



The context for international cooperation in Transport research in the EU

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The EU – A Partner of Excellence in R&I

欧盟- 优秀的科研创新合作伙伴

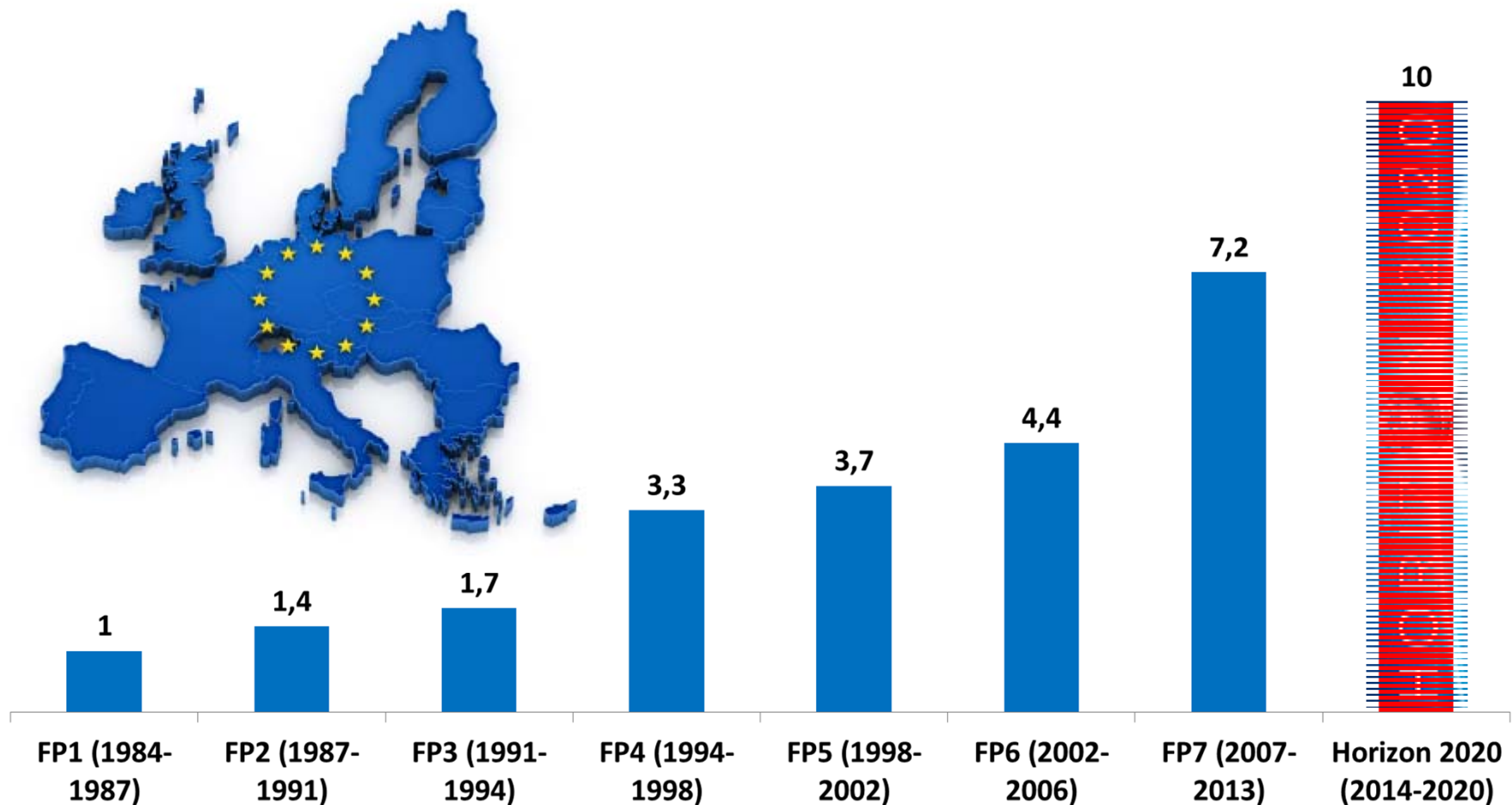
500 million people - 28 countries - a single market*
5亿人口 - 28个国家 - 单一市场



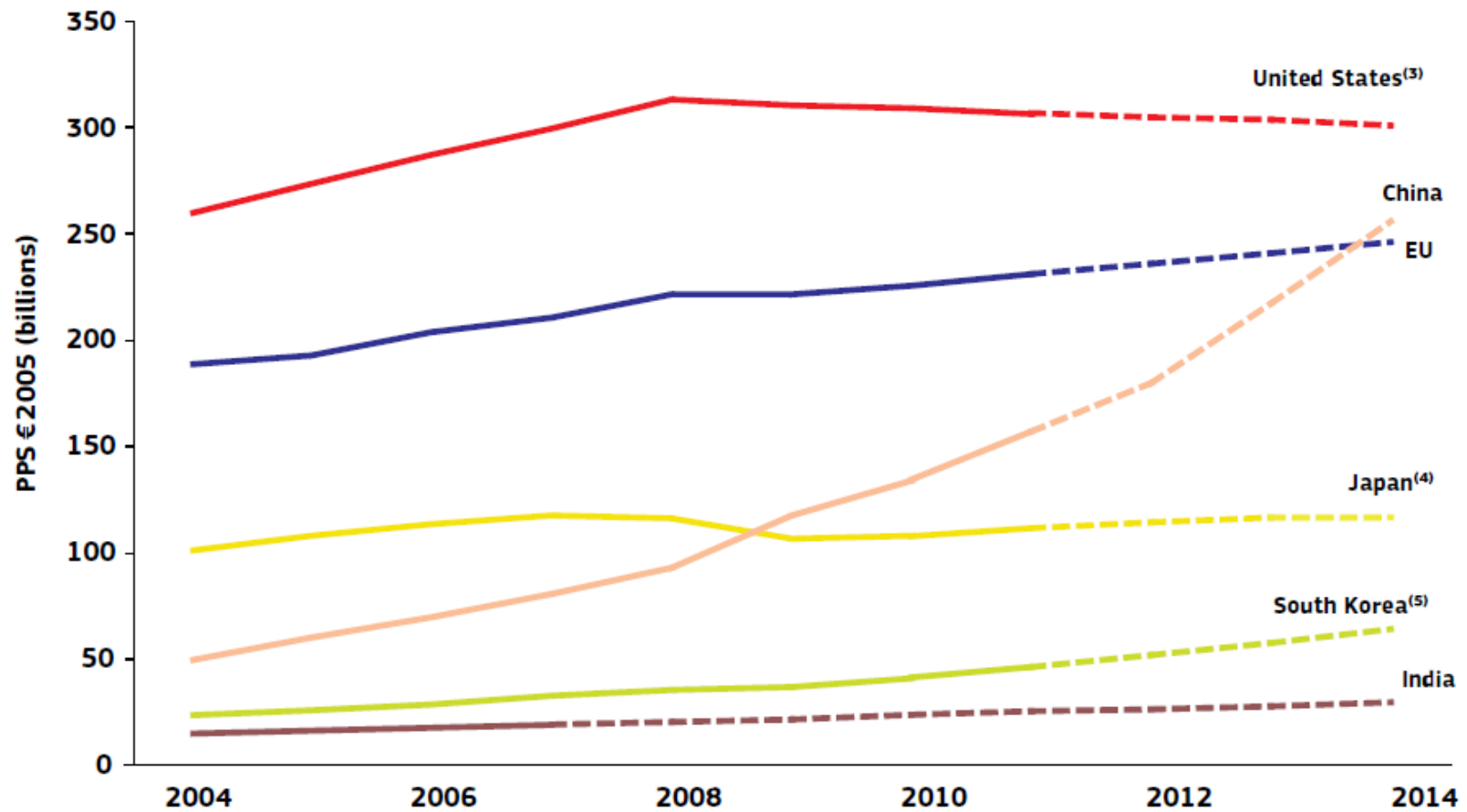
- 7% of the World's population 世界7%的人口
- 24% of world expenditure on research 占世界研发支出
- 32% of high-impact publications 高影响论文
- 32% of patent applications 专利申请

*Free movement of people, goods, services, capital and knowledge
人员、货物、服务、资本与知识的自由流动

EU R&D Funding - Annual budget (in b€)

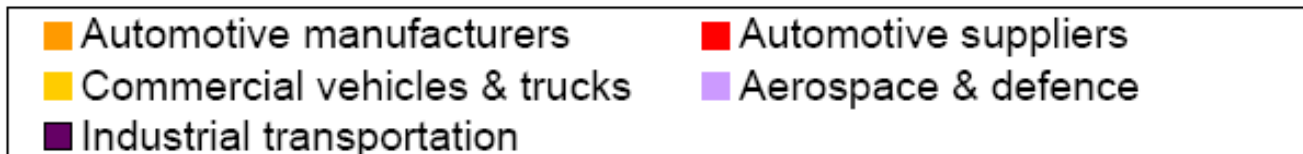
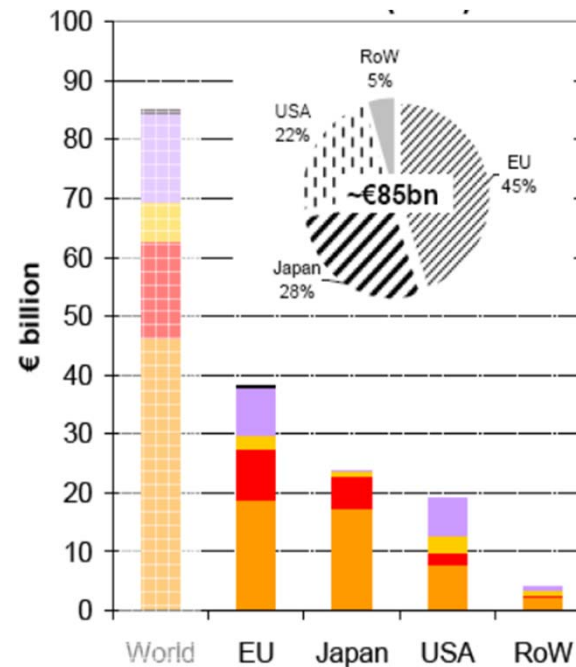


Evolution of world R&D expenditure in real terms 2004-2014



Source: DG Research and Innovation - Economic Analysis Unit Innovation Union Competitiveness report 2013

Transport Industry R&D Investments: World Comparisons



The EU represents 45% of total industry investment



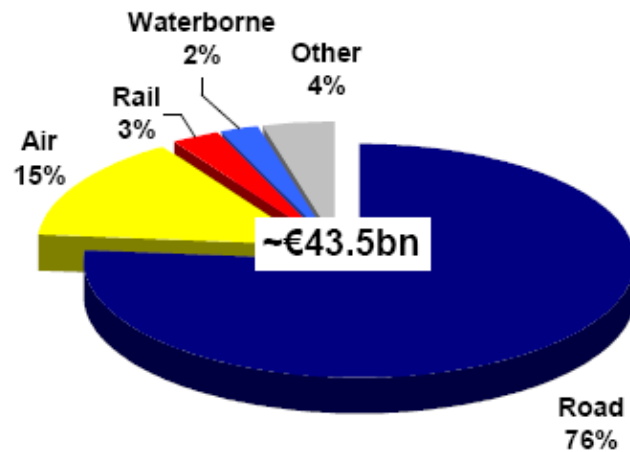
Transport Industry R&D Intensity: World Comparisons

R&D intensity	World	EU	Japan	USA	RoW
	2009	2009	2009	2009	2009
Transport	4,10%	4,70%	4,60%	3,50%	2,10%
All industries	3,30%	2,40%	3,80%	4,80%	2,70%

Source: JRC/IPTS

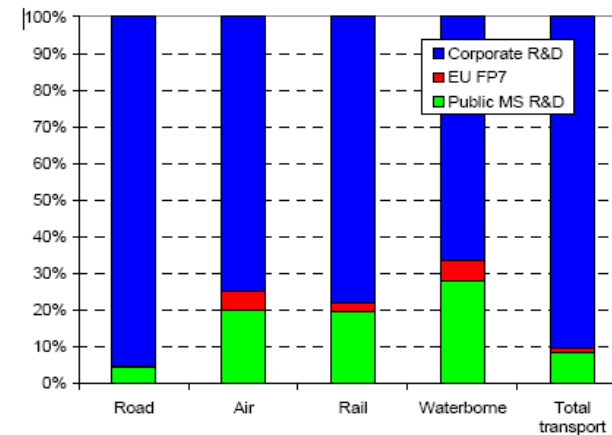
- The transport industry R&D intensity is highest in the EU

Transport R&D Investments in the European Union



Total transport R&D investment (2008)

Source: JRC/IPTS



Percentage of R&D investments by source of funds

Source: JRC/IPTS

- Road transport represents $\frac{3}{4}$ of the total

With 4.2 b € in FP7 and ~7 b € for Horizon 2020 the Framework Programme plays a catalytic role



International Cooperation: a must

- GHG emissions, oil dependency, traffic congestion, passenger safety, transport security,...: **global challenges call for global solutions**
- most future transport growth outside Europe:
access to knowledge and markets becomes more important
- transport increasingly global, new competitors emerge,
but also **new opportunities for collaboration**
- economic and social dynamics beyond Europe's borders
call for **closer links and greater cooperation**
- **global standards and interoperability of systems** are more necessary than ever



International Cooperation in EU Transport R&D Programmes

FP7

- ~ 200 non-European participants, ~25 M€ funding
- Strong focus on aviation: 55% of Participants, 75% of Funding
- Main participants: Russia, **China**, Brazil, South Africa, Ukraine

Recent Trends

- More dedicated, more co-funded activities
- Multilateral and bi-regional cooperation

Prospects

- Consolidating collaboration with the BRICS
- Exploring cooperation prospects with Japan
- Establishing a Euro-Mediterranean cooperation framework
- Building a more substantial strategic partnership with US

Dedicated topic on International Cooperation in FP7 'Transport' Call 2013 in the field of Urban Mobility

- SST.2013.3-2. Implementing innovative and green urban transport solutions in Europe and beyond (CSA-CA).

➤ *Content and scope:*

- **Take-up of innovative and green urban transport solutions and recommendations for future cooperation between European cities and cities across the world, in particular from LAC, China and Singapore.**
- Share experiences of topic of common interest and propose innovative and green urban transport solutions of cities from Mediterranean partner countries.

➤ **Expected impact:**

- Address global challenges and EU objectives for sustainable urban mobility, energy efficiency and fight against climate change.
- Transfer of innovative transport solutions to other regions of the world (competitiveness).
- Global dialogue between Europe and other industrialised and emerging countries.
- Research cooperation with Mediterranean partner countries in the field of urban transport.



Result: two complementary projects, SOLUTIONS and VIAJEO PLUS

- **Objective:** uptake of innovative and green urban mobility solutions across the world by facilitating dialogue and exchange, promoting successful policy, providing guidance and tailored advice to city officials, and fostering future cooperation on research, development and innovation.
- The activities are organised around **six themes:** public transport, transport infrastructure, city logistics, integrated planning / sustainable urban mobility plans, network and mobility management, clean vehicles (incl. Electric Vehicles).

➤ **SOLUTIONS:** <http://www.urban-mobility-solutions.eu/>



- Several Chinese cities involved: Guiyang, Xian et Dalian
- Project partners: Wuppertal Institute (Coordinator), Rupprecht Consult, POLIS, ICLEI, EMBARQ, WRI, CERTH, FEHRL, UN-HABITAT, IFSTTAR, Austria Tech, **China Academy of Transport Sciences**, Technion, CAI-Asia, LNEC, Mobili-T, ICCT, Zaragosa Logistics Center, AVERE, BAST

➤ **VIAJEO PLUS:** <http://viajeoplus.eu/>



- Several Chinese cities involved: Beijing, Shenzhen, Shanghai, Hongqiao and Nanjing
- Project partners: ERTICO – ITS Europe (Coordinator), UITP, Michelin, University of Newcastle, Pluservice, University of Leeds, VOLVO, Renault, Swarco Mizar, Thetis, TNO, T-Systems, UNIMED, IMM, IPT, **Beijing Transportation Research Center (BTRC)**, **Shanghai City Comprehensive Transportation Planning Company (SCCTPC)**



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Horizon 2020: Three priorities

地平线2020: 三个优先任务



Mobility schemes

人才交流计划: ERC,
Marie S. Curie

ICT, nanoT,
materials,
biotech,
manufacturing
space

1- Excellent
science

卓越的科学

Health,
Food,
energy,
Transport
etc.

2- Industrial
leadership

产业引导

3- Societal
challenges

社会挑战

Priority 3. 任务3 社会挑战 Societal challenges

Funding (€ million)

经费规模 (百万欧元)



<i>Health</i> , demographic change and wellbeing 健康、人口变化、福利	7 472
<i>Food</i> security, sustainable agriculture, marine and maritime research & the Bioeconomy 粮食安全、可持续农业、海洋与海事研究、生物经济	3 851
Secure, clean and efficient <i>energy</i> * 安全、清洁、高效能源*	5 931
Smart, green and integrated <i>transport</i> 智慧、绿色和集成交通	6 339
<i>Climate</i> action, resource efficiency and raw materials 气候行动、资源效率和原材料	3 081
Inclusive and reflective <i>societies</i> 包容、反思性社会	1 309
<i>Secure</i> societies 安全社会	1 695
<i>Science with and for society</i> 科学需要社会的参与、科学为社会服务	462
<i>Spreading excellence and widening participation</i> 倡导卓越、扩大参与范围	816





European
Commission

SPECIFIC PROGRAMME STRUCTURE and TRANSPORT

SMART, GREEN & INTEGRATED TRANSPORT		1. Resource efficient transport that respects the environment	2. Better mobility, less congestion, more safety & security	3. Global leadership for the European transport industry	4. Socio-economic research & forward looking activities for policy making	
Aviation	OBJECTIVES / ACTIVITIES	1.1. Cleaner & quieter aircraft, vehicles & vessels 1.2. Smart equipment, infrastructures & services 1.3. Improving transport & mobility in urban areas	2.1. Reduction of traffic congestion 2.2. Mobility of people & freight 2.3. New concepts of freight transport & logistics 2.4. Reducing accident rates & fatal casualties & improving security	3.1. Next generation of transport means 3.2. Smart control systems 3.3. Advanced production processes 3.4. Exploring entirely new transport concepts	4.1. Data, models & scenarios 4.2. User needs & behaviour 4.3. Transport economics 4.4. Policy support	
Rail						
Road						
Waterborne						
Urban						
Integrated Cross-modal						Logistics
						ITS
						Infrastructure
Socio-economics						



MG-5.5a-2015: Demonstrating & testing innovative solutions for cleaner & better urban transport and mobility

- Total Budget: 144.5 M€
- Scope: **Innovation Actions (12-18 M€)** by city-led consortia, composed of four to five cities, led by at least two advanced cities. Each city to follow an integrated multimodal approach by demonstrating and testing under real life-conditions a set of complementary and reinforcing mobility solutions. The solutions should combine newly-emerging technologies, policy-based, and soft measures with a strong replication potential. They should cover an appropriate sub-set of the eight 'CIVITAS measure categories': collective passenger transport; demand management strategies; mobility management and travel awareness; safety and security; urban freight logistics; information systems and services; and clean fuels and low emission vehicles; car-independent lifestyles; **Support Action** to facilitate cooperation between stakeholders involved in the projects under this topic.
- Deadlines: 23/4/2015 (Stage 1) – 15/10/2015 (Stage 2)





- **EU Delegation Website 欧盟驻华代表团**

http://eeas.europa.eu/delegations/china/index_en.htm

- **Horizon 2020 website 地平线2020网站**

<http://ec.europa.eu/programmes/horizon2020/en>

- **Participant Portal 参与申请人员门户**

<http://ec.europa.eu/research/participants/portal/desktop/en/home.html>

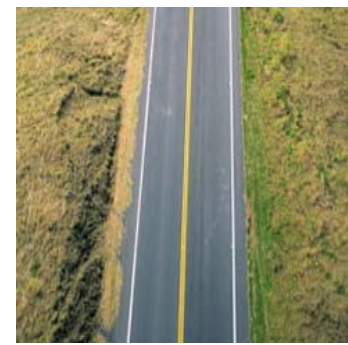
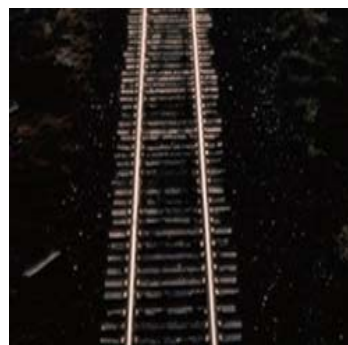
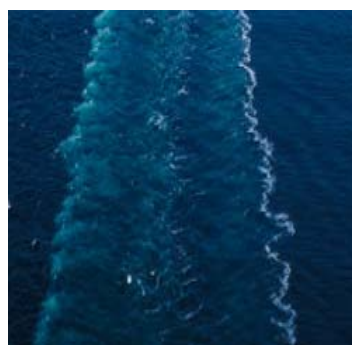
- **How to Participate 如何申请**

<http://ec.europa.eu/research/participants/portal/desktop/en/funding/index.html#>





THANK YOU FOR YOU ATTENTION!



http://ec.europa.eu/transport/research/index_en.htm

