

# Cooperation FP7 Transport (including aeronautics) 6th call

*Juan Francisco Reyes Sánchez  
EU FP7 National Contact Point for aeronautics*

*Directorate of Global Innovative Markets  
Centre for the Development of Industrial Technology CDTI*

**14th of June 2012**

# INDEX

## 1. European Research Area

## 2. FP7. 6th call transport (including aeronautics)



## 2. European Research Area

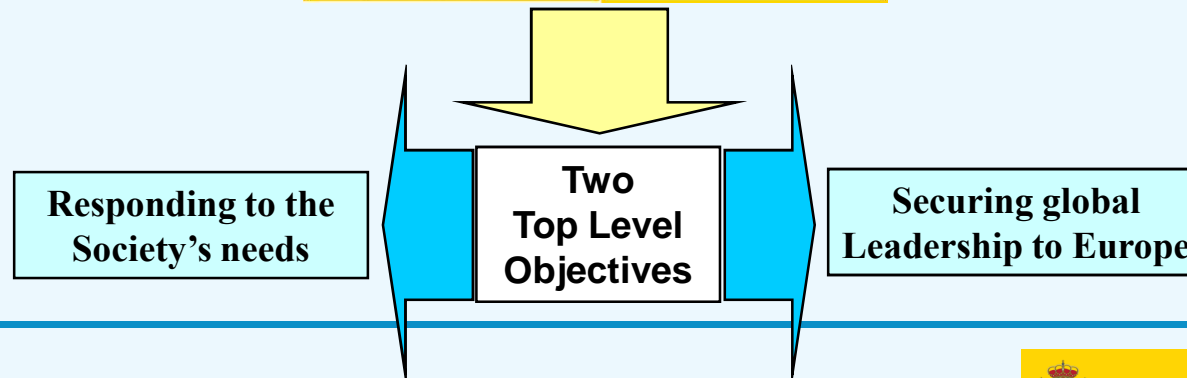
### “European Aeronautics: A Vision for 2020”

→ <http://europa.eu.int/comm/research/growth/aeronautics2020/en/index.html>

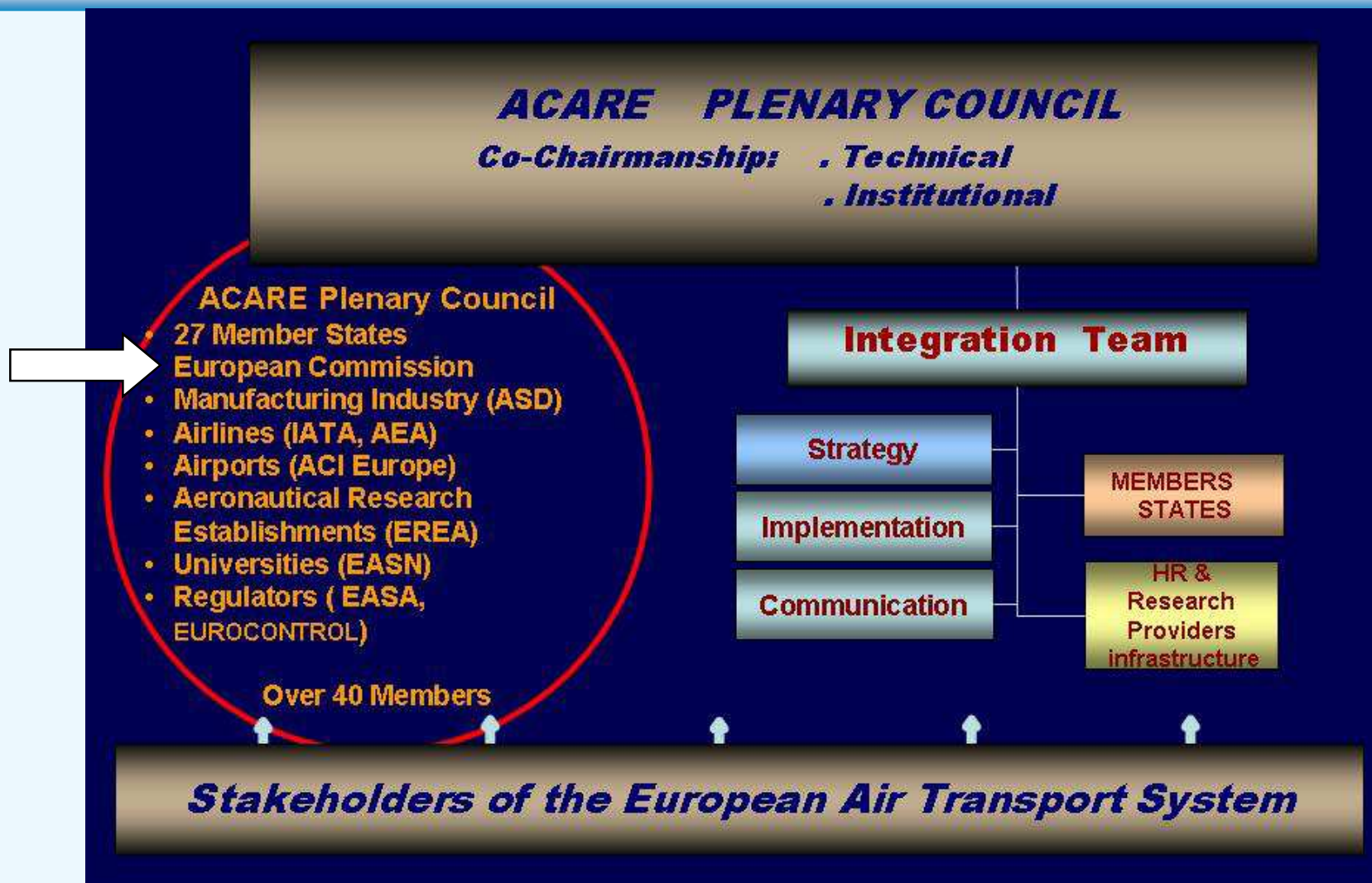
- Initiated and chaired by Commissioner Philippe Busquin
- Prepared by a group of 14 high-level personalities (GOP)



- Focused on Research / Technology / Development
- Takes a pan-European perspective with a 2020 horizon



## 2. European Research Area



## 2. European Research Area

**2000**  
**European Aeronautics:**  
*A Vision for 2020*

**2002**  
**Strategic Research Agenda**  
*Five Challenges for Aeronautics*

**2005**  
**2nd Issue of the Strategic Research Agenda**  
*Six High Level Target Concepts*

**2008**  
**Addendum**  
*Focus on recent developments*

**Society's needs**

**Global leadership**

Info:  
[www.acare4europe.com](http://www.acare4europe.com)

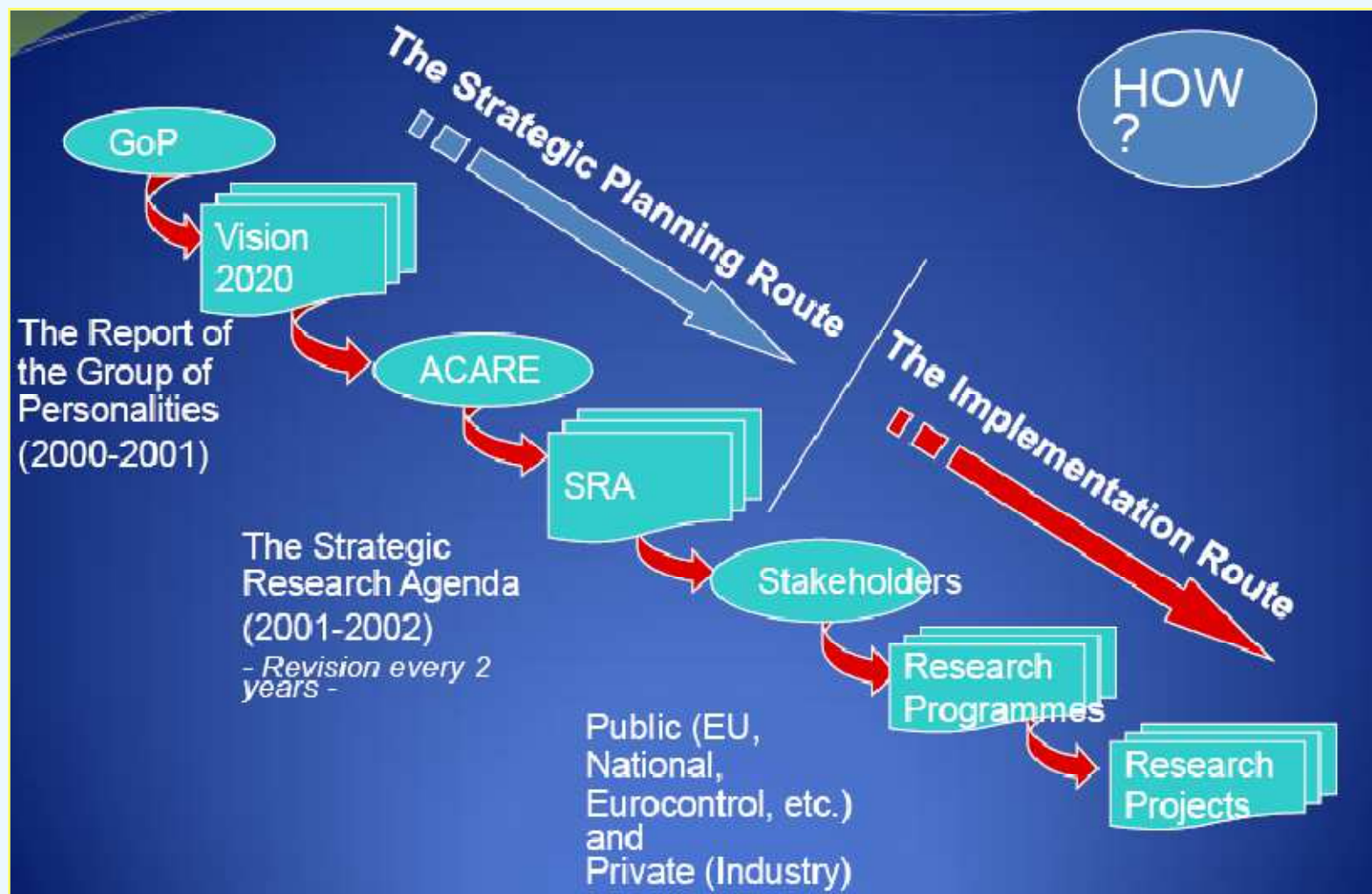


## 2. European Research Area

- **The Goals for 2020:**

- 80% cut in NO<sub>x</sub> emissions
- Halving perceived aircraft noise
- Five-fold reduction in accidents
- Air traffic system capable of handling 16 million flights a year
- 50% cut in CO<sub>2</sub> emissions per pass-Km
- 99% of all flights within 15 minutes of timetable

## 2. European Research Area



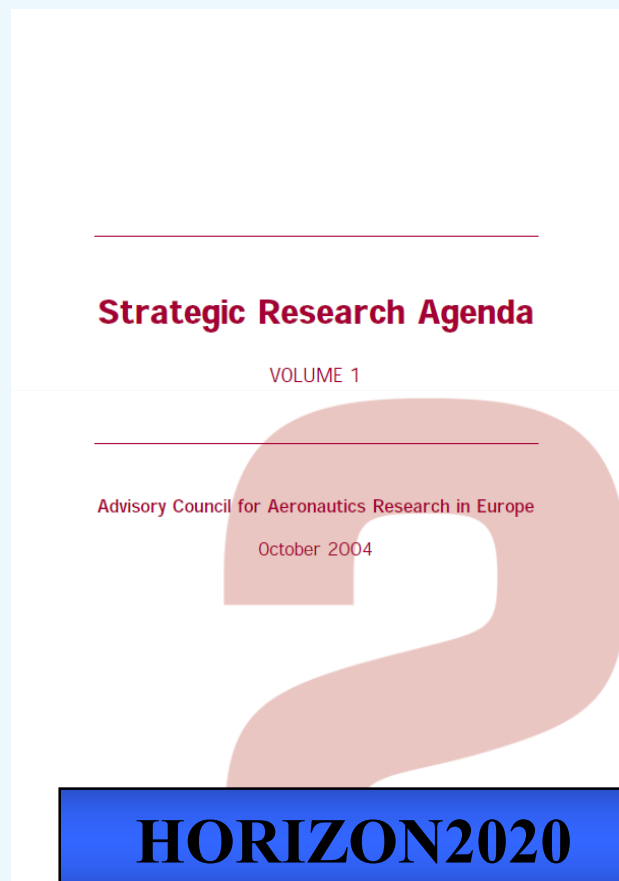
## 2. European Research Area



- **Presentado en Aerodays 2011 – Madrid 30 Marzo**
- **Realizado por High Level Group on Aviation Research:**
- **Vision:**
  - **Satisfacer las necesidades sociales y del mercado**
  - **Mantener y extender el liderazgo industrial**
  - **Proteger el medioambiente y las fuentes de energía (promover el uso de energía alternativas y sostenibles)**
  - **Garantizar la seguridad**
  - **Priorizar la investigación, la educación y los centros de investigación.**



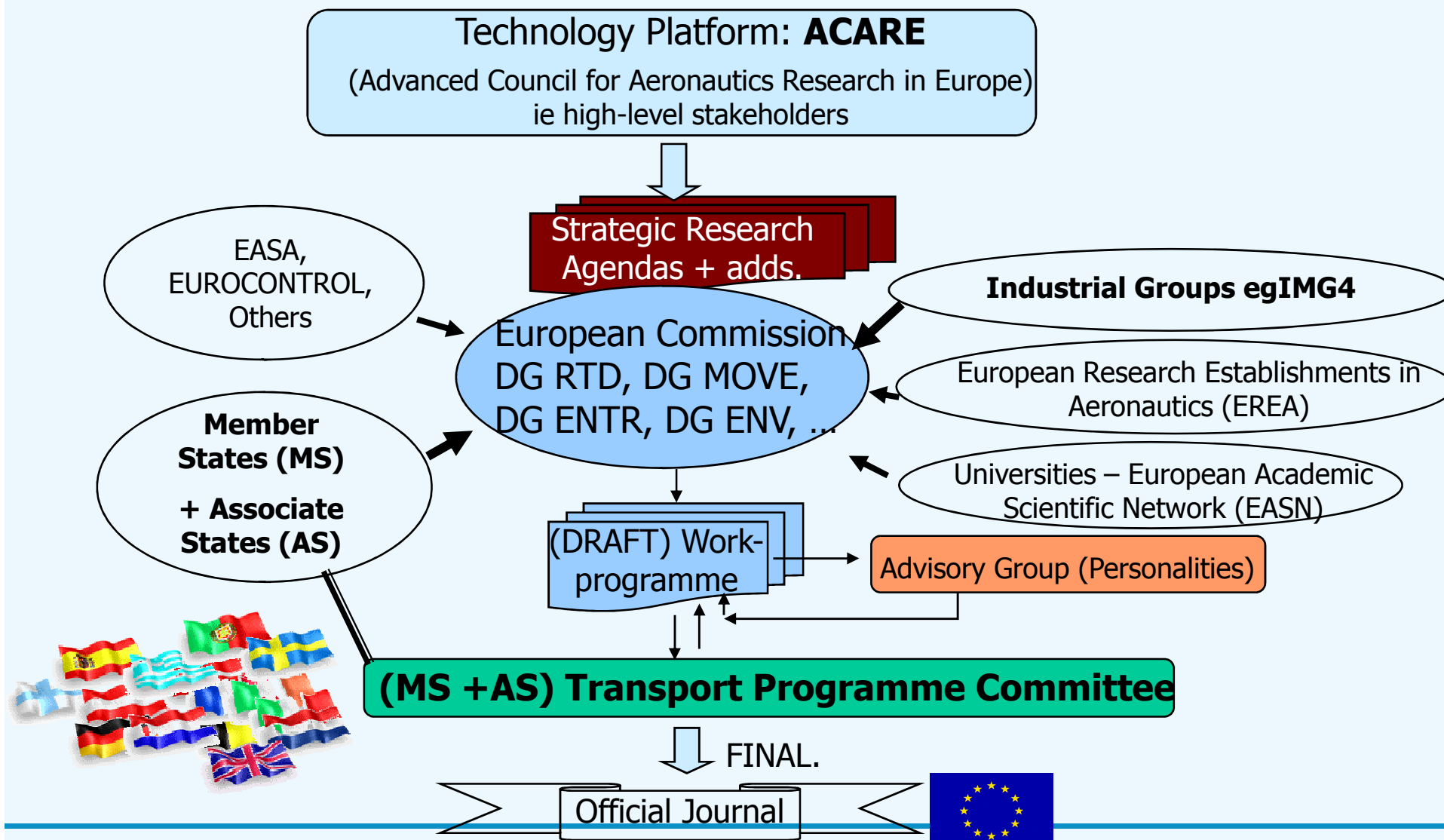
## 2. European Research Area



- **New SRIA: Strategic Research and Innovation Agenda**
- **Presentación Borrador: 9-15 julio, Airshow Farnborough**
- **Presentación oficial: 11-16 septiembre, ILA Berlin Air Show**



## 2. European Research Area



# INDEX

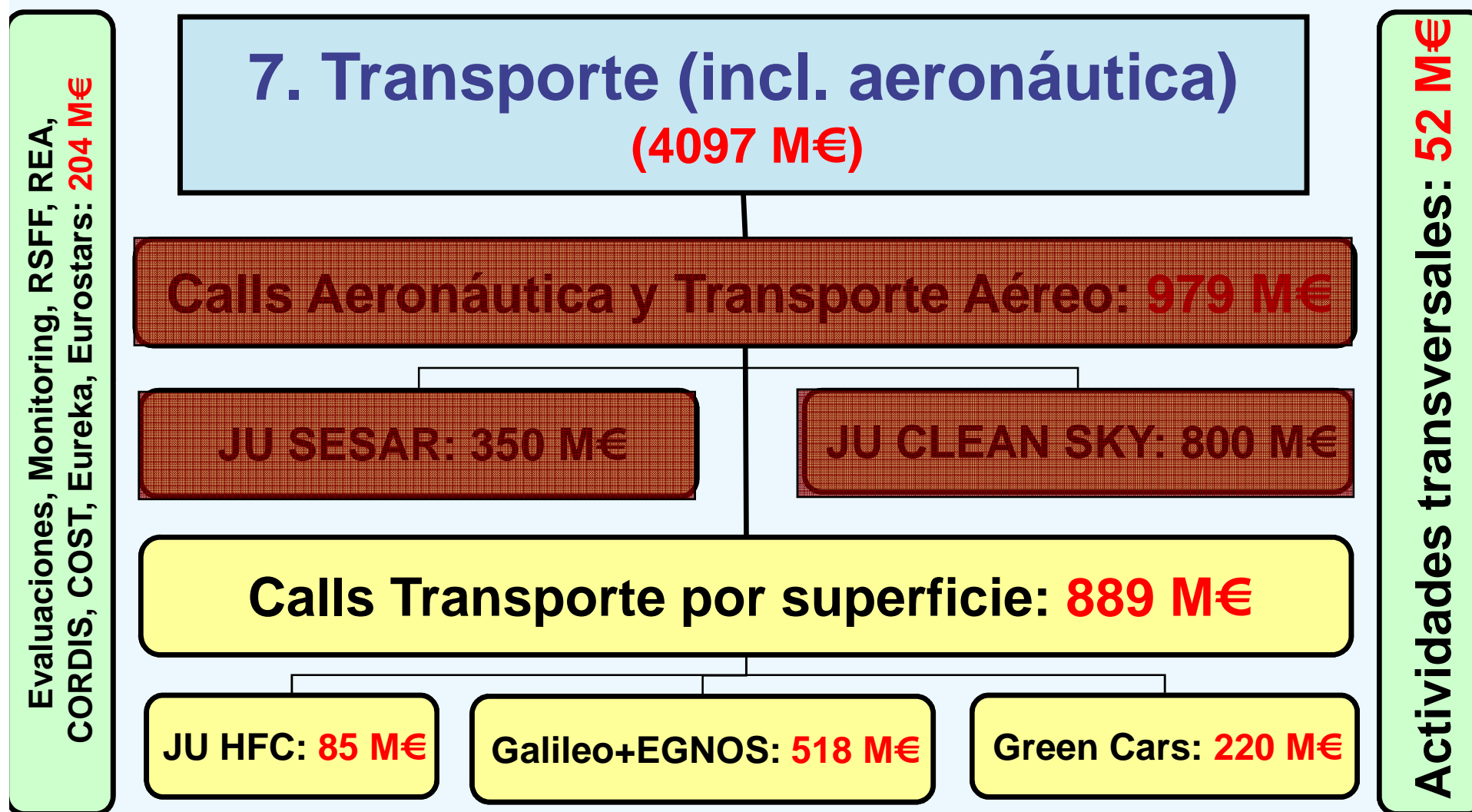
## 1. European Research Area

## 2. FP7. 6th call transport (including aeronautics)



# I+D en el VII Programa Marco (2007-2013, 50.521 M€)

COOPERACIÓN (32.413)	
1. Salud (6.100)	
2. Alimentación, agricultura y pesca, y biotecnología (1.935)	
3. Tecnologías de la información y las comunicaciones (9.050)	
4. Nanociencias, nanotecnologías, nanomateriales y nuevas tecnologías de producción	
5. Energía (2.350)	
6. Medio ambiente (incluido el cambio climático) (1.890)	
7. Transporte (incluida la aeronáutica) (4.160)	
8. Ciencias socioeconómicas y humanidades (623)	
9. Espacio (1.430)	
10. Seguridad (1.400)	
IDEAS (7.510)	Consejo Europeo de Investigación
PERSONAS (4.750)	Acciones Marie Curie
CAPACIDADES (4.097)	Infraestructuras de investigación (1.715)
	Investigación en beneficio de las PYME (1.336)
	Regiones del conocimiento (126)
	Potencial de investigación (340)
	La ciencia en la sociedad (330)
	Desarrollo Coherente de las Políticas de Investigación (70)
	Actividades de cooperación internacional (180)



# JU CLEAN SKY



© AIRBUS S.A.S. 2008 - COMPUTER RENDERING BY FIXION - GWLNSD



UNIÓN EUROPEA  
Fondo Europeo de  
Desarrollo Regional (FEDER)  
*Una manera de hacer Europa*

14

(19/06/2012)

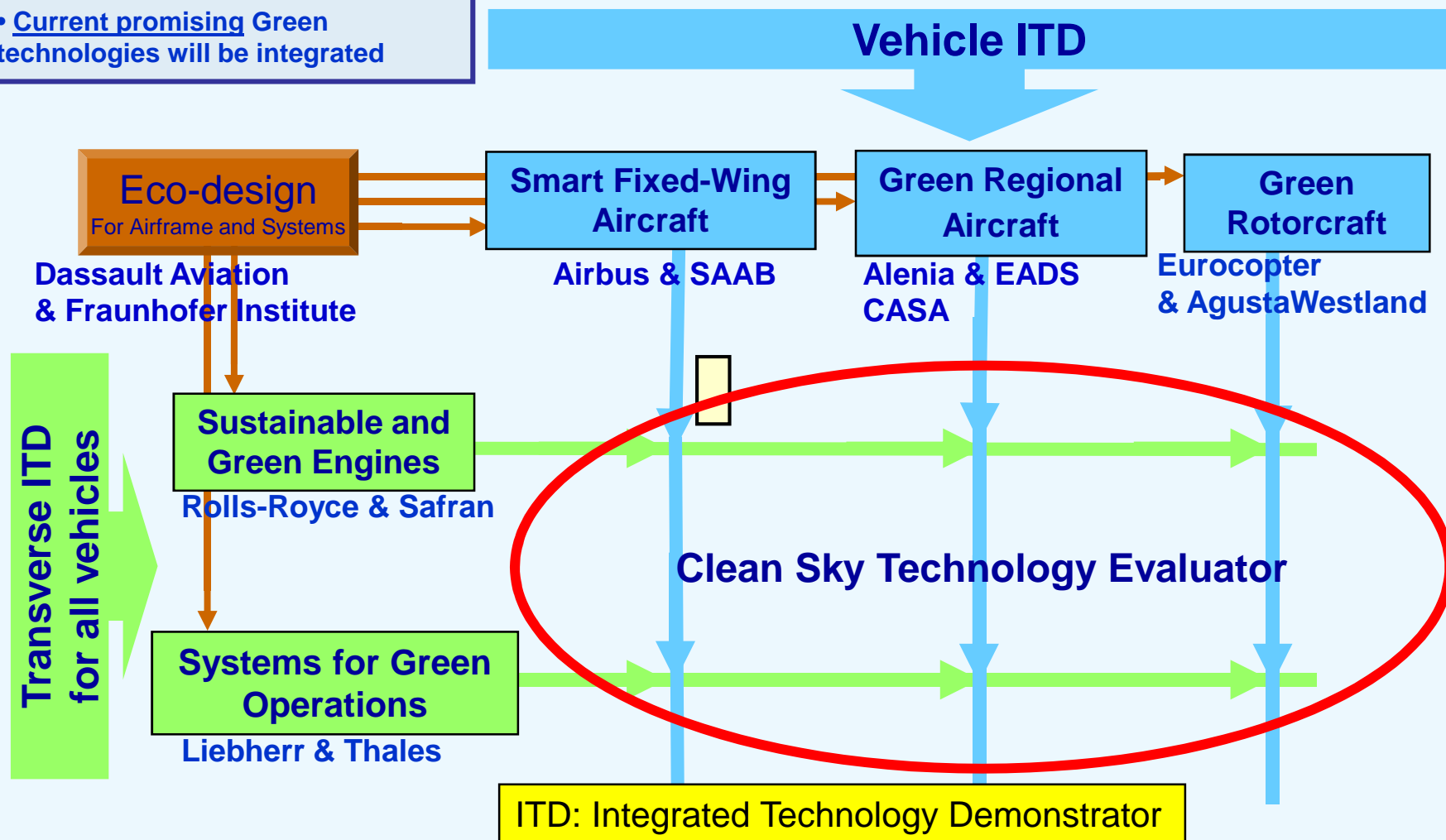


Centro para el Desarrollo  
Tecnológico Industrial

# JU CLEAN SKY (2007-2017, 1.600 M€ ptpo.)



- All market segments addressed
- Current promising Green technologies will be integrated



**- Convocatoria para socios actualmente abierta (12ª), cierra el 10/07/12:**

- Smart Fixed Wing Aircraft: 9 *topics*, 9,5M€ max EU fund.
- Green Regional Aircraft: 2 *topics*, 2,13M€ max EU fund.
- Systems for Green Operations: 12 *topics*, 4,5 M€ max EU fund.
- SustAinable and Green Engines: 9 *topics*, 12,3 M€ max EU fund.
- Green RotorCraft: 5 *topics*, casi 3,442 M€ max EU fund.
- Eco Design: 5 *topics*, 540k€ max EU fund.

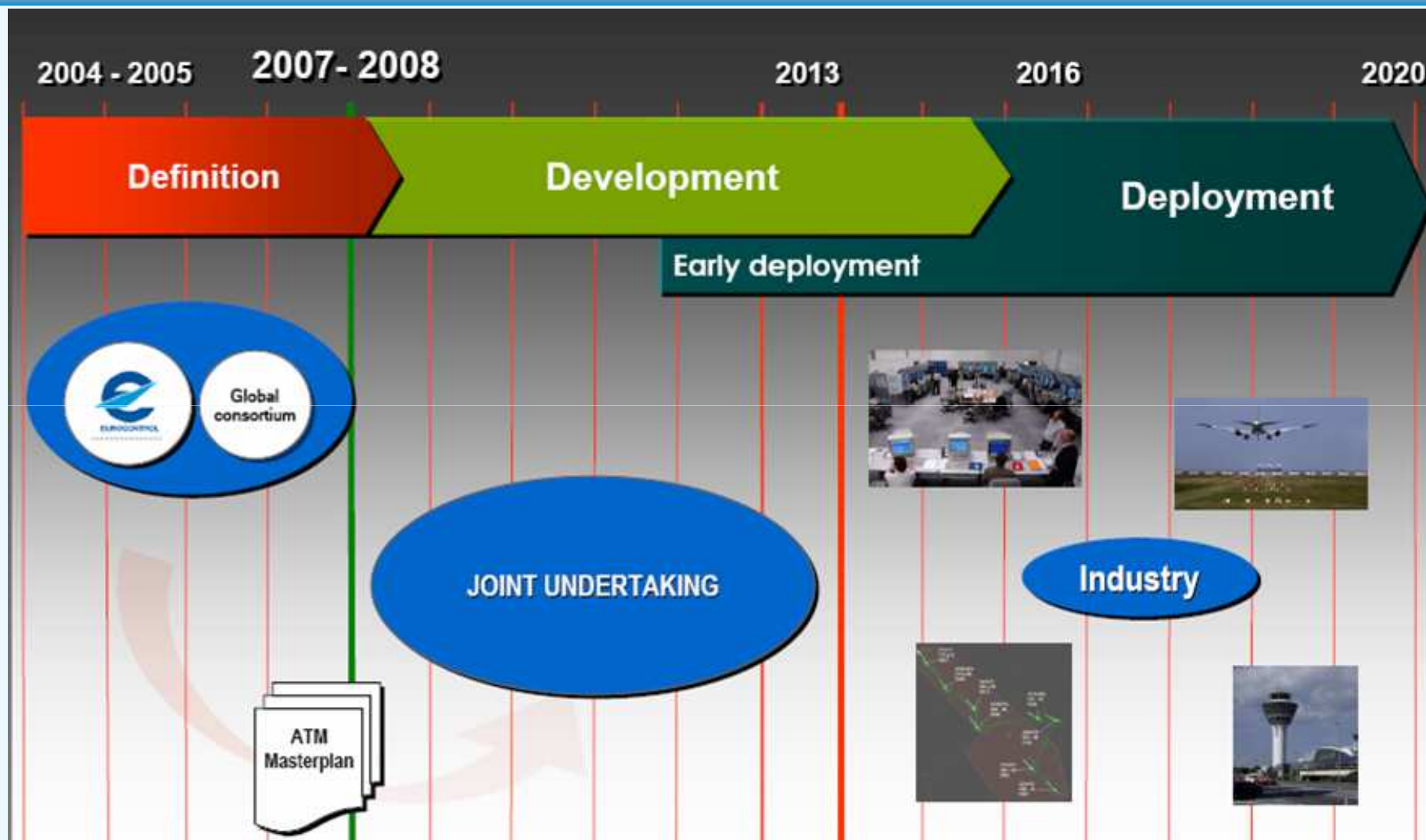
**42 *topics* en total, max EU fund: 32,392 M€**

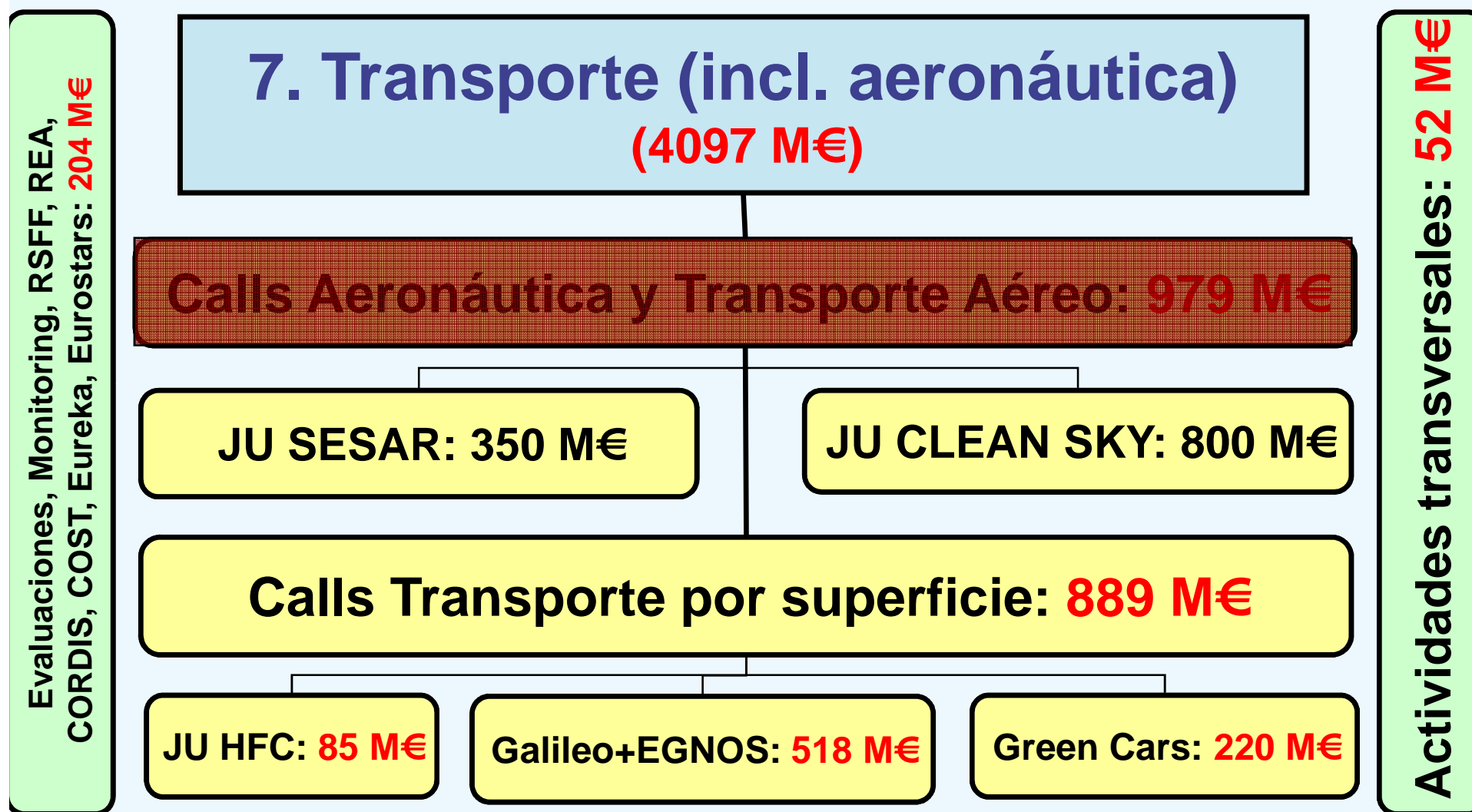
Más información: [www.cleansky.eu](http://www.cleansky.eu)



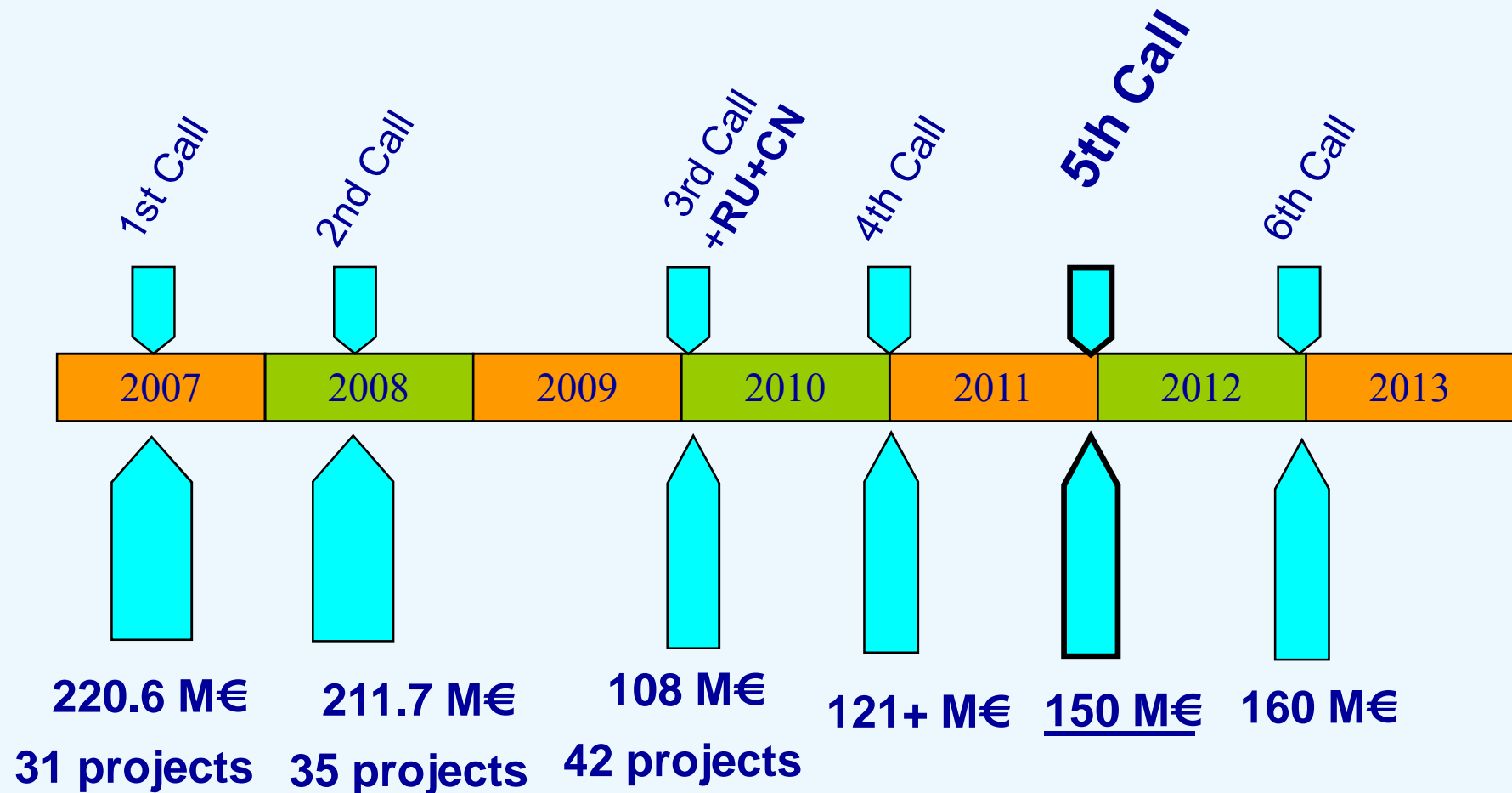


## JU SESAR (2.100 M€ de presupuesto)





# Calls for Proposals : FP7 Aeronautics and Air Transport Collaborative Research & Support

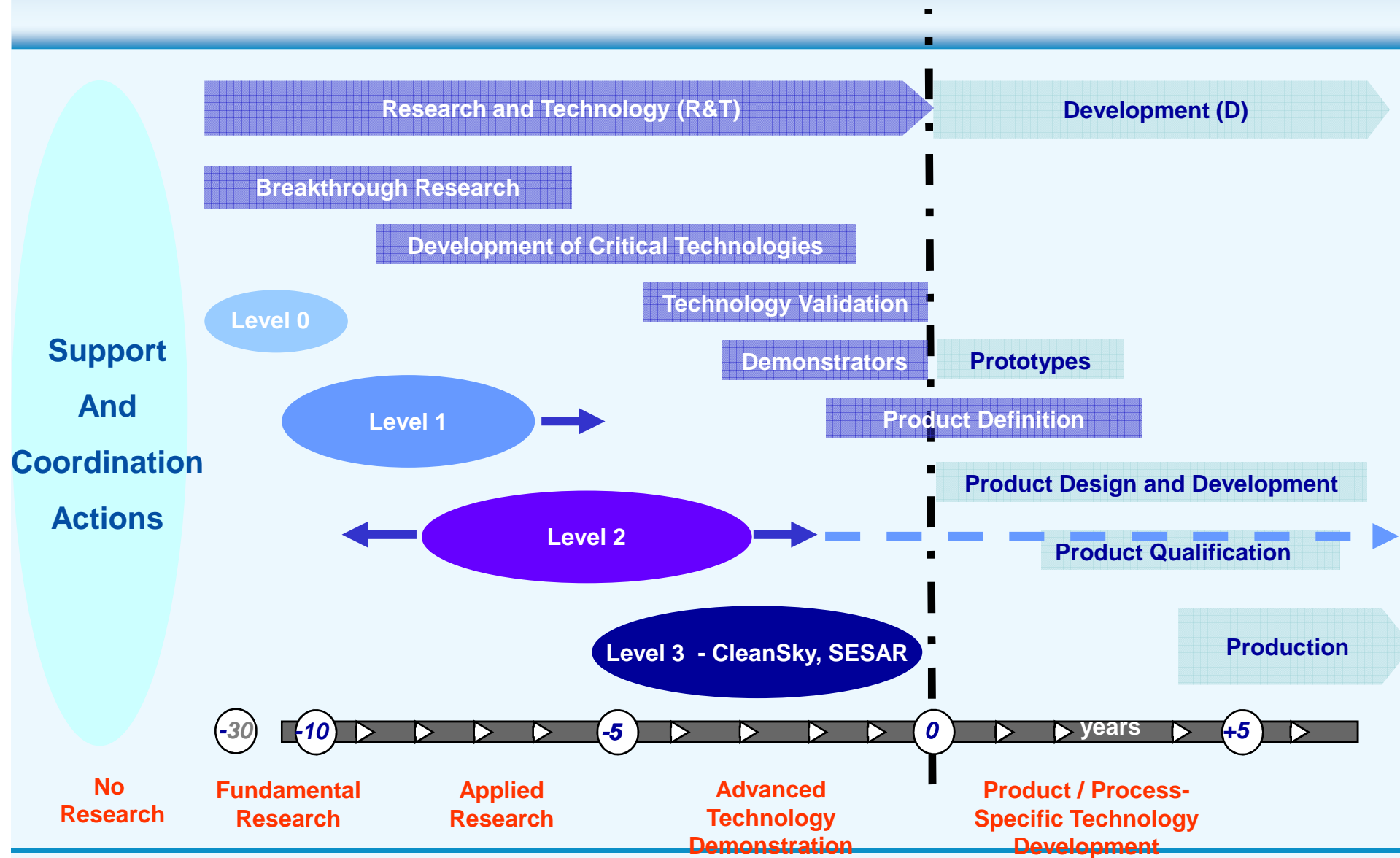


-no Level2-  
(19/06/2012)

# INDICATIVE CALENDAR WP 2013

<b><i>WHEN?</i></b>	<b><i>WHAT?</i></b>	<b><i>WHO?</i></b>
<b><i>12 March 2012</i></b>	<b><i>WP 2013 (draft)</i></b>	<i>DG RTD services</i>
<i>March-April 2012</i>	<i>WP 2013 (draft)</i>	<i>Seminars with Cabinets</i>
<i>19 April – 11 May 2012</i>	<i>Inter Service Consultation</i>	<i>Commission services</i>
<b><i>14 June 2012</i></b>	<b><i>Opinion of Programme Committee</i></b>	<i>Commission services &amp; Programme Committee</i>
<i>9 July 2012</i>	<i>Adoption of 'Cooperation' WP 2013</i>	<i>Commission</i>
<b><i>10 July 2012</i></b>	<b><i>Publication in Official Journal</i></b>	<i>Commission services</i>
<b><i>14 November 2012</i></b>	<b><i>Deadline for calls</i></b>	<i>Proposers</i>

# Type of projects and funding schemes



## Type of projects and funding schemes



◆◆◆ Level 3: **Combination**, final **proof** in fully **integrated** system of systems.  
PublicPrivatePartnerships: SESAR, **CLEANSKY**

◆◆ Level 2: **Downstream R&TD**,  
Multidisciplinary **integration & validation**

- CP-IP Collaborative Projects > 5 M€ EC fund

◆ Level 1: **Upstream R&TD**

Up to validation at component level

- CP-FP Collaborative Projects < 5M€ EC fund

◆ Level 0: **Breakthrough exploratory R&TD**

- Collaborative projects CP-FP < 600 k€ EC fund
- **Coordination** Actions « CSA-CA » (no R&TD) < 1200 k€

*Min. **3** entities  
from **different**  
Member or  
Associate States.*

*R&TD up to  
50/75% EC co-  
funded, others  
up to 100%.*

- **Support** Actions « CSA-SA » (no R&TD) < 600 k€

# TRANSPORT (INCLUDING AERONAUTICS) THEME FOR THE 2013 WORK PROGRAMME

CHALLENGES		Eco-innovation	Safe & seamless mobility	Competitiveness & growth through innovation
SUB-THEMES & ACTIVITIES	Aeronautics & Air Transport (AAT)	The greening of air transport	Increasing time efficiency	Improving cost efficiency
			Ensuring customer Satisfaction & safety	Pioneering the air transport of the future
			Protection of aircraft & passengers	
		Cross-cutting		
		International Cooperation		
		Horizontal Activities for implementing the Transport programme (TPT)		



## WP 2013 Overview of topics (AAT part)

**DRAFT**

<b><i>Group of Topics (GoT)</i></b>	<b><i>Number of topics</i></b>	<b><i>Indicative budget M€</i></b>
<i>Topics funded via CP-FP (Level 1)</i>	8	37.91
<i>Topics funded via CP-IP (Level 2)</i>	6	88.04
<i>CSA-CA</i>	2	6.00
<i>CSA-SA</i>	5	3.00
<i>Long term innovation (Level 0)</i>	2	5.00
<i>RTD-RUSSIA</i>	1	4.50
<i>Civil high speed air transport research (with Australia, Japan and the Russian Federation, and other Third Countries)</i>	1	5.00
<b><i>Total</i></b>	<b>25</b>	<b>149.45</b>

Total EC: 5 MEur

Max EC contribution per project  
600 kEur

- Separate **Open Call**
- 2 Topics

- **AAT.2012.6.3-1. Breakthrough and emerging technologies**

**Emerging** technologies or technologies **from other sectors** which have the potential to bring **radical new** approaches to the **vehicles**, the **propulsion** technology, the **energy** needed for the flight, the **tools** to provide **guidance and control** to the vehicles, the **ground** structures for passengers and freights and the **impact of the air transport on the** environment.

**DRAFT**

- **AAT.2012.6.3-2. Radical new concepts for air transport**

New approaches to systems for the air transport such as new approaches to the **control and guidance** of vehicles, the way passengers or freight **access the vehicle**, the way air transport is **connected with other modes** and the way **travel information** is handled.

- Provisional dates to launch the 1 stage evaluations: 15/10/2011 - 15/03/2012 - 04/10/2012 - 14/03/2013
- **600 kEur** max EC contribution
- Evaluation: weights of **70% on S&T**, 10% on Implementation, 20% on Impact
- Max **20 pages** of text
- Recommended duration: **24 m**, partnership  $\leq 7$

## L1: Main call

**DRAFT**

Total EC: 37,91 MEur  
Max EC contribution per project 5 MEur

Activities	L2 Topics												Well covered in WP2012
	1) Flight Physics	2) Aero-structures	3) Propulsion	4) Systems & Equipment	5) Avionics	6) Design Systems and Tools	7) Production	8) Maintenance Repair Disposal	9) Flight Air Traffic Management	10) Airports	11) Human Factors	12) Noise and vibration	
1) The Greening of Air Transport	O	O	O	X	X	X	X	X	O	X		O	
2) Increasing Time Efficiency				X	X			X	X	O			
3) Ensuring Customer Satisfaction and Safety		X	X	X	X	X		X	X	X	O	X	
4) Improving Cost Efficiency	X	X	X	O	O	O	O	O	X	X	X		
5) Protection of the Aircraft and Passengers		X		X	X				X	X	X		
6) Pioneering the Air Transport of the Future	Well covered in WP2012												
	Closed for L1 / Open for L0 only												

- **Level-1**
  - **Focused mainly on**
    - *'The greening of air transport'*
    - *'Improving cost efficiency'*
  - **Few topics on**
    - *'Increasing time efficiency'*
    - *'Customer safety'*
    - *'Pioneering the Air Transport of the Future'*
  - **Flexibility**
  - **Max. EU contribution/project: 5 M€**

Total EC: 37,91 MEur

Max EC contribution per project 5  
MEur

## L1: Main call SME relevant research

**DRAFT**

- **Encourage the participation of SMEs**
  - Enhancing their role in the supply chain
  - Emphasis new high tech SMEs
- AAT.2013.4-1 Systems and equipment
- AAT.2012.4-2 Design systems and tools

## L1: Main call International cooperation



- **Encourage the international cooperation**
  - Market attraction
  - Opportunities to access and acquire science and technology complementary to European
  - Contribute to international standards and global systems
- **AAT.2013.2-1 Airports .... USA**
- **AAT.2013.3-1 Human factors.... ICPCs/Third countries (USA, Canada)**
- **AAT.2013.4-2 Design systems and tools..... USA**

### AAT.2013.8-1 Coordinated call with Russia

**DRAFT**

- 1) New Generation hybrid (composite – metal) structures.
- 2) Advanced flow control systems applied on wings, ailerons, high lift devices to reduce drag and enhance safety during manoeuvres.
- 3) Architecture of control system for more electrical aircraft.
- 4) Computer aided design of avionics system based on modular elements.
- 5) Aerodynamic design of a ducted contra-fan (incl. acoustic treatment and integration with the airframe).
- 6) Control of unsteady flows in compressors for enhanced stability.

Total EC: 4.5 MEur

Max EC contribution per project  
1200 k Eur

## L1: Coordinated call: International cooperation on high speed aircraft research

**DRAFT**

### AAT.2013.8-2 International cooperation on high speed aircraft research

**Deadline 29th of March 2013**

-Flight Testing of multidisciplinary optimised model vehicle in the hypersonic range relevant to environmentally and economically sustainable civil high-speed passenger transport aircraft.

At least two of the following countries:  
Australia, Japan, Russia.

**Total EC: 5 MEur**

**Max EC contribution per project  
5M Eur**



**DRAFT**

	Greening	Time efficiency	Customer & Safety	Cost efficiency	Protection
Flight Physics				Low cost manuf. aero.	
Aerostructures	Biofuels for aviation		CABIN (2011) SARISTU (2011)	MAAXIMUS (2007)	
Propulsion	Breakthrough components LEMCOTEC (2011)		Ice crystals	ESPOSA (2011)	
Systems & Equipments			Cockpit 2025	ACTUATION 2015 (2011)	HIRF-SE (2007)
Avionics		ALICIA (2008)	SCARLETT (2008)	SANDRA (2008)	
Design Tools & Production					
Noise	OPENAIR (2008)				
Maintenance					

Total EC: 88 MEur  
EC contribution per project  
5 – 35 MEur

Total EC: 88 MEur  
EC contribution per project  
5 – 35 MEur

**AAT.2013.1.3 Low pressure system for Ultra high By-Pass Ratio Engine**

**AAT.2013.1.4 Maturation of integrated set of active flow, load and noise control technologies for the next generation of active wing, including flight demonstration**

**AAT.2013.4.5 Integrated environment for optimised airline maintenance and operations.**

**AAT.2013.4.6 Integrated Thermal Analysis and Design for Aircraft**

**AAT.2013.1.7 Large scale demonstration of extended Distributed Modular Electronics**

**AAT.2013.4-8 Seamless aeronautical networking through integration of data links, radios and antennas extended beyond ATM**

**DRAFT**

## CSA-CA

- **AAT.2013.7-1. Coordinating research and innovation in the field of Aeronautics and Air Transport**
  - *Environmental related research and innovation*
  - *Cost efficiency*
  - *Time efficiency*
  - *Safety research*
- **AAT.2013.7-2. Coordinating research and innovation in the field of sustainable alternative fuels for Aviation**

Total EC: 6 MEur

EC contribution per project

1200 kEur

**DRAFT**

### CSA-SA

- **AAT.2013.7-3. Communication of EU funded RTD project results to targeted audience**
- **AAT.2013.7-4. Creating cohesive links and common knowledge between potential partners in EU Framework programme Collaborative Projects**
- **AAT.2013.7-5. Conference: support for the organisation of Aeroday**
- **AAT.2013.7-6. Enhancing coordination and stimulating cooperation in research and innovation among EU Member States and Associated States to the EU Framework Programme**
- **AAT2013.7-7. Exploring opportunities and stimulating cooperation in research and innovation with China.**

Total EC: 3 MEur

EC contribution per project

600 kEur

# TRANSPORT (INCLUDING AERONAUTICS) THEME FOR THE 2013 WORK PROGRAMME

AAT	Eco-innovation (decarbonisation, clean aircraft)	Safe & seamless mobility	Competitiveness & growth through innovation
Level 0	<ul style="list-style-type: none"> <li>- Breakthrough &amp; emerging technologies for vehicles</li> <li>- Radical new concepts for air transport</li> </ul>		
Level 1	<ul style="list-style-type: none"> <li>- Flight physics</li> <li>- Aerostructures</li> </ul>	<ul style="list-style-type: none"> <li>- Airports (inc. coop. USA)</li> <li>- Human factors</li> </ul>	<ul style="list-style-type: none"> <li>- Systems &amp; equipment (inc. detection of contamination &amp; hazards)</li> <li>- Design systems &amp; tools (inc. "greening" &amp; coop. USA)</li> <li>- Production</li> <li>- Maintenance, repair &amp; disposal</li> </ul>
Level 2	<ul style="list-style-type: none"> <li>- Low pressure system for Ultra High By-Pass Ratio Engine</li> <li>- Next generation of active wing, including in-flight demonstration</li> </ul>		<ul style="list-style-type: none"> <li>- Optimised airline maintenance &amp; operations</li> <li>- Integrated thermal analysis &amp; design for aircraft</li> <li>- Extended Distributed Modular Electronics</li> <li>- Seamless aeronautical networking beyond ATM</li> </ul>

**DRAFT**



# TRANSPORT (INCLUDING AERONAUTICS) THEME FOR THE 2013 WORK PROGRAMME

**DRAFT**

AAT	Eco-innovation (decarbonisation, clean aircraft)	Safe & seamless mobility	Competitiveness & growth through innovation
<b>Cross-cutting</b>	<ul style="list-style-type: none"> <li>- Coordinating R&amp;I in the field of AAT</li> <li>- Coordinating R&amp;I in the field of sustainable alternative fuels for Aviation</li> <li>- Communication of EU funded RTD project results to targeted audience (text improved)</li> <li>- Creating cohesive links &amp; common knowledge between potential partners in EU FP CPs</li> <li>- Conference: support for the organisation of Aerodays</li> </ul> <p><b>NEW</b> - Enhancing coordination and stimulating cooperation in research and innovation among EU Member States and Associated States to the EU Framework Programme</p> <p><b>NEW</b> - Exploring opportunities and stimulating cooperation in research and innovation with China</p>		
<b>Calls for INCO</b>	<ul style="list-style-type: none"> <li>- Coordinated call with Russia (composites, flow, control, avionics, etc.)</li> <li>- International cooperation on high speed aircraft research</li> </ul>		

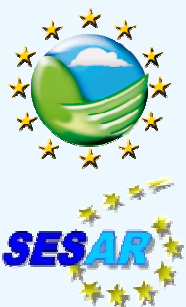
## REFERENCIAS TRANSPORTE

Transport Research Knowledge Centre

[www.transport-research.info](http://www.transport-research.info)

JTI Clean Sky

[www.cleansky.eu](http://www.cleansky.eu)



JU SESAR

[www.sesarju.eu](http://www.sesarju.eu)

JU FCH

<http://www.fchnewenergyworld.eu/>

Seventh Framework Programme

<http://cordis.europa.eu/fp7>



Calls for proposals

<http://cordis.europa.eu/fp7>



CDTI

[www.cdti.es](http://www.cdti.es)





# CALENDAR

- **Calls open:** 10 July
- **Calls close:** 14 November
- **National Infoday:** 26 June
- **Brussels Infoday:** 18, 19 July



## FP7-AAT-2012-RTD-1

- **Call identifier: FP7-AAT-2012-RTD-1(Main call)**
- **Publication Date: 20 July 2011**
- **Budget: € 136.040.000,00**
- **Deadline: 01 December 2010 at 17:00**
- **Specific Programme: Cooperation**
- **Theme: Transport (including Aeronautics)**

### FP7-AAT-2012-RTD-1 – Response by Instrument

Funding scheme	Number of proposals submitted	Info on evaluated proposals			
		Number <sup>1)</sup>	Participation	Funding requested	
				Sum [M€]	Average [M€]
Level 2	4	4	144	77,19	19,30
Level 1	149	149	1586	519,64	3,49
Coordination action	6	4	39	4,00	1,00
Support action	25	24	148	4,00	0,48
<b>Total</b>	<b>184</b>	<b>181</b>	<b>1917</b>	<b>612,26</b>	<b>3,38</b>

<sup>1)</sup> One proposals was withdrawn, 2 proposals have been declared ineligible.

## FP7-AAT-2012-RTD-1

### FP7-AAT-2012-RTD-1

#### Overall Results: Proposal Scoring by Instrument

Funding scheme	Number of proposals above thresholds			Below thresholds	Ineligible / withdrawn <sup>1)</sup>	Total submitted
	Within funding range	Above threshold but below funding range	Total			
Level 2	3	1	4	0	0	4
Level 1	19	85	104	45	0	149
CSA-CA	0	3	3	1	2	6
CSA-SA	7	11	18	6	1	25
<b>Total</b>	<b>29</b>	<b>100</b>	<b>129</b>	<b>52</b>	<b>3</b>	<b>184</b>

<sup>1)</sup> One proposals was withdrawn, 2 proposals have been declared ineligible.

# Gracias por su atención

[juanfrancisco.reyes@cdti.es](mailto:juanfrancisco.reyes@cdti.es)



UNIÓN EUROPEA  
Fondo Europeo de  
Desarrollo Regional (FEDER)  
*Una manera de hacer Europa*



Centro para el Desarrollo  
Tecnológico Industrial