



Explore new  
perspectives

Company overview



# Outline

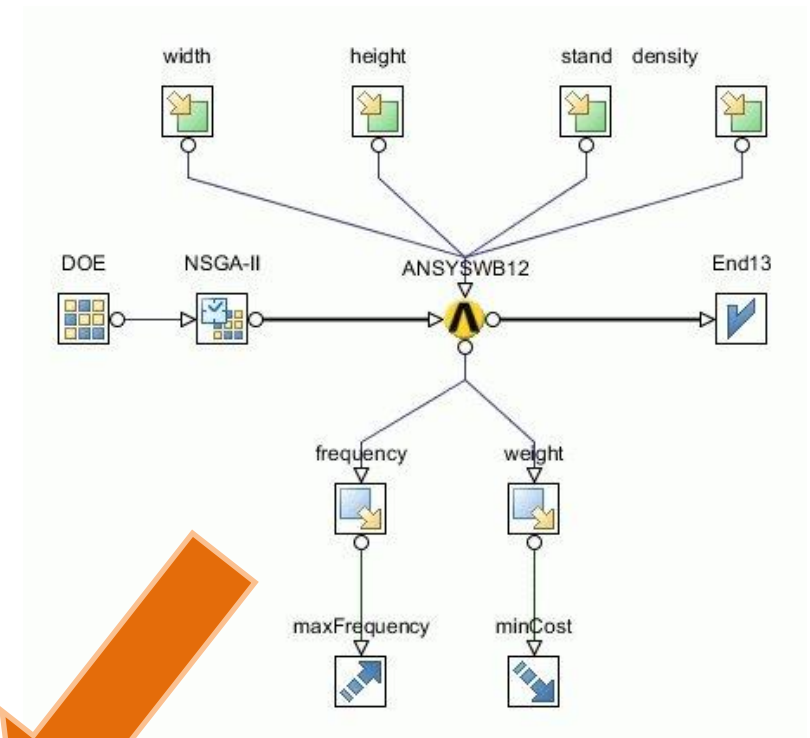
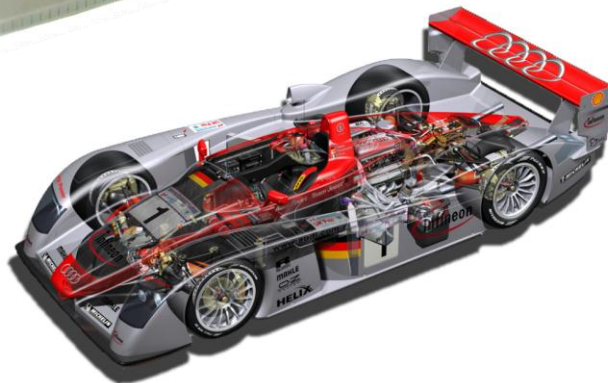
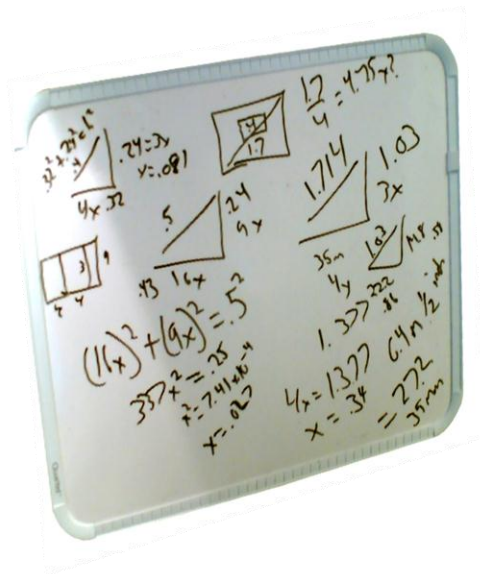
- Presentation of ESTECO
- How I joined it!

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.

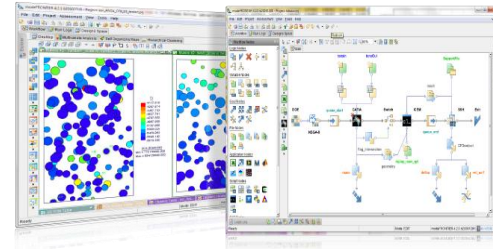
Our vision is transforming  
**Inventions**



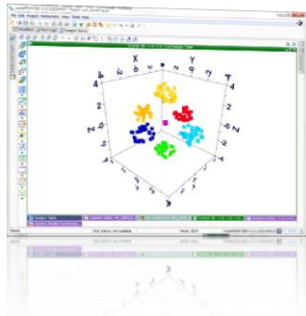
in **Innovation**

Our technology is **applied** to

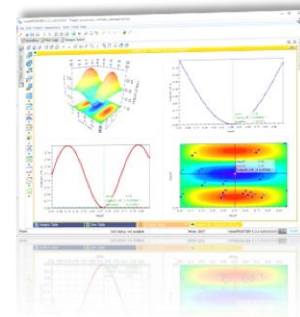
✓ inspire **decision making** processes



✓ increase efficiency of **simulation tools** for designing new products and **perfecting** existing ones

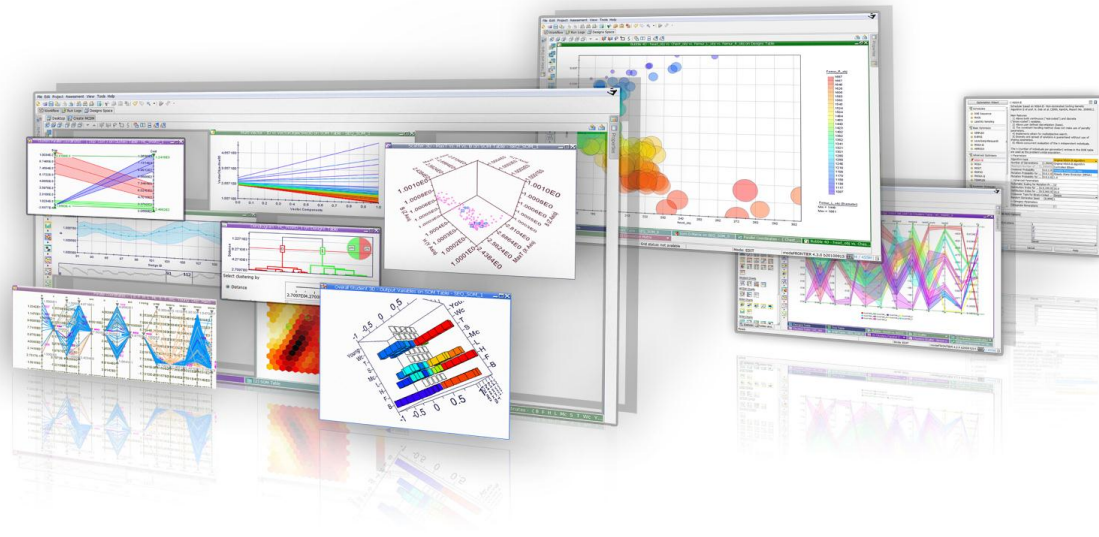


✓ help designers and researchers in acquiring **new skills** with optimization tools.





ESTECO is one of the front-runners in multi-disciplinary and multiobjective optimization, offering a **world class product**:

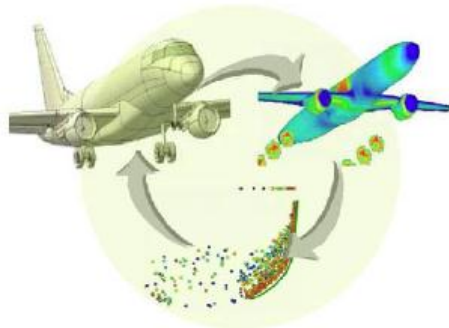




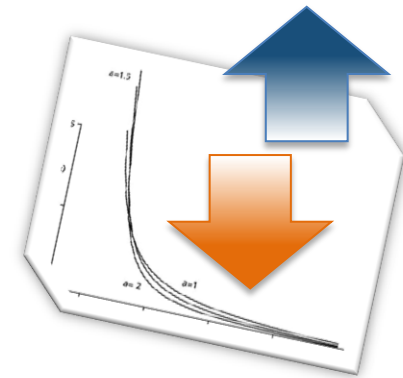
is an integration platform for **multi-objective** optimization, **multi-disciplinary** design, process automation and analytic decision making.

## multi-disciplinary

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



courtesy of EMBRAER



## 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.

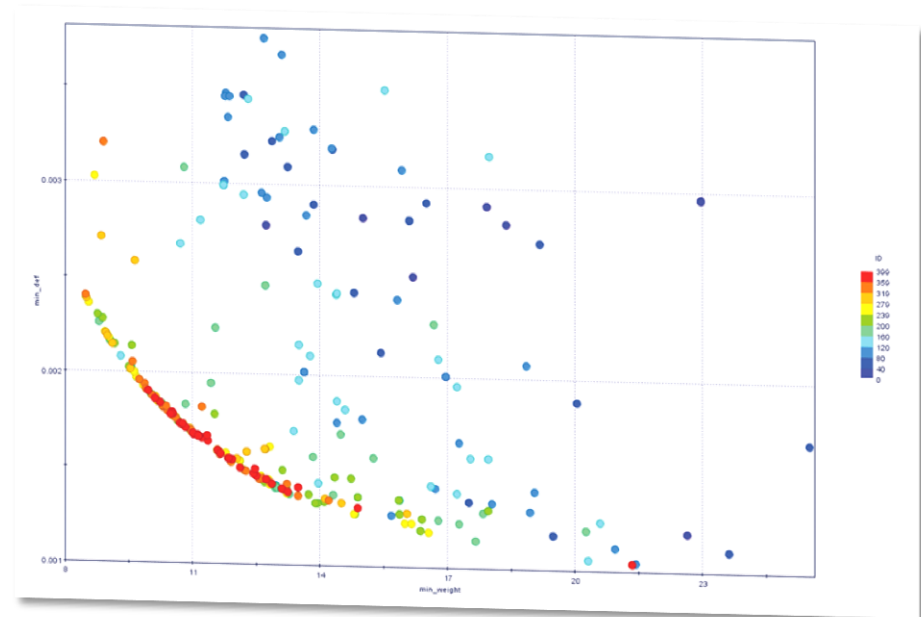


## Multi-objective Optimization

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

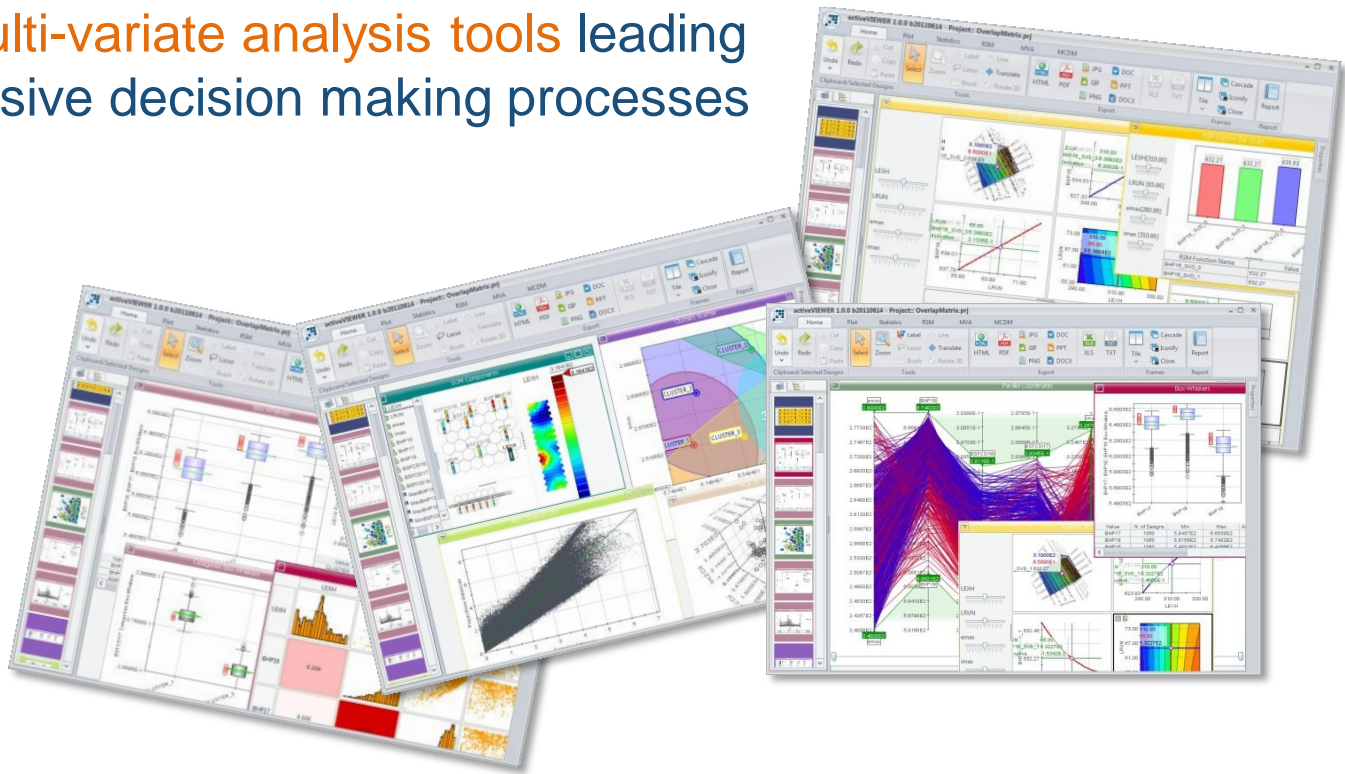
It often happens that **opposite needs** occur during the design process: a multi-objective dilemma.

modeFRONTIER's optimization algorithms identify the best **Pareto compromise**. In other words the best possible solutions.



## Analytic Decision Making

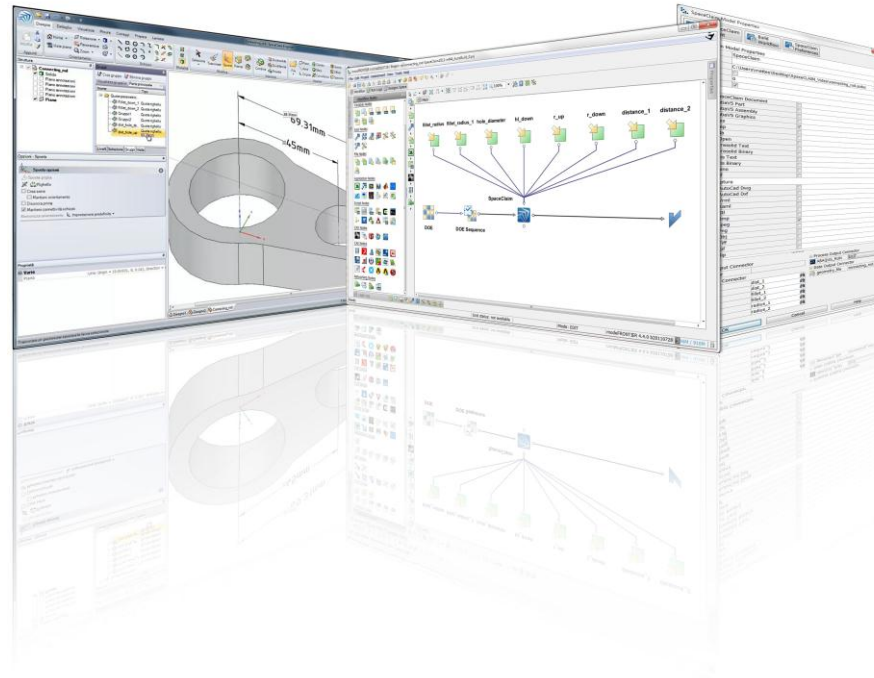
sophisticated data analysis is performed through response surface functions, design and statistical charts and multi-variate analysis tools leading to comprehensive decision making processes



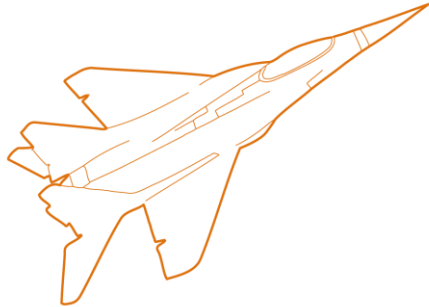


*mode* **FRONTIER**

is used in a wide range of industrial sectors  
for **better** product and process design  
as well as to increase **product efficiency**.



## A few “green” examples...



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

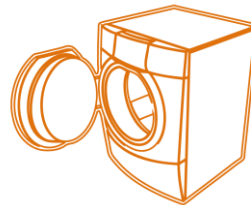
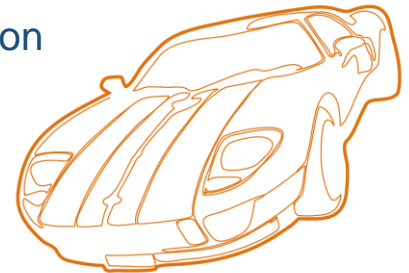


**Bombardier fast train**, -15% traction energy



*mode* **FRONTIER**

**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.

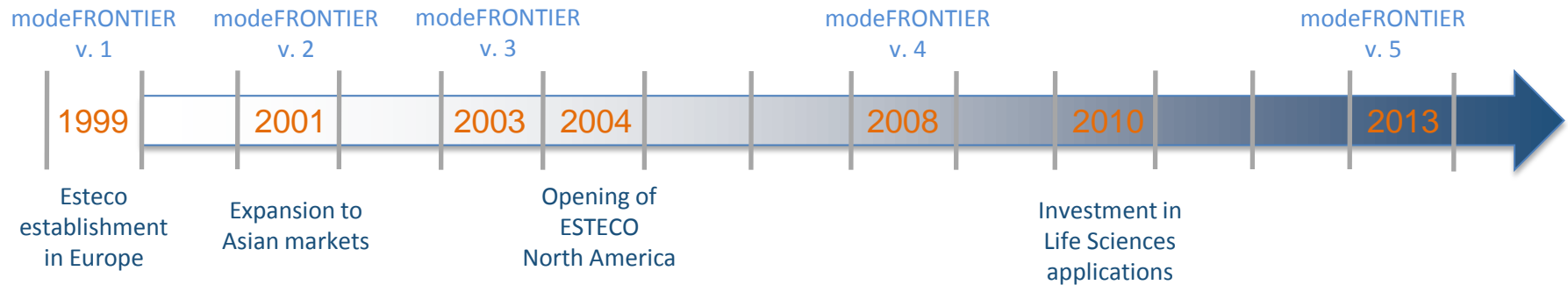


**28%** have a PhD

**36%** are women

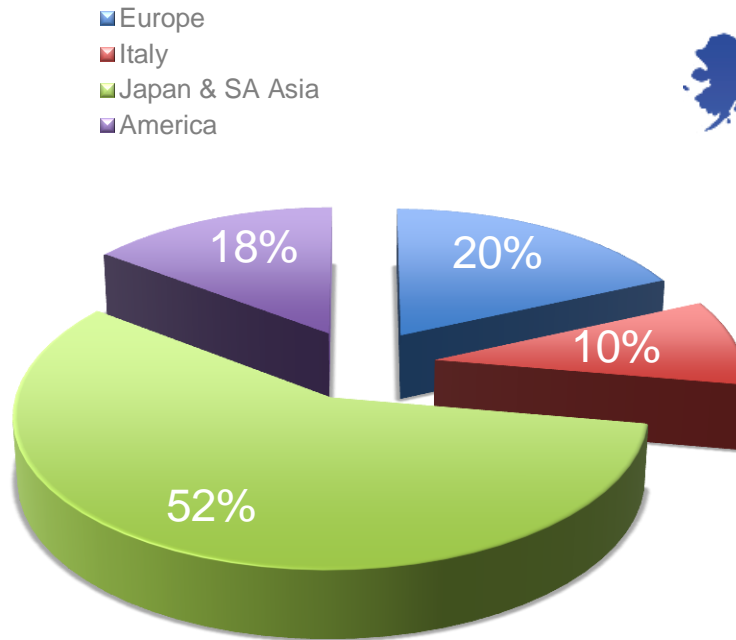
The prominent **scientific and academic profile** of the senior management assures constant attention to **research** and innovation.

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.

# Our sales network



modeFRONTIER is sold as a Software desktop solution developed in JAVA through a **network of channel partners** who promotes, sells and supports modeFRONTIER worldwide.

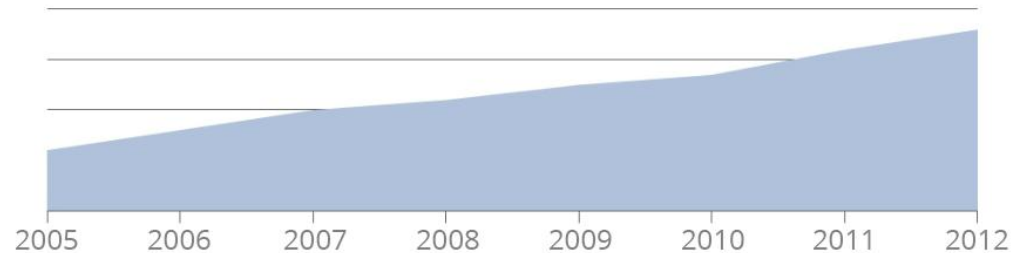
## A worldwide network

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.

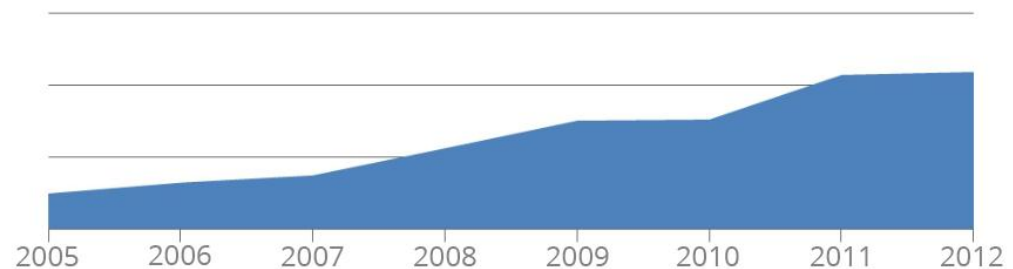


The company is steadily growing: our team increases as does our yearly turnover.

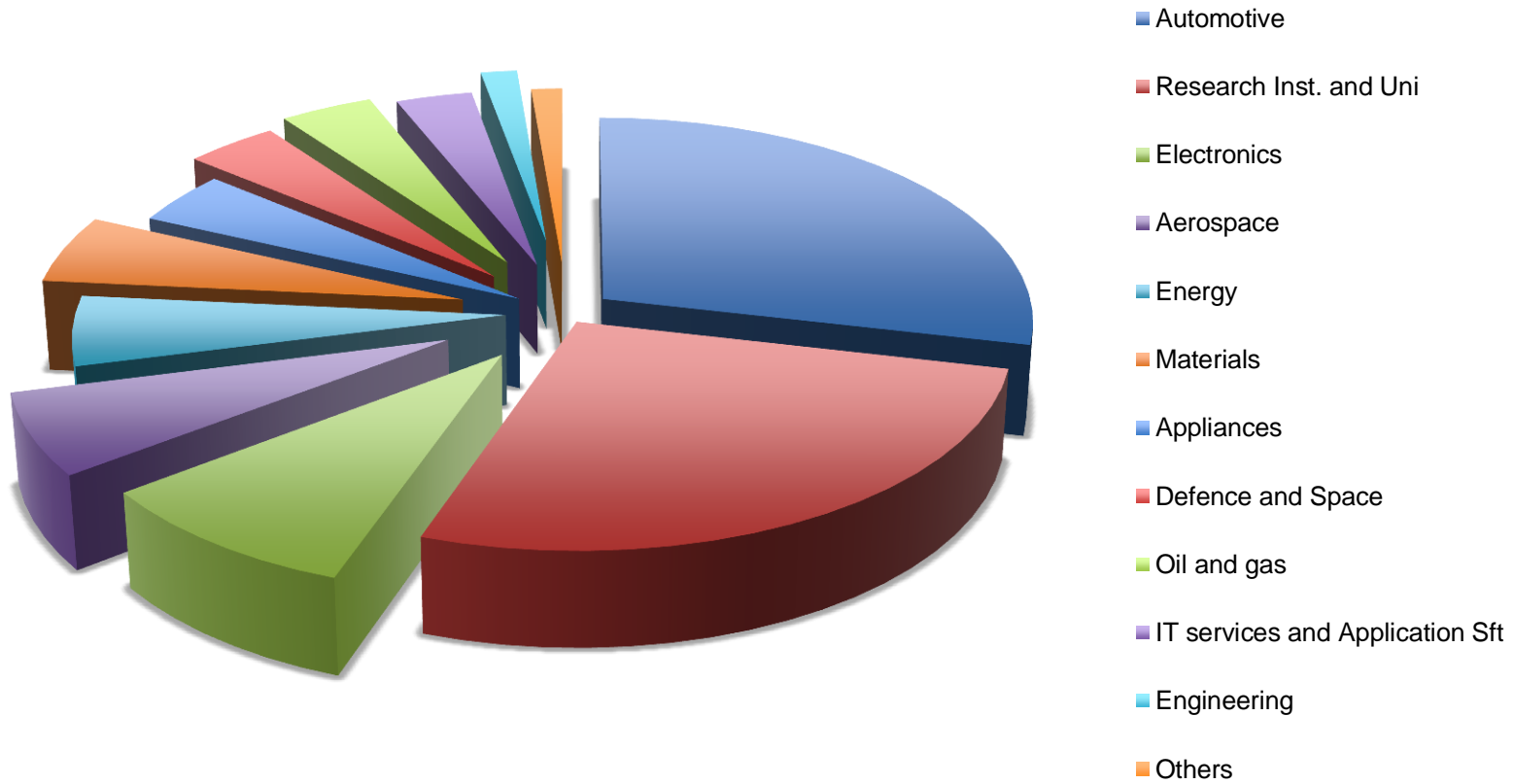
## Employees



## Revenues







ESTECO has established a close relationship  
with over 200 prestigious  
**research institutes and universities** worldwide

**Just a few  
examples...**

Cranfield  
University

Lund Institute  
of Technology

Osaka University

**Politecnico di Milano**

Università di Trieste

Columbia  
University

**ENSAM**

Saint-Gobain Recherche

**Tokyo Metropolitan  
University**

**Stanford University**

**DLR - German  
Aerospace Center**

Tohoku University

University of Michigan

ENSTA ParisTech

Georgia Institute  
of Technology

Beijing University

**and many more...**



- ✓ 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 COMPENSORI 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 compensori regionali di AREA Science Park di cui 10  
riservate a PMI e 5 riservate a Grandi Imprese e Centri di ricerca pubblici**

The logo for AREA Science Park, featuring the word "AREA" in a large, stylized, black-outlined font, with "SciencePark" in a smaller, green, sans-serif font below it, separated by a green swoosh.

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

Progetti **idonei** (punteggio  $\geq 60$ ):

**Final list**

	<b>Centri, Istituti, Società insediati</b>	<b>Punteggio</b>
<b>1</b>	ESTECO S.r.l.	<b>92,5</b>
<b>2</b>	EIDON-KAIRES S.r.l.	<b>83</b>
<b>3</b>	EMAZE NTEWORKS S.r.l.	<b>82</b>
<b>4</b>	EUROCLONE S.p.A.	<b>79,5</b>
<b>5</b>	IDROSTUDI S.r.l.	<b>79</b>
<b>6</b>	ADRIACELL S.p.A.	<b>75</b>
<b>7</b>	HYDROTECH S.r.l.	<b>72,5</b>
<b>8</b>	CBM Centro di Biomedicina Molecolare S.c.r.l.	<b>68</b>
<b>9</b>	PROMOSCIENCE S.r.l.	<b>67</b>
<b>10</b>	T&B ASSOCIATI S.r.l.	<b>65,5</b>





Thank you!

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