

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

#### Market Data

Listed in compartment C of NYSE Euronext Paris

[ISIN FR 0004110310](#)

#### Contacts

[ESI Group](#)

Elise Lavoué

T: +33 (0)1 41 73 58 46

[elise.lavoue@esi-group.com](mailto:elise.lavoue@esi-group.com)

Visit our Press Room  
[www.esi-group.com](http://www.esi-group.com)

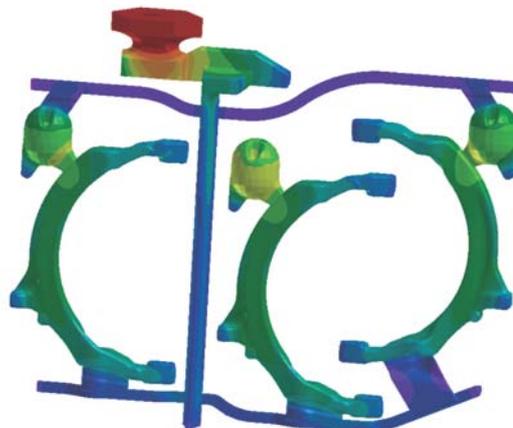
#### Connect with ESI



## Strengthening of ESI's position in casting simulation among Spanish and Portuguese foundries

Dedicated to the foundry challenges, [ESI's Casting Simulation Suite](#), including [ProCAST](#) and [QuikCAST](#), is a key solution to reduce manufacturing costs, shorten lead times for mold development and improve the casting yield and quality. The Iberian market has a high concentration of small to mid-size foundries supplying the industry worldwide. Recently, many of these Iberian foundries have decided to massively invest in simulation tools to optimize their processes.

Following the success of the three Casting seminars held in Vitoria, Zaragoza and Madrid in April 2009, and organized by [Análisis y Simulación](#), [ESI's Casting](#) agent in Spain, several sand foundries have chosen to invest in ESI's [Casting](#) software.



*Courtesy: San Eloy Fundiciones*



## Sand Casting

[ESI's Casting](#) Simulation software enabled **Suñer** and **DuritCAST** to obtain accurate thermal and metal-flow predictions prior to tooling design. Process Engineers were indeed able to develop with confidence optimized risering systems for successful castings in a short period of time.

*“We feel very confident with the simulation results obtained using ESI's Casting Solutions”, said Luis Sierra, responsible for the automatic process control at DuritCAST. “We have even decided to refuse validating new mold designs if a simulation has not been carried out in advance”.*

One of company goals of **Faed** for the coming years is to improve its productivity and limit the number of real prototypes. Faed has thus planned to simulate all its cast iron and steel components with [QuikCAST](#), ESI's fast and efficient solution for Casting Process Evaluation. Although Faed deals with massive components, weighing each several tons and measuring more than 5 meters long, the company is able to perform fast simulation in as little as a couple of hours. In addition, the new and powerful post-processing capabilities help foundry men to rapidly interpret results and track the porosities by scanning the entire component.

**Grupo Fumbarri** deals with cast iron components weighing up to 45 tons each and measuring more than 12 meters long. Using [ESI's Casting](#) Solutions, Grupo Fumbarri is able to design complex shapes while delivering accurate results at each step of the casting process.

At **San Eloy Fundiciones**, mold filling never exceed 10 seconds and filling time is one of their key process parameters to reduce production time. With the recent use of simulation, they have already achieved the conception of new gating systems, increasing their productivity without increasing the risk of oxide formation, i.e. preserving the part integrity.

## Die Casting

One of the major concerns with permanent mold applications is to monitor the die temperature during the entire process. **CIE Automotive** has been intensively using simulation for many years to design its die cooling devices, specifically for the pressure die-casting process. They now use [ESI's Casting Simulation software](#) to model their semi-solid process with the SEED technology developed by **Rio Tinto Alcan**.



## Investment Casting

**Microfusión ALFA**, major actor in the investment casting market, has been successfully using [ProCAST](#) for many years. Now the foundry has integrated the stress module in order to control the final shape, dimensions and stress concentration of their high quality components. This will help Microfusión ALFA make significant headway in their mold design to satisfy their customer's requirements for tight tolerances.

## Copper Alloy foundries

Cast iron, steel, aluminum and superalloys foundries are not the only ones to adopt simulation tools; copper alloy foundries are also seizing the opportunity. **Casuso Propellers**, producing large castings made of Cupro Aluminum for the marine industry, have recently equipped their foundry with [QuikCAST](#) and collaborated with [ESI](#) and [Análisis y Simulación](#), to solve one of their main issues - the characterization of their material properties. By using the [ProCAST](#) reverse engineering capability, they were able to determine all the material properties needed to compare porosity prediction with experimental results.

*"The use of ESI's Casting solutions has become an essential decision tool that helps most of the Spanish and Portuguese foundries to get the right design while eliminating any risks,"* declared **Emilio Mencia de Miguel**, Managing Director, ESI Spain.

For more information about [QuikCAST](#) and [ProCAST](#), please visit: [www.esi-group.com/products/casting](http://www.esi-group.com/products/casting)

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](http://www.esi-group.com).



#### About Análisis y Simulación

[Análisis y Simulación](#) is [ESI](#)'s trusted engineering partner for the sale, support and training of [ProCAST](#) and [QuikCAST](#) in Spain and Portugal. The company has over 17 years of experience in the implantation of solutions inside the foundry industry, including design and simulation of all process types (gravity, LPDC and HPDC) and employs over 60 high-level specialists covering different engineering areas.