

**TRANSPORT POLICY & APPLIED RESEARCH  
AERONAUTICS, AIR TRANSPORT  
(Airports, Air Traffic Management, Operations & Services, Safety, Security, Energy, Cross-Cutting)  
& CO-MODALITY**

**FP7 2008 CALLS**

- CALL FP7-AAT-2007-RTD -1** (Air Transport Technology) **Open: 30 November 2007 – 7 May 2007** Budget: € 80.42 million
- CALL FP7-TPT-2008-RTD -1** (Horizontal Actions All Modes – **all except TPT.2008.16**) **Open: 30 November 2007 – 7 May 2008** Budget: € 14.65 million
- Call for Tender TPT.2008.16** (Studies supporting FP7 mid-term review & indicators' trends to 2020) **Opening and Closing Dates not yet known** Budget: € 0.35 million
- CALL FP7-NMP-2008-SMALL-2** (Nanotechnologies, Materials) **Open: 30 November 2007 – (Stage 1) 6 March 2008 (Stage 2) 2 September 2008** Budget: € 100 million
- CALL FP7-NMP-2008-LARGE-2** (Nanotechnologies, Materials) **Open: 30 November 2007 – (Stage 1) 6 March 2008 (Stage 2) 23 September 2008** Budget: € 60 million
- CALL FP7-ENV-2008-1** (Environment) **Open: 30 November 2007 – 25 February 2008** Budget: € 212 million

**Topics relating to the aircraft and topics with high technological content are not included in this summary of topics - except insofar as they relate to security & integration with SESAR. Refer to the workprogramme for full coverage of the Call ([CORDIS: FP7 : Find a Call](#))**

**Single European Sky Initiative**

Research in Air Traffic Management will be undertaken under the umbrella of **SESAR**. The Commission will provide annual contributions from FP7 to the SESAR Joint Undertaking . The Commission launched a Call for Tenders on 20 December 2007 (SJU-6-2007) for a service contract to cover the development phase (2008-2013) to develop industrial working methodologies & processes for systems development & to guarantee overall system coherence. Further information on SESAR is available through the [Air Transport Portal of the European Commission - SESAR, Single European Sky ATM Research](#)

**Clean Sky Joint Technology Initiative**

Research undertaken by JTIs will be pursued outside of the mainstream workprogramme Calls for proposals. On 20 December 2007 the European Council adopted the Regulation establishing the Clean Sky JTI as a public-private partnership to fund integrated industrial research to develop environmentally friendly & cost efficient aircraft. A new web service on the [Clean Sky JTI](#) is available on CORDIS providing news, frequently asked questions & official documents. It includes details of Clean Sky Take-Off, an event to be held in Brussels on **5 February 2008**, which will outline how the JTI will work and how to participate in its Calls for Proposals and Calls for Tenders.

**2007 Research Topics**

Below is an indicative summary of research topics with transport policy/applied content in Air Transport across three Calls launched in 2007. **Proposers should not rely on this summary when preparing a proposal - but refer to the relevant Workprogramme and Call Fiche ([CORDIS: FP7 : Find a Call](#))** for full information about the topic's specification, definitions of research level, funding instruments, international cooperation partners, budget, and Call opening and closing dates. The topics are organised:

<b>Coordination of National, Regional &amp; European Research</b> (page 2)	<b>Airports</b> (page 2-3)	<b>Air Transport &amp; Aircraft Safety</b> (page 3-4)
<b>Air Traffic Management Interactions</b> (page 4-5)	<b>Air Transport System Operational Costs</b> (page 5)	<b>Energy, the Environment &amp; Air Transport</b> (page 6)
<b>Security</b> (page 7)	<b>Behaviour &amp; Whole Transport System</b> (page 8)	<b>Air Transport Futures &amp; Technology Watch</b> (page 8)
<b>Policy Support, Modelling, Evaluation &amp; Indicators</b> (page 9)	<b>Passengers</b> (page 9)	<b>Noise, Air Pollution &amp; Climate Change</b> (page 10)
<b>Sustainability &amp; Competitiveness</b> (page 11)	<b>Freight</b> (page 11)	<b>Research Monitoring, Evaluation, Dissemination</b> (page 12)
<b>Support for Cooperation of Specific Groups</b> (page 13)	<b>Promoting Science in Society</b> (page 13)	

## INDICATIVE SUMMARY OF RESEARCH TOPICS

Instruments Key: CP = Collaborative Project (RTD)  
 CSA = Coordinating Support Action  
 SICA = Specific International Support Action

Call	Task, Level WP & Area	Task Title & Indicative Coverage	Instrument
<b>Coordination of National, Regional &amp; European Research</b>			
FP7-ERANET-2008-RTD-1	AAT.2008.7.10	<b>ERA-NET Aeronautics &amp; Air Transport</b> Coordinating national and regional public research programmes in aeronautics & air transport, and the development of policies in support of strategic approaches in the field: <ul style="list-style-type: none"> <li>• information exchange to support cooperative planning</li> <li>• structuring of public funding through increased complementarity of effort towards common aims</li> <li>• definition &amp; preparation of joint activities including joint calls for proposals</li> <li>• preparation of ERA-NET Plus in FP7 to include transnational Calls</li> </ul>	CSA to support research
FP7-TPT-2008-RTD-1	TPT.2008.14 <b>Horizontal:</b> <b>All modes</b>	<b>National &amp; European RTD strategies &amp; programmes on climate-friendly transport &amp; mobility</b> In coordination with ERA-NET Transport to: <ul style="list-style-type: none"> <li>• contribute to the development of a European strategy on climate-friendly transport research funding</li> <li>• improve cooperation in setting up and updating transport RTD strategies by exchange of information &amp; experts</li> <li>• improve synergies between Member States &amp; the EU's RTD agenda</li> <li>• facilitate &amp; enhance cooperation in implementation of national &amp; EU RTD strategies &amp; programmes</li> <li>• foster cooperation in assessment &amp; evaluation</li> </ul>	CSA to support research
<b>Airports</b>			
FP7-AAT-2008-RTD-1	AAT.2008.1.3.2 <b>Level 1</b> Greening Air Transport Operations	<b>Greening – airport operations</b> Innovative solutions & technologies contributing to optimum air traffic management & airport operations for greater efficiency in aircraft movements & resulting reduced pollution (including noise) for: <ul style="list-style-type: none"> <li>• replacing ground vehicle services with alternative techniques able to support aircraft at the gate</li> <li>• greener airport operations</li> <li>• aircraft de-icing</li> <li>• improved understanding of the effects of aircraft noise in the surrounding community</li> <li>• modelling for real-time monitoring of air quality &amp; aircraft noise around airports</li> </ul>	CP – small/medium scale  CSA to coordinate research
FP7-AAT-2008-RTD-1	AAT.2008.2.2.2 <b>Level 1</b> Increasing Time Efficiency	<b>Time efficiency – airport operations</b> Advanced concepts & techniques for time efficient: <ul style="list-style-type: none"> <li>• passenger &amp; luggage flow in the terminal area &amp; for passenger boarding patterns</li> <li>• freight operations including airport planning operations</li> <li>• fleet management for fast turnaround at the apron area</li> <li>• integrated airport information distribution &amp; management systems taking account of air traffic management concepts developed in <b>SESAR</b></li> <li>• strategic decision making for improved flexibility/optimum use of airports in the full air transport system</li> </ul>	CP – small/medium scale  CSA to support coordination

Call	Task, Level WP & Area	Task Title & Indicative Coverage	Instrument
<b>Airports (continued)</b>			
FP7-AAT-2008-RTD-1	AAT.2008.3.2.2 Level 1 Customer Satisfaction & Safety	<b>Passenger friendly airport operations</b> Advanced concepts. Techniques, modelling tools for time efficient: <ul style="list-style-type: none"> <li>passenger &amp; luggage flow in the terminal area including modelling of human behaviour, intelligent tracking of luggage &amp; passenger boarding &amp; disembarking</li> <li>fleet management for fast turnaround at the apron area</li> <li>innovative modelling tools &amp; techniques to support strategic decision taking for enhanced passenger-oriented air transport operations</li> </ul>	CP – small/medium scale  CSA to support coordination
FP7-AAT-2008-RTD-1	AAT.2008.3.4.4 Level 1 Customer Satisfaction & Safety	<b>Operational Safety – airport operations</b> Advanced techniques for weather ground based high precision landing & take off systems taking into account concepts developed in <b>SESAR</b>	CP – small/medium scale  CSA to support coordination
FP7-AAT-2008-RTD-1	AAT.2008.4.3.3 Level 1 Improving Cost Efficiency	<b>Costs – airport operations</b> Research on innovative concepts, technologies, techniques for increased efficiency in airports including: <ul style="list-style-type: none"> <li>advanced fleet management for fast turn around at the apron area &amp; its relation with terminal operations</li> <li>cost efficient passenger &amp; baggage flow in the terminal area</li> <li>improved airport operations specific to freighters</li> </ul>	CP  CSA to support coordination
FP7-AAT-2008-RTD-1	AAT.2008.6.2.2 Level 1 Step Changes	<b>Step changes – airport operations</b> Investigate new concepts for interfacing flight vehicle & ground & passenger operations, including: <ul style="list-style-type: none"> <li>on-ground, on the sea, or in-air docking to replace vehicle parking for transfer of passengers &amp; goods</li> <li>air station located off-shore near land littorals</li> <li>aggregating passengers &amp; baggage into traffic flows &amp; intermodal connections</li> </ul>	CP – small/medium scale  CSA to support coordination
FP7-AAT-2008-RTD-1	AAT.2008.5.2.2 Level 1 Protection of Aircraft & Passengers Operational Security	<b>Air transport security – airport operations</b> Advanced: <ul style="list-style-type: none"> <li>security control methods based on biometric data or other novel non-interfering detection techniques</li> <li>techniques to detect hazardous materials</li> <li>secured communication systems</li> <li>tracing mechanisms for communicable diseases</li> </ul>	CP – small/medium scale  CSA to support coordination
<b>Air Transport &amp; Aircraft Safety</b>			
FP7-AAT-2008-RTD-1	AAT.2008.3.4.1 Level 1 Customer Satisfaction & Safety Operational Safety	<b>Design, systems &amp; tools - air transport operational safety</b> Advanced concepts/techniques/systems/procedures (in support of a holistic approach to aviation safety) to: <ul style="list-style-type: none"> <li>develop techniques to identify, assess &amp; manage the risks in systems &amp; procedures</li> <li>develop novel approaches for certification of aeronautical operations &amp; products</li> <li>develop safety metrics</li> <li>develop diagnostic &amp; prognostic systems for incident/accident, flight &amp; maintenance data</li> </ul>	CP – small/medium scale  CSA to support coordination

Task, Level WP & Area	Task Title & Indicative Coverage	Instrument
<b>Air Transport &amp; Aircraft Safety (continued)</b>		
AAT.2008.3.4.5 Level 1 Customer Satisfaction & Safety Operational Safety	<b>Human factors - air transport operational safety</b> Advanced concepts & techniques in supporting human behaviour in the conceptual design of the air transport system – focusing on: <ul style="list-style-type: none"> <li>• mission of crew &amp; maintenance personnel</li> <li>• abnormal situations &amp; crisis management</li> </ul>	CP - large scale integrating  CSA to support coordination
AAT.2008.3.3.2 Level 1 Customer Satisfaction & Safety Aircraft Safety	<b>Systems &amp; equipment - aircraft safety</b> Advanced technologies, modelling & decision tools, systems & techniques for: <ul style="list-style-type: none"> <li>• full automatic approach &amp; landing in all weather taking account of concepts developed in <b>SESAR</b></li> <li>• aircraft self separation assurance taking account of concepts developed in <b>SESAR</b></li> <li>• in-flight &amp; on-ground collision avoidance</li> <li>• improved fire, heat &amp; smoke protection including novel aircraft evacuation procedures</li> <li>• fault tolerant systems</li> <li>• aircraft protection against hazards</li> </ul>	CP – small/medium scale  CSA to support coordination
<b>Air Traffic Management Interactions</b>		
AAT.2008.1.3.1 Level 1 Greening Air Transport Operations	<b>Flight &amp; air traffic management</b> To reduce aviation emissions & improve environmental impact by: <ul style="list-style-type: none"> <li>• investigating potential &amp; effects of adopting non-conventional flight profiles</li> <li>• research to be coordinated with <b>Clean Sky JTI</b> &amp; <b>SESAR</b></li> </ul>	CP – small/medium scale  CSA to support coordination
AAT.2008.4.4.2 Level 2 Improving Cost Efficiency Air Transport System Operational Cost	<b>Integrated approach to network centric aircraft communications for global aircraft operations NB: This topic is relaunched from the 2007 Call</b> To develop a coherent aircraft communication system to be integrated into a new global air transport communication system. The project should: <ul style="list-style-type: none"> <li>• define, develop &amp; demonstrate an aircraft communication concept which will integrate a full range of services &amp; applications including on-ground and in-flight passenger services, airport operations, security services, air traffic management related operations &amp; airline &amp; cabin crew operations, including unification of all related networking protocols</li> <li>• integrate recent developments in communications concepts at European level for air traffic management (in particular those made under <b>SESAR's</b> development phase) &amp; future <b>SESAR</b> concepts &amp; systems decisions on unified telecommunications.</li> </ul>	<b>CP – large integrating</b>
AAT.2008.6.2.2 Level 1 Step Changes	<b>Guidance &amp; control - step changes in air transport operation</b> Investigate new approaches to guide & control vehicle flight with high or total automation, including: <ul style="list-style-type: none"> <li>• on-board or on-ground computers to manage the flight &amp; provide pilot free operation with the option to revert to human control</li> <li>• robotic technologies in autonomous robots for specific guidance &amp; control tasks</li> </ul>	CP – small/medium scale  CSA to support coordination

Call	Task, Level WP & Area	Task Title & Indicative Coverage	Instrument
<b>Air Traffic Management Interactions (continued)</b>			
FP7-AAT-2008-RTD-1	AAT.2008.3.1.3 Level 1 Customer Satisfaction & Safety Passenger Friendly Cabin	<b>Systems &amp; equipment - passenger friendly cabin</b> Advanced technologies, systems architectures & services for: <ul style="list-style-type: none"> <li>high performance air/ground data links &amp; communication including automated on-board flight information taking account of concepts developed in <b>SESAR</b></li> <li>home/office cabin environments</li> <li>enhanced cabin environment (climate control etc)</li> </ul>	CP – small/medium scale  CSA to support coordination
FP7-AAT-2008-RTD-1	AAT.2008.1.1.4 Level 1 Greening Aircraft Systems	<b>Systems &amp; Equipment – greening aircraft systems</b> Advanced concepts & technologies for: <ul style="list-style-type: none"> <li>optimised flight procedures for environmentally friendly operations (noise/emissions) including take-off &amp; climbing, cruise &amp; approach, descent &amp; landing taking account of developments in <b>SESAR</b></li> <li>fuel cell applications for on-board energy supply in-flight &amp; on-ground</li> <li>the all-electric aircraft</li> </ul>	CP – small/medium scale  CSA to support coordination
FP7-AAT-2008-RTD-1	AAT.2008.2.1.1 Level 1 Increasing Time Efficiency Aircraft Systems	<b>Systems &amp; Equipment – aircraft systems</b> Advanced concepts & technologies for: <ul style="list-style-type: none"> <li>full automatic approach/landing in all weather conditions taking account of developments in <b>SESAR</b></li> <li>increased independence of the aircraft from the apron area infrastructure</li> <li>modelling, prediction, detection of wake vortex &amp; wind shear</li> <li>cockpit displays for all-weather 24-hour operation</li> <li>fault tolerant systems</li> <li>multi-access cabin architectures</li> </ul>	CP – small/medium scale  CSA to support coordination
<b>Air Transport System Operational Costs</b>			
FP7-AAT-2008-RTD-1	AAT.2008.4.3.1 Level 1 Improving Cost Efficiency Air Transport System Operational Cost	<b>Design systems &amp; tools</b> Improved modelling tools & techniques in support of collaborative decision making for improved flexibility & optimum use of aircraft, airport & air traffic management in the air transport system in terms of low cost operations	CP – small/medium scale  CSA to support coordination
FP7-AAT-2008-RTD-1	AAT.2008.4.3.4 Level 1 Improving Cost Efficiency Air Transport System Operational Cost	<b>Human factors</b> Advanced concepts & techniques including training to support the acquisition & retention of skills of personnel throughout the air transport systems (design, production, maintenance & airport operation).	CP – small/medium scale  CSA to support coordination

Call	Task, Level WP & Area	Task Title & Indicative Coverage	Instrument
<b>Energy, the Environment &amp; Air Transport</b>			
FP7-AAT-2008-RTD -1	AAT.2008.1.1.3 Level 1 Greening Aircraft	<b>Propulsion</b> Advanced concepts, technologies, tools & techniques to identify/improve: <ul style="list-style-type: none"> <li>• potential opportunities, obstacles &amp; technologies for greater utilisation of <b>alternative fuels</b> (liquid hydrogen, second generation biofuels &amp; other green “synthetic” fuels)</li> <li>• modelling &amp; measuring engine exhaust gaseous emissions</li> <li>• engine thermal &amp; propulsion efficiency</li> <li>• lightweight intelligent engines</li> </ul>	CP – small/medium scale  CSA to support coordination
FP7-AAT-2008-RTD -1	AAT.2008.6.1.2 Level 1 Futures	<b>Breakthrough/emerging technologies – propulsion</b> Investigation of new approaches to powering vehicle systems. To investigate: application of <b>renewable energy</b> sources (solar power, hydrogen, new generation biofuels, “green” synthetic fuels) hybrid propulsion & other types of energy propulsion systems for supersonic, hypersonic & suborbital flight	CP – large scale integrating
FP7-AAT-2008-RTD-1	AAT.2008.6.3.4 Level 1 Futures	<b>New sources of aircraft main propulsive power</b> Investigation & system analysis of concepts & technologies to utilise new sustainable primary sources of energy, including <b>renewables</b> , for the propulsion of aircraft taking account of environmental aspects related to supply, use & disposal of possible residues.	CP – small/medium scale  CSA to support coordination
FP7-TPT-2008-RTD-1	TPT.2008.15 Horizontal: All modes	<b>Cross fertilisation of alternative fuels research across all transport modes</b> Dissemination of knowledge & research results on alternative fuels to exchange information & transfer/adapt the latest alternative fuels technologies, procedures & best practices between transport modes. International cooperation is encouraged with Brazil, USA & India on bio-fuels & South Africa on synthetic fuels. Involvement of the Technology Platforms ACARE & ERRAC is also envisaged. Activities include: <ul style="list-style-type: none"> <li>• organisation of conferences, seminars, workshops at regional, national, European &amp; international level</li> <li>• establishment of web-sites &amp; web-based fora</li> <li>• studies to analyse, compare, assess &amp; link results from past &amp; ongoing research projects identifying commonalities between modes &amp; making recommendations for further R&amp;D in alternative fuels transport research</li> </ul>	CSA to support research  SICA
FP7-AAT-2008-RTD-1	AAT.2008.6.3.2 Level 1 Futures	<b>Take-off &amp; landing with ground based power</b> Objective is to replace on-board power & systems dedicated to take-off & landing with ground based power & systems to reduce environmental impact & improve noise nuisance around airports & reduce fuel consumption & aircraft weight.	CP – small/medium scale  CSA to support coordination
FP7-AAT-2008-RTD -1	AAT.2008.7.1 Cross-Cutting	<b>Understanding interactions between air transport, energy, the environment &amp; society</b> Analyse, compare, assess & link possible scenarios for air transport, energy and the environment in a systemic approach: <ul style="list-style-type: none"> <li>• modelling &amp; forecasting scenarios</li> <li>• technological, financial, regulatory, socioeconomic, policy &amp; organisational factors</li> <li>• concepts &amp; organisational arrangements for developing, sharing &amp; maintaining European modelling capabilities for policy support in areas such as – interdependencies, aviation environmental impact &amp; policy assessment</li> </ul>	CP – small/medium scale  CSA to support coordination

Call	Task, Level WP & Area	Task Title & Indicative Coverage	Instrument
<b>Security</b>			
FP7-AAT-2008-RTD-1	AAT.2008.5.2.3 Level 1 Protection of Aircraft & Passengers Operational Security	<b>Human factors - operational security</b> Modelling of human behaviour & advanced techniques for crisis management & training of personnel (airport operators, traffic controllers, crew) to deal with security threats	CP – small/medium scale  CSA to support coordination
FP7-AAT-2008-RTD-1	AAT.2008.5.3.1 Level 2 Protection of Aircraft & Passengers Operational Security	<b>Integrated approach to air transport system security</b> To provide the air transport system with an enhanced capability to detect & respond to all threats to its security or the security of citizens in general, as well as an improved capability to survive the effects of hostile attacks. The project should: <ul style="list-style-type: none"> <li>• address all on-ground airport threats, threats to air-ground data links &amp; communications &amp; in-flight threats (crews/passengers &amp; missile or electronic attacks)</li> <li>• define a framework to integrate relevant airborne systems with ground systems to enable merging of data to enable detection &amp; response (including survivability) of an aircraft under attack</li> <li>• take account of future international regulations in area of standardisation &amp; certification</li> <li>• validate the concept through simulation platforms to serve as a platform for training users as well as full scale live trials of realistic security crises</li> <li>• build on results of national &amp; European projects (in particular SAFEE) &amp; the FP7 Security &amp; Space Priorities</li> <li>• coordinate with <b>SESAR</b> the activities related to security in air traffic management</li> </ul>	<b>CP – large integrating</b>
FP7-AAT-2008-RTD-1	AAT.2008.5.1.1 Level 1 Protection of Aircraft & Passengers Aircraft Security	<b>Aerostructure - aircraft security</b> Advanced concepts & technologies for blast-resistant cabin structures & bomb proof cargo containers	CP – small/medium scale  CSA to support coordination
FP7-AAT-2008-RTD-1	AAT.2008.5.1.2 Level 1 Protection of Aircraft & Passengers Aircraft Security	<b>Systems &amp; equipment - aircraft security</b> Advanced cost-effective concepts & techniques for: <ul style="list-style-type: none"> <li>• secured wide-band communication systems</li> <li>• on-board (cabin &amp; cargo) explosives detection systems</li> <li>• detecting &amp; counteracting missiles attack to aircraft</li> <li>• secured systems designs &amp; architectures - against external/internal threat to ensure safe functioning following a component/system failure</li> </ul>	CP – small/medium scale  CSA to support coordination
FP7-AAT-2008-RTD-1	AAT.2008.5.1.3 Level 1 Protection of Aircraft & Passengers Aircraft Security	<b>Avionics - aircraft security</b> Advanced concepts & technologies for: <ul style="list-style-type: none"> <li>• safe automatic return (ground-controlled or not) of the aircraft to the ground taking account of developments within <b>SESAR</b></li> <li>• pattern recognition (data fusion &amp; signal processing) taking account of developments within <b>SESAR</b></li> <li>• protection of flight trajectories against hostile interventions</li> <li>• prevention of unauthorised access to the cockpit &amp; flight deck</li> </ul>	1) CP – small/medium scale 2) CSA to coordinate research

Call	Task, Level WP & Area	Task Title & Indicative Coverage	Instrument
<b>Behaviour &amp; Whole Transport System</b>			
FP7-AAT-2008-RTD-1	AAT.2008.7.2 Cross-Cutting	<b>Understanding behaviour of different actors &amp; drivers of the air transport system (24 months)</b> Model, analyse, compare, assess & link different actors & key drivers using a holistic approach – individually or as a group considering elements such as: <ul style="list-style-type: none"> <li>• Technological, socio-economic, policy &amp; organisational factors</li> <li>• market, financial, low-cost travel</li> </ul>	CSA to support research
<b>Air Transport Futures &amp; Technology Watch</b>			
FP7-AAT-2008-RTD-1	AAT.2008.6.2.1 <b>Level 2</b> Pioneering the Future <b>Step Changes</b>	<b>Novel Air Transport Vehicles</b> Investigation of novel aircraft configurations which could be better adapted to provide future air transport services including combined transport modes (hybrid vehicles). The project should: <ul style="list-style-type: none"> <li>• take a mission oriented perspective to fully integrate the vehicle in the total transport system</li> <li>• consider vehicle size &amp; mission from very small door to door personal transport to very large platforms for transportation including those suitable for new forms of networking traffic flows, air to ground &amp; air to air, at subsonic, supersonic or hypersonic speeds</li> <li>• address environmental issues (energy consumption, noise)</li> <li>• set a clearer differentiation between passenger &amp; goods vehicles</li> </ul>	CP – small/ medium scale  CSA to support coordination
FP7-AAT-2008-RTD-1	AAT.2008.6.3.3 <b>Level 2</b> Pioneering the Future <b>Pioneering Ideas</b>	<b>Personal air transport systems</b> Investigate concepts, technologies & operations to enable future individual air transportation. The validity of the concept will depend on: <ul style="list-style-type: none"> <li>• operational environment on the surface and in the air &amp; environmental impact</li> <li>• vehicle design, automation &amp; maintenance &amp; infrastructures</li> <li>• certification &amp; pilot training</li> </ul>	CP – small/ medium scale  CSA to support coordination
FP7-TPT-2008-RTD-1	TPT.2008.10 <b>Horizontal:</b> <b>All modes</b>	<b>Exploring future technology paradigms beyond 2050</b> Discussion Forum on S&T and economic perspectives to gather & generate new ideas for the European transport system. Study/actions to address: <ul style="list-style-type: none"> <li>• designing the transport system for the second half of 21<sup>st</sup> Century (innovative concepts &amp; future sub-systems)</li> <li>• new mechanisms for the operation of different transport modes beyond 2050</li> <li>• enhancing the attractiveness of transport modes as a career for young people</li> <li>• information exchange between the project and comparable exercises</li> </ul>	CSA to support research
FP7-NMP-2008-SMALL-2	NMP-2008-1.2-3	<b>Future Transport Applications: Development of technologies for controlled combustion of nanoparticles</b> To address the chemical potential of nanoparticles to deliver improved and/or novel solid fuels – with a focus on future use in transportation including the use of metal oxides as combustion catalysers in engines.	CP- small/ medium scale
FP7-NMP-2008-SMALL-2	NMP-2008-2.5-1	<b>Future Transport Applications: Functionally graded materials for improved mechanical performance</b> Research on functionally graded materials (and joint designs) which, by tailoring their nanostructure, provide radical improvements in their mechanical performance in transport applications (particularly under extreme turbine conditions), providing lightweight structures in power train applications and upgrading crash worthiness of vehicle body & chassis.	CP- small/ medium scale
FP7-NMP-2008-LARGE-2	NMP-2008-4.0-23	<b>Future Transport Applications: Catalysts/sustainable processes to produce liquid fuels from coal &amp; natural gas</b> Research on the design & development of innovative catalytic processes for sustainable production of transport fuels & gasoline blending components.	CP – large scale integrating

Call	Task, Level WP & Area	Task Title & Indicative Coverage	Instrument
<b>Policy Support, Modelling, Evaluation &amp; Indicators</b>			
FP7-ENV-2008-1	ENV.2008.1.2.1.6	<p><b>Databases based on European cohort studies &amp; their exploitation for advancement of knowledge of environment-health relationships</b></p> <p>To make data on specific environment-health causal relationships more readily available in a useful form to policy-makers. Activities include:</p> <ul style="list-style-type: none"> <li>• inventories of cohorts</li> <li>• options for sample storage &amp; analysis</li> <li>• database building &amp; data access</li> <li>• analysis &amp; validation</li> <li>• recommendations for future data collection to improve environment-health linkages</li> </ul>	CSA to support coordination
FP7-ENV-2008-1	ENV.2008.4.2.3.2	<p><b>Enhancing interconnectivity between research &amp; policy-making is sustainable development</b></p> <p>To achieve better linkage between research results &amp; policy making through secondary exploitation of existing research results &amp; overcoming the gap between disciplines. The topic is for “knowledge brokerage” on a chosen cross-cutting issue connected to the decoupling challenge ie “break the link between environmental degradation &amp; economic growth”. The chosen issue should be one:</p> <ul style="list-style-type: none"> <li>• for which there is a significant body of research which can be synthesised &amp; exploited in novel ways for policy development &amp; organisational learning.</li> <li>• of a relatively small size given the pilot nature of the project</li> <li>• which utilises knowledge generated under the Framework Programmes</li> </ul>	<p>CP – small/medium scale</p> <p>CSA to support coordination</p>
<b>Passengers</b>			
FP7-AAT-2008-RTD-1	AAT.2008.7.3 Cross-Cutting	<p><b>Improving passenger choice in air transport incorporating additional &amp; new vehicles by 2020</b></p> <p>Investigate the technical, operational, economic &amp; regulatory issues relevant to an air transport system which exploits existing vehicles &amp; the potential for new vehicles (manned &amp; unmanned) to provide seamless capacity &amp; best choice for passengers within environmental &amp; safety constraints. Proposals to achieve one or more of the following objectives by 2020:</p> <ul style="list-style-type: none"> <li>• increased passenger choice</li> <li>• reduced travel charges &amp; time to destination</li> </ul>	CSA to support research
FP7-TPT-2008-RTD-1	TPT.2008.6 <b>Horizontal: All modes</b>	<p><b>Optimisation &amp; integration of R&amp;D efforts for transport of passengers by co-modality</b></p> <p>Optimal &amp; reliable infrastructure interfaces &amp; combined operations to integrate the different passenger transport systems (aeronautics, road, rail, waterborne). Activities include:</p> <ul style="list-style-type: none"> <li>• identification of the need (and research) for technical solutions for co-modality &amp; door-to-door passenger transport</li> <li>• dialogue for cross-fertilisation of technical solutions between modes in specific areas eg passenger cabin comfort, sustainable materials, human factors, stimulation of radical technologies</li> <li>• transfer of technologies &amp; best practice between modes</li> </ul>	<p>CP – small/medium scale</p> <p>CSA to support research</p>

Call	Task, Level WP & Area	Task Title & Indicative Coverage	Instrument
<b>Noise, Air Pollution &amp; Climate Change</b>			
FP7-TPT-2008-RTD-1	TPT.2008.1 Horizontal: All modes	<b>Assessing disruptive effects of extreme weather events on operation &amp; performance of EU transport system</b> Cost assessment of damage & mitigation/adaptation measures for extreme weather events. Activities to focus on: <ul style="list-style-type: none"> <li>• adaptation of transport infrastructures to increased frequency of extreme weather events</li> <li>• identification of vulnerabilities to develop relevant responses</li> <li>• input to &amp; support for EU policies on climate change in coordination with EU funded environmental research</li> <li>• identification of research needs (transport technologies, infrastructure planning, construction, maintenance &amp; policy)</li> </ul>	CP small/ medium Scale  CSA to coordinate research
FP7-TPT-2008-RTD-1	TPT.2008.2 Horizontal: All modes	<b>The climate-friendly travel choice in the city, region &amp; world of tomorrow</b> To improve understanding of greenhouse gas emissions resulting from mobility & consumption choices as a tool to help reduce emissions by quality assuring & improving existing information sources. Activities include: <ul style="list-style-type: none"> <li>• developing an open integrative platform with interfaces to a range of integrated emission related information systems</li> <li>• large scale demonstration of integrated solutions for cities in Europe &amp; regional &amp; interregional mobility</li> <li>• identification of scenarios for climate-friendly travel choices in the city, region &amp; world of tomorrow</li> </ul>	CP small/ medium Scale
FP7-TPT-2008-RTD-1	TPT.2008.5 Horizontal: All modes	<b>Techno-economic analysis per mode &amp; combined modes to meet EU greenhouse gas emission reduction targets at time horizon 2020 &amp; beyond</b> To deliver a better strategic outlook on the future European transport system in terms of socio-economic measures & costs; & identification of technological pathways required to meet the EU's greenhouse gas emission targets set out in COM(2007)2 & endorsed by the EU Spring Council in 2007. Activities include: <ul style="list-style-type: none"> <li>• identify measures for mitigation &amp; adaptation of transport greenhouse gas emissions</li> <li>• analyse relevant transport policy &amp; transport research policy measures</li> <li>• use identified measures to build scenarios to measure effectiveness of identified mitigation &amp; adaptation measures</li> <li>• assessing scenario technical feasibility, affordability, acceptability, behavioural aspects &amp; likelihood of realisation</li> </ul>	CSA to support research
FP7-TPT-2008-RTD-1	TPT.2008.3 Horizontal: All modes	<b>Lead markets for zero greenhouse gas emission transport systems</b> Assessment of the potential market diffusion on a large scale of zero-emission transport services. activities include: <ul style="list-style-type: none"> <li>• assessment of existing options for zero-emission services for passenger transport &amp; logistics</li> <li>• analysis of demand &amp; market drivers for new services or products</li> <li>• demonstration of innovative mobility or logistics concepts</li> </ul>	CSA to support research
FP7-TPT-2008-RTD-1	TPT.2008.14 Horizontal: All modes	<b>National &amp; European RTD strategies &amp; programmes on climate-friendly transport &amp; mobility (included under Coordination of National, regional &amp; European Research also)</b> In coordination with ERA-NET Transport to: <ul style="list-style-type: none"> <li>• contribute to the development of a European strategy on climate-friendly transport research funding</li> <li>• improve cooperation in setting up and updating transport RTD strategies by exchange of information &amp; experts</li> <li>• improve synergies between Member States &amp; the EU's RTD agenda</li> <li>• facilitate &amp; enhance cooperation in implementation of national &amp; EU RTD strategies &amp; programmes</li> <li>• foster cooperation in assessment &amp; evaluation</li> </ul>	CSA to support research
FP7-TPT-2008-RTD-1	TPT.2008.12 Horizontal: All modes	<b>Raising citizen awareness of research results for climate friendly transport systems (included under Promoting Science in Society also)</b> To improve awareness/appreciation of climate-friendly & zero emission technologies in transport. Activities should <ul style="list-style-type: none"> <li>• target various public groups &amp; stakeholders from local decision makers, related industries &amp; public authorities to students, families &amp; local transport groups &amp; organisations</li> </ul>	CSA to support research

Call	Task, Level WP & Area	Task Title & Indicative Coverage	Instrument
<b>Sustainability &amp; Competitiveness</b>			
FP7-TPT-2008-RTD-1	TPT.2008.9 Horizontal: All modes	<p><b>Prospective study on upcoming global competitors for the European transport industry targeting manufacturers &amp; hi-tech service providers</b></p> <p>Improved understanding of the global position of the European transport industry &amp; definition of strategic options for European transport research policy. Activities include:</p> <ul style="list-style-type: none"> <li>• assessment of today's pre-competitive position of European transport research per mode and kind of infrastructure</li> <li>• assessment of risk of critical saturation of infrastructure lines &amp; nodes</li> <li>• definition of European best practice to manage, maintain &amp; modify infrastructures to extend life-cycles &amp; preserve asset values</li> <li>• SWOTs analysis and scenario building</li> <li>• develop identified scenarios for time horizon 2020 &amp; beyond</li> <li>• derive roadmaps of strategic options for European transport research policy.</li> </ul>	CSA to support research
FP7-TPT-2008-RTD-1	TPT.2008.13 Horizontal: All modes	<p><b>New mobility/organisational schemes: interconnection between short &amp; long-distance transport networks</b></p> <p>Development &amp; analysis of new mobility schemes &amp; related organisational patterns at the interface &amp; interconnection between long distance transport networks &amp; local/regional networks of all modes. Activities include:</p> <ul style="list-style-type: none"> <li>• coordination between decision-making levels on issues related to interconnection of transport networks of different scales &amp; modes addressing institutional, legal, design, planning, technical &amp; deployment aspects</li> <li>• identification of state of the art on interconnectivity by analysing research results &amp; pre-deployment activities</li> <li>• establish good practice &amp; explore key issues not yet adequately addressed</li> <li>• propose future requirements &amp; actions</li> <li>• disseminate results to stakeholders – particularly policy-makers &amp; transport operators.</li> </ul>	<p>CP – small/medium scale</p> <p>CSA to support coordination</p>
<b>Freight</b>			
FP7-TPT-RTD-1	TPT.2007.1 Horizontal: All modes	<p><b>Optimisation &amp; integration of R&amp;D for passenger transport by “co-modality”</b></p> <p>Improved R&amp;D efficiency through cooperation &amp; sharing of technology between surface modes &amp; aeronautics. Study/actions to:</p> <ul style="list-style-type: none"> <li>• identify needs &amp; research for technical solutions for co-modality &amp; door-to-door passenger transport - integrating &amp; optimising combined operations and aircraft, vehicle, vessel &amp; infrastructure interfaces</li> <li>• cross fertilisation of technical solutions between modes in areas such as passenger cabin comfort, sustainable materials, human factors etc</li> </ul>	<p>CP – small/medium scale</p> <p>CSA to support research</p>

Call	Task, Level WP & Area	Task Title & Indicative Coverage	Instrument
<b>Research Monitoring, Evaluation &amp; Dissemination</b>			
FP7-AAT-2008-RTD-1	AAT.2008.7.7 Cross-Cutting	<p><b>Supporting harmonised dissemination of European scientific knowledge from ad hoc organisations in the field of aeronautics &amp; air transport</b></p> <ul style="list-style-type: none"> <li>Study/actions to review existing channels of dissemination of scientific/technical knowledge &amp; stimulate the establishment of a European structure for dissemination covering different technical domains with improved coherence.</li> </ul>	CSA to support research
FP7-AAT-2008-RTD-1	AAT.2008.7.9 Cross-Cutting	<p><b>Supporting the organisation of conferences, workshops &amp; other research events</b></p> <p>Organisation of events focused on specific technical subjects or broader policy issues relevant to aeronautics &amp; air transport with a European relevance</p>	CSA to support research
FP7-TPT-2008-RTD-1  <b>Call for Tender</b>	TPT.2008.16 <b>Horizontal:</b> <b>All modes</b>	<p><b>Studies supporting FP7 mid-term review &amp; indicators' trends (time horizon 2020)</b></p> <p>Assess the evolution of result indicators for measuring the specific objectives of EU transport research based on existing indicators used by the European Commission to assess performance. Studies/actions to:</p> <ul style="list-style-type: none"> <li>define &amp; measure number of success stories (promising technologies, operational services etc)</li> <li>measure demonstrators reduction in emissions compared to identified expected impacts</li> <li>measure coverage of research topics relevant to objectives &amp; identify gaps</li> <li>measure degree of cooperation &amp; private investment in RTD amongst EU stakeholders</li> <li>measure SME participation &amp; catalogue according to role.</li> </ul>	CSA to support research
FP7-TPT-2008-RTD-1	TPT.2008.4 <b>Horizontal:</b> <b>All modes</b>	<p><b>Impact assessment of transport research funding in Europe on the environment (air, water, soil)</b></p> <p>Assessment of transport research funding with regard to their impact in solving environmental challenges in the transport sector. Work to be coordinated with the <a href="#">Transport Research Knowledge Centre</a>, ERA-NET Transport &amp; Air-TN. Activities include:</p> <ul style="list-style-type: none"> <li>better quantification at regional level of the impact of transport research funding in curbing environmental impacts of transport against growing transport demand</li> <li>classifying &amp; ranking support measures &amp; incentives per research area</li> <li>classifying &amp; ranking support measures &amp; incentives per categories of beneficiaries of research funding</li> </ul>	CSA to support research
FP7-TPT-2008-RTD-1	TPT.2008.11 <b>Horizontal:</b> <b>All modes</b>	<p><b>Communication of Framework Programmes' results for transport research</b></p> <p>Establishment of open dialogue on results achieved by transport research &amp; proposals for improvements; and enhanced dissemination. Work to be coordinated with the <a href="#">Transport Research Knowledge Centre</a>. Activities include:</p> <ul style="list-style-type: none"> <li>raising awareness of EU transport research strategy</li> <li>identifying needs of transport services per mode &amp; groups of users with a focus on professional users, vulnerable users &amp; reduced-mobility users</li> <li>assess &amp; propose ways to improve the responsiveness of EU transport research to identified needs</li> </ul>	CSA to support research

Call	Task, Level WP & Area	Task Title & Indicative Coverage	Instrument
<b>Support for Cooperation of Specific Groups</b>			
FP7-AAT-2008-RTD-1	AAT.2008.7.5 Cross-Cutting	<b>Stimulating improved participation of Member States with aeronautical R&amp;D potential</b> Actions to stimulate & encourage participation of organisations from Member States & FP7 Associated States with R&D aeronautical potential in FP7 activities. Actions include information events, networking, studies, workshops	CSA to support research
FP7-AAT-2008-RTD-1	AAT.2008.7.6 Cross Cutting	<b>Stimulating research with international cooperation partner countries</b> Actions to stimulate encourage & facilitate participation of organisations from International Cooperation Partner Countries from Asia & Latin America (Brazil, Argentina) in European aeronautics research to promote active cooperation & contribute to the solution of global problems in air transport. Activities include: information events, networking, studies & workshops; analysis of subject areas with respect to specific regions or countries.	CSA to support research
FP7-TPT-2008-RTD-1	TPT.2008.7 <b>Horizontal:</b> <b>All modes</b>	<b>Market uptake of transport research results &amp; support to SMEs</b> Better understanding of context of European research funding in terms of modes, actors, regions & barriers facing SMEs in RTD performance & market uptake of results. Activities include: <ul style="list-style-type: none"> <li>mapping trends in industrial transport research across the EU-27 to describe the role, weight &amp; profile of SMEs</li> <li>assessing research funding instruments available to SMEs &amp; identifying innovative economic &amp; financial instruments</li> <li>dynamic analysis of barriers &amp; drivers to market uptake by SMEs of transport research results, &amp; opportunity costs</li> </ul>	CSA to support research
FP7-TPT-2008-RTD-1	TPT.2008.8 <b>Horizontal:</b> <b>All modes</b>	<b>Assessing, analysing &amp; defining strategies for realising new Member &amp; Associated States' potentials in transport research</b> To foster regional integration between transport actors (research institutes, companies, SMEs, local 7 regional authorities) to help achieve the European Research Area. Activities include: <ul style="list-style-type: none"> <li>mapping transport research capacities in new Member States &amp; recent patterns of collaboration</li> <li>enhancing market uptake of transport results through transfer of technology &amp; know-how to new Member States</li> </ul>	CSA to support research
<b>Promoting Science in Society</b>			
FP7-AAT-2008-RTD-1	AAT.2008.7.8 <b>Level 1</b> Cross Cutting	<b>Raising public awareness of aeronautics &amp; air transport research in Europe</b> Actions/studies to raise awareness of the public at large including policy makers and in particular young people, of the challenges that aviation is facing & the solutions that science, engineering & innovation could provide. Activities can be held at the national, regional and European level and may include studies, surveys, events & publication of information material.	CSA to support research
FP7-TPT-2008-RTD-1	TPT.2008.12 <b>Horizontal:</b> <b>All modes</b>	<b>Raising citizen awareness of research results for climate friendly transport systems</b> To improve awareness & appreciation of the importance of climate-friendly & zero emission technologies in transport. Activities should <ul style="list-style-type: none"> <li>target various public groups &amp; stakeholders from local decision makers, related industries &amp; public authorities to students, families &amp; local transport groups &amp; organisations</li> </ul>	CSA to support research