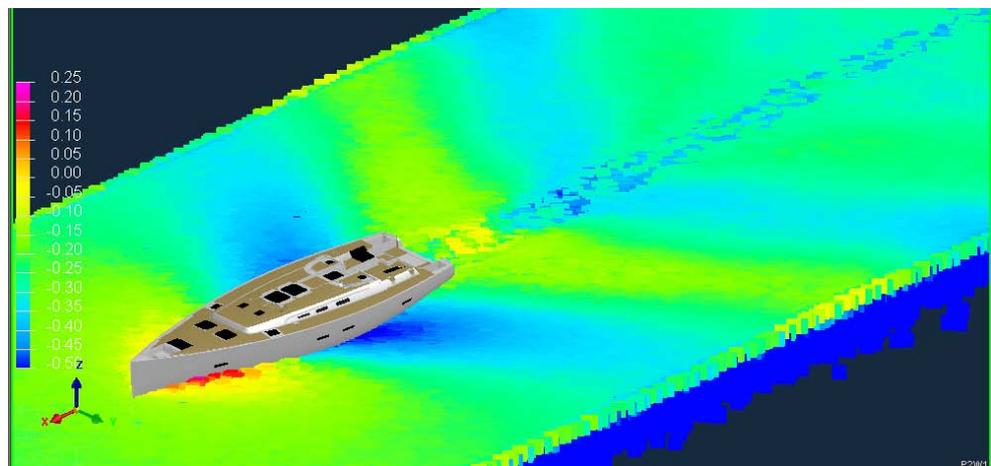


ESI sponsors INNOV'SAIL 2010 International Conference in Lorient, France

ESI will speak about innovative approaches for the design of high performance composite sailboats

Organized by the Royal Institution of Naval Architects (RINA), [INNOV'SAIL 2010](#) is the 2nd International Conference on Innovation in High Performance Sailing Yachts. It will provide an opportunity for scientists, architects, engineers, sailors and sail makers to present and discuss the latest scientific and technological research and its application in the complex and challenging field of high performance yachts and competitive sailing. [INNOV'SAIL 2010](#) will be held June 30 to July 1 in the auditorium of the Cité de la Voile 'Eric Tabarly' in Lorient, France.

[ESI](#) is a sponsor of [INNOV'SAIL 2010](#) and will contribute to the conference scope on different aspects of yacht design with a presentation providing engineers with knowledge and insights on innovative design for performance.



Grand Soleil 50 Yacht – Courtesy: Luca Olivari



Entitled ‘**Simulation-Based Design for High Performance Composite Sailboats**’, the paper will be presented by **Paul Groenenboom**, Senior Physicist at [ESI](#), on July 1 at 5 pm.

Some innovative approaches to the design of high performance sailboats use [composite](#) panels and subcomponents with high strength-to-weight ratios. Strength and survivability considerations for such boats must account for the cumulative effect that irregular and often violent wave impacts have upon them. There is not only a need to reliably quantify the fluid-structure interaction effect of the boat with waves in heavy seas, but also the design and structural assessment of the boat, which should be based on the "as-built" shape and mechanical composition of the [composite](#) material sub-components rather than on some idealized model. Achieving this requires a unified approach. The presentation will highlight the benefits to be gained through the use of draping and infusion simulation during the manufacturing of a [composite](#) material subcomponent. It will also look into the assessment through simulation of the strength, vulnerability and survivability of the boat as well as modeling the interaction of the boat with waves in heavy seas using the Smoothed Particle Hydrodynamic (SPH) feature of [ESI's Virtual Performance Solution](#) suite of solvers.

The paper concludes with a value chain for manufacturing and performance using efficient computational tools like Multi-Model Coupling (MMC) to help achieve large scale and industrial level simulations.

Delegates will also be able to find out more about [Virtual Performance Solution](#) and [ESI's Composites Simulation Suite](#) for the [marine](#) industry by visiting [ESI's](#) booth in the exhibition area.

For more immediate information, please visit:

www.esi-group.com/products/composites-plastics

www.esi-group.com/products/crash-impact-safety

For more ESI news, visit: <http://www.esi-group.com/newsroom>

About ESI Group

[ESI](#) is a pioneer and world-leading solution provider in virtual prototyping that takes into account the physics of materials. [ESI](#) has developed an extensive suite of coherent, industry-oriented applications to realistically simulate a product's behavior during testing, to fine-tune manufacturing processes in accordance with desired product performance, and to evaluate the environment's impact on performance. [ESI's](#) solutions fit into a single collaborative and open environment for End-to-End Virtual Prototyping, thus eliminating the need for physical prototypes during product development. The company employs over 750 high-level specialists worldwide covering more than 30 countries. [ESI Group](#) is listed in compartment C of NYSE Euronext Paris. For further information, visit www.esi-group.com.