



# Aeronautics and Air Transport Work Programme 2012

Directorate 'Transport' Unit 'Aeronautics'  
Directorate-General for Research and Innovation  
European Commission

# WP2012 at a Glance

Publication: 20/07/2011

Closing: 01/12/2011

## L0 Open Call

L0 (CP-FP): Upstream research (beyond 2050)

## Main Call

L1 (CP-FP): Applied focussed research

L2 (CP-IP): Integrated projects

CSAs: Support Actions

## Coordinated Call with Japan

L1 (CP-FP): Applied focussed research

## Joint Topic with Energy

L1 (CP-FP): Research and demonstration

Max EC (MEur)	Available (MEur)	
0.6	5.0	(2 Topics)
5.0	68.0	
30.0*	65.0	(5 Topics)
0.6	3.0	
1.4	4.0	(5 Topics)
10.0	5.0	(+ 5 MEur ENER, 1 Topic)
<b>Total</b>	<b>150.0</b>	

\* not an eligibility criteria

- 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 infrastructures for passengers and freights and the impact of the air transport on the environment.

## 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  
- 15/10/2012 - 15/03/2013
- 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: 24M, partnership  $\leq 7$

Total EC: 5 MEur  
Max EC contribution  
per project 600 kEur

# L1 - in WP2012 (4th Call in AAT)

Activities	Topics											
	Flight Physics	Aero-structures and Materials	Propulsion	Systems & Equipment	Avionics	Design Systems and Tools	Production	Maintenance Repair Disposal	Flight Air Traffic Management	Airports	Human Factors	Noise and Vibration
The Greening of Air Transport	o	o	o	o	o	x	o	o	o	o		
Increasing Time Efficiency				x	x			x	x	o		
Ensuring Customer Satisfaction and <u>Safety</u>		o	o	o	x	x		x	x	x	o	o
Improving Cost Efficiency	o	o	x	o	o	o	o	o	x	x	o	
Protection of the Aircraft and Passengers		o		x	x				x	x	x	
Pioneering the Air Transport of the Future	2 Topics for L1											

o: open x:closed

Total EC: 68.0 MEur

Max 5.0 MEur EC contribution per Proposal

# L1 in Pioneering

Enhancing cooperation with Japan in the field of high speed aircraft  
(see also Coordinated Call with Japan)

Conceptual design of a high speed aircraft with low emissions, market analysis, iterative multidisciplinary preliminary design, type of fuel selected in the light of its environmental performance, careful optimisation of on-board energy management, lightweight materials capable of resisting high levels of stress and temperature, sonic boom and noise reduction technologies...

Building agility and resilience of the ATM system beyond SESAR

Safe, agile and resilient by design concept for the air traffic management system beyond SESAR, analysis of the ability of the current system to recover and adapt from disruptions; innovative concept operating efficiently under optimum conditions and able to react to crisis...

# Development and Testing of advanced bio-based fuels for Air Transport

Demonstrate the production of biofuels at large enough scale to allow testing in typical short to medium distances in Europe.

Investigate the complete engine fuel system with a special attention to the relationship between fuel composition range, combustion and air pollutant emissions.

Assess the environmental, economic and social sustainability of the fuel.

Identify barriers to innovation (economic, social and regulatory) for the large-scale biofuels utilisation in aviation.

Joint Topic with ENER  
(application should be made  
to ENER Call)

Total EC: 10 MEur

# L1 - Coordinated Call with Japan

- Separate Call
- 4 MEur EC, 4 MEur Japan

## 5 Topics:

- Aeronautical communications
- Anti-Icing systems
- Surface heat-exchangor for aeroengines
- Ceramic bearings for engine
- High speed aircraft

Total EC: 4 MEur

Max 1.4 MEur EC contribution per Proposal

At least 2 legal entities established in Japan

## CP-IP - Level 2

- Demonstration of Breakthrough Technologies enabling high overall pressure ratio
- Integrated approach to safe flight under icing conditions
- Integrated approach and demonstration of safe operations under crew peak workload / reduced crew
- Integrated approach and demonstration of efficient propulsion and related aircraft systems for small-size aircraft
- Integrated approach and demonstration to lean manufacturing of metal, composite and hybrid aircraft / engine structures

Total EC: 65 MEur  
EC contribution per proposal: > 5 MEur (el.) and expected to be < 30 MEur



# Support Actions

- European Air Transport System scenario elaboration and trend assessment capability
- Attracting young Europeans to future careers in the field of aeronautics
- Supporting organisation of conferences and events
- Assessment of the potential insertion of unmanned aerial system in the air transport system
- Efficient airports for Europe
- Airport centred co-modality and intermodality
- Facilitating access to aircraft for disabled people

Total EC: 3 MEur  
Max EC  
contribution per  
project 600 kEur



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**Flightpath 2050**  
**Europe's Vision**  
**for Aviation**

Report of the High Level Group  
on Aviation Research

