23E CONGRÈS MONDIAL DE LA ROUTE PARIS 2007

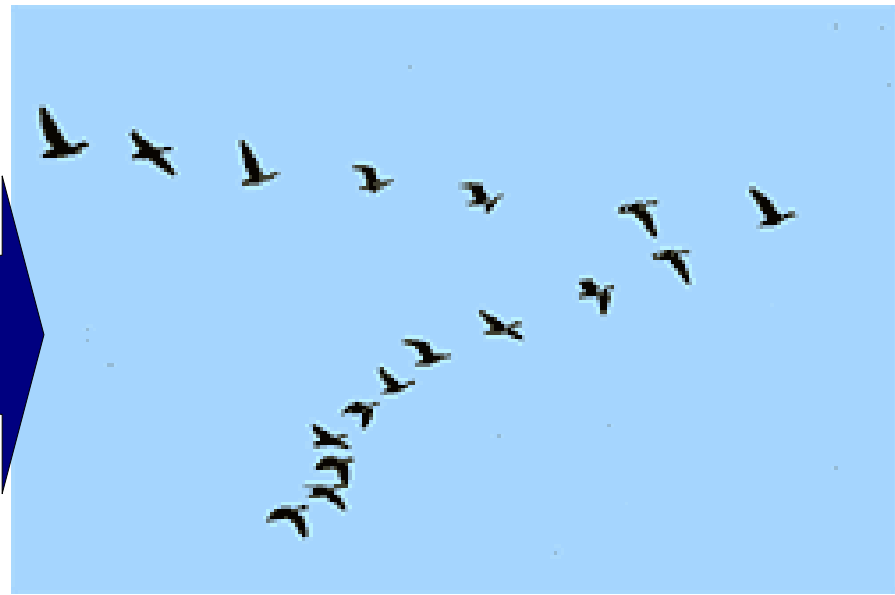
Structuring of Research in the European Research Area

Arnoldas Milukas

European Commission
Directorate-General for Research
Horizontal Aspects and Coordination – Transport
Head of Unit

arnoldas.milukas@ec.europa.eu

Innovation through Cooperation



Increased Efficiency!

What are the objectives of transport research?

Transport research objectives

- **Develop** European Transport Systems

  => *"Safer, Greener and Smarter"*
- **Focus on energy**
- **Reduction of greenhouse gases, with CO_2 neutral or positive impact**
- **Sustainable policy-making**
- **Better integration of national research policies**
- **Vision: "Zero transport emissions" beyond 2030.**

Such an approach needs **integration** to link up modes into one coherent system

What is the importance of transport in EU research funding?

Challenges for Transport Research

- Transport Growth: Between 1995-2004 goods transport grew by 28% and passenger by 18%
- Congestion: By 2010 road congestion will cost 1% of EU GDP
- Accidents: 50,000 transport fatalities in EU27 per year
- Emissions : From 1990 to 2010, greenhouse gas emission from EU transport to rise by 35%
- Energy use : Transport requires 71% of all oil consumption in the EU

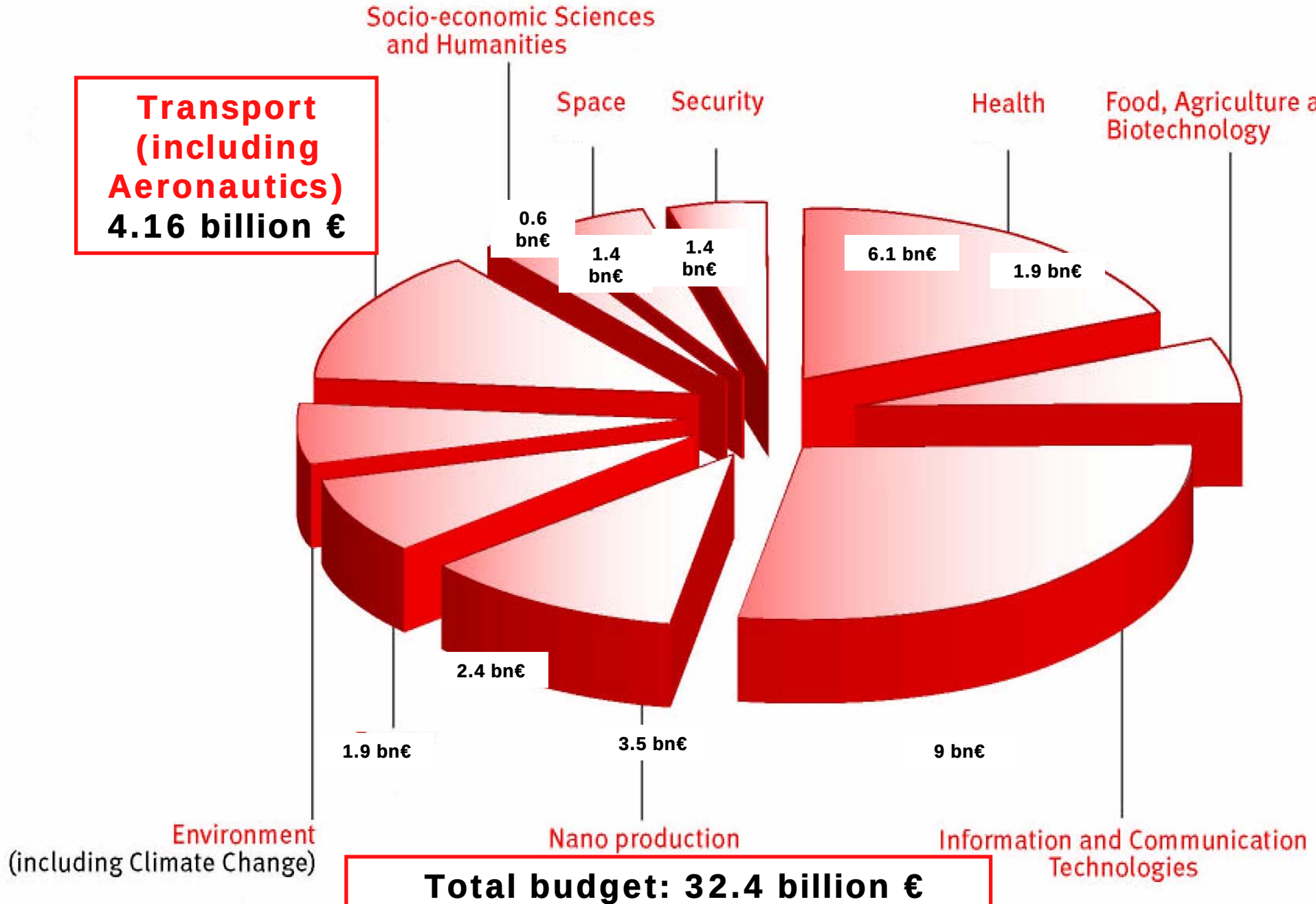
Responding to these challenges at European level

- Pooling and leveraging resources
- Fostering human capacity and excellence in S&T
- Better integration of European R&D

Seventh Framework Programme

- FP7: Seventh Framework Programme for Research and Technological Development (FP7)
- Main financial tool through which the European Union supports research
- Broad objectives grouped into four categories: Cooperation, Ideas, People and Capacities.

Cooperation in FP7: 10 Thematic Areas



Cooperation

TRANSPORT

Aeronautics and air transport

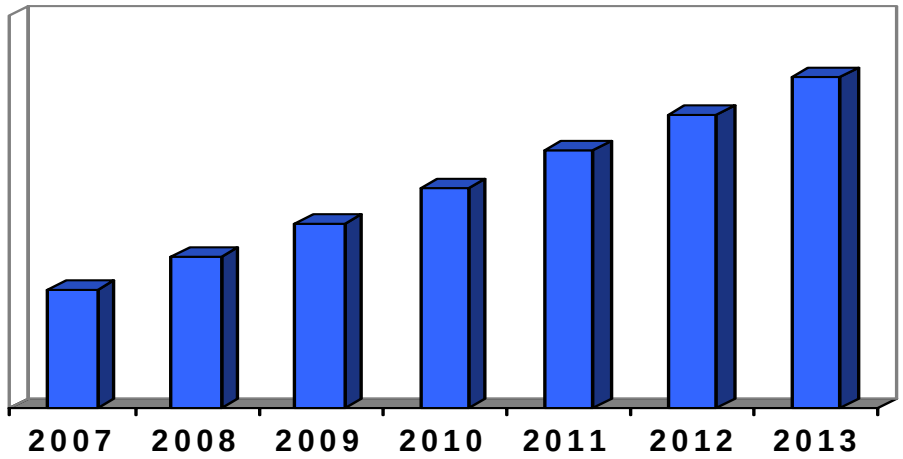
Sustainable Surface Transport

Galileo
(support to the European global satellite navigation system)

Spending on Transport Research

	FP6	FP7
Duration	**5 years**	**7 years**
Budget	**€1.68 billion**	**€4.16 billion**

FP7
Collaborative Research
Duration: 2007 – 2013
Budget: € 4.16 billion



How are political priorities integrated in transport research policy?

Our political guideline: The 2001 Transport White Paper

Key Priorities

- Develop new technologies that respond to congestion, emissions, and safety concerns

- Maintain European competitiveness in transport technologies

Climate and Energy Policy

- EU Kyoto target for 2012: Reduce greenhouse gas emissions by 8% compared to 1990 levels.
- EU targets for 2020:
  - ***at least 20% GHG reduction by 2020*** (compared to 1990), ***30%*** if other countries make adequate commitments.
  - ***saving 20% energy consumption*** compared to 2020 projections (including transport) (see Action Plan on Energy Efficiency)
  - ***10% minimum binding target for biofuels*** by 2020, based on 2nd generation biofuels

Mode-specific policies

- Proposals to bring both aviation & maritime emissions into the trading scheme

- Road: voluntary agreements and proposed legislation to reach 120g/km of CO2 emissions by 2012, and promotion of bio-fuels for transport

Research helps transport policy-making

- Accelerates implementation of policies;
- Tests innovative approaches and using the results for further initiatives (including policy and legislation);
- Develops large industrial initiatives with broader financial and political benefits (SESAR, GALILEO);
- Produces knowledge, best practice and comparative assessments, methodologies, data input, policy assessment.

Holistic approach to transport in FP7

The European Commission will take a holistic approach to the transport system by:

- Integrating transport modes, knowledge and technologies;
- Taking on board political priorities, such as energy and climate change;
- Tailoring research to society's transport needs;
- Involving the full range of stakeholders in policy-making

How is FP7 implemented?

Multi-national research projects

1. Collaborative projects

These gather teams of international researchers who pool their resources to work jointly on projects

Average number of participants: 14
Average EU funding per project: 4.6 million

Example: NR2C - New Road Construction Concepts

New Road Construction Concepts:

- Objective : create a global vision (2040) for the road of the future
- Method: confronting both technological and societal problems within a single research process.
- Total cost: 2.026,148 €
- EU contribution: 1.800,000€

Example: Project *Super Light Car*

IP-SLC Super Light Car, FP 6 project

- A mass produced vehicle (VW-Golf) with a 30% structural weight reduction is targeted (from total weight of 1200kg).
- EU Contribution 10,4 M€
- 38 partners in consortium

Cross-border research projects

2. Joint Technology Initiatives

Long-term Public Private Partnerships combining private sector investment and national and European public funding

Examples:

- Aeronautics: Clean Sky JTI and SESAR
- in Preparation: Hydrogen & Fuel Cells JTI

Coordinating research

1. Coordination & Support Actions

Fostering the exchanges among researchers or between researchers and their stakeholders

2. Networks of Excellence

Connecting research entities Europe towards virtual institutes

Example: ERTRAC

- European Road Transport Research Advisory Council
- Dialogue between industry, academia, civil society and member states
- Define a Strategic Research Agenda (2020) and research recommendations

ERTRAC™

European Road Transport Research Advisory Council

Example: ERA-Net Transport

- Network of national transport research programmes in Europe
- Platform for programme managers to initiate and implement trans-national cooperation, allowing better coordination of European research
- At present 13 EU Member States and associated countries participate

era-net TRANSPORT

How does FP7 promote international cooperation?

FP7 Objectives for International Cooperation in transport

- **Open international markets to European transport products**
- **Acquire knowledge available outside the EU**
- **Respond to global needs, influence international standards, and develop global transport systems**

(Work Programme 2007)

policy-driven input

- Input from S&T agreements, RELEX initiatives, other EU policies
- Focus on large emerging economies and neighbouring regions

International Cooperation in EU Tranport Research

bottom-up input

- Integration of international partners
- Input from Technology Platforms, Transport Advisory Group, Programme Committee
- Cooperation with NCPs
- Transfer of experience

Conclusion

The EU is changing the structure of European transport research by:

- Establishing Europe-wide research priorities
- Forging new partnerships to strengthen research institutions and industrial R&D
- Building a single market for research
- Sharing knowledge across the EU and beyond through international cooperation