

### MECHANICAL AND MECHATRONIC R&D ◀

MECHANICAL AND MECHATRONIC ENGINEERING SUBCONTRACTING MANAGEMENT PRODUCTION AND ASSEMBLY





M-Tecks EAC is approved Research Tax Credit and Innovation Tax Credit the General Directorate for Research and Innovation

# MECHANICAL ENGINEERING BY NUMERICAL SIMULATION

Reduce your project uncertainty

Our skills as a complement to your team.

→ As a support for your team on complex issues.



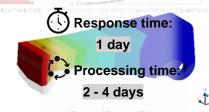
- Vibratory / seismic analysis
- Non-linear calculations
- Thermomechanical coupled analysis
- Fatigue strength under cyclic and random loads

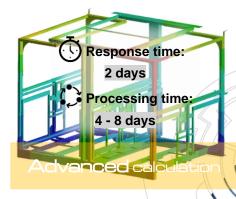
Composite calculations

**Optimization** 

Fast dynamic analysis

CFD calculations







Depending on subject

# Ansys









M-Tecks EAC

Company

More details on our website: www.M-TecksEAC.com

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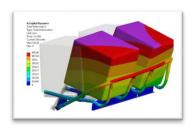
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# AREAS AND APPLIED NORMATIVE **FRAMEWORKS**

# Fast dynamics

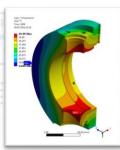


- · Crash of an object on a load stop
- Structure deformation during the impact
- ▶ Automotive



- ▶ Industry
- ▶ Defence

# Thermomechanical fatigue



- Temperature evolution in the room
- Determination of mechanical stresses generated by thermal gradients
- Fatigue performance verification by checking the usage factor
- Nuclear



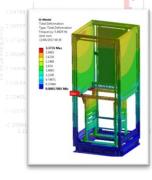
▶ Industry



▶ Railway



# Seismic / Vibration

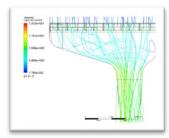


- Vibratory performance of the structure
- Calculation of resonance modes
- Verification of seismic strength by recombination of the modal basis
- ▶ Nuclear



- ▶ Building
- <u>ab</u>
- ▶ Industry ▶ Defence

## Fluid



- · Calculation of pressure loss in a pipe
- Determination of the minimum returnable flow rate
- Checking of the mechanical strength of the pipe under static pressure
- ▶ Industry



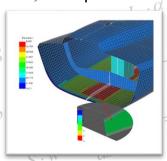
▶ Process



▶ Nuclear



## └→ Composite



- Determining the stacking sequence and manufacturing process according to the technical and economic requirements
- Calculation and optimisation of composite parts
- ▶ Industry



Aeronautic



▶ Railway



More details on our websites www.M-TecksEAC.com