



# Mechanical Engineering Industrial Process Engineering



## ANALISIS-DSC

PROCESS AND MECHANICAL ENGINEERING

July 2024

# ANALISIS-DSC



## Company:

We are a SME engineering service company specialized in **Mechanical** and **Industrial Processes** using **CAE** (Computer Aided Engineering) software tools.

## Engineering services such as:

- Basic Engineering.
- Failure Engineering.
- Analysis and Optimization of Industrial Processes.
- Scale-up/Scale-down Industrial Processes.
- Ventilation Analysis and Optimization (Climatization and Fire Safety).

## Our history:

- **2002** company was founded, as distributors of CAE software.
- **2006** we start offering mechanical and industrial processes engineering services using **CFD** (Computational Fluid Dynamics) software tools.
- **2009** we broaden our engineering services using **FEA** (Finite Elements Analysis), **DEM** (Discrete Elements Modelization) y **SES** (Subway Environment Simulator) software tools.

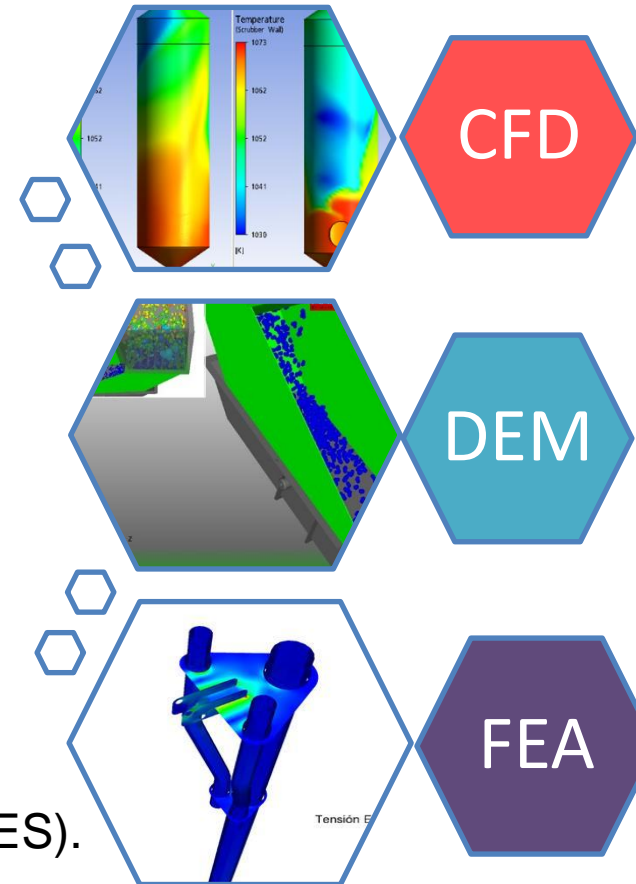
# Engineering Services

## • Applications

- Mechanical-Structural.
- Fluid dynamics.
- Thermodynamics.
- Granular Flows.

## • Tools:

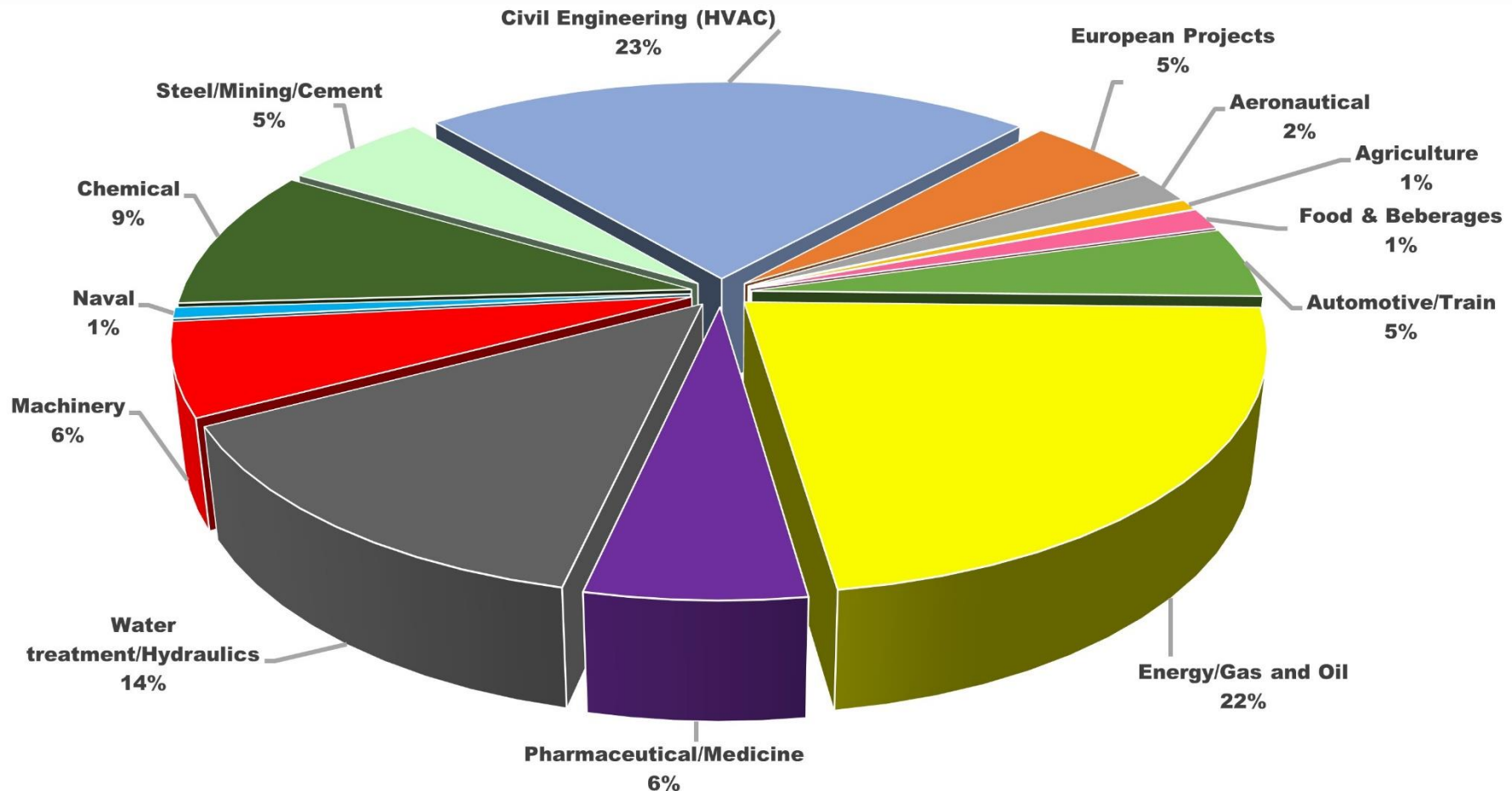
- CAD.
- CAE:
  - Computational Fluid Dynamics (CFD, SPH).
  - Finite Element Analysis (FEA).
  - Discrete Element Method (DEM).
- Specific Tools (Subway Environment Simulator, SES).



# Engineering Services



Over 240 projects developed for over 185 customers.



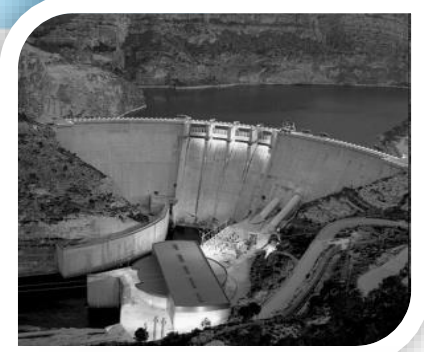
# Engineering Services

## Optimization/Improvement of Industrial Processes:

- Pressure Drop Reduction.
- Heat Transfer Improvement.
- Ventilation and Climatization Studies.
- Multiphysics (gas/solid/liquid) mixing time.
- Chemical reactions.
- Aerodynamic Loads Reduction.
- Gas distribution, combustion and particle emission.
- Solid particle transport and drying.

## Design of Industrial Equipments/Products:

- Prototype Development.
- Design Scale-up.
- Basic Design Engineering.
- Experimental results validation.

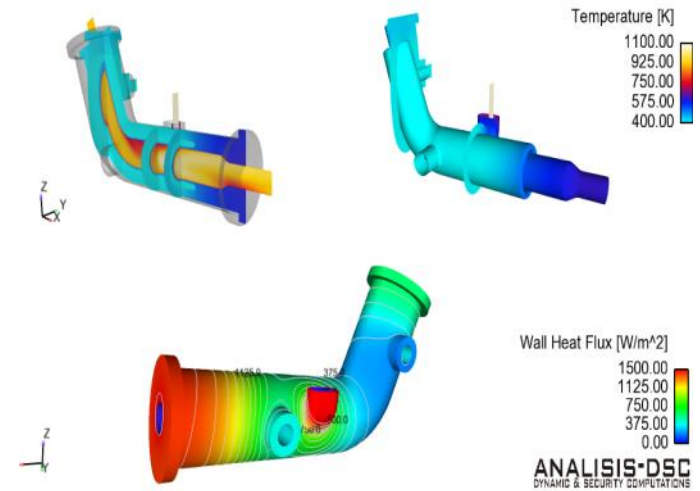




# Engineering Services

## Damage equipment analysis:

- Erosion.
- Breakdown.
- Thermo-mechanical stresses.
- Corrosion.
- Cavitation.
- Vibration.
- Fatigue.



## Contingency analysis (Incidents/Accidents):

- Particle and contaminants emissions.
- Explosions.

## Fire safety in civil engineering:

- Fire safety systems (Temperature and smoke dispersion).
- People evacuation.

## Ventilation/climatization in civil engineering:

- Comfort evaluation / Ventilation systems.





We are a R & D orientated and focused company so that we can become your technological partner. We participate in R+D projects, national (CDTI, MINECO, etc.) and European (Horizon Europe, H2020, Eranet, etc.). European R&D Projects in which we were or we are partners:

SECTOR	PROJECT	PROJECT	PROJECT
RENEWABLE ENERGY	ASTEP <a href="http://www.asteproject.eu">www.asteproject.eu</a>	SUSHEAT <a href="http://www.susheat.eu">www.susheat.eu</a>	
AGRICULTURE	DIVINE <a href="http://www.divine-project.eu">www.divine-project.eu</a>	DIGICIRC	
NANOMATERIALS	NanoPAT <a href="http://www.nanopat.eu">www.nanopat.eu</a>		
BIOREFINERY	BIOSPRINT <a href="http://www.biosprint-project.eu">www.biosprint-project.eu</a>	FUELGAE <a href="http://www.fuelgae.eu">www.fuelgae.eu</a>	
MANUFACTURING	DIY4U <a href="http://www.sintef.no/projectweb/diy4u">www.sintef.no/projectweb/diy4u</a>	STARHAUS <a href="http://www.starhausproject.eu">www.starhausproject.eu</a>	RECENTER
MINING	EXCEED <a href="http://www.exceed-horizon.eu">www.exceed-horizon.eu</a>		
PROCESS INTENSIFICATION	Intensified by Design (IbD)		

We are interested in participating as partners in other European projects in areas such as: Water, NMBP, Energy, Biorefineries, Batteries, etc. In case you would be interested in presenting a European proposal with us, please do not hesitate to contact us.

# We are members or partners at

We are members or partners at different associations like:



**Batteries Europe**



**BNN - BioNanoNet**



**CEIDEN**



**Crowdhelix**



**PTE-ee**



**FOTOPLAT**



Red TES  
Red española de almacenamiento  
de energía térmica

**Red TES**



**Solar  
Concentra**

**Solar Concentra**



**Bioplat**



# Contact

If your company is interested on additional information about our services, do not hesitate to contact us at:

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