Explore new perspectives

Company overview
Outline

- Presentation of ESTECO
- How I joined it!
ESTECO is a technology provider of numerical optimization and modeling solutions.

We are specialized in research and development of engineering software solutions for the optimization and integration of all stages of the design and simulation process.
Our vision is **transforming Inventions** in **Innovation**
Our technology is applied to

- inspire decision making processes
- increase efficiency of simulation tools for designing new products and perfecting existing ones
- help designers and researchers in acquiring new skills with optimization tools.
ESTECO is one of the front-runners in multi-disciplinary and multiobjective optimization, offering a world class product:
modeFRONTIER is an integration platform for multi-objective optimization, multi-disciplinary design, process automation and analytic decision making.

**multi-disciplinary**
modeFRONTIER enables the integration of different disciplinary needs (e.g.: fluid dynamics, aerodynamics and structural targets).

**multi-objective**
modeFRONTIER enables designers to efficiently identify the best solution between competing objectives.
Multi-disciplinary Integration couples with any numerical simulation software providing a multidisciplinary environment for design processes.

Design Process Integration
the powerful workflow combines different computational evaluations automating the execution of complex chains of design optimization, either locally or distributed across grid systems, with transparent load balancing.
Multi-objective Optimization

a wide selection of innovative algorithms determine the set of best possible solutions combining opposite objectives and considering user-defined constraints.

It often happens that opposite needs occur during the design process: a multi-objective dilemma.

modeFRONTIER’s optimization algorithms identify the best Pareto compromise. In other words the best possible solutions.
Analytic Decision Making
sophisticated data analysis is performed through
response surface functions, design and statistical
charts and multi-variate analysis tools leading
to comprehensive decision making processes
modeFRONTIER is used in a wide range of industrial sectors for **better** product and process design as well as to increase **product efficiency**.
Some examples

A few “green” examples…

Embraer plane, 1 drag count (-0.5% fuel) reduction

Bombardier fast train, -15% traction energy

BMW 320d, 16% fuel reduction

Electrolux washing machine equipped with high efficiency water pump
ESTECO HQ are located at AREA Science Park (near Trieste, Italy), a multi-sector science and technology campus where research, development and innovation bear excellent results.
The company continuously invests in young, highly educated and skilled staff:

- 90% hold a master degree
- 40+ qualified professionals, ranging among a variety of disciplines and specializations.
- 28% have a PhD
- 36% are women

The prominent scientific and academic profile of the senior management assures constant attention to research and innovation.
ESTECO started in 1999 as a University spin-off. Now modeFRONTIER is used on all continents.

The company continues to grow and keeps investing in research and development.
modeFRONTIER is sold as a Software desktop solution developed in JAVA through a network of channel partners who promotes, sells and supports modeFRONTIER worldwide.
A worldwide network

Through our first-class commercial partnerships and alliances with independent hardware and software vendors, we develop and maintain state-of-the-art industrial technology, fully integrated with any commercial and proprietary parametric software.
Our growth

The company is steadily growing: our team increases as does our yearly turnover.
modeFRONTIER users per sector

- Automotive
- Research Inst. and Uni
- Electronics
- Aerospace
- Energy
- Materials
- Appliances
- Defence and Space
- Oil and gas
- IT services and Application Sft
- Engineering
- Others
ESTECO has established a close relationship with over 200 prestigious research institutes and universities worldwide.

Just a few examples...

- Columbia University
- Stanford University
- University of Michigan
- ENSTA ParisTech
- ENSAM
- Cranfield University
- Lund Institute of Technology
- Osaka University
- Tokyo Metropolitan University
- Tohoku University
- Beijing University
- Georgia Institute of Technology
- Saint-Gobain Recherche
- Politecnico di Milano
- Università di Trieste
- DLR - German Aerospace Center

and many more…
Summing up

- young and highly skilled team
- state-of-the-art flexible technology conceived to streamline complex processes
- international sales force and support services
- network of alliances towards technological excellence

Explore new Frontiers of Innovation
My personal story or... how to make a long story short!

From academic research to...

...ESTECO’s...
... Numerical Methods Group...

(Three physicists vs. two mathematicians!) 😊
... passing from...

AREA Science Park training fellowships

BANDO PER L’ASSEGNAZIONE DI BORSE DI FORMAZIONE ALLE AZIENDE E AI CENTRI INSEDIATI NEI COMPRENSORI REGIONALI DI AREA SCIENCE PARK

ANNUALITÀ 2010/2011

Il Consorzio per l’AREA di ricerca scientifica e tecnologica di Trieste

BANDISCE

l’assegnazione di 15 borse di formazione di durata massima di un anno per attività di ricerca, specializzazione od aggiornamento, da fruirsi presso le realtà insediate nei comprensori regionali di AREA Science Park di cui 10 riservate a PMI e 5 riservate a Grandi Imprese e Centri di ricerca pubblici

Final list

Progetti che concorrono alla riserva di 10 borse in quanto PMI dei comprensori regionali di AREA:

Progetti idonei (punteggio ≥ 60):

<table>
<thead>
<tr>
<th>Centri, Istituti, Società insediati</th>
<th>Punteggio</th>
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<tr>
<td>1 ESTECO S.r.l.</td>
<td>92,5</td>
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<tr>
<td>2 EIDON-KAIRES S.r.l.</td>
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<td>3 EMAZE NTEWORKS S.r.l.</td>
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<td>4 EUROCLONE S.p.A.</td>
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</tr>
<tr>
<td>9 PROMOSCIENCE S.r.l.</td>
<td>67</td>
</tr>
<tr>
<td>10 T&amp;B ASSOCIATI S.r.l.</td>
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Thank you!

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