

C.E.R.T.I.A

Concepteur - réalisateur de bancs d'essais.

*Design and Research Center for Applied Industrial
Technology*

Quality manual: **24/04/2018**

Composed by: F. THELOT

Checked by: P. VARMENOT

Approved by: T. PENPENIC

La fiabilité de vos innovations

CERTIA

- Design and Research Center for Applied Industrial Technology
- Established in 1987
- Number of employees: 45
- Annual turnover 2017: 8.2 M€
- Quality system: ISO 9001 V2008
- Products: Engineering, test rigs for the aerospace, automotive and defense industries

Premises



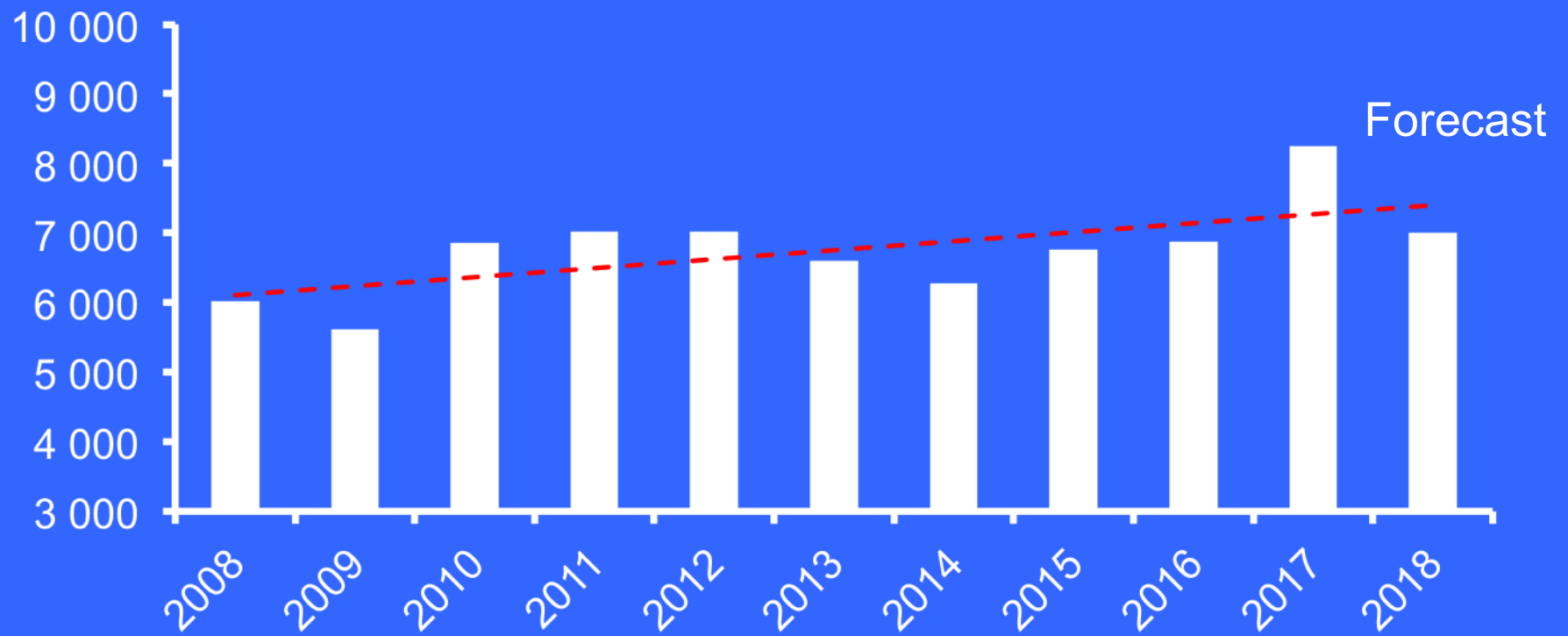
1000 m² of offices and workshops near Marne La Vallée, conveniently located for access to the major trunk routes of the Île de France

Address: ZA La VARENNE, 5 rue des Artisans
93196 NOISY le GRAND CEDEX

Tel: 33 (0)1 43 00 90 20 Fax: 33 (0)1 43 00 79 80

Internet: www.certia.fr, certia@certia.fr

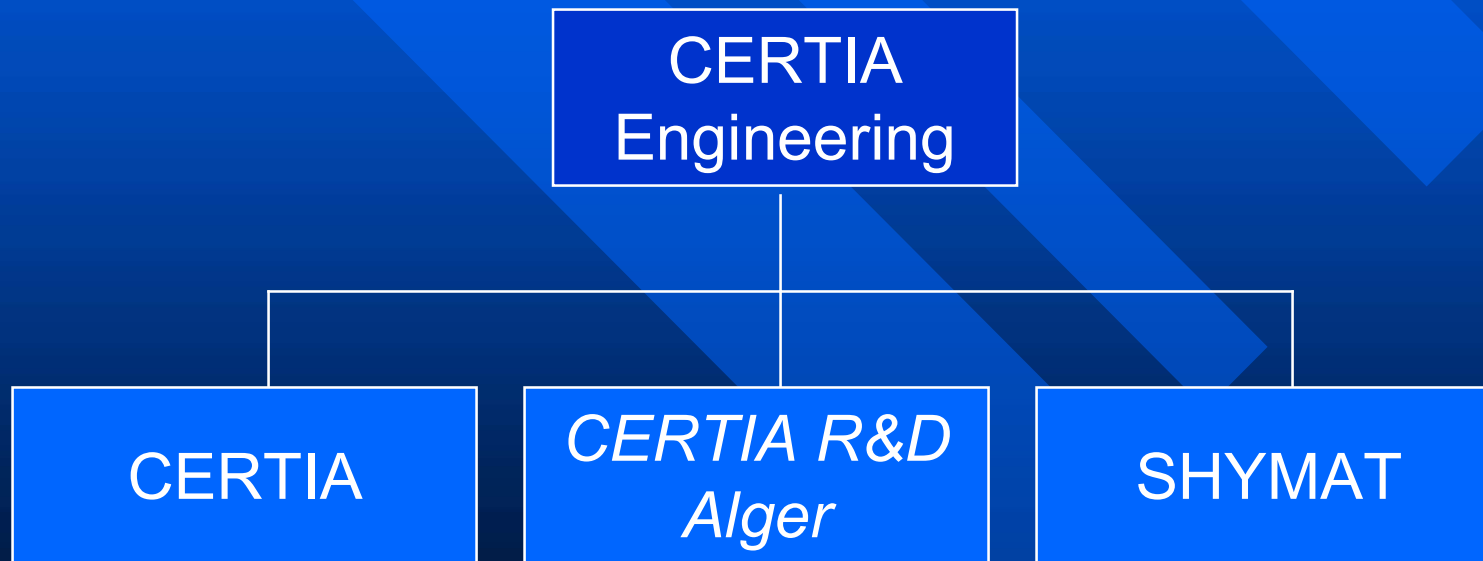
Annual Turnover



■ CERTIA

Company Shareholders

- CERTIA is 100% owned by a family holding company, which guarantees its complete independence.



Subsidiary company

- SHYMAT: An engineering and manufacturing company dedicated in hydraulics
 - 14 rue des Oziers, 95 310 Saint Ouen L'aumône
- Activities:
 - Maintenance,
 - Design and manufacturing of hydraulic equipments,
 - Design and manufacturing of hydraulic test rigs,
 - Manufacturing of industrial pipework,
 - Trading in hydraulic components.

Subsidiary company

- CERTIA R&D: A research and development company
 - Dar El Beida / Algiers / Algeria
- Activities:
 - Automatic software development and simulation,
 - Process software development,
 - Mechanical engineering.

Main clients

■ Aérospace

ACB
Airbus France
Airbus UK
Airbus Helicopters
Air Algérie
Air France Industries
Circor Industria
ECE / Zodiac
UTAS / Goodrich
UTAS / Ratier Figeac
Sabca
Safran transmission systems
Safran nacelles
Safran landing systems
Safran electronics & defense
Safran aircraft engines
Safran Maroc / Mexique / USA

■ Automotive

Bosch braking systems
Cetim / GIMA
PSA
Renault

■ Defense

Mécachrome
Nexter Systems
DGA

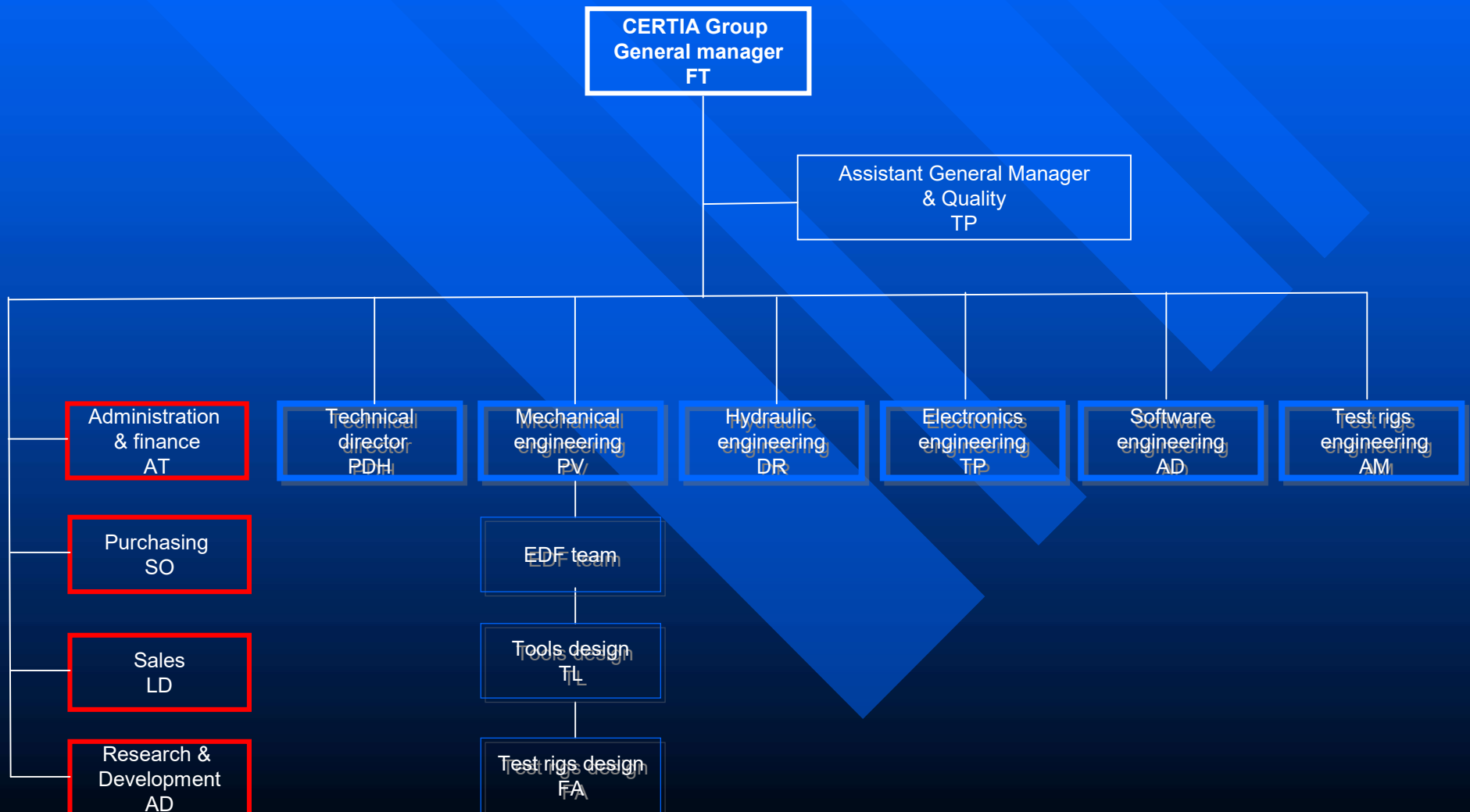
■ Energy / environment:

EDF
Westinghouse France
Véolia

■ Industry:

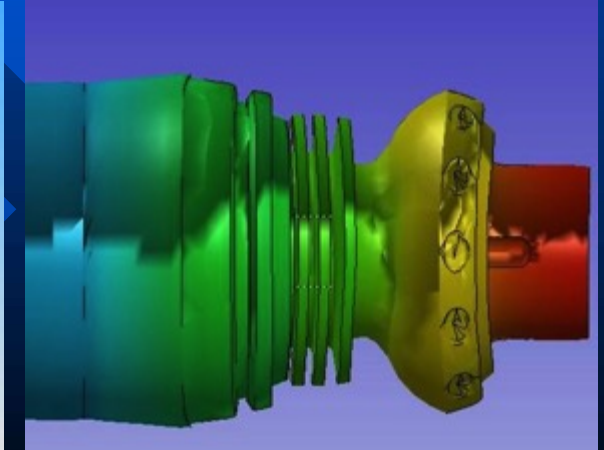
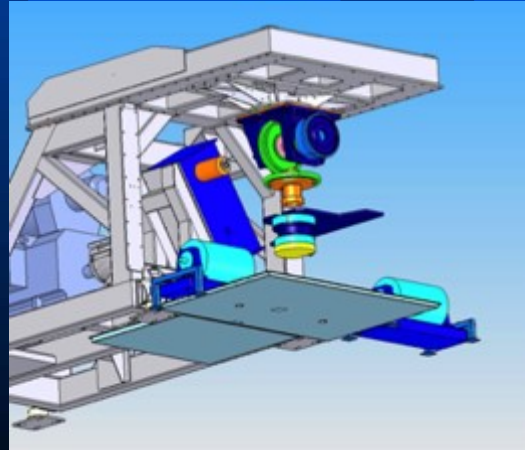
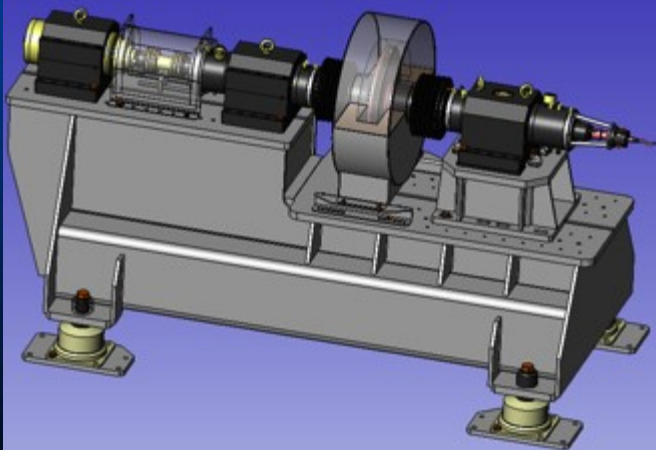
Arcil

A multidisciplinary team (Certia Group)



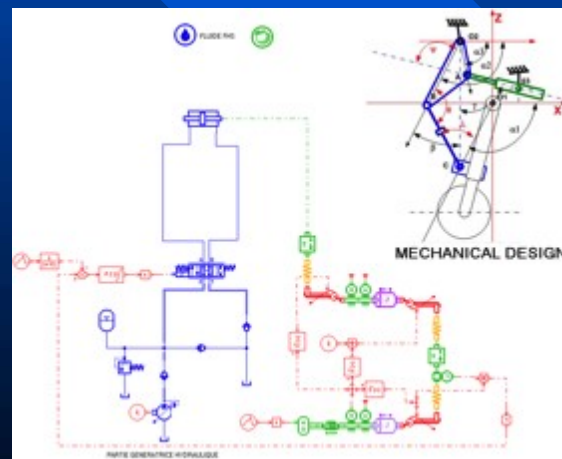
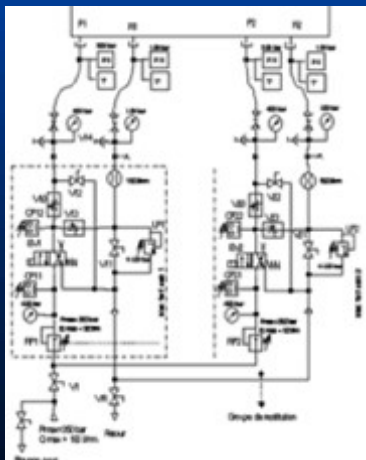
Mechanical engineering

- CAD : CATIA V5, Solidworks, Autocad, ...
- FEA : Nastran / Cosmos
- Control : FARO laser tracker
- Activities : test rig frames, tooling, mechanical studies ...



Hydraulic engineering

- CAD : CATIA V5, Solidworks, Autocad, Visio...
- Calculation : AMESIM
- Control : Universal hydraulic test bench
- Activities : hydraulics manifolds, actuators, power units
- Fluids : Skydrol, mineral oil, fuel, water



Electrical engineering

- CAD : Autocad, Visio...
- Calculation : AMESIM
- Control : laboratory equipments
- Activities : electrical cabinets, measurement and acquisition cabinets, PLC ...
- Standards : CE, ATEX,



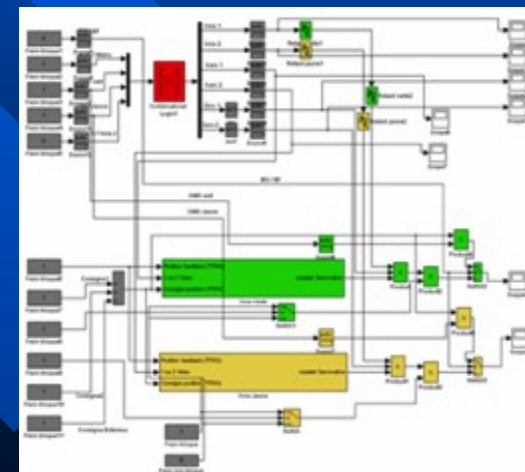
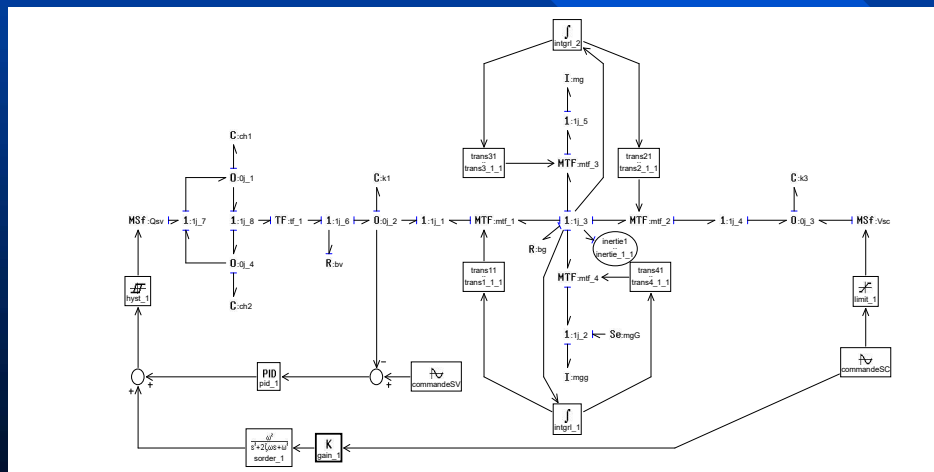
Electronics engineering

- CAD : Catia V5, Visio...
- Calculation & simulation : AMESIM
- Control : laboratory equipments
- Activities : generic control / command cabinet developement



Automated systems engineering

- Software : AMESIM, MATLAB, SIMULINK, STATEFLOW, XPC target
- Control : laboratory equipment,
- Activities : multi-disciplinary simulations / control loops design / real time computing



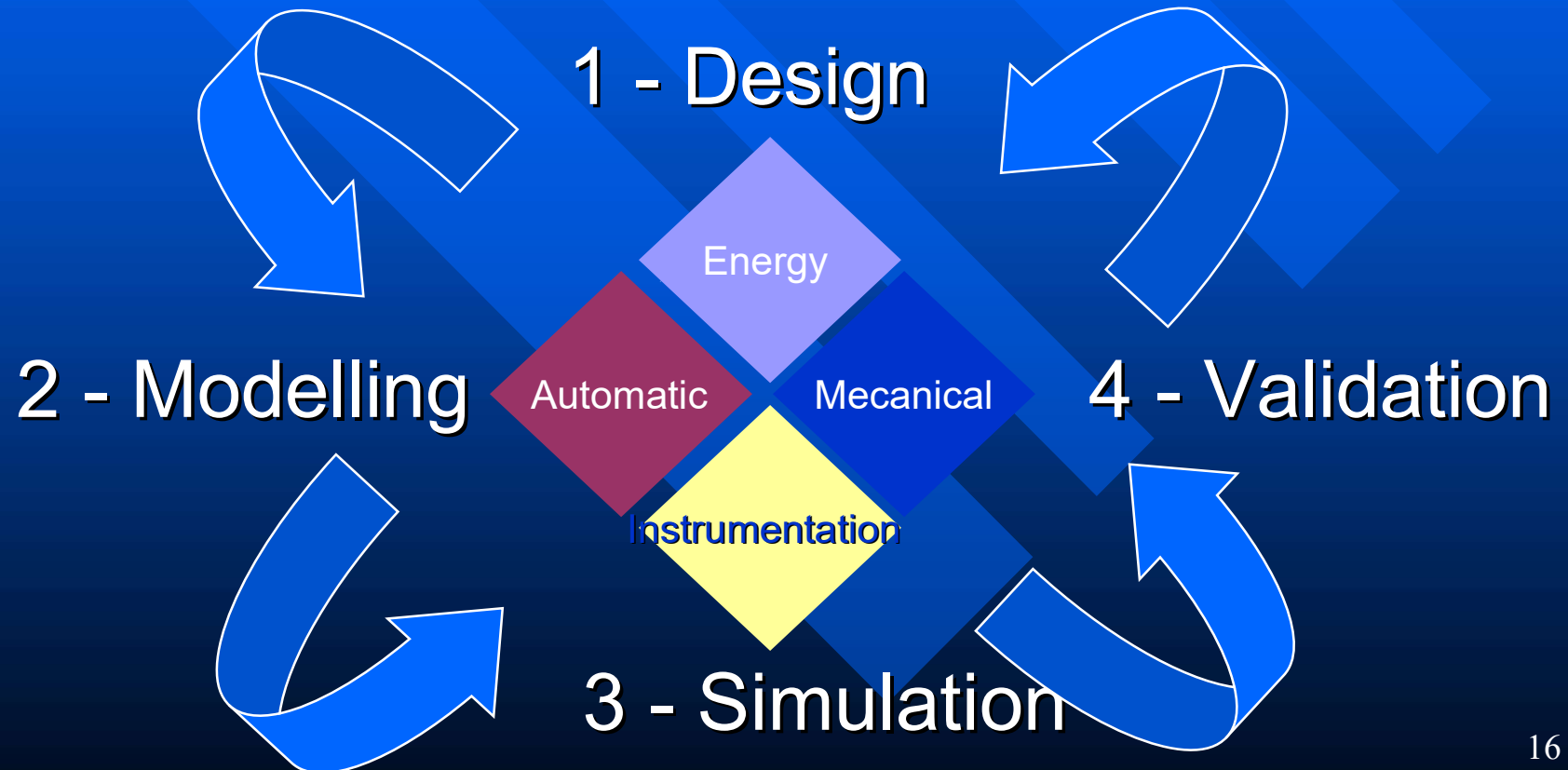
Software engineering

- Test rigs control software : Cockpit
- Development platforms : LabVIEW, LabVIEW RT, NI Veristand, Teststand
- Activities : measurement, test, control and monitoring software for tests rigs
- Specificities : real time, FPGA, ARINC, AFDX , CAN...



Mecatronic

- CERTIA's competitive advantage : a design and simulation computing platform



Core business Engineering

- Technical assistance for EDF / UTO :
 - CAD modelisation of complex environments,
 - Maintenance operations simulation using VR tools,
 - Maintenance studies,
 - Mechanical calculation and expertise,
 - Surveillance.
-
- Capacity : 40 000 hours / year

Core business

Test rigs

- CERTIA designs and produces test rigs of the following types:
 - Characterization test rigs,
 - Endurance test rigs,
 - Acceptance test rigs,
 - R&T test rigs.
- Sectors of activity : Aerospace, Automotive, Defense.
- New rigs, refurbishing existing rigs, after-sales service and maintenance.
- Standardised project management process making possible the development of a unique relationship with the client.

Core business Tooling

- Technical designs and produces the following equipments :
 - Test equipments,
 - Tools for manufacturing,
 - Tools to assist assembly procedures.
- Sectors of activity : Aerospace & Automotive.

R&D

- R&D is in our DNA
- Projects are conducted in partnership with university laboratories and major engineering institutions: Central School of Lille / INSA Toulouse / LAAS Toulouse
- The work of our R & D team has enabled us to develop new products in recent years such as: a modelling/simulation platform, electrical actuators, computer control units, etc.
- In 2017 there were some 19 000 hours of R & D work performed

Quality Management System

- CERTIA has been committed to a total quality approach since 1995
- CERTIA has been ISO 9001 certified since 1999:
 - *in the engineering, design, project management for production and installation and after-sales servicing of test rigs for industry.*
 - *In the engineering, design, project management for the production of specialised mechanical equipment for industry.*
- The progressive development of a organisation system and the measurement of its performance are regularly evaluated by management reviews.



General policy statement

- *Our ambition for the period 2017-2019*
 - *To become a leader on the test rigs global market,*
 - *To increase our engineering activities.*

- *In order to achieve these objectives, CERTIA is committed to 3 major thrusts :*
 - *Developing high end solutions based on a strong R&D activity,*
 - *Developing international sales,*
 - *Making the company fully customer-oriented.*

F. THELOT, CEO

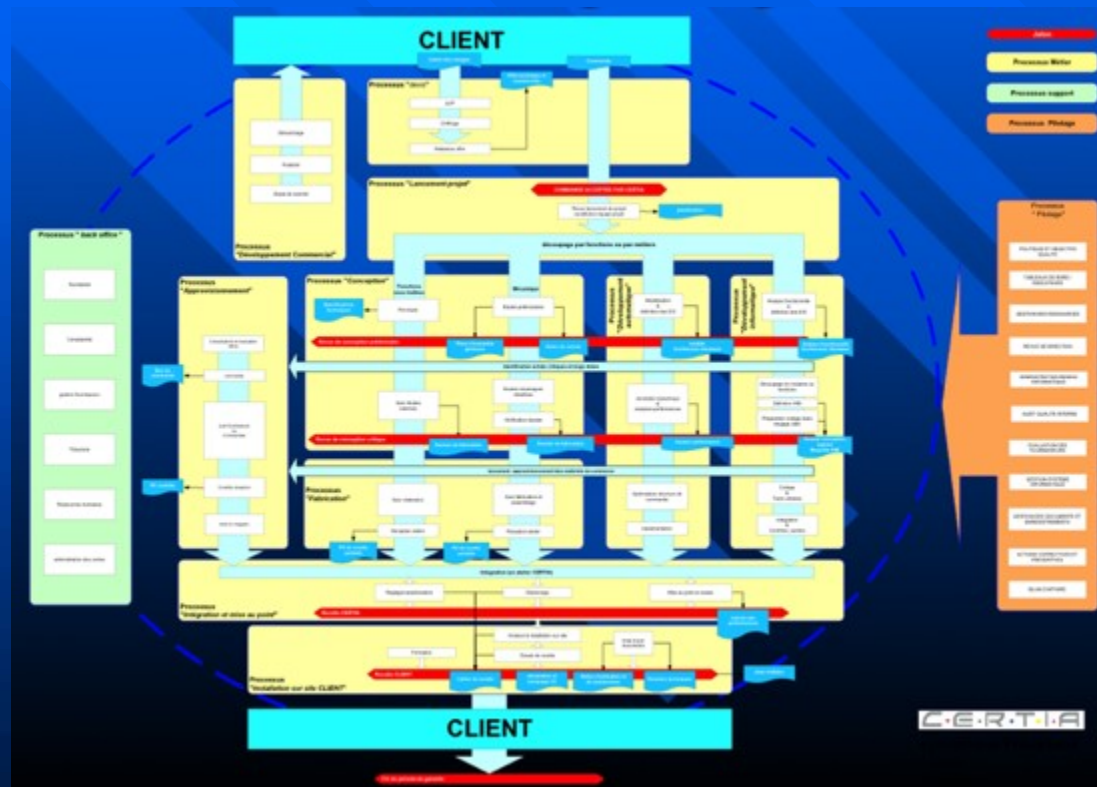
Satisfying the demands of our clients

- Applying cost transparency and working on a objective cost
- Becoming involved with our clients in their development programm frameworks
- Making use of « cross engineering »practices for the benefit of our clients
- Mitigating risks by the use of dedicated methods.

Appendices

- Organisation
- Documentary system
- Experience

Detailed organogram



Documentary system

MANUEL QUALITE

SYNOPTIQUE PROCESSUS

PROCESSUS

PS01	Pilotage
PS02	Back office
PS03	Commercial
PS04	Devis
PS05	Lancement projet
PS06	Conception
PS07	Fabrication
PS08	Approvisionnement
PS09	Développement automatique
PS10	Développement informatique
PS11	Intégration et mise au point
PS12	Installation sur le site client

PROCEDURES

PR01	Maitrise des documents et des enregistrements
PR02	Traitement des anomalies
PR03	Action corrective
PR04	Action préventive
PR05	Audit interne

INSTRUCTIONS

IN03-01	Codification des Affaires	IN06-07	EGQ Calculs par éléments finis
IN03-02	Codification des documents	IN06-08	EGQ Maitrise du produit fourni par le client
IN05-01	Maitrise des données informatiques	IN06-09	EGQ Transport, manutention, chargement, déchargement
IN05-02	Normes	IN06-10	EGQ Identification et traçabilité
IN05-03	Documents d'origine client	IN06-11	EGQ Contrôle à la réception
IN05-08	Numérotation des plans	IN06-12	Formation par CERTIA
IN06-02	EGQ Conception mécanique	IN06-13	Bilan d'affaire
IN06-03	EGQ Fabrication mécanique	IN06-14	Procédure Modélisation- Simulation
IN06-04	EGQ Conception et réalisation électriques	IN08-01	Choix des fournisseurs
IN06-05	EGQ Conception et réalisation hydrauliques	IN08-02	Evaluation des fournisseurs
IN06-06	EGQ instrumentation		

FORMULAIRES ET MODELES

F02.01	Nomenclature.xlt
F03.01	NOTE.dot
F04.01	COMPTE_RENDU.dot
F05.01	Courrier.dot
F06.01	FAX.dot
F07	bon_de_commande.xls
F08.01	BL_bon_de_livraison.xlt
F09	OFFRECOMMERCIALE.xls
F10	nouveau_devis_Xxxxx-XXXX.xls
F11.01	Planning.xlt
F12.01	PV_reception.dot
F13.01	Notice_Technique.dot
F14.01	Cahier_de_recette.dot
F15.01	FORMATION_Emargement.dot
F16.01	FORMATION_Evaluation.dot
F17.01	Présentation_ppt.pot
F18.01	Feuille_heures.xlt
F19.01	CONGES.dot
F19.01	CONGES.pdf
F20.01	Suivi_xxxx.xlt
F21.01	Liste_des_anomalies.xlt
F22.01	REBOURSEMENT_DE_FRAIS.xlt
F23.01	REBOURSEMENT_DE_FRAIS_SHYMAT.xlt
F24.01	Ordre_de_mission.xlt
F25.01	AVANCE_sur_frais_CERTIA.xlt
F26.01	AVANCE_sur_frais_SHYMAT.xlt
F27.01	Déclaration_CE.dot
F28.01	Déclaration_incorporation CE.dot
F29.01	Déclaration_de_conformité.dot

Documents d'origine externe

Normes
Documents client

Enregistrements

I.T. Facilities

- CAD work stations
- CAD: Catia V5, Solidworks, Autocad, Realworks, ...
- FEA: Nastran / Femap, Cosmos, RDM6
- Automated systems: Matlab / Simulink / XPCtarget / Stateflow / AMESIM
- Command/control development: LabVIEW / LabVIEW RT / NI Veristand / NI Teststand

Workshop equipment

- Skydrol 2x100kW hydraulic power pack
- FHS 90 kW hydraulic power pack
- Multipurpose test rig for electrical actuators
- Universal hydraulic test rig
- Universal tensile test rig 200 KN
- LASER FARO tracker

Manufacturing organisation

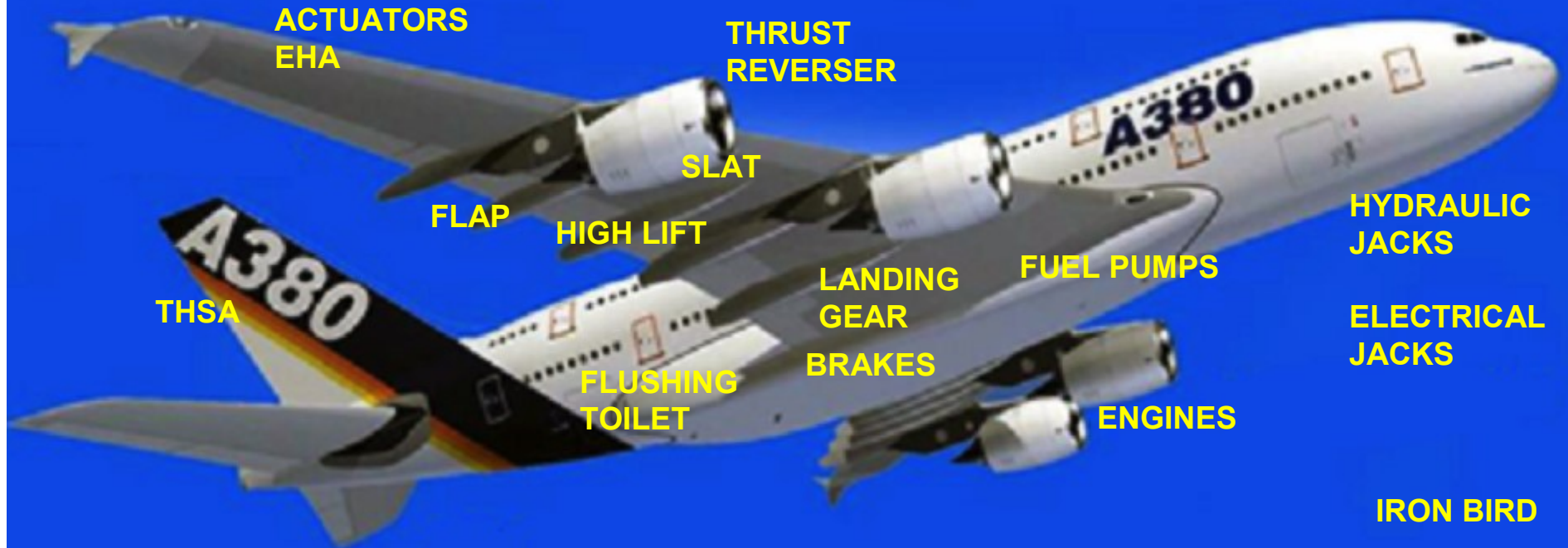
- CERTIA is working with a network of partner companies :
 - For mechanical manufacturing,
 - For manufacturing of hydraulic equipments (SHYMAT),
 - For electrical manufacturing,
 - For maintenance.

- CERTIA exercises overall control of outsourced processes in conformity with the requirements of the ISO Standard 9001 V2008

Major aerospace programmes

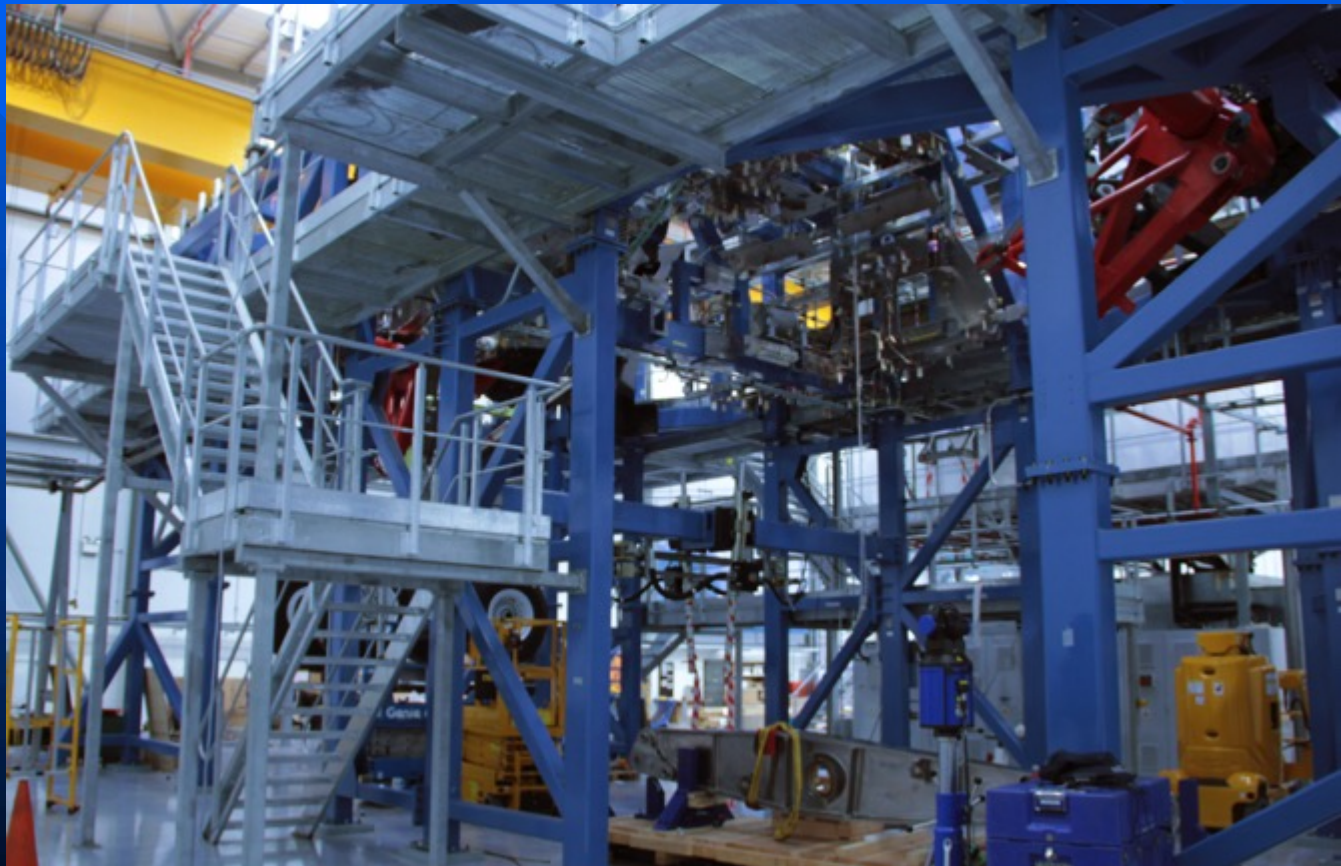
- Airbus A330 NEO
- Airbus A350 XWB
- Airbus A400M
- Airbus A380
- Airbus A340-600
- Airbus A330
- Airbus A320
- MOET
- POA
- Actuation 2015
- ASTIB
- Comac C919
- Dassault Falcon F5X
- Learjet 85
- RRJ
- Eurocopter NH-90
- Eurocopter Tigre
- Eurocopter EC 175
- Bombardier CRJ 200

Main experience in the aerospace field



MLG A350 XWB Test Rig

Aerospace
A350 XWB



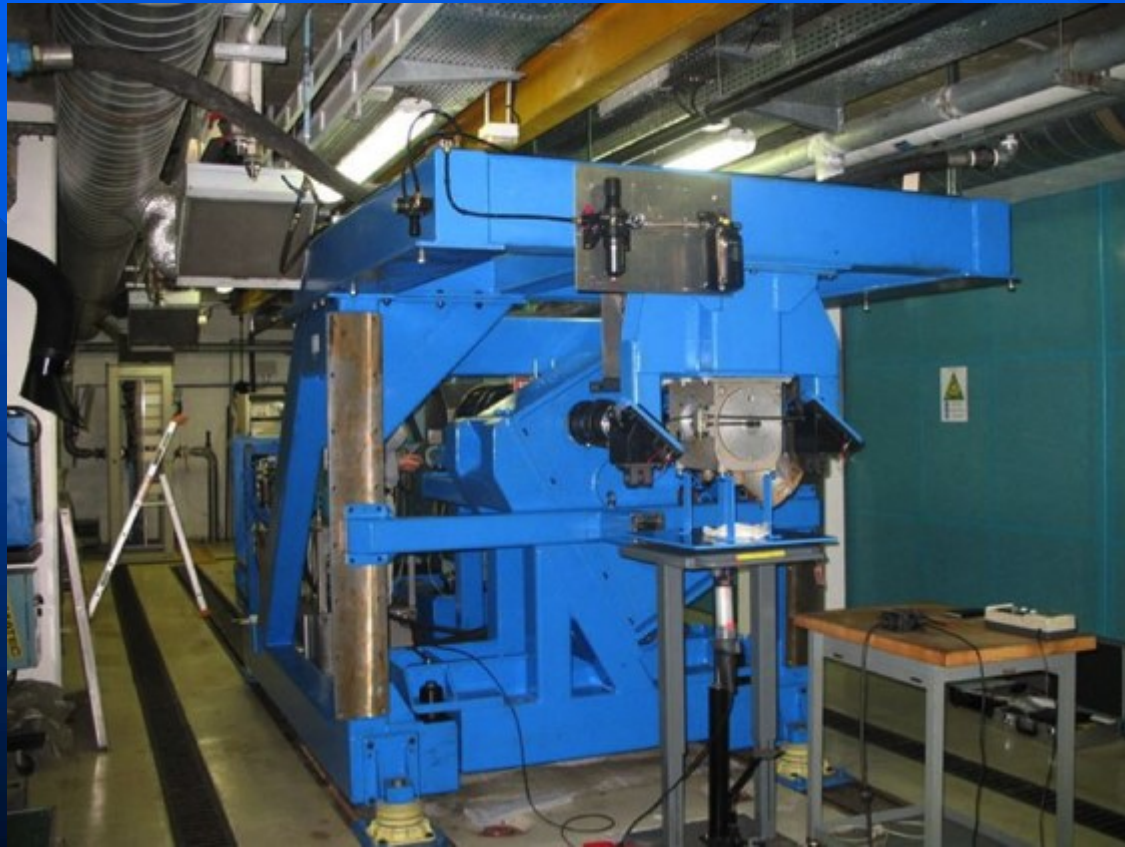
ILGSTR A400M Test Rig

Aerospace
A400M



AGB TP400 Load Test Rig

Aerospace
A400M



ETRAS A380 Test Rig

Aerospace
A380



C·E·R·T·I·A

Banc inverseur A380
AIRBUS FRANCE

EMA Dev. test rig

Aerospace
MOET



Palletised test rig

Aerospace
A320



Avionic cabinet

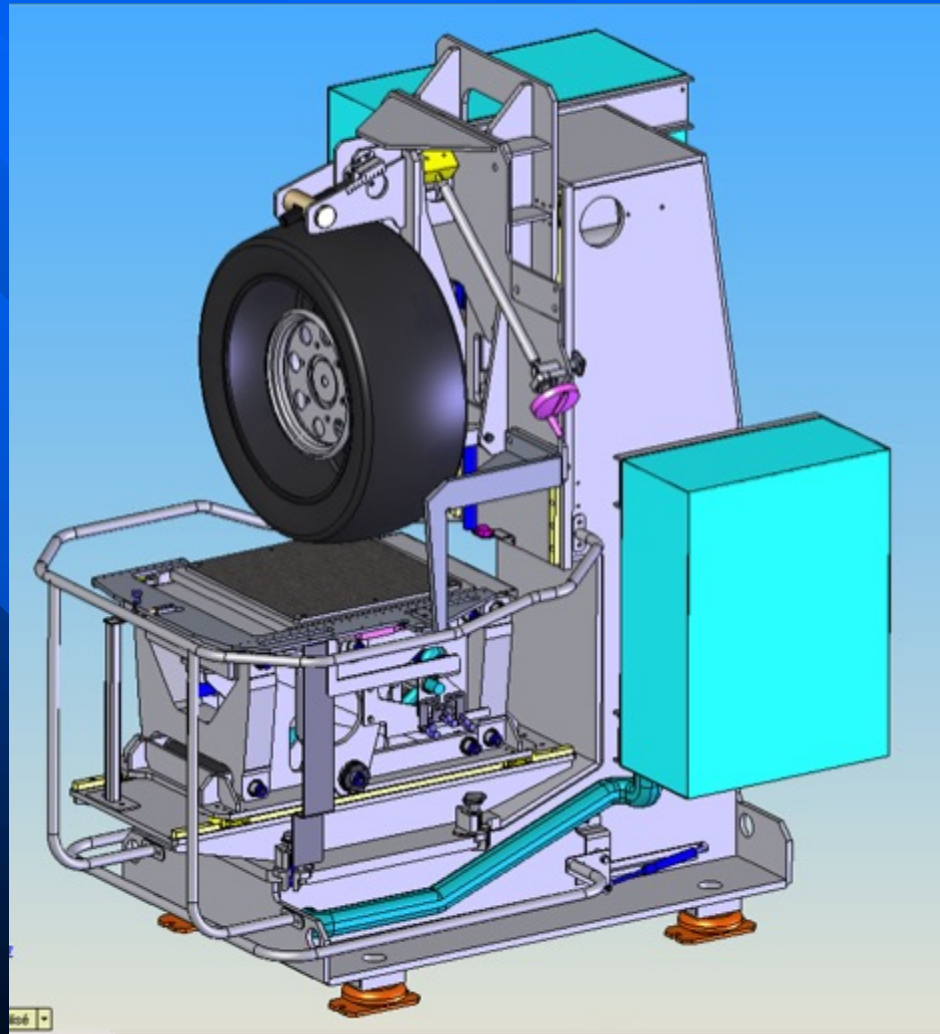


Hydraulic power pack



Tyre rigidity test rig

Automotive

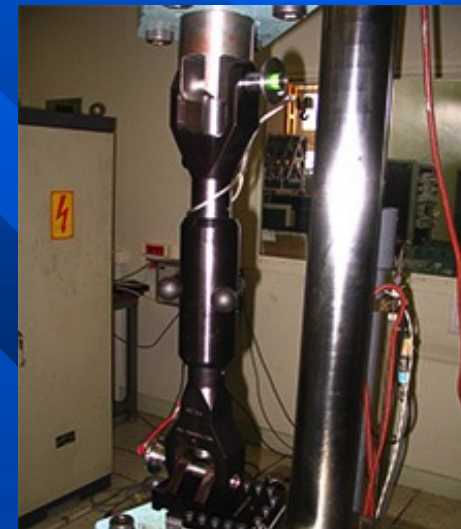
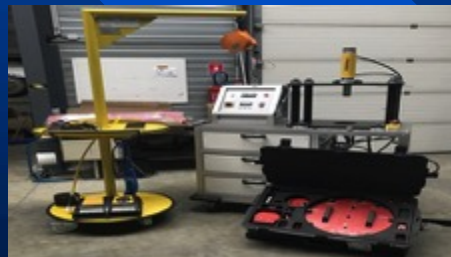
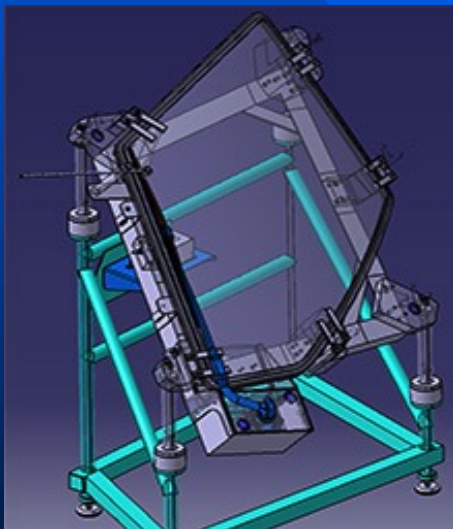


SCIP1 platform for BOA

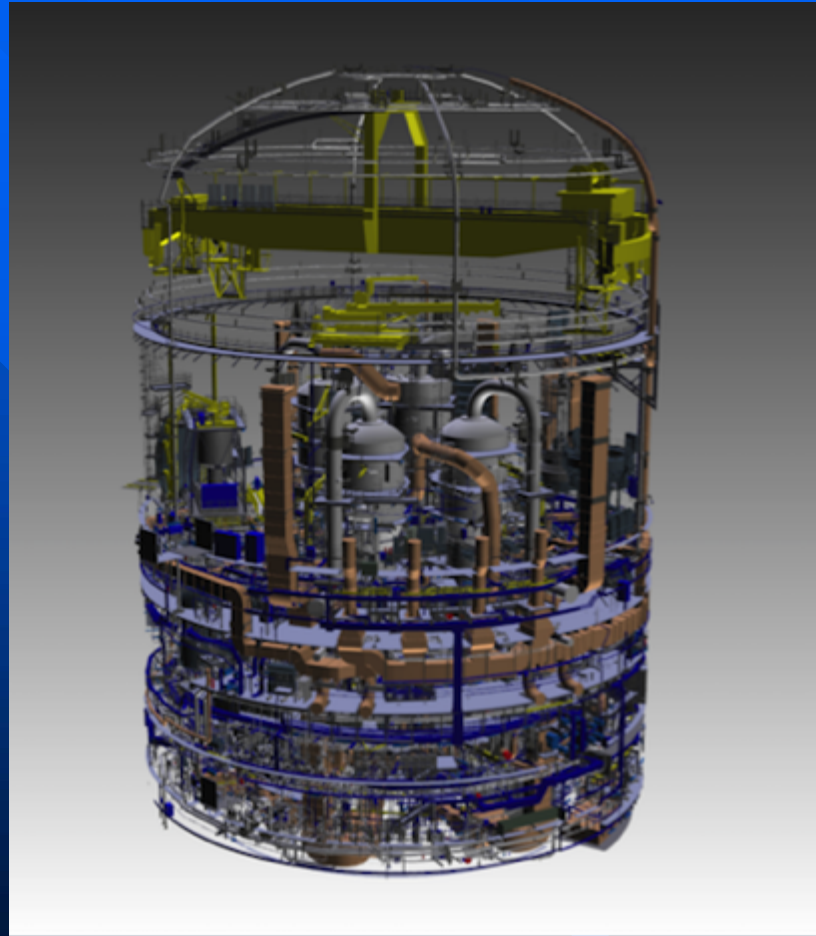
Defense



Tooling engineering



Maintenance engineering



Thank you !

Visit our website
www.certia.fr