

DIGITAL ENGINEERING: CALCULATION AND SIMULATION



Calculation and simulation to improve the performance and robustness of your products, reduce the time-to-market and maximize equipment availability.

Your expectations

You want to improve the performance and robustness of your products (design to cost, “get it right the first time”), accelerate the validation of your products and reduce the time to market (reduction of the time and costs of testing) as part of your product development process.

You want to guarantee your customers that you will provide in-service operational maintenance for your products for maximum availability rate.

In more concrete terms, you need to:

Validate the mechanical sizing of a new product or a new design of metallic or composite parts to the extent strictly necessary

Make a technological leap by integrating numerical simulation tools, to provide services with more added value
Estimate the Remaining Useful Life (RUL) of your components or items of equipment with a view to providing optimum through-life support

Broaden your current computation skills or integrate new ones to offer new simulation / computation services within your engineering and design department

Improve the reliability of your projects through calculation-test correlations

Validate and optimise your manufacturing processes (cutting & deep drawing, forging, etc.)

Our solutions

As a key player of the Industry 4.0 with expertise in numerical simulation and mechanical engineering, we offer you **computation & simulation services and assistance perfectly suited to your trade requirements.**

Our experts will also help your teams upgrade their skills through the **integration of software tools** into your company and by providing **dedicated training courses.**

Below is a list of our areas of expertise:

Numerical simulation and design of pressure equipment in compliance with applicable regulations (CODAP, COVAP, CODRES, EN 13445, etc.)

Seismic simulation

Computational Fluid Dynamics (CFD) simulation

Structural mechanics simulation

Simulation of fluid / structure interactions



Thermo-mechanical simulation
Simulation of manufacturing processes
Simulation of bolted, welded, riveted and bonded joints
Fatigue strength simulation on metallic or composite materials
Simulation of cathodic corrosion protection systems
Simulation of mechanical components in power transmission systems (toothed wheels, reduction gears, shafts, etc.)
Simulation of multi-material sealing solutions
Topology optimisation for parts made by additive manufacturing
Optimisation of the design of composite parts
Modelling of non-destructive tests

Your benefits

The guaranteed impartiality of a Technical Centre
Multi-sector and multiphysics expertise for a robust and comprehensive assistance service
An organisation that will offer you agile and competitive services
Guaranteed compliance with the applicable regulatory requirements through our active contribution to the various standardisation bodies
A head start in the Industry 4.0 with access to the latest simulation methods and technologies



Question and Answer Service
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