

Figure 3 - Research and development expenditure, as % of GDP [Source: Eurostat, 2011]

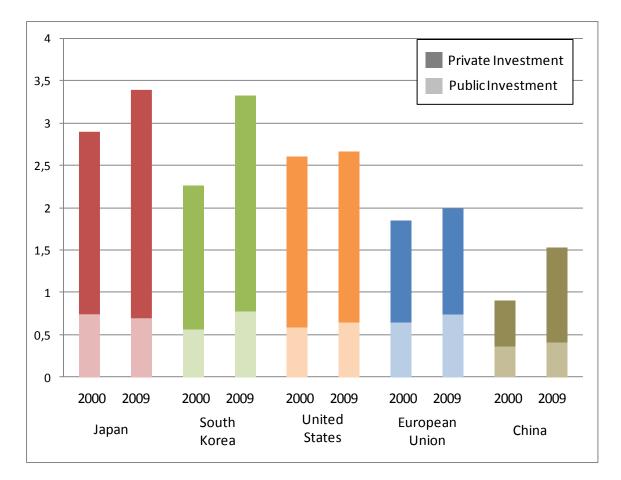


Figure 4 - Public and Private R&D expenditure as % of GDP, 2000 and 2009 [Source: Market up, based on data from EC, 2011c]

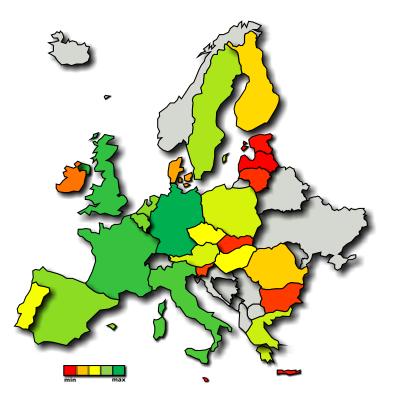


Figure 5 -Distribution of competencies in transport research

Table 1 - Ranking of barriers

Impact duration	Short	Long
Impact severity		
Low	Uncertain market demandUncertain ROI	 Lack of qualified personnel, technology Long lead times Lack of business partners Lack of cooperation
High	 Economic outlook Legal background lacks incentives Limited access to information, technological support 	 Lack of funds Insufficient access to subsidies Lack of external financing Lock-ins Domination of established enterprises Lack of the mutual recognition of standards

Table 2 - Ranking of drivers

Impact duration	Short	Long
Impact severity		
Low	 Secure or increase market share Existing regulations 	Economic outlook Good business partners Technological and management capabilities Expected new regulations Good cooperation
High	Current high energy prices Current high material prices Access to information, tech support	Expected energy price increases Access to subsidies, incentives Increased demand for green products Future material scarcity Limited access to materials

Table 3 - Ranking of barriers to SME

Impact duration	Short	Long
Impact severity		
Low	 Lack of monitoring system for SMEs Lack of Information on FP7 	 IPR and exploitation of results of FP7 project Time of evaluation,

	 Language barriers for European funds SMEs Profile as potential partners for FP7 projects 	 acceptance and implementation for FP7 RTD projects is too extended: Lack of qualified personnel IPR and exploitation of results
High	 Access to finance and problems of cash-flow Appropriateness of FP7 to SMEs and lack of adequate competitive frameworks for SMEs Costs of proposal preparation and general funding cost of innovation Access to the market 	 Inadequate Innovation Policy for Transport Regulatory aspects and weak institutional co-ordination Adoption of environmental technologies Lack of data on the current transport system

Table 4 – Selected case Studies in Market-up

	Topic of Case study	Abbreviation
	Electromobility	EM
	Biofuels for surface transport	BF
	Deployment of Green Technologies within the Maritime Sector: SO _x Abatement Technology	SO
And the second s	Intermodal versatile efficient and longer wagons	LW
	Maritime and IWT Container Transferium	СТ





Biofuels in aviation

Cargo sprinter: rail door to door solutions

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Table 5 – Matrix of funding instruments

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	STIM	ULATING DEM	IAND		RKING / SI FRASTRUC	etting-up Ture		FI	NANCING INN	IOVATION		:	SUPPORT	SERVICES
ACTORS	Regulatory environment	Public Procurement	Promotion of technology adoption	Human Capital	Infrostru cture	Links (Clustering/ Networking /Portnering)		RTD	Tech — Innovation Demo, Pilot)	Non-Tech Innovation (Mkt Promotion, Services)	Market Implementation of Innovation	IPR	π	Internationaliz on (af Innovation)
Industrial						P7						FP7		
System					, ,	PSRA-RM	QREN	СОТІ	TransEco.				5	, , ,
Research				Q.			CCEM	121/	·	FP7				, , ,
System				CCEM			PSRA-RM	Qr. Yarok			· · ·			
	TransEco	A3plus	Marco Polo	TAKE OFF	Marco Polo	TransEco.	Swiss Flactri	TAKE OFF	IVDTM	Marco Polo	FCH		I2VSP Ius	ког
	SSTDI	DFT	NBTP	ERSRC	ILFCT	EUROGIA	A3plus	MTT R	K07	к о 7	lasivsto	<u>ig</u> 2015		
	BNSDI		DFT		DFT	007	CFFN	CLEAN R SKY	HRP	A3plus	Ways2Go			QREN
Industrial &	STEER			ſ	Transuma		Swiss Foorsy		SUE Industria	Swiss				СДТІ
Research System	(107	SSTDI		DMOTN	-	Reufrako		2015	EDECEX	TAKE OFF		, ,	SMARTRAN
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					SCISM		AMTRAN	CIPER			emebility ical Beacon	<u> </u>	<u>,</u>	; ; ;
Political		FP7	NRTP		Тгалзита		Swiss Energy	PREDIT 4 SSTDI		PREDIT 4	E Contraction of the second se		Ś	
System		ET	в		AMTRANS			Salo		BNSDI		Ŕ	, ,	, , ,
Innovation					, ,				<u>,</u>				CIP	
nfrastructure														

7 Case Studies





Aviation Bio fuels





Maritime and IWT

Container Transferium







Objectives

Market-up aims to identify barriers (both social and technical) and drivers for the market uptake of transport research results

Via this identification process the project aims to contribute to the increased role of the transport sector in delivering a low carbon economy, in the search of tools to achieve two main goals:

- a) that research results are uptake by the market and
- that European research supporting covers all actors, inb) cluding the weakest ones. The overall project objectives indude:

- to improve the understanding of the context in which research funding for transport takes place in Europe
- · to identify drivers and hampers to the uptake of transport technologies
- · condude on policy instruments to respond to drivers and address barriers
- identify and define roles of actors and regions

Key questions and inputs for EU policy

- Are there problems/issues in innovation and market take up that are transport-spedfic?
- How can the public sector help the transport manufacturing . and service industry in better managing innovation cycles?
- How can innovation and market take-up in the transport see tor be better focused towards transport policy objectives?
- Which funding instruments better promote market uptake?

Consortium consultores em Transportes, Inovação e



Sistemas (PT) www.tis.pt Fraunhofer Fraunhofer Institute for Systems and Innovation

- www.isi.fraunbofer.de University of Antwerp (BE)
- Universiteit Antwerpen www.ua.acbe/tpr University of Zilina / Centre for Transport



- Research (SK) http://www.cetra.uniza.sk
- Budapest University of Technology and Economics (HU) www.bme.hu INNOVAS, P.A (IT)

www.innova.eu.net







European Association of Automobiles Suppliers E: Antenno Antenno (BE) www.depa.eu

INOVA Inovamais SA (PT) .www.inovamais.pt

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Market-up blocks



Establish a theoretical understanding of the processes of innovation, and in particular the role and mechanisms of action for research policy, taking into account the results from previous and on-going projects looking forward for cooperation activities



Identify and assess barriers and drivers for the market uptake of transport research results in Europ Barriers &drivers Analyse barriers and weak RTD players as applied to transport SMEs

> Assemble evidence on transport innovation along the different modes through case studies Assess research-funding instruments available and other innovative financial and policy instruments



Explore the synergies and more rependencies across -unding the various public and private R&D funding mechanisms and potentially identify some strengths and weaknesses of existing schemes



and its potential for wide adoption





Market uptake of transport research results

October 2010–September 2012

www.market-Up.org

Market-up is funded by the European Commission D.G.Research der the 7th FP



Market-up outputs

Mapping of transport RTD capacities in the EU 27

- 3 All countries
- All modes
- RTD actors (political system, industrial system, education system, innovation infrastructure)





Funding instruments available to SME Innovative economic and financial instr

licy recommendations on potential for uptake of inn ation in transport sector, focusing in particular on trans ort results and technologies and involvement of actor: encouraging weak players)

Figure 6 -Market-up leaflet











Market uptake of transport research and role of actors and regions

Workshop

How transport research in Europe is driving the market uptake of innovative products and services

Brussels, 26th October 2011

There is a broad recognition that a strong market uptake of innovative solutions and technologies will be necessary if the transport sector is to successfully address the challenges it is currently facing, notably in areas such as GHG and air pollutant emissions, energy dependency, safety, security or congestion. However, it is common to observe that innovative solutions to tackle these problems frequently fail to reach consumers in the market.

Market-Up project is revising the framework under which European transport research is anchored and is mapping European research capabilities, competences and funding instruments across the various modes. Based on a detailed characterization of the transport innovation system, it aims to understand how the market uptake of new products and services can be improved, identify barriers and bottlenecks for innovators to be successful in the market and which role SMEs can play in both developing new solutions and making them available in the market.

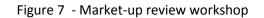
This workshop will present mid-term project results and give opportunity to stakeholders of the transport innovation sector to express their views on which barriers and drivers to ensure R&D efforts effectively contribute to better and more efficient transport.

Participation is free of charge but registration is mandatory Please send an e-mail to <u>markeum@bs.pt</u> More information available at <u>www.market.up.org</u>

Venue: The International Auditorium, Boulevard du Roi Albert II, No. 5 / 2; B-1210 Brussels



Market Up is partially funded by the European Commission through the seventh framework programme.



TRA 2012 - Special Session - 20 THURSDAY, 26 APRIL 2012 13:45 - 15:00 ROOM NIKOS SKALKOTAS HALL

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Research and Innovation Policies to enhance uptake of Sustainable Transport Solutions

The session SPS20, will present results from various EU projects working on innovation, research policies and agendas to foster discussions on how such policies can contribute towards sustainable transport. From a policy perspective the session will be a very important opportunity to promote discussion between policy makers and researchers on the new strategy for European transport research that will be guided by two key documents which details will be known by then: the Horizon 2020 framework and the Transport Technology Plan (CETTE). (STTP)

Speakers:

TR

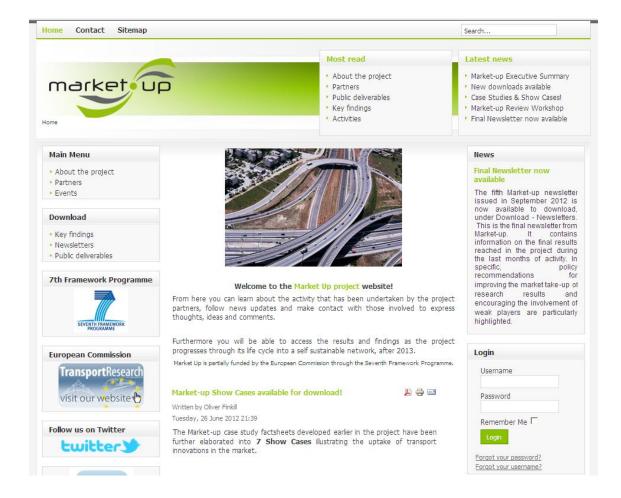
- Ms. Daniela Carvalho, TIS.pt, Coordinator of the Market-up project
 Mr. Wolfgang Schade, ISI Frauhaufer, Coordinator of the GHG-TransporD project
 Mr. Thierry Vanelslander, University of Antwerp, Coordinator of InnoSuTra transport
- project. Ms. Elisabete Arsenio, LNEC, representing the OPTIMISM project.

The presentations will focus on various aspects related with transport research, ranging from: the linking R&D efforts with other policies and measures to achieve substantial GHG emission reductions in transport that are in line with the overall targets of the EU, to how the innovation process in transport markets evolves, analysing how the market take-up of beneficial innovative concepts can be improved as well as barriers (both social and technical) and drivers for the market uptake of transport research results along Aeronautics. Air, Road, Rail and Waterborne hearoest transport.

Participants in this session will be made aware of Coordination and Support Activities in this area granting a better knowledge on transport innovation and research theory and trends and how they can impact transport sustainability. Existing strategic research agenda and the mapping of EU competences and funding mechanisms in this field are to be discussed. In addition future EU policies will be presented at an early stage allowing them to contribute to shaping future transport innovation and research policy instruments.



Figure 8 - Market-up special session at TRA 2012







market uptake of transport research and the role of actors and regions

www.market-up.org

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Figure 10 - Market-up partners & contacts