

Aerospace Valley

Midi-Pyrénées & Aquitaine



EDITO

The call for projects for the competitiveness cluster gave rise, in the Midi-Pyrénées and Aquitaine regions, to an unprecedented mobilisation of all those involved in the sector. Over 600 representatives from the world of aeronautics, space and embedded systems, including numerous SMEs, have taken part in the work that enabled us to submit to the French Government, on February 28 2005, the proposal for the cluster's governance, strategy and federating projects. 40 research projects have received the seal of approval, together with structuring projects such as the Aerospace Campus (grouping of universities and aeronautical engineering schools), the aircraft dismantling centre in Tarbes and the installation in Bordeaux of an INRIA unit concerning information and communication technologies. Designated one of the 6 global clusters in July 2005, the governance is now ready for operation: the permanent structure is in place, supported by State financing, the major regional government structures involved (Aquitaine and Midi-Pyrénées, Bordeaux and Greater Toulouse urban communities), and by the association's founding members. The Cluster's first projects are now launched and supported by the Ministries in charge of Industry, Transport and Defence, the ANR, the territorial communities and by OSEO-ANVAR. We are now optimistic of achieving our objectives: from European leader to the number one aeronautical region in the world by both our industry and our research and education/training potential, and the creation of 40,000 jobs in the sector in the next 20 years.



Jean-Marc THOMAS
President



Pierre-Éric POMMELLET
Vice-President

Welcome to Aerospace Va

MIDI-PYRENEES & AQUITAIN WORLD CO

Aeronautics, Space, Embedded Systems

► **94,000** industrial jobs

1,200 establishments

10 billion Euros turnover

1/3 of the French aerospace workforce

8,500 researchers

3 of the 4 major aeronautical engineering schools in France

► World leader

- civil aircraft of over 100 seats
- luxury business aircraft
- helicopter gas turbines
- landing gears
- remote sensing, data collection and location

► European leader

- satellite design, development and integration
- satellite launch and station-keeping
- launchers and propulsion
- satellite telecommunications and space oceanography
- cockpit systems
- atmospheric entry technologies
- military aircraft
- automotive embedded systems

valley

COMPETITIVENESS CLUSTER



MORE INFORMATION

www.aerospace-valley.com

Aerospace Valley to prepare the future

Cooperation projects in 9 core business sectors

- Energy, propulsion systems, engines, environment
- Aero-mechanics, materials and structures
- Air transport safety and security
- Living earth and space
- Navigation, positioning and telecommunications
- Embedded systems
- Architecture and Integration, industrial organisation
- Maintenance, services, training
- Access to space and orbital infrastructures

World
in civi



Structuring projects in 3 Transverse Activity Domains

Economic development – Research – Education/Training

• The Aerospace Campus in Toulouse

With the grouping on a single site of 3 major French aerospace schools (Supaero, Ensica, Enac) near the universities and other engineering schools, more than 1,000 researchers from the ONERA, EADS CCR, the CNRS and the CNES, and the development of SME infrastructures, the Aerospace Campus will constitute the largest European university campus.

• INRIA Futurs research unit in Bordeaux

Already existing in Bordeaux, the French National Institute for Research in Computer Science and Control has a project to put in place, on the Bordeaux campus, a laboratory to develop research in Information and Communication Science and Technology targeting the needs of the aeronautics, space and embedded systems industries. In the medium term, over 400 people will be working on this Bordeaux site. Project partners: Bordeaux 1 and 2 Universities, ENSEIRB, CNRS.

• The Bordes-Assat aeronautical centre

A 53-hectare site structured around Turbomeca, to develop a world-class aeronautical propulsion centre. The site will accommodate industrial and service activities using common equipment, operator training units and two joint Turbomeca/University Pau & Pays de l'Adour laboratories.

• The aircraft dismantling centre in Tarbes

Currently at the experimental phase (PAMELA project « Process for Advanced Management of End of Life Aircraft »), the centre will be used to recycle gradually up to about 300 civil and military aircraft per year. Project partners: Airbus, Sita (Suez group), EADS Sogerma Services, EADS CCR.



MORE INFORMATION

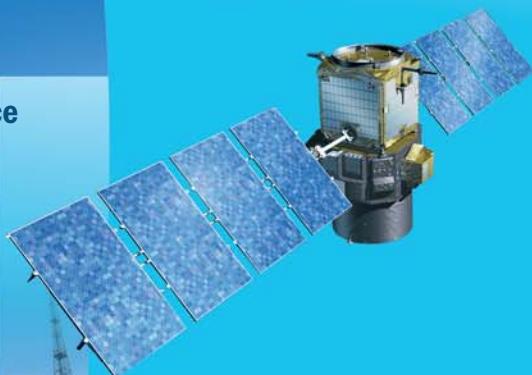
www.aerospace-valley.com



Number 1 in aeronautics



European space leader serving humanity



- ▶ European Number 1
for military aircraft



- ▶ A first worldwide rank
in business aircraft



- ▶ A position of excellence
in embedded systems



- ▶ An internationally recognised
research and training centre



- ▶ Design and test centres
unique in Europe



The Aerospace Valley association

The Aerospace Valley association was created on July 13 2005, for the national, European and international development of the Midi-Pyrenees & Aquitaine Aeronautics, Space and Embedded Systems Competitiveness Cluster and received the "Global Cluster" seal of approval from the French government on July 12 2005.

It is formed by the companies, research centres, education and training centres and authorities involved in the sector from the two regions.

With its 500 members, the general assembly is composed of 7 electoral colleges (Large manufacturing groups, SMEs/micro-businesses, Education/Training, Research, Economic development Structures, Local and Regional Authorities, Professional organisations and associated partners), the first four of which constitute the Cluster's project evaluation committee.

The mission of the executive committee, constituted of members of the Bureau, the association's Chairman, CBS (Core Business Sector) members, representatives from education/training, research and economic development is to propose the Cluster's general strategy to the Board of Directors and steer its implementation.



Leaders in aeronautics, space and embedded systems

Aircraft manufacturers

Airbus, Airbus France and Airbus Military

World headquarters
Design Offices,
Final assembly of the
Airbus A300, A310, A320,
A330, A340 and A380
Design and development of
the European military
transport A400M

ATR

World leader in the 40
to 70 seat turboprop
market (ATR 42 and 72)

Dassault Aviation

World leader in business
aircraft (Falcon),
manufacture of combat
aircraft (Mirage, Rafale)

EADS Socata

European leader in civil
and military light aircraft



Space

CNES French space agency - Toulouse

Research and development
of space programmes

Alcatel Alenia Space

European Number 1
in space systems and key
player in the field of orbital
infrastructures

EADS Astrium

One of the world leaders
in the design and
manufacture of satellite
systems

EADS Space Transportation

European specialist
in space transport
and orbital infrastructures

Zodiac International

World leader in civil aircraft
escape slides
Manufacture of stratospheric
balloons and satellite
super-insulants

Propulsion systems and engines

Microturbo (Safran group)

European leader in low and
medium power gas turbines

SME (SNPE Matériaux Énergétiques)

Strategic and space
solid propellants,
pyrotechnic devices
for automotive safety



Sneecma Propulsion Solide (Safran group)

Solid rocket motors,
European leader
in thermostructural
composites

Turbomeca (Safran group)

World leader in gas
turbines for helicopters

Studies, tests and maintenance

Air France Industries

2nd worldwide for
multi-product maintenance

CEA/CESTA

Modelling, design, tests and
studies in thermomechanical
environment (normal,
abnormal), electromagnetic
and infrared characterization
and tests

DGA – (AIA, CAEPE, CEAT, CELM, CEV, CEVAP)

Test centre and industrial
workshops for civil
and military aircraft

ONERA

French national
aerospace research
establishment



Defence

Roxel Propulsion Systems

Tactical and pre-strategic
missile propulsion
systems

Thales Airborne Systems

Development and integration
of airborne defence
systems and equipment

Embedded systems

Alstom Transport

European leader in
electrical propulsion
systems (rail transport)

Freescale Semiconductors

World leader
in the design and
production of embedded
semiconductors

Rockwell Collins France

Aeronautical electronics,
telecommunications and
radio-navigation systems



Siemens VDO Automotive

World leader in embedded
electronics,
Headquarters, R&D
and test centre, on-board
electronics, sensors,
engine electronics

Thales Avionics

One of the world leaders
in avionics solutions,
cockpit electronic systems
and equipment

The European No. 1 quality potential in equipment and subcontracting

- **55,000 employees and over 1,000 establishments in full and speciality subcontracting**
- **A network of dynamic SMEs**, working for the major international prime contactors such as the NASA, CNES, Airbus, Boeing, Bombardier, Embraer and Avic
- **All the innovating skills and processes are present:** tooling, maintenance, precision machining, avionics, composites, plastics technology, metal casting, metal working, rapid prototyping, machining, surface treatment, embedded electronics, wiring, hardware, ventilation and cooling systems, cabin furnishings, engineering, design and production, manufacturing and assembly, bonding...

Actielec

Leader in automobile electronic diagnostic, embedded systems on cars and buses and hertzian transmission

Alema

Design and production of aeronautical subassemblies and tools

Creuzet Aéronautique

Complex structural and engine mechanical parts

Exameca

First rank subcontractor specialised in aeronautic piping, metal working, welding

Goodrich Aerospace Europe

European headquarters Construction and assembly of aircraft nacelles

Labinal (Safran group)

Electrical wiring

Latécoère

European No. 2 for civil aircraft structures

Liebherr Aerospace

Headquarters of the Aeronautical Equipment holding. Design and manufacture of onboard pneumatic systems for aircraft and helicopters

Messier-Dowty

World leader in landing gear design and manufacture

Potez Aéronautique

Production of aeronautical subassemblies

Ratier Figeac

(Hamilton Sundstrand group)

European No. 1 propeller manufacturer, one of the European leaders in control systems

Saft

World leader in aircraft batteries



A worldwide reference for education/training and research centres

- **8,500** public and private researchers
- **Over 80** specialised, public **research centres**
- **45% of the R&D potential** in the aeronautics, space and embedded systems sectors
- **World-famous research centres:**
 - CEA/CESTA, CNES, CNRM, INRIA, ONERA
 - Numerous laboratories from CNRS, Universities and Major Schools
- **Specialised training**, from the qualified worker to the top engineer
- **3 of the 4 major engineering schools** in France: Supaero, Enac, Ensica
- **13 aerospace doctoral schools**
- **6 universities and 12 "Grandes Ecoles"** engineering schools providing education and training in the aeronautics, space and embedded systems sectors
- **And soon: the Toulouse Aerospace Campus**, which will group on the same site the main education, research and industry participants, with over 1,000 researchers



MORE INFORMATION

www.aerospace-valley.com

They are members of Aerospace Valley

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