

INAS
power to change

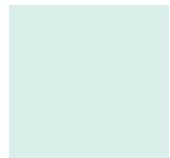


July 2016

Your Partner

for CAD/CAM/CAE solutions and services

Ioana Tircomnicu-Unga
Sales Manager



25 | INAS, in short..

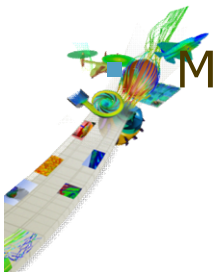
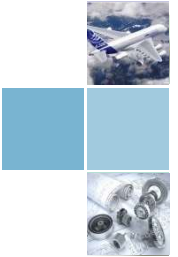
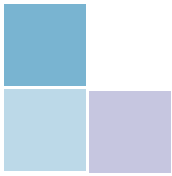
- Founded in 1991
- INAS SA was the first private research institute in Romania offering
 - Technical Support
 - Training
 - Engineering Services / Consulting
- Reseller for state of the art CAD/CAM/CAE/PLM solutions
- Covering multiple industries
 - Automotive, Aerospace, Oil& Gas, Heavy Industry, Machinery, Industrial Equipment, ...
- At present: 48 Employees
- ISO 9001:2008 Certification

Member of TechNet Alliance



INAS was founded on the belief that working together as a team with our customers, creating a win-win, highly profitable situation are fundamental to a successful and long term partnership.

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Complete Solution Set CAD/CAM/CAE/PLM

Multiphysics | Structural Mechanics (including Explicit Dynamics) | Fluid Dynamics | Electromagnetics LF & HF



PTC®

Creo Essentials | Mathcad | Windchill | Arbortext

1991

1993

MAGMASOFT - foundry process simulation



Vericut – CNC Machine Simulation and Part Verification

1994

2007

Comprehensive software solutions for the infrastructure lifecycle



3D CAE for plastic injection molding

2008

2009

Stand-alone CAM Software



World's most comprehensive materials database

2009

2015

Design Optimization Software



2016



25 years, helping our customers create great products



Auto /Aero /
Engineering
Services



Heavy
Industry/
Machinery



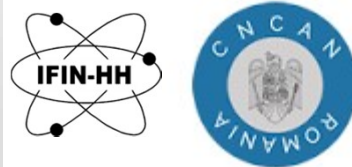
Industrial
Equipment /
Consumer goods

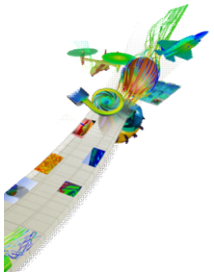
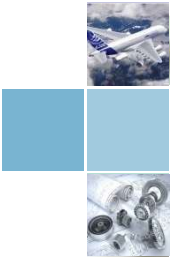
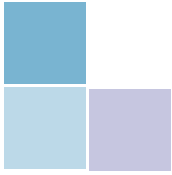


Research
Institutes



Universities





Engineering Services / Consulting

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CAD/CAM Capabilities

Conceptual, Technological and detailed CAD/CAM

Detailed & collaborative design, 3D modelling, advanced assembly and part detailed production drawings

- Complex geometries
- Large assembly
- Sheet metal parts
- Styling aesthetics surfaces
- etc

Tooling design starting from original part for:

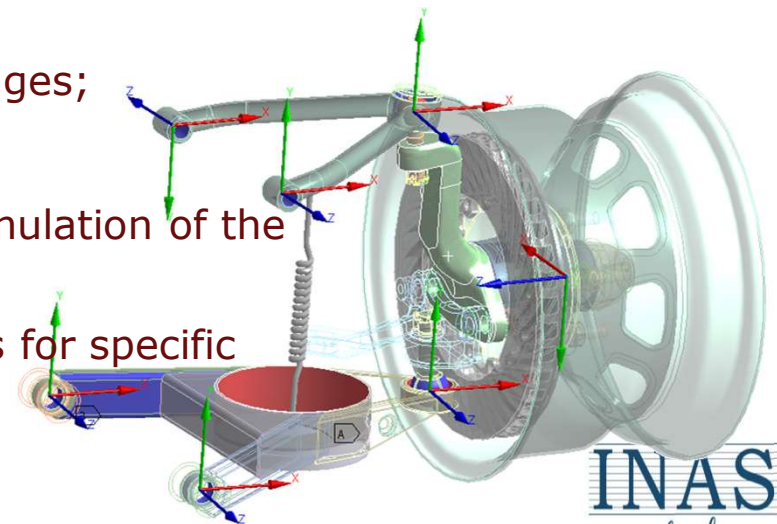
- plastic parts (mould design - mould cores and cavities, complete mould assembly)
- sheet metal parts design and manufacturing
- casted parts: mould, gating, dies

CAD import and repair from various CAD packages;

CAD transfer to simulation packages

Design of manufacturing process, computer simulation of the real NC process.

Development of specialized NC post-processors for specific CNC equipment



CAE Capabilities

Structural

- Static and dynamic (time response), linear and nonlinear analysis
- Dynamic (frequency response) analyses

Thermal

- Steady state and transient

Fluid dynamics (CFX & FLUENT)

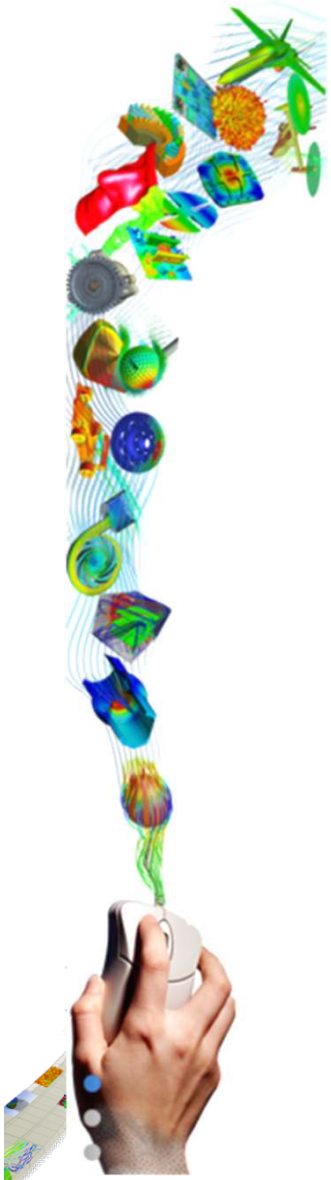
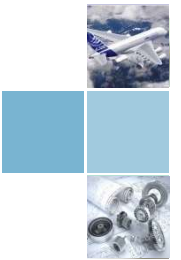
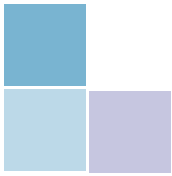
- Steady state and transient

Coupled field

- Steady state and transient

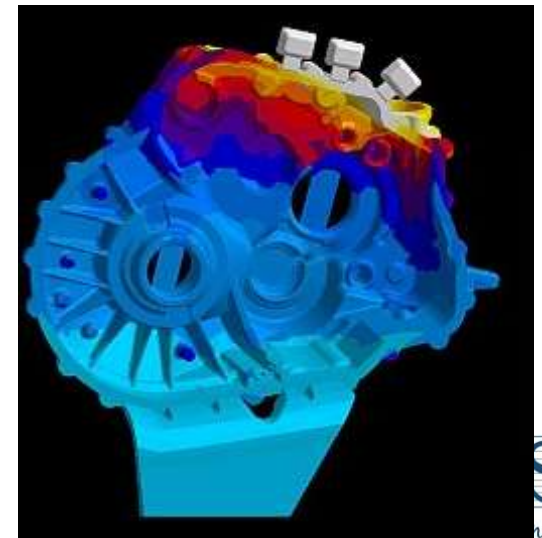
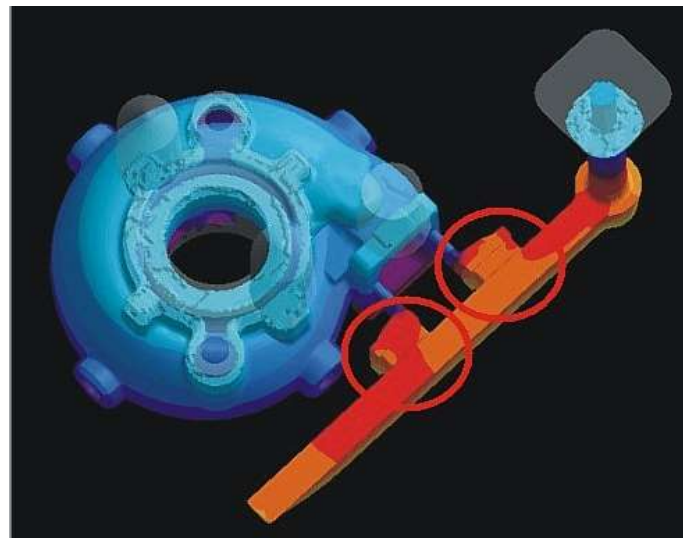
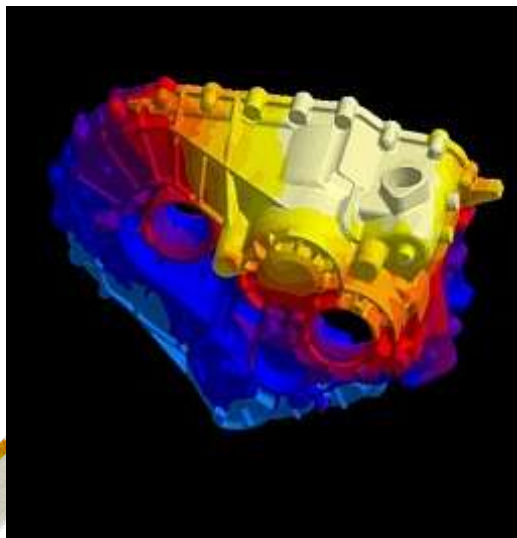
Explicit solutions (LS-DYNA, AUTODYN)

- Crash, impact, collision and drop test studies
- Penetration, blast and explosion studies



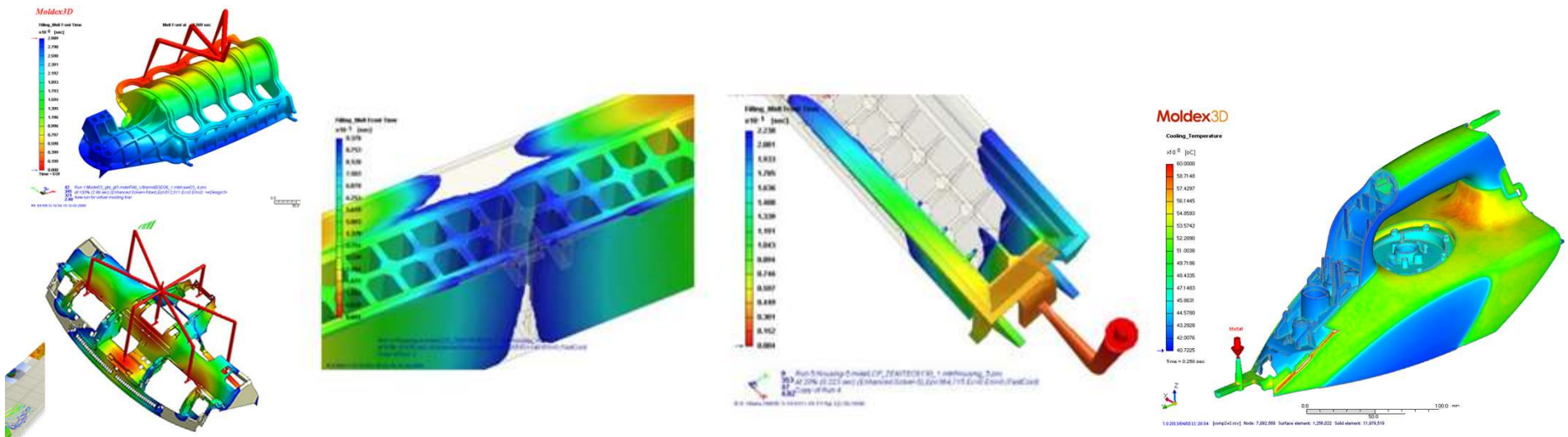
Casting Simulation Capabilities

- Gravitational and high / low pressure casting simulation, investment casting, rotacast
- Ferrous (steel and iron) and non-ferrous metals casting simulation
- Mould filling and solidification simulation
- Quality predictions (porosities, hot crack, cold crack, ..)
- Material properties (iron), residual stress and deformed shape (iron and steel)
- Optimization for casting process and quality of product



Plastic Injection Simulation Capabilities

- Filling patterns to predict manufacturing problems, as weld lines, air traps, short shots, ..
- Density variation and melt flow behaviors during the packing process to determine gate freeze time, efficient packing time and pressure, ..
- Optimization of the molding and cooling circuit designs to reduce time
- Shrinkage and warpage behaviors
- Evaluate insert molding, over molding and multi-shot sequential molding process
- 3D fiber orientation
- Special injection technologies: GAIM, WAIM, MuCell, ..



Main customers

