RTD support for aeronautics in Spain

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1. Spanish aeronautical sector.
2. Spanish Innovation Strategy. CDTI
3. CDTI support to aeronautics R&D
In 2010, Spanish aeronautics sector remained as an important contributor to the Spanish economy in term of manufacturing, high technology generation, transfer to other sectors and positive trade balance, thanks to its high export activity.

Spain currently hosts Europe’s fifth aeronautical industry
2009 unconsolidated trend of EUR 6.391 million, representing 0.8 % of GDP.
Employment grew more than 7% over the previous year to reach 35,544 direct employees.

1. Spanish aeronautical sector
Spanish aeronautical industry has a large number of highly skilled jobs, with 42% having university degree or similar.
Investment of R&D of the Spanish aeronautical industry reached EUR 784 million, representing 14.5% of turnover.
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1. Spanish aeronautical sector.

2. Spanish Innovation Strategy. CDTI

3. CDTI support to aeronautics R&D
Centre for the Development of Industrial Technology (CDTI):

- Created in 1977
- Public Entity
- Reports to the Ministry of Science and Innovation

CDTI Mission: To contribute to transform the Spanish economy into a Sustainable Economy based on Innovation, by means of a comprehensive support to all the activities of the innovative companies

2004 – 2010

2.128 approved projects
EUR 1.244 million direct funding
2. Spanish Innovation Strategy. CDTI

Directorate of Global Innovative Markets
Juan Carlos Cortés

Aeronautics, Transport and Security
Eva Martínez

Energy, Chemistry, Environment, Production and Services
Javier García

Telecommunications, Electronic and Information Systems
Luis G. Souto

Biotechnology, Health and Agrifood
Cecilia Hernández

Interlocution with companies
Promotion of programs
Design of strategies and policies
Assessment of innovative companies
Sectoral analysis

R&D&I Promotion
Pedro Redrado

Science Industry and Space
Jorge Lomba
Approval and deployment of Innovation State Strategy (e2i)

Spanish Government Strategy to transform Spanish economic model into a sustainable economy based on innovation and knowledge

Integral approach
- Axis 1 - Financing.
- Axis 2 - Innovative Markets.
- Axis 3 - Internationalization.
- Axis 4 - Territorial cooperation.
- Axis 5 - People.

Objectives and results by 2015
- 40,000 new innovative companies.
- 6,000 M€/year of additional R&D private investment in R&D&i.
- 500,000 new employments in high and medium technology sectors.

CDTI will become the main public entity in the promotion and fostering of private R&D
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3. CDTI support to aeronautics R&D
3. Spanish support to aeronautics R&D. National funding (I)

CDTI will boost all enterprise innovative activities with most adequate instrument (capital, grants or loans with a non-returnable part)
3. Spanish support to aeronautics R&D. National funding (II)

AERONAUTICS thematic areas Vs national funded projects
≈ EUR 900 million direct funding between 2006-2010

- INTEGRATED SYSTEMS: 11%
- MATERIALS & STRUCTURES: 18%
- MANUFACTURING PROCESSES: 15%
- GROUND SYSTEMS & EQUIPMENTS: 4%
- ATM: 9%
- FLIGHT/GROUND TESTS: 2%
- BOARD SYSTEMS & EQUIPMENTS: 20%
- MAINTENANCE PROCESSES: 7%
- SIMULATION: 7%
- AERODYNAMICS: 7%
- MANUFACTURING PROCESSES: 15%
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- AERODYNAMICS: 7%
3. Spanish support to aeronautics R&D. National funding (II)

Priority thematic areas

- UAVs - 21 funded projects 2007-2010
  - UAS civil applications
  - Integration of UAS into non-segregated airspace
  - On-board payload

- Materials & structures - 35 funded projects 2006-2010
  - New research facility in composite materials: FIDAMC

- Board systems and equipments – 33 funded projects 2006 – 2010

- Strengthen the capabilities of Spanish ATM sector
3. Spanish support to aeronautics R&D. FP7

CDTI actively participates in the management committees
3. Spanish support to aeronautics R&D. AAT (II)

Spanish funded activities AAT FP7 (2007-2010)

- Activities 52
- Partners 43
- Leaders 14
- Participations 96
3. Spanish support to aeronautics R&D. AAT (II)

Spanish activities Clean Sky (2009-2010)

- Activities 17
- Partners 22
- Leaders 11
- Participations 30
3. Spanish support to aeronautics R&D - Clean Sky (I)

- **SMART Wing Aircraft**
  - AERNOVA (ASSOCIATE)

- **Technology Evaluator**
  - ITP (ASSOCIATE)

- **Simulator Platform AC, ATM, AP (flight segment)**
  - Eco-Design

- **ATS Model**
  - Systems for Green Operation

- **Regional Air Transport**
  - EADS-CASA (LEADER)

- **Green Rotorcraft**

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**Eco-Design**

**Systems for Green Operation**

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**Green Engines**

**ITP (ASSOCIATE)**
The participation of Spanish entities in the SESAR programme is close to 20% of the total budget

WP-E: SESAR Long-Term and Innovative Research, nearly the only open call instrument for participation in SESAR:

Research Networks: The only two networks launched has been won by Spanish entities.
Projects: First call (18 projects approved) 8 of them with a Spanish participation and 5 with a Spanish leader.
CDTI is the chair of the called “SPANISH SESAR GROUP” that is the cornerstone to foster the participation of the Spanish ATM Sector in European Programmes. The Spanish ATM Sector acts as a “cluster”, involving all the actors.
3. Spanish support to aeronautics R&D. CSA FP7 (I)

**Partners in Coordination and Support Actions to international/transnational colaboration in Aeronautics R&D under FP7**

- **Airtm**: Air Transport NET.
  - Step up the cooperation and coordination of aeronautics research activities carried out at a national or regional level in the Member States and Associated States through.

- **CooperatE-US**: Conditions of success for R&T Open Options through a Platform of communications and for Expressing Recommendatio Actions to Team-up Europe and U.S.

**Next participation**

- **Cannape**: CANadian Networking Aeronautics Project for Europe
- **Sunjet**: sUsustainable Network for Japan-Europe aerospace research and Technology cooperation
3. Spanish support to aeronautics R&D. CSA FP7 (II)
Thank you for your attention

(more information: www.cdti.es)