

EXPERIENCE  
THE  
FULL  
POTENTIAL  
OF  
**ESTECO**  
**TECHNOLOGIES**



EXPLORE DESIGN PERFECTION

DESIGN THE PRODUCTS  
OF THE FUTURE, **TODAY**

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

**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.

ESTECO smart engineering suite brings enterprise-wide solutions for design optimization, simulation data management and process integration and automation.

ESTECO helps companies excel across this innovation journey, providing leading-edge technology to master engineering complexity and accomplish the shift to agile product development. Over 300 international organizations have chosen ESTECO to consolidate specialized expertise, streamline teamwork and boost product development across a wide spectrum of industrial sectors.

# OPTIMIZATION DRIVEN DESIGN

Innovate your product development process by embracing an optimization-driven approach to deliver more competitive products in less time.





## **EXPLORE EFFICIENTLY**

Extend the Multi-Disciplinary Optimization approach throughout the product development process. Handle hundreds of design parameters simultaneously, balance complex tradeoffs and quickly identify a set of optimal solutions with tailor-made optimization algorithms.



## **INNOVATE FASTER**

Automate large numbers of simulations and instantly predict and improve the behavior of complex non-linear systems, using computational resources smartly and saving time with Response Surface Methodologies.



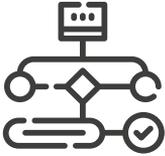
## **THINK OUTSIDE THE BOX**

Take advantage of automated Design Space Exploration, discover innovative solutions that might otherwise have been dismissed and develop groundbreaking innovations driven by intelligent algorithms.

# INTEGRATION & PROCESS AUTOMATION

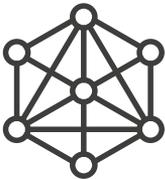
Formalize and manage all logical steps of the engineering simulation process from a single automated workflow for effective system-level optimization.





## **POWERFUL WORKFLOW**

Execute complex integration chains for multidisciplinary optimization, break large engineering problems into modules, and schedule nested optimizations to improve the overall efficiency of your design process.



## **MULTIPLE CAE TOOLS**

Seamlessly integrate third-party solvers, both commercial and in-house, into a unique, automated workflow and run multiple CAE tools from any machine within your network.



## **SIMULATION CHAIN**

Automatically run repetitive simulations and avoid manually combining the output from multiple applications by managing data exchange at process level.

# ENGINEERING DATA INTELLIGENCE

Handle data volumes from automated design exploration and optimization technologies and turn them into valuable insights to accelerate your innovation process.





## **FOCUS**

Keep all data in one place to get full insight into complex datasets, use different analysis and visualization tools, identify relevant performance metrics and focus on what is important to make the right decisions.



## **UNDERSTAND**

Gain deeper knowledge into your design alternatives, identify key factors and spot the relations among variables. Turn data into valuable insights, and propel your innovation process with a comprehensive environment for data analysis and visualization.

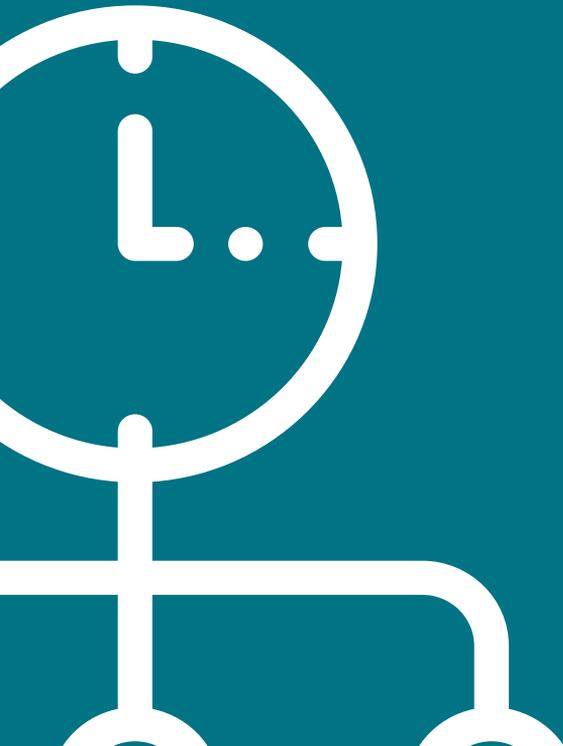


## **COLLABORATE**

Stay on track with other experts working on your engineering problem with user-friendly tools for synchronized data visualization. Compare, validate and collaboratively decide on design solutions.

# DISTRIBUTED EXECUTION

Fully exploit your hardware resources and make the best of your software investments as you advance your product development.





## **LEVERAGE CORPORATE ASSETS**

Take the burden of computational resources out of the picture and maximize the efficiency of your company's IT assets: balance workloads, minimize downtime and integrate different OS environments.



## **FLEXIBLE AND SECURE**

Fully exploit multi-core workstations, HPC clusters and public clouds, while ensuring respect of security standards with an integrated system.



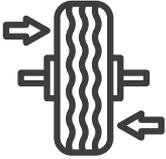
## **SAVE TIME**

Take full advantage of tailored distributed execution for seamless process automation and efficient parallel execution of MDO workflows with the benefit of computation time reduction.

# ROBUST DESIGN AND RELIABILITY

Tackle uncertainties from the early stages of design and turn them into consistently well-performing products with the lowest possible failure rate





## BALANCE FACTORS

Apply robust and reliability-based optimization to unveil designs performing well on paper and in real life. Find the most cost-effective solution and the best compromise between performance and stability in presence of uncertainties.



## REAL DESIGN

Investigate the noise factors affecting a design sample and provide an accurate estimation of simulation results sensitivity to design parameter variations, with Multi-Objective Robust Design Optimization.

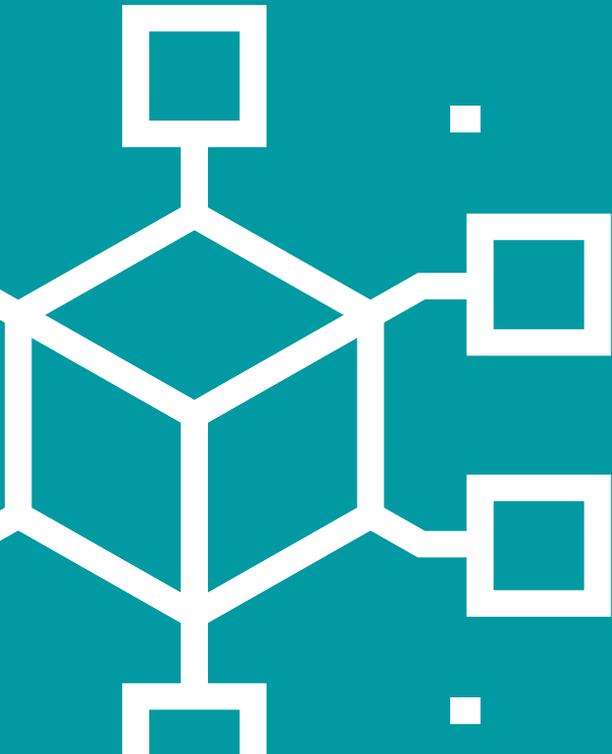


## RELIABLE APPROXIMATIONS

Benefit from accurate uncertainty quantification with the Adaptive Sparse Polynomial Chaos Expansion method. Use less computational effort without sacrificing the accuracy of the analysis.

# SIMULATION DATA MANAGEMENT

Access, organize and share key product development information securely, and preserve data in a standardized, searchable structure.





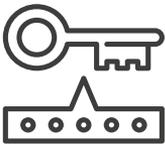
## **BUILD KNOWLEDGE**

Collaborate remotely on your work in progress, ensuring your company's intellectual property protection according to the highest standards. Track changes, access and share the latest, most up-to-date information anytime and from any location.



## **CONNECT THE DOTS**

Bring simulation data and processes in your product development management system. Track, organize and get access to up-to-date analysis models and results, simulation data and automation workflows from a web browser.



## **SAFE ACCESS**

Safely capture, version and share interdisciplinary engineering knowledge across the enterprise. Guard your simulation data at all times with a profile-based access, allowing to make each step of the process truly collaborative.

# CONTACT US

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