

The architecture engineering and construction sector is facing a demanding challenge to improve performance, reliability and comfort of buildings and reduce operational costs.

The energy consumption of buildings is one of the major aspects structural engineers and computational architects worldwide are dealing with as it has a great impact on climate. Ensuring the maximum seismic performance of a building is another important objective and designers should not underestimate it.

Moreover, finding the best and most performing and efficient design considering the entire lifecycle of the building is paramount.

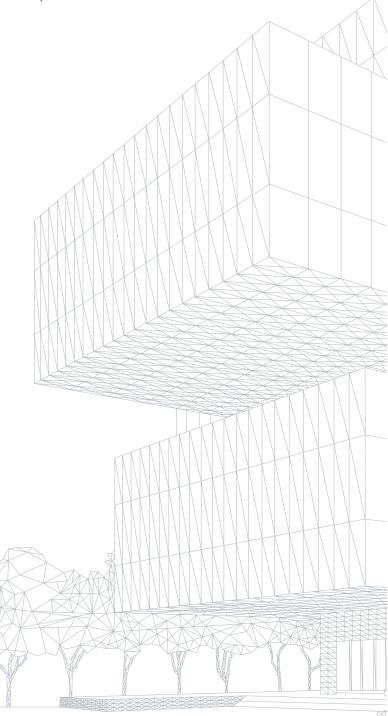
To face all these challenges engineers should examine several elements and simulation plays a key role. Completely and correctly **evaluating the impact of design choices, running multiple simulations** in a short time and optimizing all parameters will help engineers and architects find the best design, in less time and with the highest accuracy.

Advantages of ESTECO technologies

Great support to engineers and architects in maximizing building performance comes from ESTECO technologies, with process automation, design exploration and data analysis platform.

- Automate modeling and 3D building simulations to investigate complex geometries in less time
- Assess the correlation between several requirements through optimization algorithms

 Support the correct formulation of the design problem with the use of design space exploration





modeFRONTIER

VOLTA is a web platform for multidisciplinary business process optimization and the management of enterprise simulation data, enabling conscious decision-making and innovative product development.

VOLTA helps manage all cross-functional concurrent design steps by integrating multiple modeling formats. Its service-oriented architecture facilitates the execution, sharing and reuse of enterprise engineering knowledge.

modeFRONTIER is the platform for process automation and optimization in the engineering design process. Its innovative algorithms and effective integration with leading simulation tools ease the engineering process.

In numerous industries, modeFRONTIER has become essential for increasing the understanding of cost/performance factors and reducing product development time.



OPTIMIZATION DRIVEN DESIGN



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ESTECO is an independent software provider, highly specialized in numerical optimization and simulation data management with a sound scientific foundation and a flexible approach to customer needs.

With 20 years' experience, the company supports leading organizations in designing the products of the future, today.