

# Modularity to Master Complexity



ESTECO technology evolves to a new paradigm, extending modeFRONTIER capabilities to a collaborative and flexible environment.

**W**ith an accelerating pace of request for innovation and steady increase in competition, companies today face product complexity as the next challenge. Time to market and effective life cycle management are the drivers to leverage for higher levels of profitability, inducing, however, a further increase in complexity. All along the value chain, from concept design to manufacturing and maintenance, specialists from different disciplines are summoned to take critical decisions with paramount impact on product quality. And quality, with speed of decision, often determines the market success of a product.

Engineers and designers need to master such complexity, and technology comes in aid. Software companies have often recurred to nature to get inspiration for solutions to engineer-

ing problems, and once again nature provides the inspiration to resolve the complexity of modern products manufacturing.

In nature, organisms' complexity grows with the natural selection, and so does the modularity and specialization of biological systems and units, which in turn increases the organism's efficiency and chances of survival. Take the human brain as an example: dealing with an immense number of complex tasks, the brain has different modules specialized in individual cognitive functions, but highly interconnected and collaborative, allowing the human being to achieve sophisticated tasks.

With this in mind ESTECO has developed the software package ESTECO Enterprise Suite (EES) extending its established modeFRONTIER desktop paradigm to a web-based collaborative environment.

EES combines the advanced capabilities of the optimization platform modeFRONTIER 4.5 with SOMO, the new distributed execution framework, for managing collaborative design processes. The solution empowers design teams with a sharing platform for models, workflows, simulations, optimizations and results analysis. EES, inspired by modularity, is capable of efficiently handling all stages of the product design process, with the SOMO framework. Domain experts, optimization and integration specialists and decision makers join forces and build advanced multidisciplinary optimization (MDO) frameworks and workflows, reaching a better control over the design of complex systems. Just like the brain drives the body, EES drives product development by enabling engineers to understand the complexity behind it and turn it into innovation.



For more information visit:

[www.esteco.com](http://www.esteco.com)

## About ESTECO

ESTECO is a pioneer in numerical optimization solutions, specialized in the research and development of engineering software. Perfecting engineering and reducing complexity in the design process is our vision. Our aim is to decrease the tedium and increase creativity by developing and maintaining cutting-edge software for integration, optimization and advanced data analysis.

### Contact Information:

*ESTECO North America*

1221 Brickell Ave. Suite 900 Miami, FL 33131 U.S.A.

*ESTECO SpA*

AREA Science Park, Padriciano 99, 34149 TRIEST ITALY