GECI Engineering Services

Bucharest Romania

GECI INTERNATIONAL GROUP

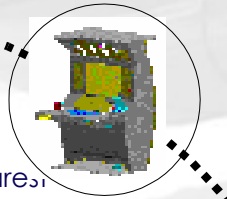
FD 728 JET fuselage is one of the most important projects where the Romanian engineers with all departments were involved (design, structural analysis and PDM)

A380 Models

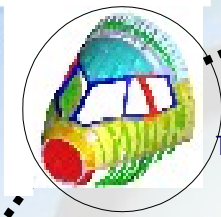
Skylander Conception

A400M Models

CASA Models



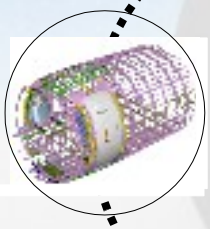
Conception, calculation and optimization of the automotive structure using the finite element method

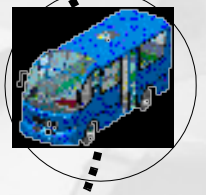


A coherent unity of multidisciplinary skills

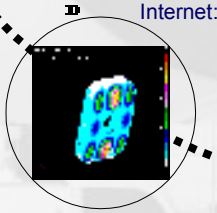
The Quality Management System has been established to comply with the International Quality Management Standards EN 9100/2003 and the Bucharest Office was certified by Bureau Veritas Certification in October 2006

- The independent group GECI INTERNATIONAL was created in 1979,
- President General Manager : Mr.. Serge BITBOUL,
- Over 28 years of engineering experience in aeronautical, space, automotive and terrestrial transportation projects,
- Offering services to prestigious companies in aero, auto and naval field of activity. Developing Skylander project, a robust and versatile commuter aircraft.
- Address : Bulevardul Malesherbes, nr. 105 bis, 75008 Paris,
- Internet: http//:www.geci.net.

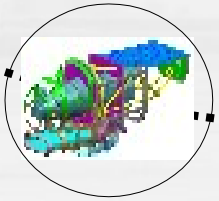




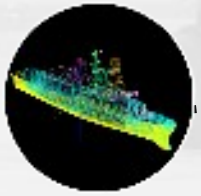
External load distribution to an airframe structure, displacements, strains, stress analysis, post processing required for detailed stress analysis



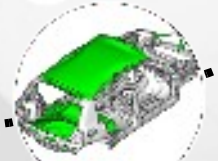
Strength justification reports for certification, work on concessions regarding structural salvage and repairs.



Aircraft Models



Naval Models



Automotive Models

Design and FEA Models

INTERNATIONAL PRESENCE OF THE GROUP

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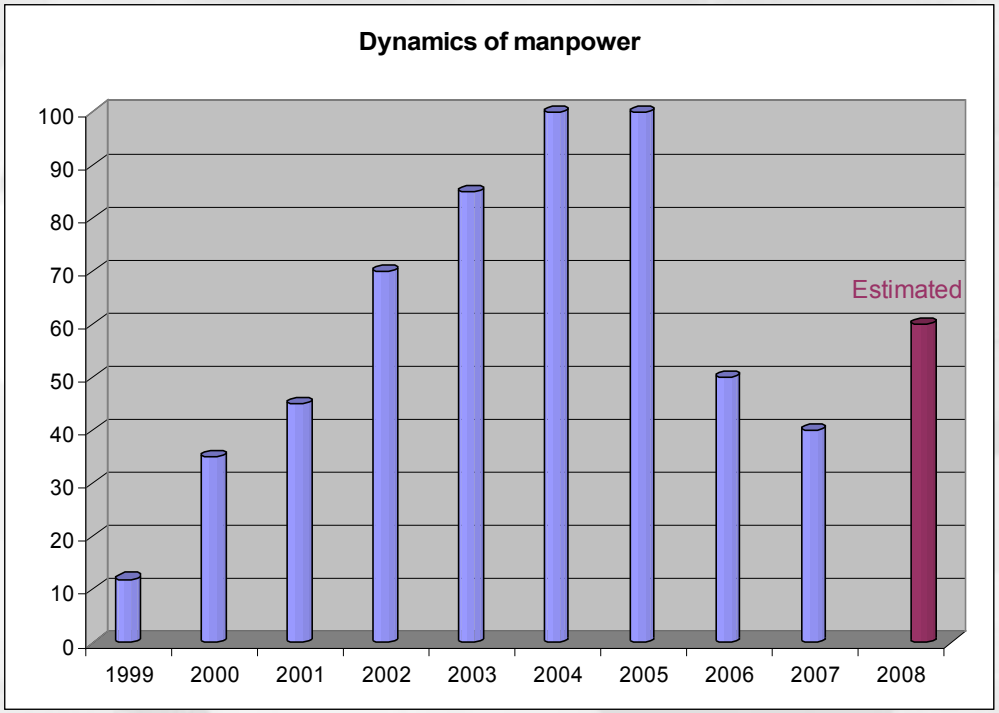
BRYANSTON
South Africa
TélTél : +27 11 881 56 93
Fax : +27 11 881 55 16

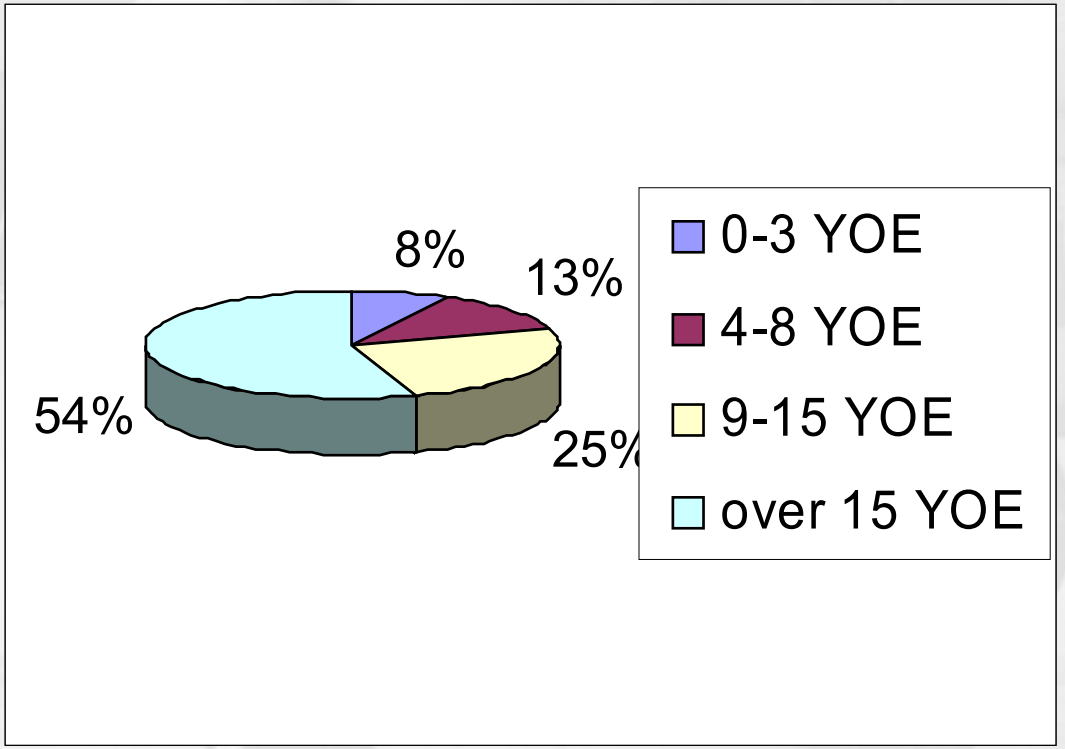
GES DEVELOPPEMENT

- *GES was created in December 1999 in Bucharest as a Specialized Office in the Aircraft Design & Analysis, starting with 12 engineers;*
- *In May 2000 another office, dedicated to the automotive field, was opened in Pitesti;*
- *Since July 2002 both offices merged and all the over 100 engineers work in a modern office in Bucharest;*
- *Since June 2006 more than 50 engineers were transferred in GECI GmbH offices from Hamburg and Bremen, with German contracts;*
- *Today, the office is developing its projects with 40 engineers, in aeronautical, automotive and naval fields.*

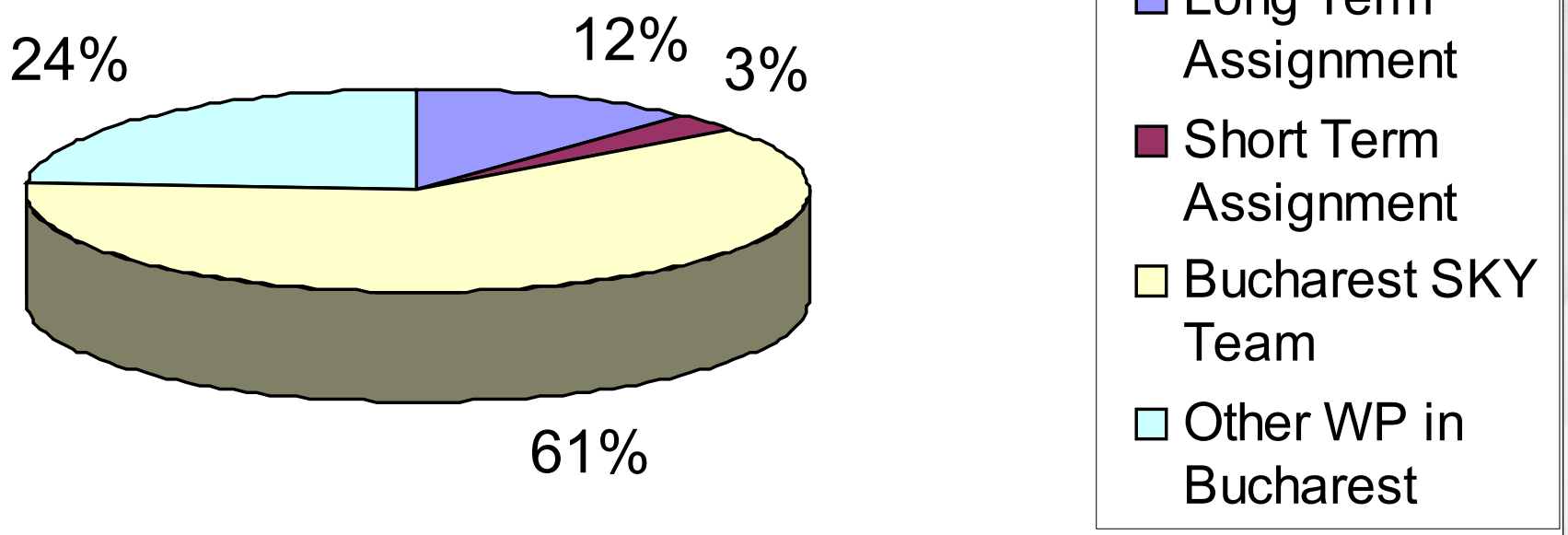


MANPOWER DISTRIBUTION

- Experience and knowledge
- Team spirit
- High motivation
- Excellent communication skills
- Willingness to learn



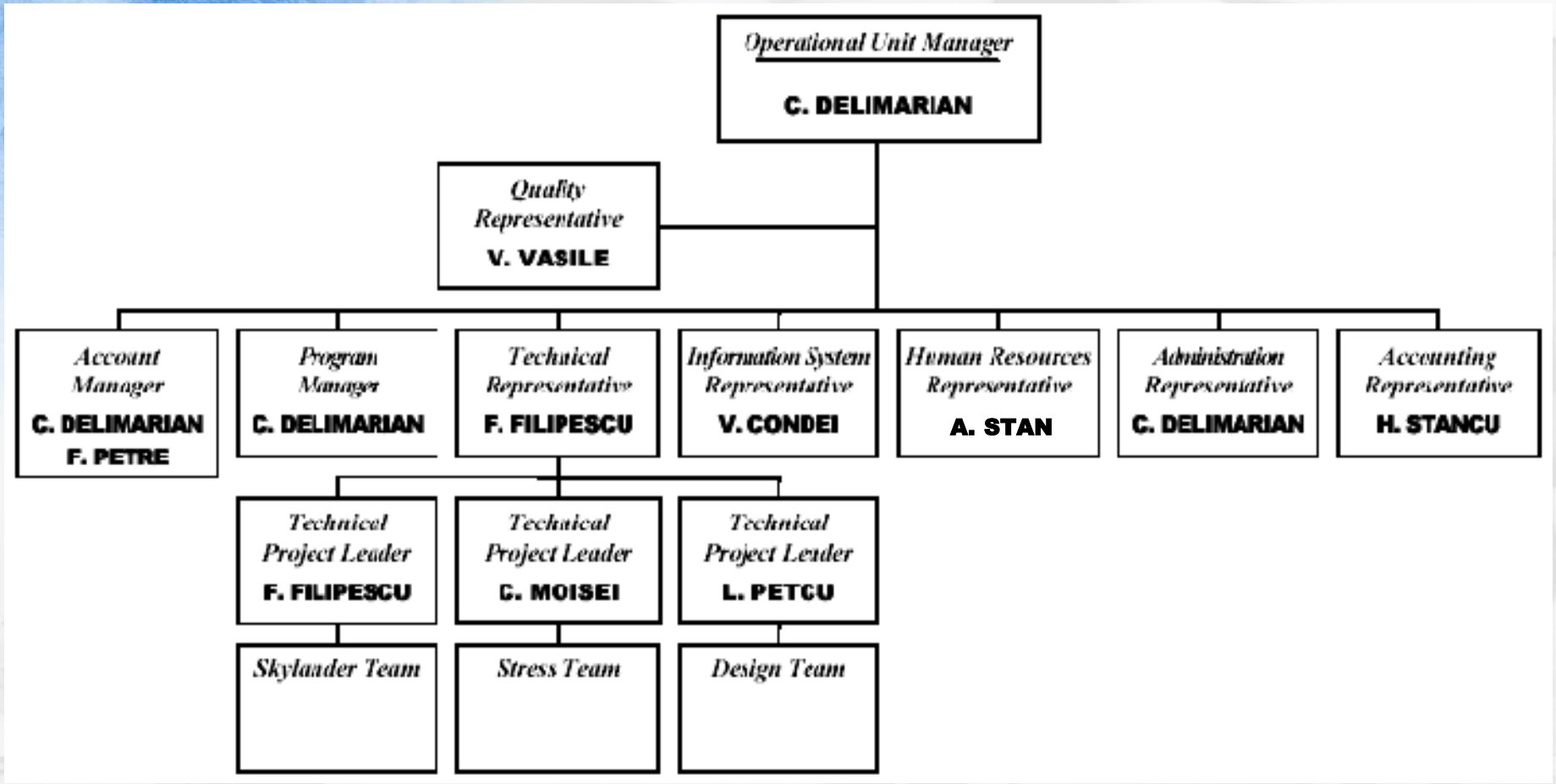
ENGINEERS PRESENT ASSIGNMENT



LOCAL INFRASTRUCTURE

- *The working space can be partitioned, isolated or rearranged according to the specifics of the work package.*

ORGANIZATION CHART



MEANS AND TOOLS

Brief Hardware description:

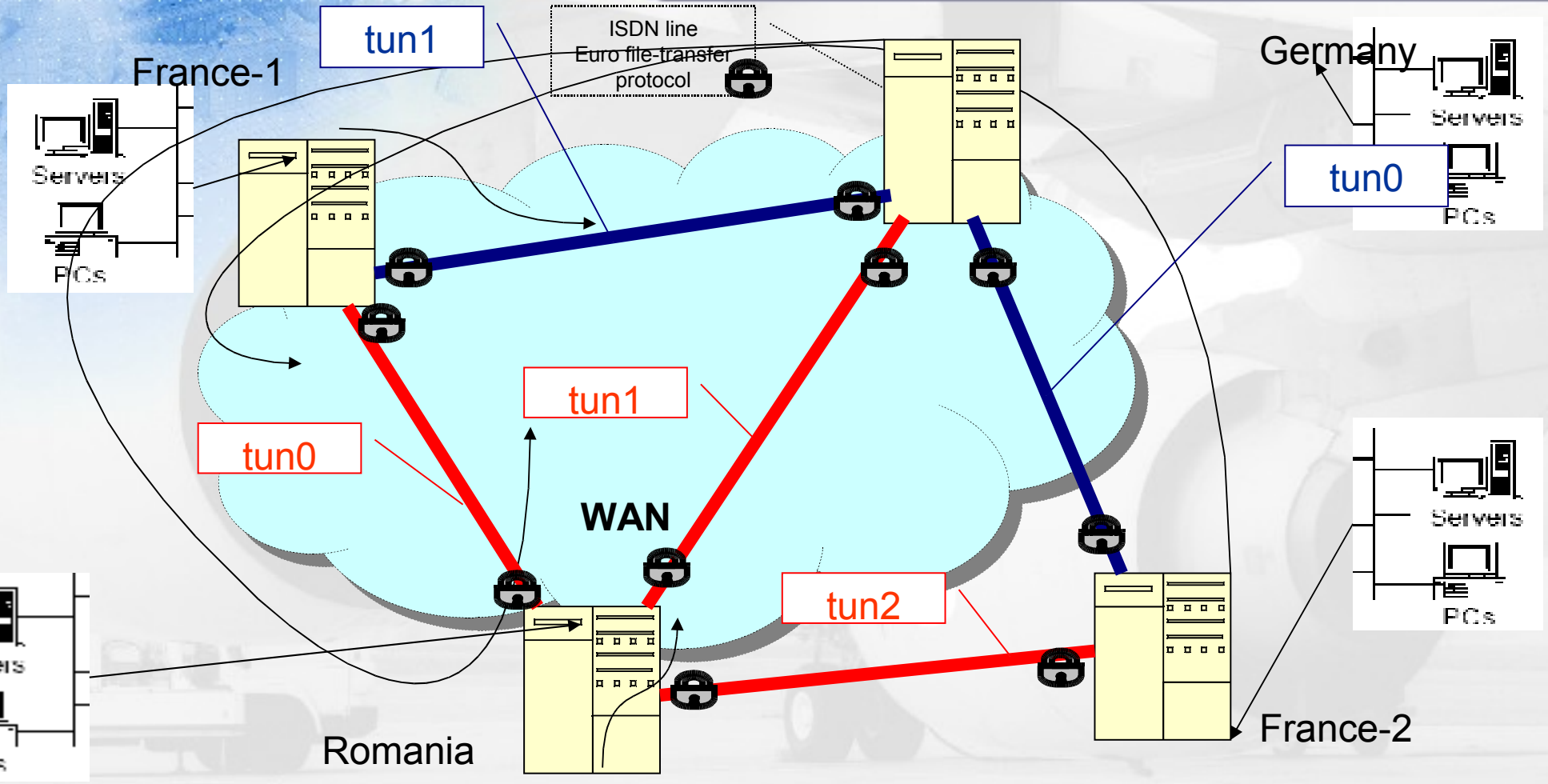
	Hardware type	Operating System	Destination
RISC WKS	IBM/7043 M140 PowerPC375 IBM/7044 M270 PowerPC375 IBM/9131 p5 HP C3700 IBM 285 SUN U60	AIX 4.3.3 AIX 5.3 HP-UX11i	Design Stress
INTEL WKS	HP XW6000 Xeon2.8 HP XW6400 Xeon3 Compaq EVO W4000 P1.5	Win2000 WinXP	Design Stress
INTEL Desktop	HP ProLiant ML150 G3 DELL Inspiron530 IBM Intellistations	WinXP Win2003 Server Win2000 Linux	Stress Administrative IT
Aditional Devices	HP LaserJet 5000N- A3 HP LaserJet 1160 HP DeskJet1220C-A3 HP DesignJet430-A0 OCE Plotter-A0		Network Printing/Plotting

MEANS AND TOOLS

Brief Software description:

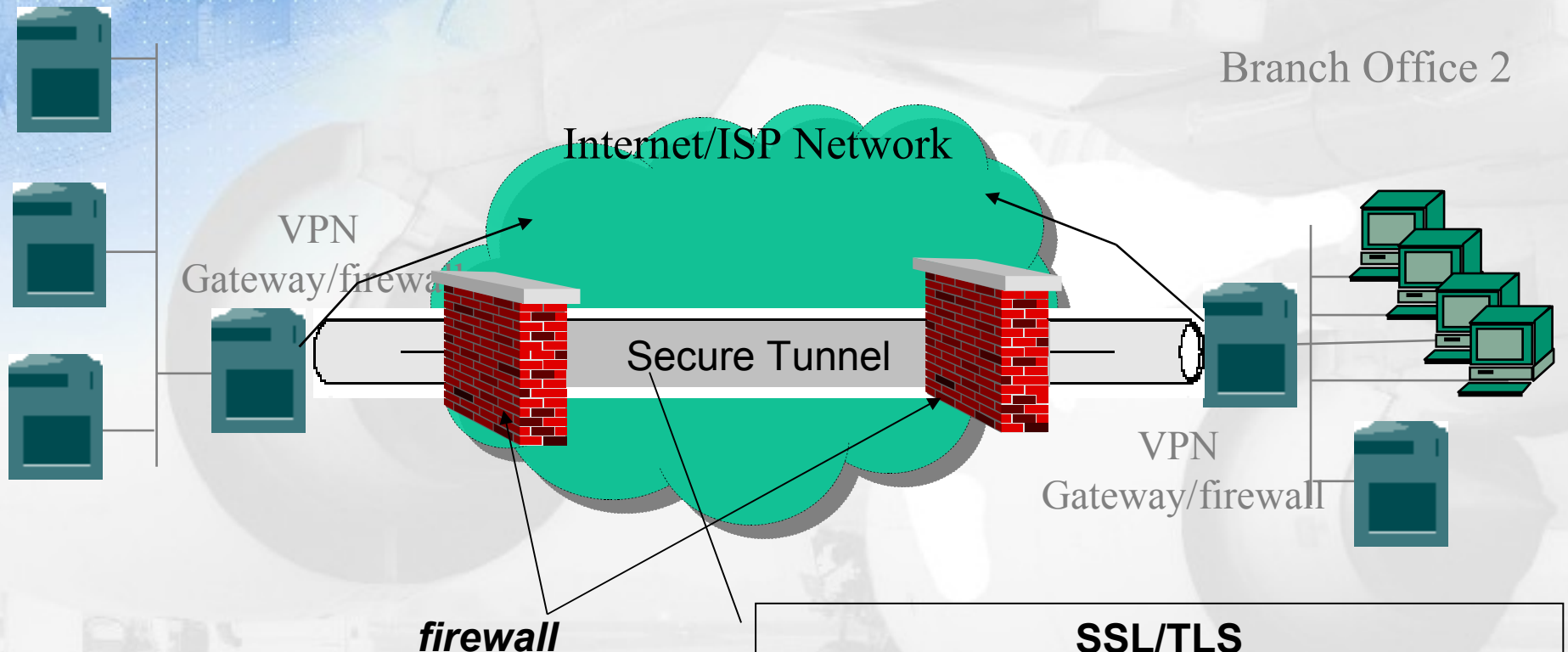
V4 SBD	CONNCURENT
V4 SUR	CONNCURENT
V4 IGES	CONNCURENT
V4 KIN	NODELOCK
V4 ASS	NODELOCK
V4 SPA	NODELOCK
V5 MD2	CONNCURENT
V5 HD2	CONNCURENT
V5 GSD	CONNCURENT
V5 SL3	CONNCURENT
V5 SMD	CONNCURENT
VPM ADX	CONNCURENT
VPM DEX	CONNCURENT
Q-Checker	CONNCURENT
MSC Patran V9.0 (WINNT)	CONNCURENT
MSC Nastran V4.6 (WINNT)	NODELOCK
NAV	LOCAL
MS Office	LOCAL
Adobe Pdf	LOCAL
Visual C++.NET	LOCAL
Compaq Fortran77 v4.0 (WINNT)	LOCAL

CAD-CAE Software	Destination
CATIA V4 2.5 CATIA V5 R16 SP4 CATIA V5R18 SP2 CADDS5 Q-Checker for V4 and V5	Design
Enovia VPM 1.6 PTF08 Oracle 8.1.7	VPM
MSC Nastran (2007) MSC Patran (2007) ANSA 12.1	Stress


France-1
Servers
PCs
tun1
ISDN line
Euro file-transfer
protocol
Germany
Servers
tun0
PCs
tun1
tun0
WAN
tun2
Servers
PCs
Servers
PCs
Romania
France-2

SECURITY OF THE INFORMATION SYSTEMS

VPN – tunneling over internet



SSL/TLS
RSA Certification key
(secure encryption/decryption mechanism based on dynamic key exchanges)

QUALITY MANAGEMENT SYSTEM

Customer focused, Process oriented and Continuously self-improving organisation, GECI has an implemented Quality Management System based on the EN9100/2003 requirements and certified by Bureau Veritas Certification(in 2005).

Always searching for added value, growing the areas of expertise and improving the quality of everything he does, GECI is definitely committed to respect his values and best serve his customers, his employees and his shareholders by:

- ***Delivering the highest performance to each one of his customers, striving for understanding their requirements and anticipating their future needs;***
- ***Offering a motivating environment and professional challenges for each one of his employees;***
- ***Aiming for longevity and performance for each one of his shareholders.***

AEROSPACE - MAIN PROJECTS

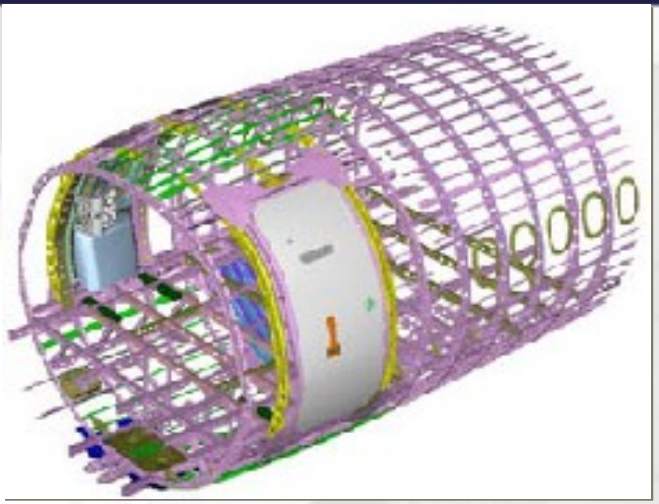
- *FD 728*
- *SKYLANDER*
- *CASA 212 FTIS CONSOLE*
- *DMU A340*

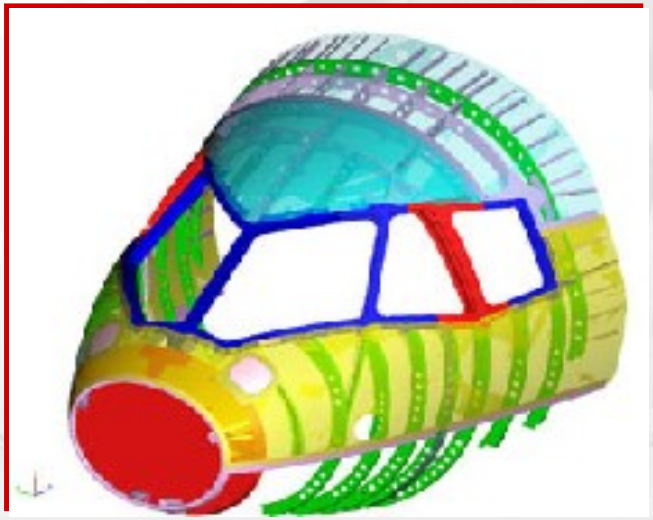
Romanian engineers from GES are working in other GECI offices (Versailles, Toulouse, Hamburg, Bremen, Varese) or on client's site for:

- *DASSAULT FALCON 7X*
- *EADS A380*
- *EADS A400 M*
- *AIRBUS UK*

THE FD 728 ROJECT

- *FFD 728 JET is one of the most important projects where the Romanian engineers with all departments were involved (design, structural analyses and PDM);*
- *More than 40 engineers worked in GECI Munich Office and on Dornier site;*
- *Over 50 design & stress work packages were done in Bucharest Office between January 2000 and July 2002.*

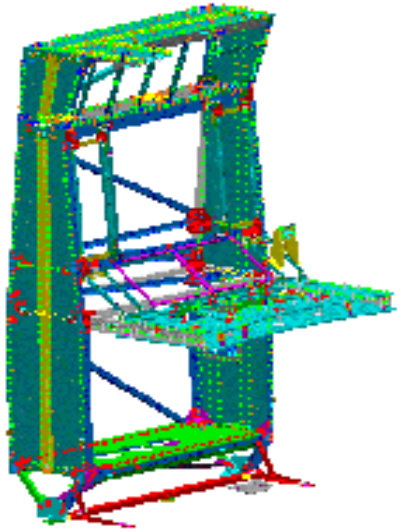




OPERATOR CONSOLE FOR C-212

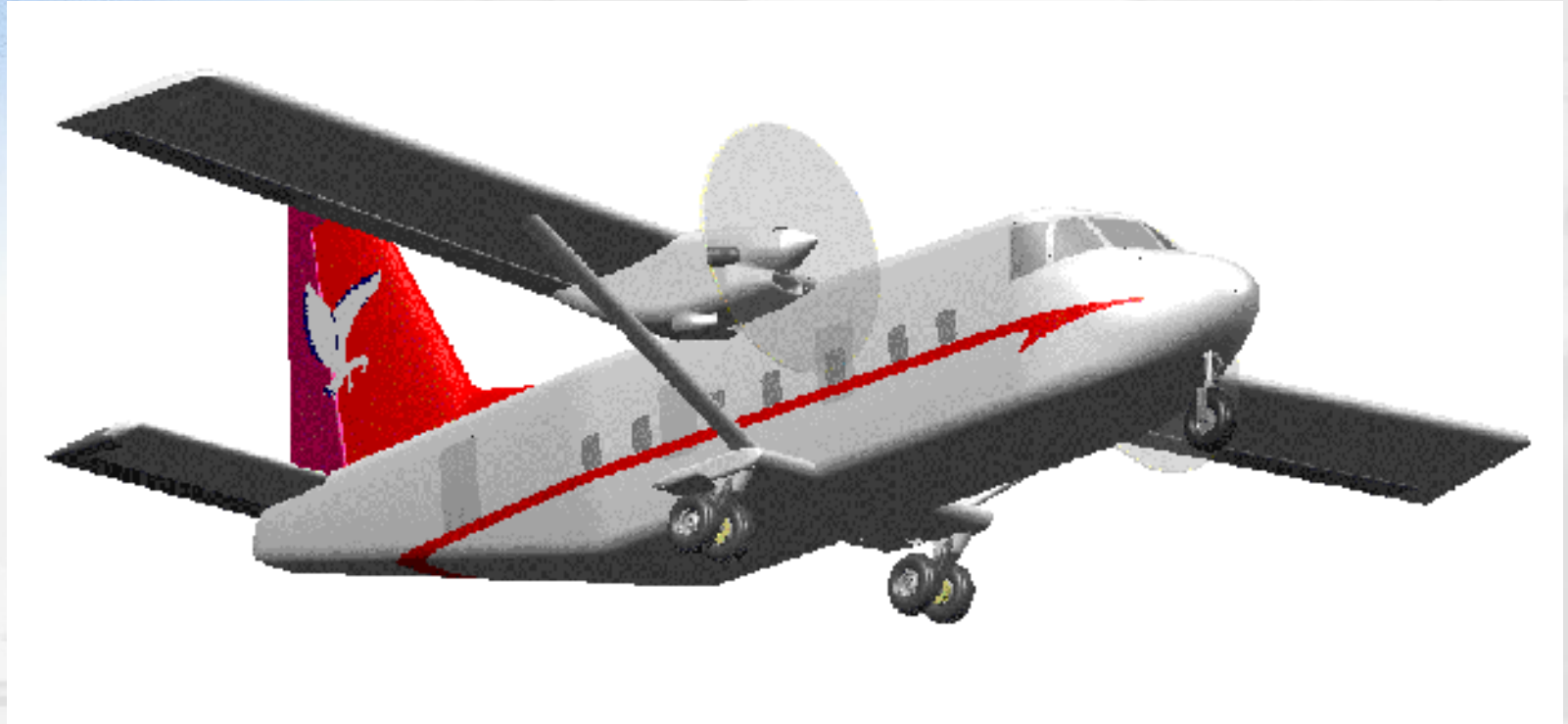
FITS Console – C 212 Mexico - client project Modifications for the design and manufacture the Operator Console:

- *CATIA V4 - 3D MODELS for the console structure;*
- *Console equipment configuration and console housing;*
- *Complete Part Lists of all items;*
- *CATIA V4 - 2D drawings.*



THE SKYLANDER PROJET

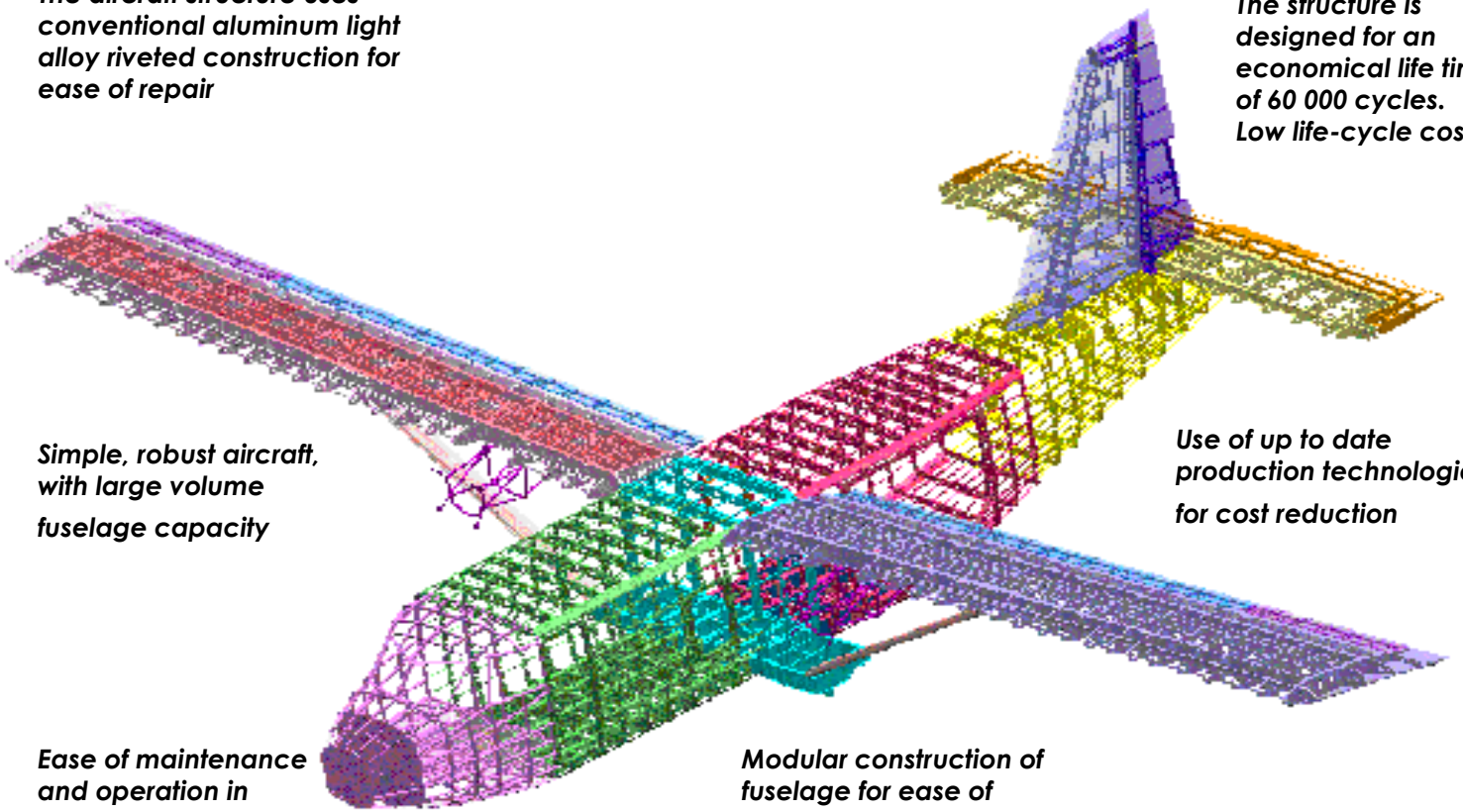
Since April 2001 GECI Bucharest Office was involved in the conceptual design and analysis of the SKYLANDER aircraft, a twin turboprop airplane to be certified under JAR/FAR 23 Commuter Requirements.



SKYLANDER - DESIGN PHILOSOPHY

The aircraft structure uses conventional aluminum light alloy riveted construction for ease of repair

The structure is designed for an economical life time of 60 000 cycles. Low life-cycle costs



Simple, robust aircraft, with large volume fuselage capacity

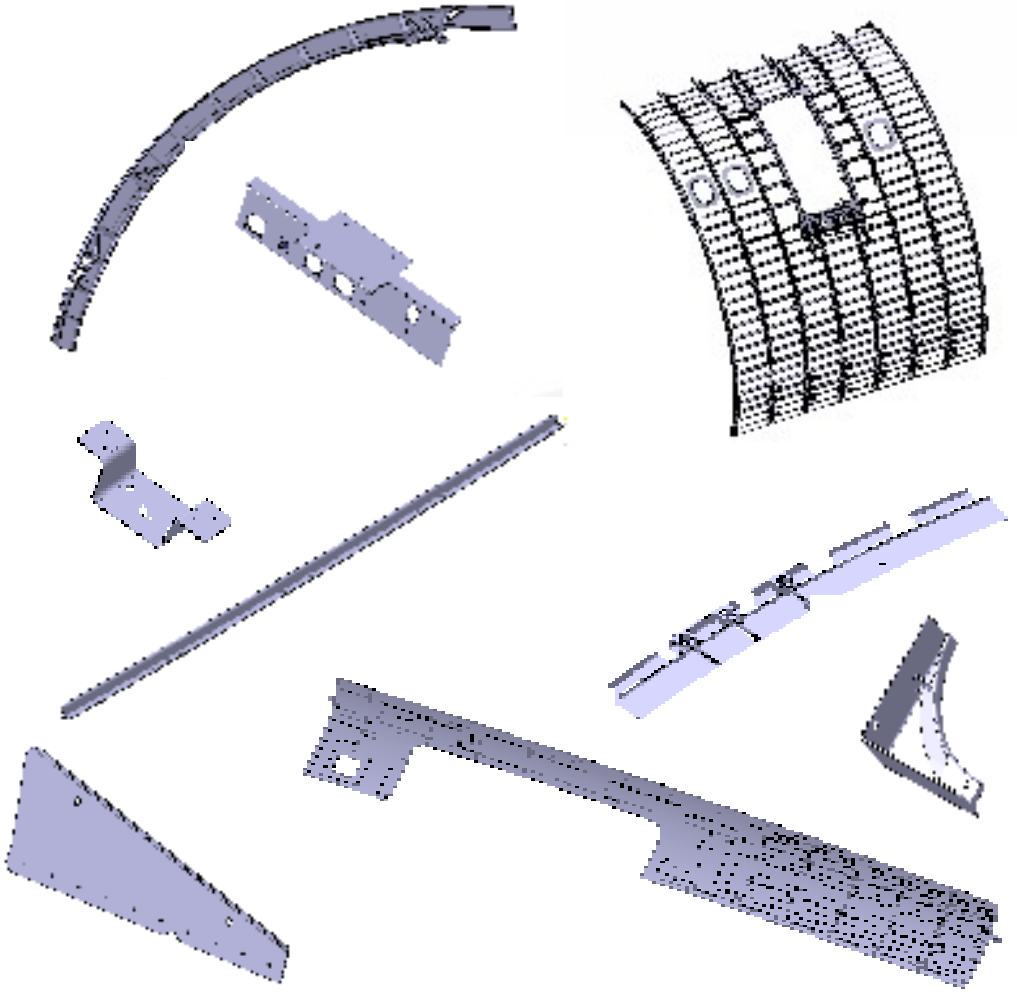
Use of up to date production technologies for cost reduction

Ease of maintenance and operation in remote areas

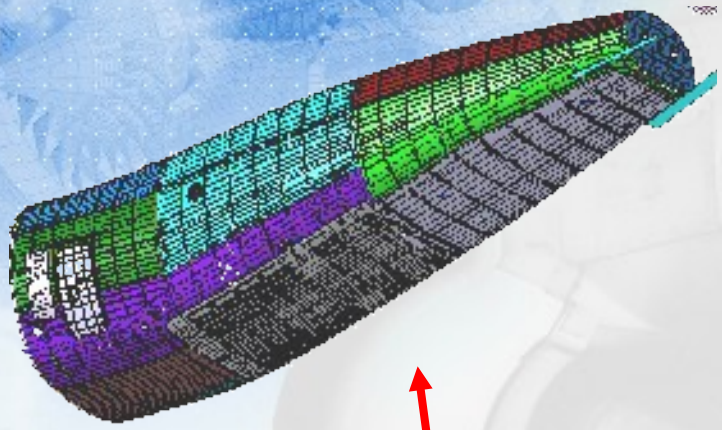
Modular construction of fuselage for ease of manufacture and assembly

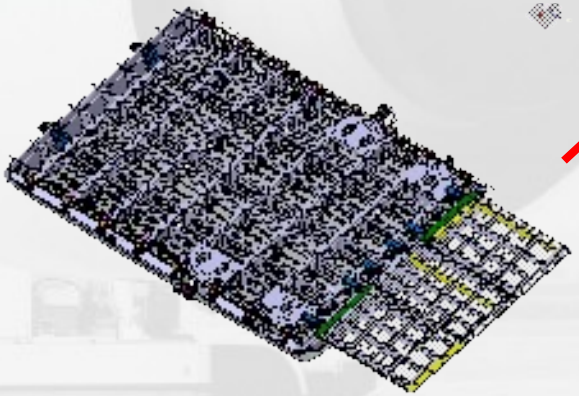
AIRBUS 3D DMU PROJECT

- Modeling of more than 7000 single parts and subassemblies for A330/340 series primary and secondary structure: Machined Parts, Chemical milled Parts, Sheet Metal Parts, Extruded Parts
- Machined Parts: Frames Fittings Stringers & Stringer Couplings Splices, Floor Cross Beams, Seat Rails;
- Chemical milled Parts: Skins Doublers, Cross Butts, Skins Doublers, Cross Butt Straps;
- Strap Sheet Metal Parts: Frames Intercostals, Frame Couplings, Share Webs, Angles, Gussets, Brackets;
- Extruded Parts: Stringers, Angles, Profiles.



A400M : REAR RAMPE

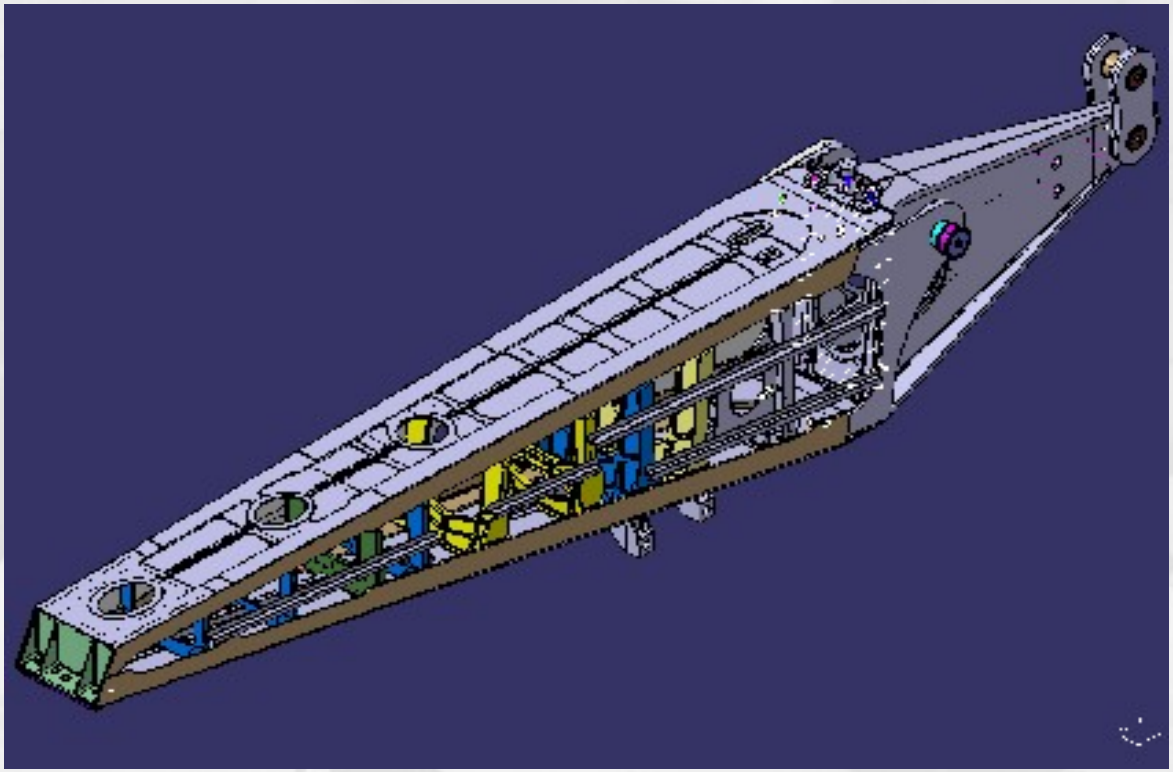




- **RAMP A400M**
  - CATIA V5 R14 drawings
  - Bill of material

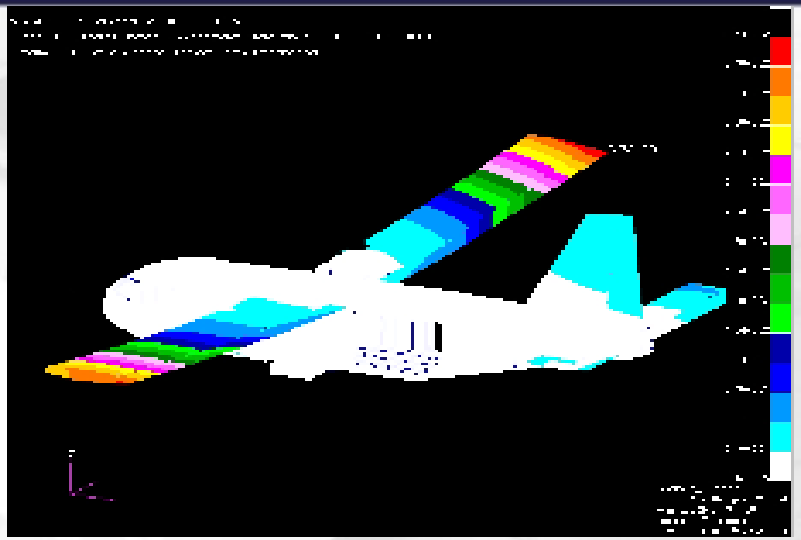
AIRBUS A350 XWB

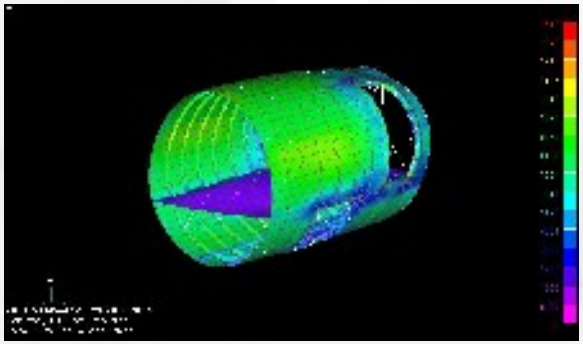
- ***Engineering Set Definition for A350 XWB Engine Pylon***

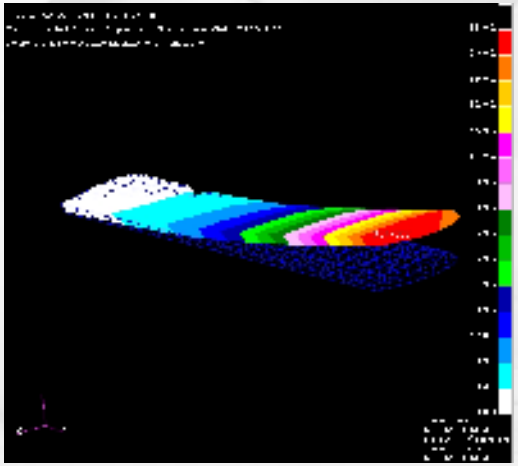


STRESS ANALYSIS

- *FEM analysis for airframe structures (Skylander).*
- *Structure idealization:*
  - *external load distribution to an airframe structure;*
  - *displacements, strains, stress analysis;*
  - *post processing required for detailed stress analysis.*
- *Software PATRAN, NASTRAN.*
- *Stress manuals ESDU, HSB, MIL-HDBK-G.*





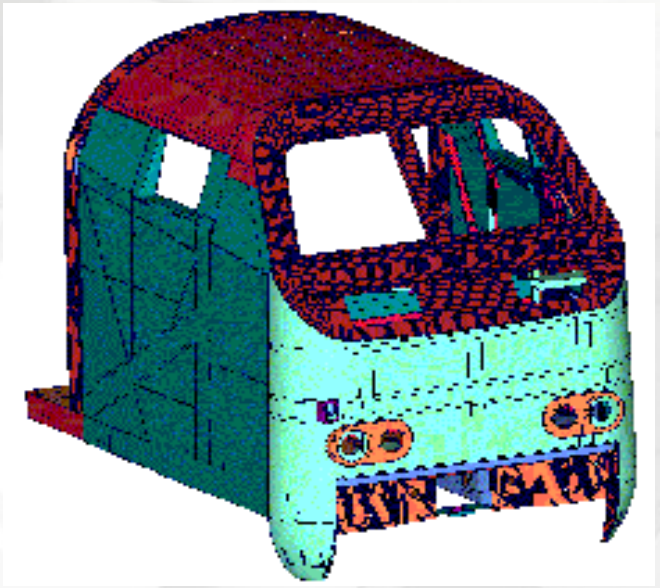


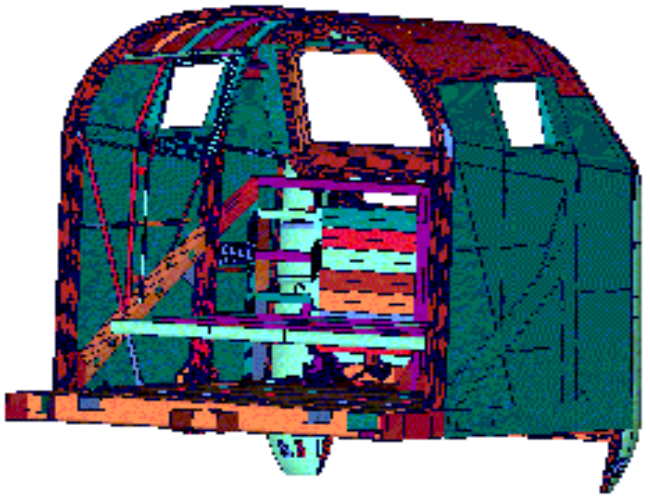
AUTOMOTIVE – MAIN PROJECTS

- *SNCF - DRIVING CAB*
- *RVI Truck- MODULAR FRAME*
- *VERANDA SINGLE/DOUBLE - DECK BUS*
- *FEA MODELES*
- *AUTOMOTIVE CLIMATE CONTROL DESIGN AND MESHING*

SNCF – DRIVING CAB

- *Design and FEA Model (for frontal crash) of the structure of SNCF - Driving Cab*
- *Software: CATIA V4, ANSA*

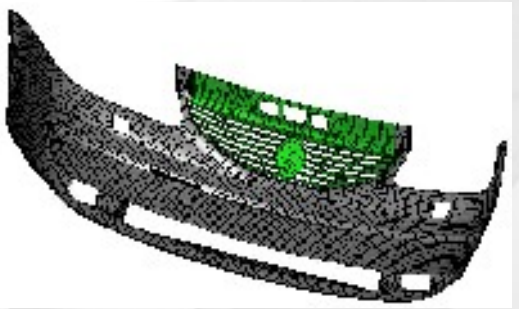




FEA MODELES

- ***CAR BODYSHELL MESHING***
  Grid of the doors (panel and box), engine cowling (panel and lining), trunk (panel and lining) and back side panel

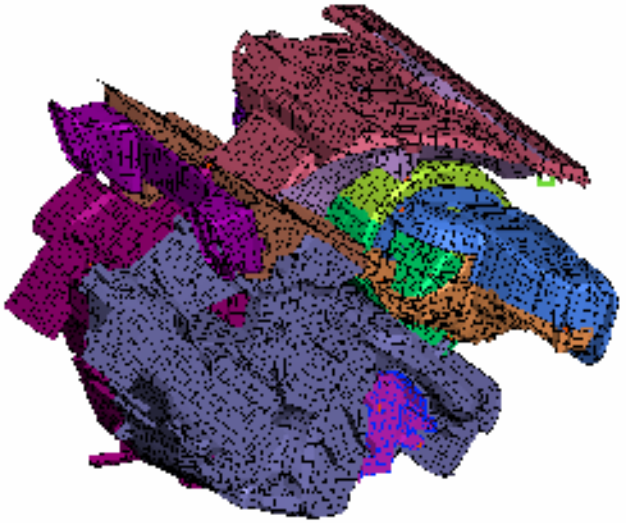
- MESHING
  Citroën C3 - Dash Board
  Renault Avantime – Front Bumper

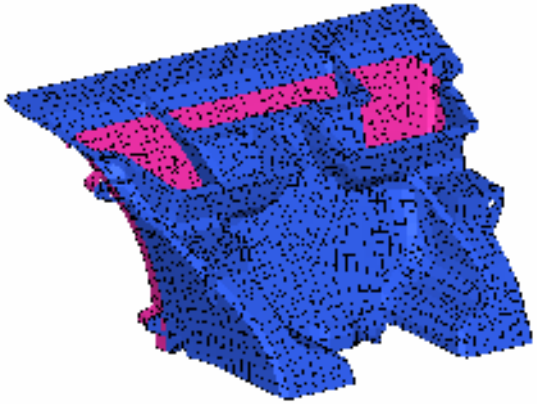


- Software: ANSA

AUTOMOTIVE CLIMATE CONTROL DESIGN AND MESHING

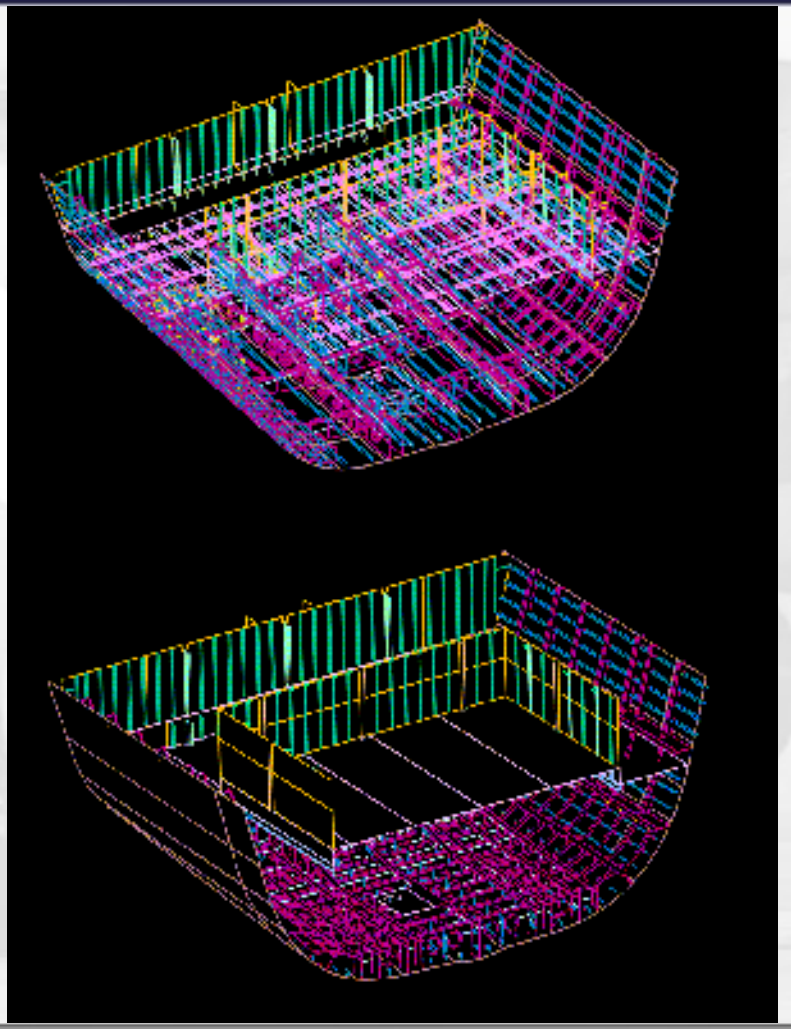
- *Meshing Climate Control*
- *Software: CATIA V5, ANSA*
- *Client: VALEO*





NAVAL

- *FREMM- Digital Mock-up*
- *Software: CADDS5*
- *Client: AGIR*



OBJECTIVES

- ***The main GECI Bucharest objectives are:***

  - ***The satisfaction of the existing customers with respect to a good quality of the deliverables and an adaptability to their specific requests,***
  - ***The development of the range of clients and the fields of activity,***
  - ***The understanding of clients requirements and anticipating their future needs,***
  - ***A stable and performance-oriented team,***
  - ***The improvement of technical know-how for all the fields of activity,***
  - ***The pursuit of the growth of the office profitability and performance,***
  - ***The compliance with the requirements specified by the System Quality Management already implemented in 2006.***

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E-mail: geciadm@geci.ro

Thank you for your attention