

**Grant Agreement Number:** 234200      **Document type:** *Panel meeting 1 (Minutes)*  
**Project start date:** 01/01/2010      **Project end date:** 31/12/2011

---

## POSMETRANS

**P**olicy measures for innovation in **T**RANSport sector with special focus on **S**mall- and **M**edium sized **E**nterprises  
- factors and recommendations for success and sustainability -

### Deliverable 3.2

*Panel meeting to validate the outcomes/analysis by experts (Minutes)*  
*How innovation spreads into the market?*

**Author:** Samantha Michaux (SEZ)

**Due date of deliverable:** 30.05.2011 (M 17)

**Actual submission date:** 09.11.2011

**Revision:** 2.0 (actual date of submission: 22.11.2011)

<b>Project co-funded by the European Commission within the Seventh Framework Programme (2007-2013)</b>		
<b>Dissemination Level</b>		
<b>PU</b>	Public	X
<b>PP</b>	Restricted to other programme participants (including the Commission Services)	
<b>RE</b>	Restricted to a group specified by the consortium (including the Commission Services)	
<b>CO</b>	Confidential, only for members of the consortium (including the Commission Services)	

**Project co-funded by the European Commission  
within the Seventh Framework Programme (2007-2013)**

**Grant Agreement Number:** 234200      **Document type:** *Panel meeting 1 (Minutes)*  
**Project start date:** 01/01/2010      **Project end date:** 31/12/2011

---

List of attendees ..... 3  
 Introduction ..... 5  
 1. POSMETRANS Expert Panel Meeting – Background Context..... 5  
   1.1. Objectives ..... 5  
   1.2. Experts invited..... 6  
   1.3. Methodology followed..... 6  
 2. Summary of Expert Panel Meeting discussions ..... 8  
   2.1. Short introduction of participants ..... 8  
   2.2. Presentation of the findings of the analysis and the survey ..... 9  
   2.3. Contributions of the participants ..... 9  
 3. Conclusions.....13  
   3.1. Summary of experts observation .....13  
   3.2. Recommendations .....13  
 4. Appendix .....14

**Grant Agreement Number:** 234200      **Document type:** *Panel meeting 1 (Minutes)*  
**Project start date:** 01/01/2010      **Project end date:** 31/12/2011

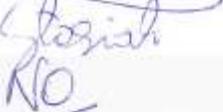
---

## List of attendees

<b>POSMETRANS partners</b>	<b>Experts</b>
<b>SEZ</b> Robert Gohla Aude Péliesson-Schecker	Michael Schygulla - ptv AG Karlsruhe (Germany) Eric Gross - Pôle Véhicule du Futur (France)
<b>ACCIONA</b> Juan Sáenz-Arostegui	Pablo Martinez Alonso, TECNALIA (Spain)
<b>CUT</b> Andrzej Szarata Bogna Grochola Katarzyna Nosal	Piotr Stasiak - Automotive Industry Institute (Poland) Tomasz Zwolinski - Municipality of Krakow – Department of Urban Infrastructure (Poland)
<b>EGE</b> Prof. Cengiz Akdeniz Mustafa Cakir Aykut Gülalanlar	Faysal Yalinkilic - Omsan Logistics A.S. (Turkey) Jan Devrim - Alisan Logistics (Turkey)
<b>URCCPIE</b> Martha Serrano	Massimo Groff - Finpiemonte Partecipazioni (Italy)

**Grant Agreement Number:** 234200      **Document type:** *Panel meeting 1 (Minutes)*  
**Project start date:** 01/01/2010      **Project end date:** 31/12/2011

---

 		
Person	Organisation	Signature
Eric Gross	Pôle Véhicule du Futur	
Faysal Yalinkilic	Omsan Logistics A.S.	
Jan Devrim	Alisan Logistics	
Massimo Groff	Finpiemonte Partecipazioni	
Michael Schygulla	ptv AG	
Pablo Martinez Alonso	TECNALIA	
Piotr Stasiak	Automotive Industry Institute	
Renata Koneczna	Polish Academy of Sciences	
Tomasz Zwolinski	Municipality of Krakow - Department of Urban Infrastructure	

<b>Grant Agreement Number:</b>	234200	<b>Document type:</b>	<i>Panel meeting 1 (Minutes)</i>
<b>Project start date:</b>	01/01/2010	<b>Project end date:</b>	31/12/2011

---

## **Introduction**

### **Background information about the project**

POSMETRANS is a Coordination and Support Action funded by the European Commission within the scope of the Seventh Framework Programme (FP7). It aims at promoting sustainable surface transport by providing policy support for innovative technologies and processes in transport. On the basis of an international network consisting of five partners from five different countries, POSMETRANS will explore the efficiency of European policy measures for innovation in the transport sector with special focus on Small- and Medium-sized Enterprises (SMEs).

POSMETRANS partners:

- Steinbeis-Europa-Zentrum (Germany)
- ACCIONA (Spain)
- Cracow University of Technology – Technology Transfer Centre (Poland)
- EGE University (Turkey)
- Unioncamere Piemonte (Italy)

## **1. POSMETRANS Expert Panel Meeting – Background Context**

### **1.1. Objectives**

The POSMETRANS Expert Panel Meeting I about the topic “how innovation can spread into the market?” is enshrined within the framework of the activities foreseen in WP 3. The main aim of organising the POSMETRANS Expert Panel Meetings is to present before a competent panel of experts the results from the survey emerging of the implementation of four different questionnaires by the POSMETRANS partners in order to critically analyse and complement them.

The main objectives of the Expert Panel Meeting are identified as follows:

1. Validation of the findings presented;
2. Foster dissemination of POSMETRANS and its results.

<b>Grant Agreement Number:</b>	234200	<b>Document type:</b>	<i>Panel meeting 1 (Minutes)</i>
<b>Project start date:</b>	01/01/2010	<b>Project end date:</b>	31/12/2011

---

## **1.2. Experts invited**

This Expert Panel Meeting was composed by independent experts coming from six different European countries. In order to have a balanced composition of experts, POSMETRANS partners coordinated their efforts in order to invite experts covering different – and complementary – fields of expertise. The experts of the Panel Meeting can be grouped in four main categories, namely:

- Researcher /Academics
- Industry
- Networks
- Public Bodies

## **1.3. Methodology followed**

In order to give the experts a general overview about the project and the results of the questionnaires implemented, they were provided in advance with a drafted SWOT analysis summarising the main findings from the questionnaires' implementation.

The methodology used for the Data Collection was:

### a.) Collecting innovative technologies

The data collection was defined in different steps:

- Definition of keywords for search engines
- Web-browsing
- Review of EU and national action plans, papers surveys
- Review of EU and national R&D projects and programmes
- Taking part in workshops, congress, symposia etc.

### b.) Completing the list of innovative technologies

In the project, six thematic technology fields in total have been defined. They are categorized in the following topics:

- **Vehicle Technologies:** Greening, New Materials, ICT
- **Infrastructure Technologies:** Co-Modality, Safety and security, ICT

<b>Grant Agreement Number:</b>	234200	<b>Document type:</b>	<i>Panel meeting 1 (Minutes)</i>
<b>Project start date:</b>	01/01/2010	<b>Project end date:</b>	31/12/2011

---

The next step was to identify of the application fields. In this context it was differentiated in the topic of transport mode and transport type:

- **Transport Mode:** Road, Rail, Water
- **Transport Type:** Passenger, Freight and Logistics

c.) Analysis of innovative technologies

The key aspects in this point are shown as follow:

- Identification of the related policies
- Definition of the criteria for analysis
- Assessment of technologies against the criteria defined
- Rankings and selection of technologies for analysis
- Identify best practices
- Analysis of paths of how innovation spreads into the market

d.) Questionnaires

Concerning the questionnaires, following tasks have been done:

- Design of questionnaires
- Surveys among key players
- Data recompilation and analysis
- Conclusions of innovation performances

e.) Expert Panel

The main task of the expert panel is to discuss and validate the preliminary conclusions of the analysis. The results of the discussion and validation process are the basis for elaborating final recommendations about identification of best practice for market adoption.

<b>Grant Agreement Number:</b>	234200	<b>Document type:</b>	<i>Panel meeting 1 (Minutes)</i>
<b>Project start date:</b>	01/01/2010	<b>Project end date:</b>	31/12/2011

---

The results were presented on slides (cf. D3.1) with graphs and tables in order to make them more understandable. The Expert Panel Meeting I was conducted in six chapters:

1. General presentation of POSMETRANS
2. Description of technologies analyzed
3. Description of criteria for assessment
4. Main conclusions of the analysis
5. Main conclusions of analysis of questionnaires to stakeholders
6. Discussion with experts

## **2. Summary of Expert Panel Meeting discussions**

Short introduction by Robert Gohla (SEZ)

### **- Presentation of POSMETRANS project (Robert Gohla)**

- ✓ POSMETRANS objectives
- ✓ POSMETRANS Work Packages
  - WP 1 → Definition of methodology, identification of technologies and policy measures
  - WP 2 → Identification of key players in innovation
  - WP 3 → Analysis of how innovation spreads into the market
  - WP 4 → Analysis of how innovation could be stimulated in networks
  - WP 5 → Analysis of the impact of policy measures
  - WP 6 → Conceptual framework for policy measures
  - WP 7 → Promotion and Dissemination
  - WP 8 → Management

### **- Objectives of the Expert Panel Meeting**

The main objectives and expectations of the Expert Panel Meeting were explained to all participants.

#### **2.1. Short introduction of participants**

In this section all participants briefly introduced themselves. All participants mentioned their field of expertise as well as the organisation they were representing.

<b>Grant Agreement Number:</b>	234200	<b>Document type:</b>	<i>Panel meeting 1 (Minutes)</i>
<b>Project start date:</b>	01/01/2010	<b>Project end date:</b>	31/12/2011

---

## **2.2. Presentation of the findings of the analysis and the survey**

In this section Juan Sáenz-Arostegui presented the findings of the POSMETRANS analysis and survey. The topics of the analysis provided a background for the following discussion (cf. Slides in the appendix)

## **2.3. Contributions of the participants**

Different questions have been discussed. Questions and personal comments of the participants are shown as follow:

### **1. Are the criterion studied enough for innovation analysis? Should they be weighted with importance?**

- Specific weights are different in different nodes (ship technology ≠ railway technology ≠ road technology). We tried to find common weights for all transport nodes. Why was aeronautics not considered? → Due to higher quality (see Q. 2)
- The criterion "Price" is missing. The price is directly related to the involvement of companies and to the innovation (e.g. tyres).

### **2. Should projects aimed at technology transfer and the identification of best practices be (better) promoted?**

- Good example from Krakow → CIVITAS programme / smooth technology transfer (public transport available by phone). Such programmes give SMEs the possibility to work first with a small consortium to implement the product / technology in another country → smaller projects focussed on SMEs are better → EUROSTARS programme.
- It would be good to know, which technologies can be transferred.
- Yes – the more the better: Dissemination. Very important to communicate the project results and organise a workshop → enable also stakeholders to meet on a common subject.
- The main motivations for innovation are the customers. A good project is also the one that has to be conducted without funding → should be taken as criteria for EU.

<b>Grant Agreement Number:</b>	234200	<b>Document type:</b>	<i>Panel meeting 1 (Minutes)</i>
<b>Project start date:</b>	01/01/2010	<b>Project end date:</b>	31/12/2011

---

### **3. What are the main barriers for SMEs to innovate in transport sector?**

- Nowadays, many SMEs have an innovation strategy and structure; they do not know why they should more innovate. Furthermore, their access to information is problematic, as they have limited collaborations with research institutes and public bodies. They also don't have any access to external financial resources, due to the fact that they don't have any money for trainings of the employees. They are limited in achieving financial resources, as they only get limited information about available funding programmes.

*About the survey:* the numbers of the interviewed stakeholders should be larger. For the most part, the weighting is not good. The innovation culture in the companies is essential.

- The access to venture capital is not available. Often the innovation is funded but not the implementation (the costs are 5 times as high as the initial development), as there is a lack of co-financing. Decisions are made by the board of management, which are not the individuals who should make decisions concerning innovation, as the priorities are different (e.g. business plan). There should be an innovation manager or trend scouts. Innovation is often not the focal point. EU funding is not targeted at SMEs, but at large companies. The achieved surveys are too little, should represent at least 10% of the whole SMEs in EU in order to achieve a representative sample.

→ *Critique:* we cannot interview 10% of all SMEs in Europe. The goal of the project is to identify cases of best practices.

- *Critique:* best practices cases have not been explicitly named yet. The number of the surveys should be increased. Not only good practices, but also bad practices should be identified, the numbers may mislead.

- The financial aspect is missing.

- The human aspect should not be forgotten → Trainings! Human aspect should also be considered concerning the adaption of new technologies.

- Risk management should be a priority. Risks lay in the future, when the technology is implemented, but it still needs to be financed on the long term as well.

<b>Grant Agreement Number:</b>	234200	<b>Document type:</b>	<i>Panel meeting 1 (Minutes)</i>
<b>Project start date:</b>	01/01/2010	<b>Project end date:</b>	31/12/2011

---

- More surveys are necessary, at least more than 50! Large Companies should also be questioned (25% of the revenues included in this section of the survey go especially to logistics). Customers should specifically be integrated, as they determine the conditions. There is also a problem with the resources, not only in the development, but also in the implementation.

- Culture of employees → training in innovative solution is missing when it comes to ICT  
- Price of development of the innovative concept/product  
- The access to / for funds is limited → if necessary, best practices must be asked again.

- The average number of employees in SMEs in France: 50. The size of the company is relevant regarding the opportunity for collaboration.  
e.g. Small companies with 5 employees who have 3 clients ≠ medium-sized companies with 50 employees ≠ large companies with 250 employees who have 3000 clients → large companies have more opportunities to promote collaboration and build new cooperation. Their gain of research project → reinforce link with existing clients and acquire other clients. Subject should be sharpened, precise and with immediate application i.e. no broad subjects.

- SMEs are often the last link in the value chain. The speed of development often overstrains SMEs.

#### **4. In your opinion, are research strategies / agendas in compliance with the needs / demands of users?**

- Strategies don't define the needs of users (frame level).  
- Very important to speak to customers / end users e.g. from municipality in Krakow about the transport for people with reduced mobility (for e.g. elderly people) → e.g. problem with ticketing machine.  
- Strategy and agenda are not that detailed and it is the job of the projects to define the need afterwards (demand / analysis missing; user-needs analysis missing).

#### **5. Should policy measures aim at minimising the risk of innovative technologies?**

- No, the decision should lie by the SMEs / industry, these are the specialists. It is not the aim of policies; it is the job of specialists.

<b>Grant Agreement Number:</b>	234200	<b>Document type:</b>	<i>Panel meeting 1 (Minutes)</i>
<b>Project start date:</b>	01/01/2010	<b>Project end date:</b>	31/12/2011

---

**6. Should external costs be considered in the transport prices in order to promote co-modality?**

- Yes, the condition of the market will change and this will definitely be an issue.

**7. How Europe should face decarbonisation of transport to lead this change?**

- The development of biofuels could be one solution. Another is a technological revolution in engine construction → nowadays there is only a 40% efficiency which must be improved. For SMEs, the problem is how to use the energy environment-friendly. In Poland, there are no profits for environmentally-friendly work → encouragement and motivation for innovation is not given.

**8. What do you consider as key factors to be the best innovative organisation in the transport sector?**

- Services are very important and should be significantly considered.  
- Life cycle analysis and life cycle costs are important (nowadays only part of life cycle is taken into account)  
- It is important not to think only in terms of the product, but also in terms of services e.g. service of taking freight from point A to point B → before: only rolling stock, now: rolling stock + ticketing + management system solution i.e. full service.  
- There are enough funding programmes, the problem is the measurement of risks → a market analysis should normally be done. Risk analysis is crucial → products & services are important.

**9. Please identify cases of best practices for Public-Private-Partnerships (in particular how to improve research / industry partnerships in order to encourage applied research and its implementation in industry)?**

- The problem is the long-term sustainability (e.g. E10 fuels: engines are not ready to use the fuels.  
- Another problem is the end of life management e.g. recycling of batteries → not addressed enough → think global (i.e. do not only sell cars, but sell transportation!)  
- Big companies should play a decisive role in this issue, because if there is any insurance that the technology will be adopted, the investment for SMEs would not be worst.

<b>Grant Agreement Number:</b>	234200	<b>Document type:</b>	<i>Panel meeting 1 (Minutes)</i>
<b>Project start date:</b>	01/01/2010	<b>Project end date:</b>	31/12/2011

---

### **3. Conclusions**

#### **3.1. Summary of experts observation**

- The sample size of survey is too small to evaluate the market potential of innovation, but the cases of best/worst practices gave a good idea of what should be improved regarding the cooperation possibilities between the different stakeholders in order to promote innovation.
- Good analysis although it is not easy to evaluate the innovation potential in this sector.
- SMEs often don't trust themselves to invest in innovation because they cannot afford the risks if the new technology will not be implemented or not successful.

#### **3.2. Recommendations**

- ✓ A similar survey and analysis would be very interesting and instructive in the sector of aeronautics.
- ✓ The information about funding programmes should be better disseminated in order to motivate SMEs to invest more in innovation; therefore, the access to those programmes should be easier for SMEs.
- ✓ SMEs should promote new collaboration with large companies
- ✓ Regarding R&D projects, the project partners should more disseminate the results in order to promote innovation and motivate new stakeholders to build new cooperation.
- ✓ A market analysis about risk measurements in the transport sector should be done.

#### **Disclaimer:**

*The content of the publication herein is the sole responsibility of the publishers and it does not necessarily represent the views expressed by the European Commission or its services.*

**Grant Agreement Number:** 234200

**Document type:** Panel meeting 1  
(Minutes)

**Project start date:** 01/01/2010

**Project end date:** 31/12/2011

## 4. Appendix

Innovation in TRANSport  POSME<sup>\*\*\*\*\*</sup>TRANS

### Greening Technologies

Greening technologies are those oriented to deploy the emission of greenhouse gases and VOC, by means of increasing the efficiency of the vehicles, making them to consume less fuel or switching to cleaner fuels or in an optimum scenario using renewable energy sources.



Subgroups	Technologies
ELECTRIC-CAR RELATED TECHS	Electric locomotive E6ACT hybrid-electric power vehicles Parallel hybrid system Battery electric vehicles
ALTERNATIVE FUELS	Natural gas (CNG/LNG/GTL) Hydrogen Biofuels
RENEWABLE ENERGY SOURCES	Solar-drive vehicles Air Power






Innovation in TRANSport  POSME<sup>\*\*\*\*\*</sup>TRANS

### New materials

New materials refers to apply innovative materials to vehicles to make them more efficient in terms of safety, environmental performance, enlarge their lifecycle, decrease maintenance, reduce costs and integrate the recycling process as a relevant part of the lifecycle of the product.

All those aspects lead to improve the performance of the vehicle itself and make its construction, operation and scrapping cost-effective and environmentally friendly.



Subgroups	Technologies
FRAMES AND BODY PART	Lightweight materials Lightweight & high feature materials Hard/tough materials High gravity compound (HGC)
PAINTS AND COATINGS	Anti-corrosive coatings High features coatings for tanks Tributyltin-free anti-fouling coatings Self-cleaning & anti-adhesive surfaces Super hydrophobic coating Low-water friction coatings
BRAKING SYSTEMS	Ceramic brake Eddy current brake
LUBRICANTS & WEAR RESISTANT	Solid non-organic lubricants Additives for low friction and viscosity Organic lubricants High features resistant materials
TYRES	High features rubbers
EXHAUST AND CATALYTIC SYS	Highly active material for exhaust gas catalysis Electro catalyst for cathode of fuel cell
ELECTRIC AND ELECTRONIC EQ.	Materials for MEMS and other components Materials for lighting systems Lead-free solders
FIRE RETARDANT TEXTILES	Fire-proof flame retardant textiles






**Grant Agreement Number:** 234200      **Document type:** *Panel meeting 1 (Minutes)*  
**Project start date:** 01/01/2010      **Project end date:** 31/12/2011

Innovation in TRANSport  **POSME**★★★★★  
TRANS

### ICT (vehicles)

The main driver in ICTs implantation in vehicles, is to complement the human deficiencies and integrate perfectly the vehicle and the human in the control loop, making the driving easier, safer and more efficient regarding the energy usage and the environmental point of view.

Subgroups	Technologies
DRIVER-ASSISTANCE SYSTEMS	<ul style="list-style-type: none"> <li>Inter-Vehicle communications</li> <li>Anti Lock Breaking System (ABS)</li> <li>GPS devices</li> <li>Adaptive Cruise Control (ACC)</li> <li>Adaptive Headlights</li> <li>Lane Change Assistant / Blind Spot Detection</li> <li>Driver Drowsiness Monitoring and Warning</li> <li>Electronic Brake Assist System</li> <li>Electronic Stability Control (ESC)</li> <li>Gear Shift Indicator</li> <li>Lane Departure Warning</li> <li>Night Vision</li> <li>Obstacle and Collision Warning</li> <li>Pedestrian / Vulnerable Road User Protection</li> <li>Tyre Pressure Monitoring System (TPMS)</li> <li>Lateral support system</li> <li>AWAKE system</li> <li>Human Machine Interface (HMI)</li> <li>Ultra wide band (UWB) automotive radar (SRR)</li> </ul>







Innovation in TRANSport  **POSME**★★★★★  
TRANS

### Co-Modality

Co-modality is the use of different modes of transport on their own and in combination in the aim to obtain an optimal and sustainable utilisation of resources.

The objective of co-modality oriented technologies is to make easier the shift of one mode to another, and reduce any inefficiencies susceptible to occur in these shifts.







**Grant Agreement Number:** 234200

**Document type:** Panel meeting 1  
(Minutes)

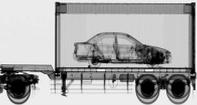
**Project start date:** 01/01/2010

**Project end date:** 31/12/2011

Innovation in TRANSport  **POSME<sup>\*\*\*\*\*</sup>TRANS**

### Safety and Security

Regarding safety and security in transport, its of key importance the integration of ICTs on transport interfaces to fight against the threatens to goods' safety and mainly the safety and security of humans involved in transport operations, by means of monitoring, tracking and registering electronically all operation with the lower possible disturbance to the transport chain.

Subgroups	Technologies
ACCESS CONTROL	Static and dynamic biometrics techniques Contactless smart cards Near Field Communications techniques (NFC) Recognition video system Automatic Number Plate Recognition (ANPR)
INSPECTION SYSTEMS	Cargo scanning Non Intrusive Inspection (NII) Body scanner systems for passengers Smart container based on ISO/PAS 17712
COMPUTER SECURITY SYSTEMS	Digital identity management systems Digital signature
TRACEABILITY	Wireless communication applications Monitoring systems based on sensor network Real Time Locating Systems (RTLS) GPS applications Language systems for communications Vessel traffic monitoring and information system Software platforms for traceability of supply chain Digital tachograph and driver cards
SAFETY SYSTEMS	Cover techniques for railway axes Sensor systems to prevent train's derailments Traffic security cameras V2i communications and cooperative systems Intelligent systems to protect vulnerable persons Fire prevention systems in tunnels Docking and undocking manoeuvres assitant systems






Innovation in TRANSport  **POSME<sup>\*\*\*\*\*</sup>TRANS**

### ICT (infrastructures)

ICTs integrated in infrastructures are a compound of technologies oriented to support the transport processes, making the media where the transport operation is developed more user friendly, by means of integrating technologies in the scenario where the transport operation is taking place, providing the human element relevant information about its position and status, or even providing the human operator an actuation pattern based on the information received from the environment and processed through these innovative technologies.



Subgroups	Technologies
GALILEO	Global navigation satellite system in Europe
RTTI SYSTEMS	Real-time traffic and travel information
ERTM SYSTEM	European Rail Traffic Management System
TAF-TSI	Telematics Applications for Freight
SAFESEANET	SafeSeaNet
VTMIS	Vessel Traffic Monitoring and Information Systems
AIS	Automatic Identification System
LRIT	Long-Range Identification and Tracking
RFID	Radio Frequency Identification



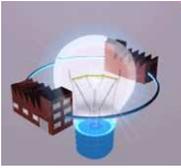



**Grant Agreement Number:** 234200      **Document type:** *Panel meeting 1 (Minutes)*  
**Project start date:** 01/01/2010      **Project end date:** 31/12/2011

Innovation in TRANSPORT  **POSME<sup>\*\*\*\*\*</sup>TRANS**

### Transferability

This criterion indicates whether or not a technology can be transferring among same or different organizations to ensure the accessibility to a wide range of users who can then further develop and exploit the technology into new products, processes, applications, materials or services.



**WHY?**

Technology Transfer is one of the most important success factor to achieve innovation spread into the market.

Those innovative technologies that can be adopted by largest number of end-users improve the potential spread of innovations within the transport sector.

Values of the criterion used in the evaluation:

- 1.- very difficult to transfer and implement
- 2.- difficult
- 3.- medium difficult
- 4.- easy
- 5.- very easy






Innovation in TRANSPORT  **POSME<sup>\*\*\*\*\*</sup>TRANS**

### “Transferability” Analysis

GREENING TECHNOLOGIES	4,11
ICT (VEHICLES)	3,89
SAFETY & SECURITY	3,88
NEW MATERIALS	3,87
CO-MODALITY	3,23
ICT (INFRASTRUCTURES)	3,00

- Greening Technologies is the field best positioned against transferability. Greening innovative technologies can be transferred to a most number of users among different fields and countries. E.g. Alternative fuels, hybrid or electric propulsion could be apply to a different transport modes and types for compliance with environmental sustainability.
- ICT for infrastructures are worst ranked, mainly due to the fact that the listed technologies were developed for specific applications. Nevertheless other ICT solutions for infrastructures considered address a wider range and are even suitable for multi-sectorial applications (e.g. RFID and GALILEO applications).
- Support development of horizontal or multi-sectorial technologies (e.g. ICTs, NMP,...) within transport sector could be helpful to increase transport innovations, for example including more transport-related topics in calls of work programs in FP7, e.g. ICT work program, or NMP work program. Also including topics related to those technologies.
- Promote new programs or projects addressed to best practices identification and technology transfer between different sectors or transport modes. E.g. Between maritime transport and air transport regarding traffic management systems, booking systems, queue management systems.






**Grant Agreement Number:** 234200      **Document type:** Panel meeting 1  
**Project start date:** 01/01/2010      **Project end date:** (Minutes)  
 31/12/2011

Innovation in TRANSport  POSME★★★★★  
 European logistic and transport. Efficiency & Innovation.

### Position of SMEs

It indicates an estimation of the amount of SMEs (% of the total number of enterprises in the field) involved in the industrialization of an innovative technology.



**WHY?**

European industrial structure is based on high participation of SMEs. This criterion try to evaluate how much SMEs get involved in the development of technologies.

The aim is to find best practices on technologies with high participation of SMEs, in order to analyze those cases and promote SMEs for improve innovation commitment.

Position of SMEs has relevant impact in the technological sectors' profiles, making them more dynamic and creative and consequence more effective regarding innovation.

Values of the criterion used in the evaluation:

- 1.- 0-10%
- 2.- 11-20%
- 3.- 21-30%
- 4.- 31-40%
- 5.- 41-50%
- 6.- >51%






Innovation in TRANSport  POSME★★★★★  
 European logistic and transport. Efficiency & Innovation.

### Customers' acceptance

It means the innovative technologies are well perceived and thought as valuable, useful and efficient by the end-user.



**WHY?**

Technologies need to be well evaluated by customers to get successful deployments.

The technologies that are not well-accepted by customers do not have realistic possibilities to be adopted in spite of be considered potentially innovative.

Values of the criterion used in the evaluation:

- 1.- Very low acceptance
- 2.- Low
- 3.- Medium
- 4.- High
- 5.- Very high






**Grant Agreement Number:** 234200      **Document type:** Panel meeting 1  
**Project start date:** 01/01/2010      **Project end date:** (Minutes)  
 31/12/2011

Innovation in TRANSport  **POSME**★★★★★  
TRANS

### Risk Management

Criterion indicates how high is the identification, assessment and prioritization of risk followed by coordinated and economical application of resources to minimize, monitor, and control the probability and/or impact of unfortunate events concerning innovation.



**WHY?**

This criterion is close related to how spread is a technology. Technologies well ranked mean that are ready to reach the market or already spread in the market. Otherwise technologies worse ranked mean that level of development is not enough to consider them as spread technologies.

Risk management is needed from initial steps to market launching during all a innovative process. The successful evaluation of risk can make a tecnologia succesful from an initial conception.

Values of the criterion used in the evaluation:

- 1.- Risk management issues are not addressed
- 2.- Quickly mentioned
- 3.- Partially addressed
- 4.- Sufficiently addressed
- 5.- Fully addressed






Innovation in TRANSport  **POSME**★★★★★  
TRANS

### Environmental Commitment

Criterion indicates whether or not the technology inflicts harm to the environment, e.g. concerns renewable energies commitment and CO2 reduction commitment.



**WHY?**

We consider this criterion important because of the commitment with environmental impact reduce.

Transport sector is the highest energy consumer and pollutant sector. Those innovative technologies addressed to reduce impact to environment will be well-considered as innovative success.

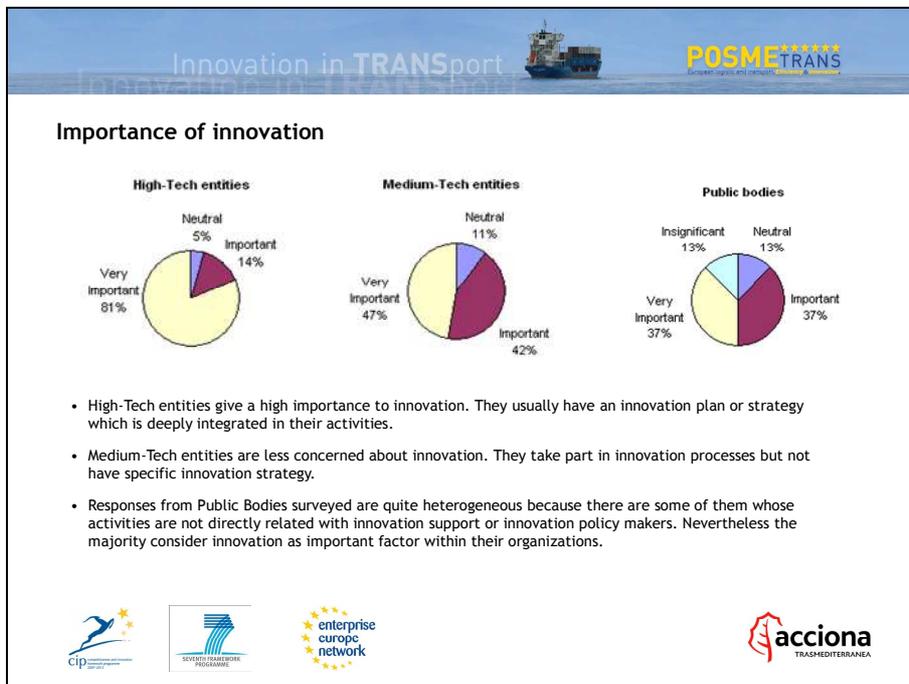
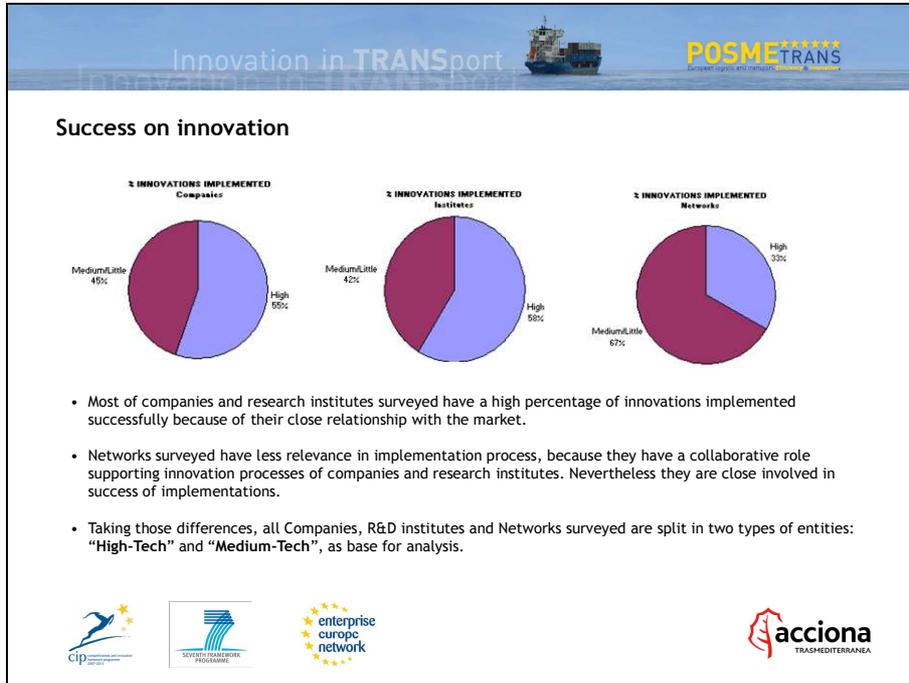
Values of the criterion used in the evaluation:

- 1.- Very harmful to the environment
- 2.- Harmful to the environment in medium way
- 3.- Inflicts minimal harm on the environment
- 4.- Inflicts no harm on the environment at all

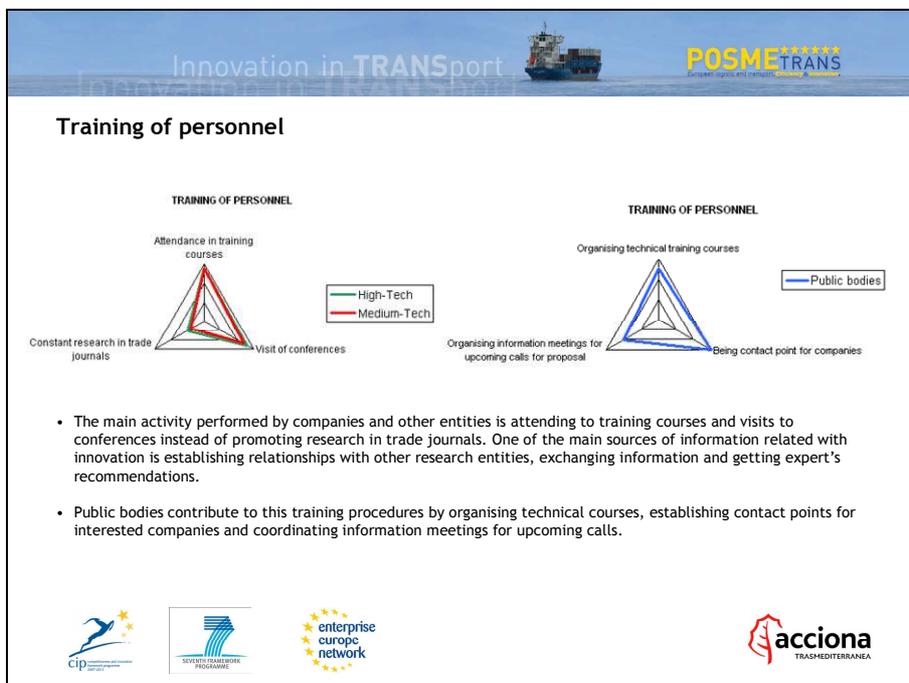
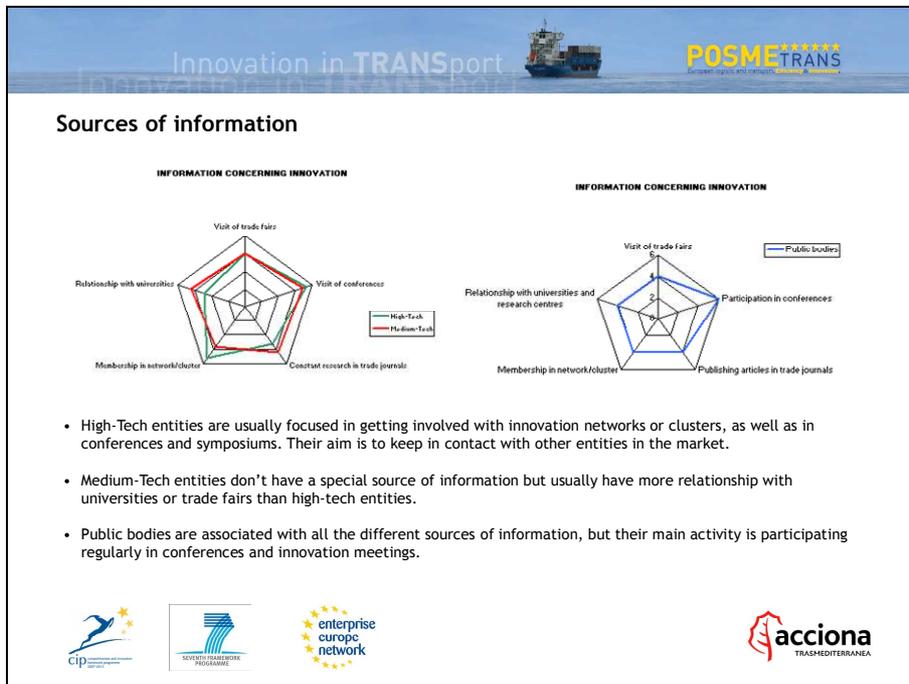





**Grant Agreement Number:** 234200      **Document type:** Panel meeting 1  
 (Minutes)  
**Project start date:** 01/01/2010      **Project end date:** 31/12/2011



**Grant Agreement Number:** 234200      **Document type:** Panel meeting 1  
**Project start date:** 01/01/2010      **Project end date:** 31/12/2011  
*(Minutes)*



**Grant Agreement Number:** 234200

**Document type:** Panel meeting 1  
(Minutes)

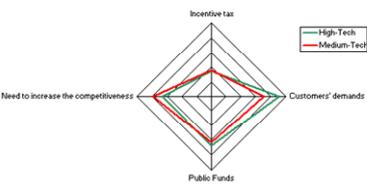
**Project start date:** 01/01/2010

**Project end date:** 31/12/2011

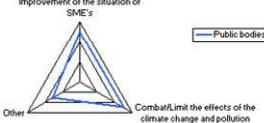
Innovation in TRANSPORT  **POSME<sup>TRANS</sup>**  
European logistic and transport. Efficiency & Innovation.

### Factors motivating innovation

**MOTIVATION FOR INNOVATION**



**MOTIVATION FOR INNOVATION**



- Main factors inducing innovation process for entities with high orientation to innovation is the need to meet customer's demands because of their processes are usually supposed to spread into the market in which customers are the final destination.
- In case of companies, research institutes or networks with a less orientation to innovation, key factor is the need to increase the competitiveness. They are more oriented to give a support to other companies in innovation processes and they have to give the best alternative from competitors.
- The main motivations for public bodies for innovating are the increasing of the competitiveness of SME's and the aim to combat pollution and the effects of climate change.

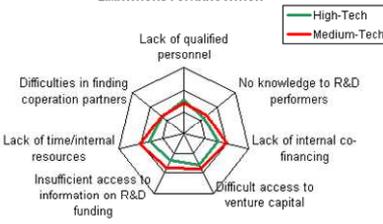





Innovation in TRANSPORT  **POSME<sup>TRANS</sup>**  
European logistic and transport. Efficiency & Innovation.

### Limitations for innovation

**LIMITATIONS FOR INNOVATION**



- The main difficulties found by entities with high innovation implementation are mainly related with resources needed to perform the innovation processes, as internal funding or venture capital.
- In case of medium/low tech entities they have also limitations concerning funding, but in their case this is due to their insufficient access to information about R&D funding.






**Grant Agreement Number:** 234200  
**Project start date:** 01/01/2010

**Document type:** Panel meeting 1  
(Minutes)  
**Project end date:** 31/12/2011

Innovation in TRANSport  **POSME**★★★★★  
TRANS

- **Strategy and boosting of innovation**

**Contact person for boosting innovation**

**High-Tech**  
no 21%    yes 79%

**Medium-Tech**  
no 39%    yes 62%

**Public Bodies**  
no 62%    yes 38%

**Innovation Strategy**

**High-Tech**  
no 43%    yes 57%

**Medium-Tech**  
no 53%    yes 47%

- High-tech entities are more oriented to innovation processes than the rest of entities. As graphics show, a considerable higher percentage of the entities part of this high-tech group have a specific contact person or group for boosting innovation, which can be addressed as one of the key factors that leads innovation to spread into the market.
- Closely related with the existence of a contact person for boosting the innovation is the programming of an entity's strategy. Usually high-tech companies and other entities have a specific innovation strategy which includes processes to merge all the innovation performed into the company's activity.
- Graphics show that the existence of a exclusive person or group for boosting and developing innovation activities is more relevant than establishing innovation plans or strategies, which is more usual among big enterprises.

