

FP7 Cooperation

Transport (including Aeronautics and Galileo)

www.euresearch.ch/transport



Update: 12.08.2008

What funds will be available?

- Budget 2007 – 2013 of approximately 4,180 million Euros
Hereof: Aeronautics: approximately 2300 million Euros
- Main calls are expected on an annual basis from **DG TREN** (medium to short term perspective, policy and implementation oriented), **DG RTD** (medium to long term, research and development oriented) and the Galileo Joint Undertaking (GJU).

2007	2008	2009	2010	2011	2012	2013
■	■	No call*	■	■	■	■

■ Calls

* 2009 concerns only Galileo, SESAR (Single European Sky Air Traffic Management Research), and the contribution of the Transport Theme to the general activities for 2009

Detailed information on calls: www.euresearch.ch/calls

Joint Technology Initiatives (JTI) SESAR and Clean Sky will distribute part of the funds in independent separate calls

What are the objectives and background of Transport (including Aeronautics and Galileo)?

Objectives

Transport is an integral cornerstone for Europe's economic prosperity and the welfare of Europe's citizens. Major challenges within the transport domain, in an enlarged Europe, are the provision of economic viable transport systems by a competitive industry while minimizing its ecological impact. Therefore, key goals in the transport domain are aspects such as:

- Greening the transport chain by reducing energy consumption and lessening the impact of transport on the environment
- Safety and reliability of transport
- Integration of various means of transport for goods and people
- Develop and implement new technologies to strengthen the entire transport industry supply chain.
- Support and involvement of policy making in the transport sector

Background

The Challenge: How to make transport in Europe sustainable and minimize its ecological impact, while keeping transport safe, reliable and truly pan-European?

The economical and ecological background for the priority theme Transport is set by an increasing demand of transport - be it for goods, be it for people - in a setting where this growth needs to be decoupled from energy consumption and emissions. A new approach is needed that integrates and links different transport means. Therefore, all transport modes are addressed within the priority theme: Road, rail, waterborne, air transport and Galileo, being yet another cornerstone of future intelligent transport systems. Technology platforms are established in four areas (rail, road, waterborne and air). They have defined their long term visions and Strategic Research Agenda's (SRA's) for different areas and their input is one of the focus points for the Transport theme in FP7. The transport industry in Europe is leading in its field and vital for Europe. Implementation of new technologies across the whole value and supply chain in the different sectors is essential in maintaining this leading position and will be supported within the Transport domain. SME and high-tech start-ups, especially in advanced technologies areas, service-related fields and satellite navigation domains, are invited to join these research activities. Policy issues will also be addressed from existing needs to the development and implementation of new policies. Furthermore, a set of cross-cutting topics will be addressed such as security, alternative energy sources, monitoring of environmental impact.



What areas will be funded during FP7 under Transport (including Aeronautics and Galileo)?

Aeronautics

In Aeronautics, ACARE's (Advisory Council for Aeronautic Research in Europe) SRA sets 5 pillars of activities that will contribute to suit policy needs and society.

- Greening of Air transport

This translates into development of technologies to reduce environmental impact by CO2 emissions, Nitrogen oxide emissions and reduce noise. Areas to address the goals set in the SRA are engine technologies, alternative fuels, improved aircraft vehicle efficiency and aerodynamics and new low weight structures, improved aircraft operations (air and land) and Air Traffic Management (ATM).

- Increasing time efficiency of Air transport

Here, the foreseen activities aim at realizing a step-change in operations in order to cope with an estimated three times increase in air traffic. Innovative Air Traffic Management in the context of SESAME, and the integration of air, ground and space components are addressed. Furthermore, issues such as airport efficiency, inter-modal transport, including air transport, and improvements of cargo and passenger handling are addressed. ^

- Improving cost efficiency

This translates into research on supply chain management with the goal to halve the time-to-market and reduce product development costs.

- Ensuring customer satisfaction and safety

The goal is to increase passenger choice and flexibility of schedules. New technologies shall broaden the range of aircraft/engine configurations and increase the level of automation. Furthermore, passenger comfort will be a focal point.

- Protection of aircraft and passengers

The aim is to prevent any hostile action within the air transport chain. Therefore, a variety of security elements are addressed, such as measures addressing the aircraft, automation of landing, protection against external attacks, and airport operations.

- Pioneering air transport of the future

This area of activities aims at exploring new ways and radical approaches to secure air transport in the second half of this century. New concepts for propulsion and lifting, new guidance and control systems, novel operations concepts and innovative methods for integration of air with other transport modes are to be explored.

Surface Transport covering rail, road and waterborne transport modes

Here, input from the SRA's originating from various technology platforms sets 5 pillars of activities that will contribute to the research activities.

- The greening of surface transport

Targets are set for research that supports the reduction of pollution, being air, water and soil, and hence supports the reduction of environmental impact. Activities encompass energy-efficient power-trains and the use and promotion of alternative fuels, including hydrogen and fuel cells. Areas covered are infrastructure, vehicles, vessels and components, and global systems optimization. The entire life cycle of products is concerned from manufacturing to end of life strategies.

- Encouraging modal shift and decongesting transport corridors

Here, we focus on the development and demonstration of door-to-door transport involving various transport modes that are seamlessly integrated. Some issues addressed are interoperability and optimization at all levels, improved transport information management, intelligent systems and novel vehicle/vessel concepts. Furthermore, policy making is supported for infrastructure pricing, assessment of policy measures and trans-European projects.

- Ensuring sustainable urban mobility

Activities in this area focus on new mobility concepts, innovative mobility management and high quality public transport serving the mobility of people and goods. Inter-modal interaction is the key, with the aim to bring all elements of a clean, energy efficient, safe and intelligent transport together.

- Improving safety and security

This goal is to protect people by using new technologies and intelligent systems. An integrative approach will link human elements, structural integrity, preventive, passive and active safety, rescue and crisis management together. In this context, safety is considered as an all encompassing component of the transport system, covering all aspects from goods containers to measures at policy levels.

- Strengthening competitiveness

Here, the focus of research and development is intended to ultimately create job opportunities in the transport sector. Activities include new technologies for industrial processes, such as design, manufacturing, assembly, construction and maintenance and an aim at reducing life cycle costs and development lead times. New product concepts and services and new production organizations including supply chain management and distribution systems are envisioned that ultimately ensure customer satisfaction.



Support to Galileo

The European Global Satellite Navigation provides a worldwide positioning and timing infrastructure and four main areas of activities are supported.

- Exploiting the full potential

The goal is to promote the use of satellite navigation services on different access levels, such as search and rescue operations, freight transport management applications, services that are under public regulation.

- Providing the tools and creating the appropriate environment

The ultimate goal within this area of activities is to ensure the safe use of services; by certification in key application domains, by assuring the basis for new policies and legislation, by development of essential digital topology, cartography, geodesy data and systems in use in navigation applications.

- Adapting receivers to requirements and upgrading core technologies

A set of activities covers issues such as improving receiver performance, integrating low-power consumption and miniaturization technology, in-door-navigation coverage, coupling with RFI devices, software and receiver technologies, combination with telecommunication, supporting key ground-based infrastructure.

Supporting infrastructure evolution. The goal of these activities is the preparation of second generation systems, openness and adapting to evolving user demands, addressing market forecasts, and addressing global markets and world wide standards.

International Cooperation

International Cooperation is an important component of RTD activities in the field of transport and will be encouraged where interest for industry and policy makers is given.

Emerging needs and unforeseen policy needs:

Initiatives under emerging needs support research that responds to critical events and future challenges of transportation systems. Unforeseen policy needs may include societal issues, emerging risks or problems of high importance to European society.

What other areas of FP7 might I apply for?

- Information and communication Technologies (ICT) activities: www.euresearch.ch/ICT
- Sustainable Energy Systems: www.euresearch.ch/energy
- Environment and global change: www.euresearch.ch/environment
- Funding of fellowships: www.euresearch.ch/people
- Research for and with SME's: www.euresearch.ch/SME
- Funding of infrastructures: www.euresearch.ch/infrastructures



What key stakeholders should I be aware of?

- European Technology Platforms:
ERTRAC, European Road Transport Research Advisory Council, www.ertrac.org
ERRAC, European Rail Research Advisory Council, www.errac.org
WATERBORNE, Technology Platform for the waterborne (sea & inland) transport sector, www.waterborne-tp.org
ACARE, Advisory Council for Aeronautic Research in Europe, www.acare4europe.org
- EU Commission Transport
- ‘Clean Sky’ Joint Technology Initiative (JTI) on Aeronautics and Air Transport
- SESAR, Joint Technology Initiative (JTI) on Single European Sky Air Traffic Management Research
- ESA (Galileo)

How do I find partners, for example, to join a consortium?

Find partners by:

- Contacting researchers/private industries you know personally
- Attending conferences and events
- Searching the project databases of former successful EU projects
- Reading about the experiences of others who have obtained EU funding
- Submitting a partner search request and/or screen the actual requests on Euresearch website
- Screening the presentations made during the information events organized by DG TREN, DG RTD, ACARE and other technology platforms, and the Galileo Joint Undertaking

www.euresearch.ch/partnersearch

What other information could be helpful?

Key documents

- Road Transport Strategic Research Agenda
- Strategic Rail Research Agenda 2020
- WATERBORNE Strategic Research Agenda
- Aeronautic Strategic Research Agenda II by ACARE
- White paper on transport, European Transport Policy 2010: time to decide.

Key websites

- www.galileoju.com Galileo Joint Undertaking home page
- http://europa.eu/pol/trans/index_en.htm (activities of the European Union in transport)
- http://ec.europa.eu/transport/index_en.html (European Commission, Transport)

What can Euresearch do for me?

Benefit from Euresearch’s free services including:

- general information on participation rules, documents, project management via your regional office: Basel, Bern, Geneva, Fribourg, Lausanne, Lugano, Luzern, Neuchatel, St. Gallen, Zürich www.euresearch.ch/ro
- personalised information by Email via your profile at www.euresearch.ch
- more information about services via our other R&D Guides, Management Guides and Participation Guides

www.euresearch.ch/services

Who is the Swiss National Contact Point for Transport (including Aeronautics and Galileo)?

Julian Randall - Tel. +41(0) 31 380 60 10 -

julian.randall@euresearch.ch

www.euresearch.ch/services