



EADS Innovation Works

General Presentation / Transfer Potential of Aerospace Industry

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EADS Innovation Works main sites



« **EADS Innovation Works** » is the new name of the former Corporate Research Centre (EADS CRC) with two main sites:



Suresnes

Paris



Ottobrunn

Munich

EADS Innovation Works Organization Principles



EADS Innovation Works are based on 3 pillars :

- EADS corporate Research & Technology (R&T) production facilities, (new CRC unified) in Germany, France, Spain, UK, Singapore and Russia
- The “Foundations”, to secure the upstream research in cooperation with the Academic laboratories
- “Associated” laboratories embedded in the Divisions

EADS corporate Research & Technology (R&T) production facilities are organized according to a segmentation of 6 trans-national Technical Capability Centres (TCC), consistent with the R&T strategy and covering the skills and technology fields that are critical for the Group.



Aerospace Technology Transfer Potential

EADS R&T Strategy



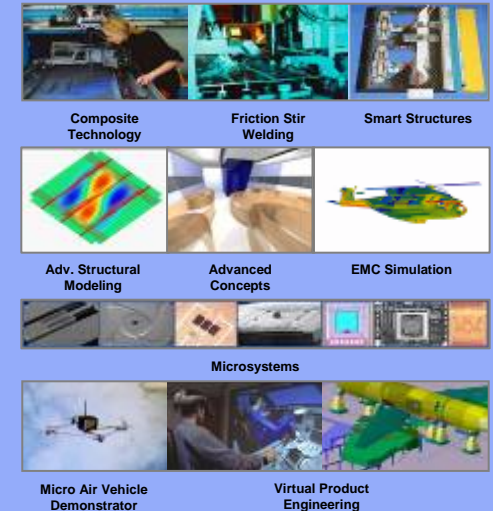
Strategy IW

Step 1
Alignment

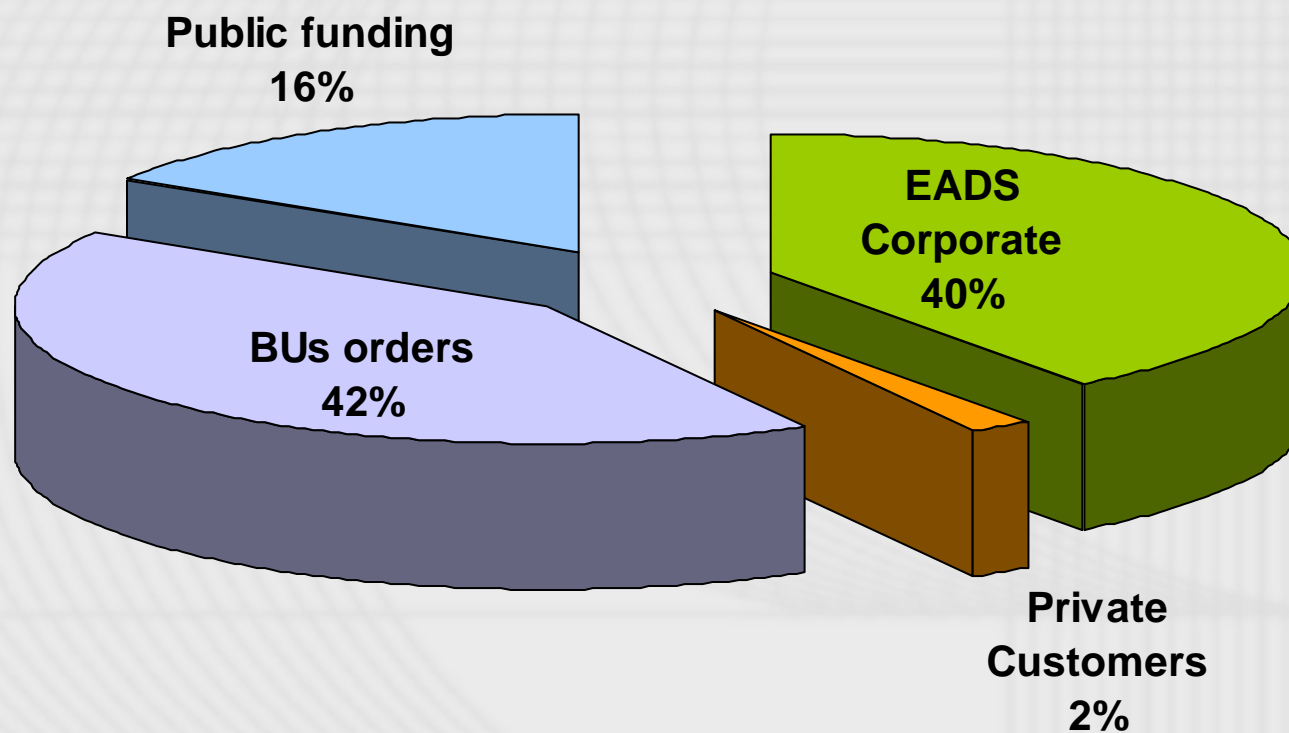
Step 2
Strategic Evaluation

Step 3
Funding

EADS Innovation Works



Revenues 2006



EADS Innovation Works main customers



EADS Business Units

- AIRBUS
- EUROCOPTER
- MBDA
- ASTRIUM
- MILITARY AIR SYSTEMS
- LFK



Outside EADS

- French & German states
- European Commission
- Private customers

World-Wide Firsts



**Mini-TEDs
on A340
test A/C**

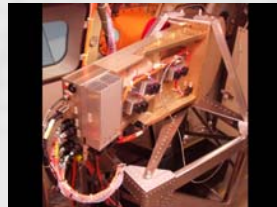


Structure and system solutions for innovative High Lift trailing edge devices (Mini-TEDs) to optimize lift distribution and to reduce wave drag by adapting wing shape to varying flight conditions (AWIATOR).

- **First flight test on A340 01/2006**



**Turbulence Sensor
System on ATTAS
test A/C**



Forward-looking LIDAR system for the measurement of gust and turbulences in front of the a/c; data directly fed into flight control and control surface deflection for gust load reduction (AWIATOR).

- **ATTAS Testbed 06/2004** → **A340 11/2006**



**Flight test on
BK117 with
fully equipped
rotor blades**

Flap module

Individual helicopter rotor blade control by piezo-driven servoflaps at the blade trailing edge for noise attenuation, vibration reduction and performance improvement. (AROSYS, LARS, FRIENDCOPTER)

- **First flight test of an adaptive flap rotor worldwide !**
(on BK117 09/2005)

Hypersensitive Detection – Technology demonstrator in an application



LIMS - Realisation / Demonstration



Technology Demonstration at the International Air Show Le Bourget Paris 2007 Passenger Screening Portal



The Federation of German Industries (BDI) awarded the Defense Industry Technology Prize to the EADS Corporate Research Centre Germany for its development of an artificial nose that acts as an analytical sensor for sniffing out even the smallest amounts of hazardous substances (2005).



Le Bourget 2005 „LIMS Boarding Pass Scanning Device „

EADS Innovation Works Core Competencies



Materials & processes and advanced manufacturing

Structures engineering and acoustics

Microsystems, electronics and image processing

Systems engineering and systems environment sciences

Information systems security

Processes for engineering and information management techniques



Composites technologies

Friction stir welding

Smart structures



Adv. structural modelling

Advanced concepts

EMC simulation



Cabin-air test rig

Virtual product engineering



Microsystems

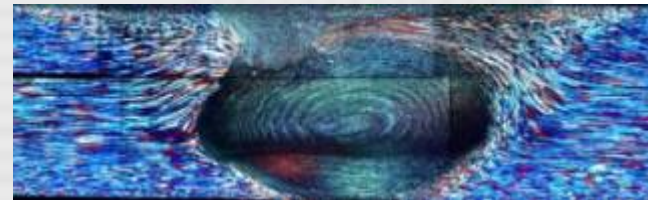
Composites Technologies



- Textile Technologies & Testing
- Process Engineering
- Bonding Technologies
- Composites material & Process
- Prototype Platform



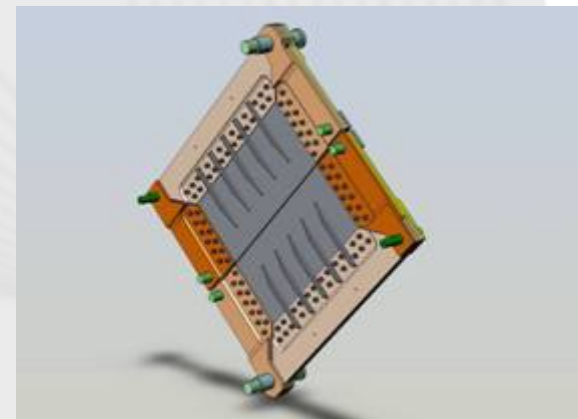
- Materials & Processes
- Structure Behaviour & Failure Analysis
- Surface Engineering
- Investigations Techniques
- Metallic Material & Processes
- Surface Treatment



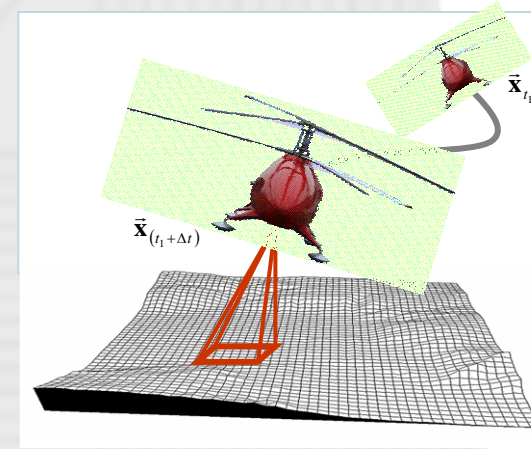
Structures Engineering, Production & Mechatronics



- Acoustics
- Vibro-acoustics & structural dynamics
- Control Systems
- Noise Control
- Structural Control (LG-MD)
- Actuation & Smart Structures
- Assembly-Robotics-Digital Manufacturing & Virtual Operations
- Non Destructive Investigation & Structural health Monitoring
- Lightweight Design
- Mechanical Modelling
- Non Destructive Testing & Damage Detection
- Modelling & Simulation
- Structural Analysis methods
- Structural Testing Platform



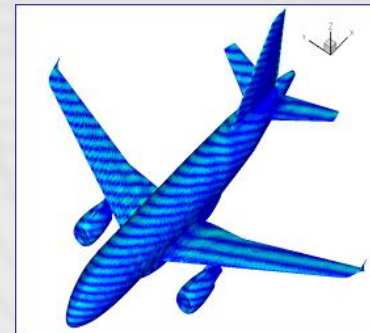
- Microwaves Technologies
- Biological & Chemical Sensors
- Electronics & Communication
- Autonomous Systems, Image & Signal Processing
- Optronics & HMI
- Chemical Process Engineering
- Natural Radiation Environment
- Technologies & Reliability in Electronic



Simulation, Information Technologies & Systems Engineering



- Advanced Design & Visualisation
- Systems Engineering
- Software Engineering
- Process Design
- Collaborative systems
- Learning systems
- Advanced Simulation
- Signature & Stealth Concepts
- Applied Mathematics & High Performance Computing
- Computer Security
- Electromagnetics



EADS Innovation Works Means



IW Staff in France and Germany

Headcount : 524

+

PhD/Thesis : 62

IW Spain :

Under development

SRTC (Singapore) :

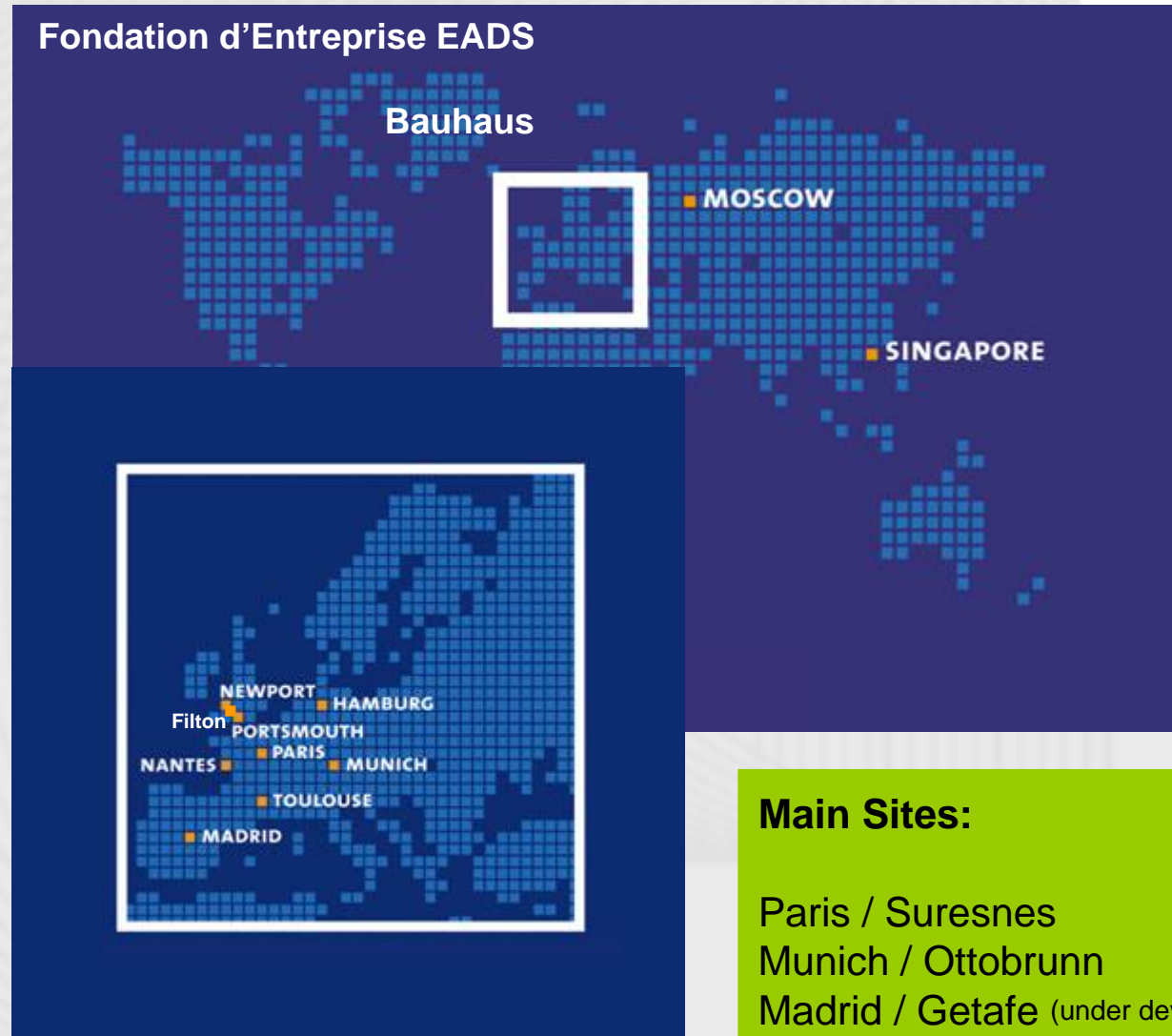
Under development

IW UK

Under development

Fondation d'Entreprise EADS

Bauhaus



Main Sites:

Paris / Suresnes

Munich / Ottobrunn

Madrid / Getafe (under development)

EADS Innovation Works main sites

EADS France
12 rue Pasteur – BP 76
92152 SURESNES cedex
FRANCE

EADS Germany
Willy-Messerschmitt-Str
85521 Ottobrunn
GERMANY

Contact: eadsiw.com@eads.net

For additional information about EADS, visit www.eads.net

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