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POSMETRANS

Policy 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 -

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POSMETRANS

European logistic and transport. **Efficiency & Innovation.**

Editorial

Dear Readers,

the POSMETRANS project is coming to an end. After 24 months of intensive activities there is a time to take a deep breath and to summarise conclusions.

In fact, you are reading at the same time the fourth and the last issue of the project Newsletter. You will find inside brief overviews of the 3rd edition of ITN-Infrastructure, Telematics & Navigation Fair in Turin, Italy (Nov 16-18,2011), the POSMETRANS final conference and, in the end, the partner final meeting in Turin.

This time we put a spotlight on some innovative solutions in the transport and logistics area in the following countries: Turkey, Poland and Italy. Presented articles constitute in a certain measure a supplement to the POSMETRANS handbook, a specific guide to the project consortium recommendations and network policies for innovation, which will be published in both traditional printed and downloadable version soon.

Right now we kindly encourage you to visit and download from the POSMETRANS website (www.posmetrans.eu) some various documents and publications related to the project achievements and results. Among others you can get the above mentioned handbook (January, 2012) , all of the issues of the POSMETRANS Newsletters, brochures, analysis, reports and more. The project website will be available approximately 2 years after the end of the project.

Have a good read!

The POSMETRANS Consortium.

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POSMETRANS in a nutshell:

Title: Policy measures for innovation in Transport sector with special focus on Small- and Medium sized Enterprises—factors and recommendations for success and sustainability.

Programme: Seventh Framework Programme

The main objectives:

1. drawing conclusions for policy measures in order to accelerate the market take-up of innovative technologies and processes in transport
2. Providing a framework for the impact assessment and evaluation of EU measures aiming at innovation

Consortium Partners:

Germany, Italy, Poland, Spain, Turkey

FP7 Cooperation Transport (including Aeronautics)

Calls for proposals:

[FP7-AAT-2012-RTD-L0 FP7-AERONAUTICS and AIR TRANSPORT \(AAT\)-2012-RTD-L0 \(Deadline: 2013-03-14\)](#)

[FP7-TRANSPORT-2012-MOVE-1 FP7-TRANSPORT-2012-MOVE-1 \(Deadline: 2012-03-01\)](#)

[FP7-ERANET-2012-RTD ERA-NET Call 2012 \(Deadline: 2012-02-28\)](#)

More information: CORDIS.

Participants Portal:

ec.europa.eu/research/participants/portal/page/fp7_calls



ITN - Infrastructure, Telematics & Navigation Fair 3rd edition November 16-18, 2011, Lingotto Fiere - Turin, Italy

The 3rd edition of ITN-Infrastructure, Telematics & Navigation Fair took place at Lingotto Fiere in Turin, Italy. This year ITN is co-located with the 4th edition of TOSM-Torino Software and Systems Meeting.

In 2011 ITN Fair offered three days of informational conferences and workshops, a networking program and highly specialized seminars, complemented by a large and rich exhibiting area.

The event shed light on the key issues, trends and challenges that are affecting the Italian and European markets.

Visitors had a one-of-a-kind opportunity to analyze tools, services and solutions for satellite navigation and smart infrastructures provided by both leading and emerging vendors, as the event hosted companies from across the full industry spectrum.

More information, media gallery and conference proceedings are available at the fair website: www.itnexpo.it.



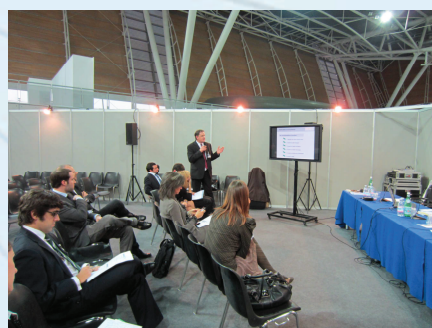


The POSMETRANS final conference November 17, 2011, Lingotto Fiere - Turin, Italy

The ITN Fair was a great opportunity for the POSMETRANS consortium to organise the Final project conference at the same place. The conference was held on November 17, 2011 within the Oval hall with the participation of Mrs. Fleur Breullin - Project Officer of EC - DG Move, Mr. Carloandrea Malvicino from CRF/FIAT Research Centre (Italy), Mr. Holger Bach - Director of Logistic Network Baden-Württemberg (Germany) and the project partners.

Generally speaking, presentations of the above-mentioned keynote speakers treated of the role of innovations for the transport and logistics sector and the role of policies in stimulation of innovations. Additionally, project partner Mrs. Marta Serranò (URCC) presented the POSMETRANS project and its objectives, whereas Mr. Jens-Jochen Roth (SEZ) described the project survey and recommendations.

The final conference was ended by an open discussion with experts and questions of the audience.



The POSMETRANS final meeting November 18, 2011, Unioncamere Piemonte, Turin, Italy

The final POSMETRANS consortium meeting in Turin was the last opportunity to discuss and finalise the last project tasks.

After general overview of activities performed, there was a time to perform thorough analysis of the objectives and milestones of the 24 months-long period. Besides general balance of results and effectiveness the consortium discussed some deviations from plan as well. Some time was dedicated to analyse the project management tasks and financial issues.

In the end, the consortium closed the final meeting with an extensive discussion on the POSMETRANS project handbook - a specific guide to the project consortium recommendations and network policies for innovation. The handbook will be published in both traditional printed and downloadable version soon. Please, visit the POSMETRANS project webpage: www.posmetrans.eu.





National Spotlight: Poland

Modern electric locomotive E6ACT - DRAGON

The E6ACT electric locomotive (Dragon) is the first since more than 20 years Polish locomotive design, developed by ZNLE S.A. Joint Stock Company in Gliwice, Poland working jointly with EC Engineering and the Electrical Engineering Institute. The locomotive is designed to move heavy freight trains. The project was preceded by a survey of customer needs and considerations reflecting the existing infrastructure in Poland, as the locomotive was designed primarily for the Polish market. The most up-to-date technologies have been included in the locomotive design, and the driver comfort and maintenance standards have been kept at European level.

Basic features of the new locomotive:

- able to move heavy freight trains up to 4000 tonnes
- able to move trains on lower class tracks
- asynchronous drive - 6 motors/total power rating of 5 MW
- ergonomically arranged cab and control panel
- double-module air conditioning system
- safety cage and an anti-climbing system protecting personnel in case of collision
- modular design
- anti-slip system
- computer diagnostics system for identifying failure locations and predicting possible failures
- reduced environmental

The E6ACT has two 3-axle bogies arranged in a Co'Co' set with individual drive for each axle. The distance between outermost axles is 3900 mm. The tractive force is transferred via a journal mounted on the bogie frame and a pulling tackle that couples the bogie to the vehicle box. The wheel set comprises an axle and a pair of monoblock wheels of 1250 mm nominal tread, provided with brake disks on both sides of each wheel.

Each drive unit comprises an 834 kW asynchronous traction motor, a gear transmission with oblique teeth and a wheel set. The first level of suspension comprises 2 sets of coil springs arranged directly on both sides of the journal box of the wheel set. The second level suspension (vehicle box support on bogies) is formed of a set of large-sized spiral flexicoil springs.

The pneumatic system of the locomotive comprises the following functional units; air supply and conditioning system, control unit, air piping, actuators. The system is supplied with air by two identical single-stage air-cooled screw compressors. Such design improves the reliability of the system.

The locomotive is provided with a mechanical disk brake on each wheel set and an electrodynamic brake. There is also a spring parking brake enabling to hold the vehicle on a 45‰ slope.

The locomotive body is a self-bearing welded structure. The body features crumple zones and an anti-climbing system providing the highest level of safety. An ergonomic cab of the locomotive for two operators is equipped with a two-module air-conditioning system. In addition the vehicle is furnished with 6 cameras, 4 of which transmit rear mirror view and the remaining two installed on both ends of the locomotive transmit the view of couplers and screw couplings. A modern fire detection and fire extinguishing system is installed on board the locomotive.

The locomotive is equipped with modern high-class 100Ah FNC batteries operating within the temperature range of -40°C to +50°C. The battery is able to support external lighting for at least 5 hours.

The system therefore provides full automation of the driving process and maintains the preset speed with an accuracy of 2 km/h, provides locomotive diagnostics, complete visual information and event recording. The information related to service functions is collected by an event recorder coupled to an electronic speedometer. The starting and braking process is controlled by a wheel spin elimination system wherein the starting of the locomotive is effected with maximum allowable tractive force, i.e. if wheels of one axle start slipping, the system automatically reduces the torque transferred onto that axle, and if this is still insufficient, sanding is applied to retain adhesion.

Source and more information: www.znle.pl





National Spotlight: Turkey Turkish State Railways

The State Railways of the Turkish Republic or TCDD is the government owned, national railway carrier in the Republic of Turkey, headquartered in Ankara. The TCDD was formed on June 1, 1927 by the Turkish government to take over the administration of the existing rail lines within the borders of the Republic of Turkey after the dissolution of the Ottoman Empire, and to build new ones.

The Turkish State Railways own and operate all public railways in Turkey. As of 2008, TCDD controls 10,991 km of railways making it the 22nd largest railway system in the world. In 2009, TCDD carried 17,105,353 tonnes of freight and 7,118,699 passenger-km making it the world's 33rd largest passenger rail carrier. As of 2009, the Turkish State Railways employs 25,593 people.

The Turkish State railways owns several other companies and holds shares in others. These are all companies that are involved with rail transport or that use rail transport. TCDD is a member of InterRail since 1994.

Here you can find 2 different good practices of TCDD as follow:

Turkish State Railways is Establishing Logistics Centres
TCDD is putting the Project of "logistics centres" into practise in order to make Turkey a logistics station in the Middle East. The logistics centres considered as the heart of the modern freight transportation develop the combined transportation by being integrated with other transportation systems. TCDD is establishing logistic centres at 16 locations.

The facilities involved in the Logistics Centres

- Loading-unloading and storage areas for containers
- Duty-paid areas; agencies, customs consultancies, any customs services premises

- Loading-unloading and storage areas for dangerous and special goods
- Unloading areas for bulk cargo
- Social and administrative facilities
- The tracks for train composition, acceptance and dispatching

GSM-R Communication System

Railways use the mobile communication systems for the coordination and application of the operation and maintenance proceedings. The works on removing the difference available among the countries in the communication system and uniting them around a unique system have been concluded. The GSM-R system has been developed by adding the additional functions created for railways into the standard application in railways. The new system ensures the seamless communication till the speed of 250 km/h and supports the speed of 500 km/h. In the system, the railway personnel continue to communicate non-stop while the train is being operated at the stated speed. This system creating a common communication platform for the future train control systems encompasses the stations and working places on the route. It is envisaged to use the GSM-R system, which has been started to be used extensively in European railways and installed on Ankara-Eskişehir route, in the other ongoing and future high speed train projects. GSM-R system, which has been set up to constitute a basis for ETCS signalling system on conventional lines and ensure mobile communication, has been planned to be installed also on Kayseri-Ulukışla-Yenice-Mersin-Adana-Toprakkale section and Eskişehir-Afyon-Balıkesir section.

Source: www.tcdd.gov.tr





National Spotlight: Italy Nuovo Trasporto Passeggeri - NTV

NTV revealed in Nola the carrier with which it aims to capture 20% of the high-speed network by 2015. Wi-fi and broadband access in all wagons, and a carriage cinema at the end of the train.

Fifty-one connections among 12 stations in nine cities. As many as 41 courses on the route Turin-Milan-Naples-Salerno and 10 on the route Venice-Rome-Naples. These are just a few of the data which the top brass of "Nuovo Trasporto Passeggeri" (NTV), the private railway company owned by Montezemolo, showed in Nola, at its multifunctional establishment, presenting its jewel-train, produced by Alstom. It's called Italo: a convoy with a speed of 360 kilometers per hour. These are the links of the future, planned by NTV: Turin-Milan in 47 minutes (6 trains in both directions), Milan-Rome non-stop in 2 hours and 57 (3 trains), Milan-Bologna-Florence-Rome in 3 hours and 30 (14 trains with stops in Bologna and Florence), Milan-Bologna in 1 hour and 5 (16 trains), Bologna-Florence in 37 minutes (20 trains), Florence-Rome in 1 hour and 29 (19 trains), Rome-Naples in 1 hour and 10 (12 trains), Venice-Rome in 3 hours and 43 (5 trains with stops in Mestre, Padua, Bologna and Florence), Naples-Salerno motorway in 29 minutes (3 trains). The trains should be operative by the beginning of 2012 - probably on March. The company is waiting for the approval on the technical documentation by the Railways National Security Agency.

The structure of Italo may vary from 7 to 14 carriages with a capacity between 250 and 650 seats, divided into three classes: Club, First and Smart, in addition to the First Smart and Relax Cinema, located at one end of the train. In addition to the film carriage, there will be a broadband connection, UMTS telephone networks, and free wi-fi access in all rooms, internet and satellite TV. Eataly will be in charge of the restaurant service, which will be provided directly on the spot, in a special pack that evokes Italian gastronomical traditions.

The AGV train is completely revolutionary in terms of construction. It is long from 130 to 250 meters depending on

the composition, heavy from 270 to 510 tonnes, about 70 less than the competitor. Such a train can work under all voltages taken in Europe, from the common 3 kV DC to 25 kV AC single phase, typical of the super lines. Designed to travel at 360 per hour, the NTV's AGV is a train set with articulated structure, with trucks arranged between the carriages.

Unlike actual high-speed trains, whose engines are concentrated in the two locomotives (head and end of the trains), AGV's motors are distributed along its entire length. Such a technique (the same as the French TGV) eliminates most of vibrations and noise produced by movement on board, cushions movement among wagons, optimizes aerodynamics, ensures safety and also reduces of 15% the maintenance cost. The distributed power also increases by 20% the capacity on board, while, from the environmental point of view, energy consumption is reduced of 15%. Finally, the AGV is a modular train, which means that, starting from a set of 7-14 carriages, each company may construct its own fleet according to its needs.

"I have repeatedly stressed that, in order to boost growth and promote the development of the country, it is essential that companies increase their investments, pointing to the innovation of production processes and to the development of the potential of the South," wrote the Head of State. Napolitano has expressed "satisfaction" for such an "important" investment, "entirely private and made with Italian capital, which must be considered under a perspective of liberalization of rail transport".

Particular attention deserves the fact that this investment, including the induced market, will lead to the creation of over two thousand jobs, to be entirely covered with open-ended contracts, especially for young people." (Giorgio Napolitano).

"The most modern train in Europe. With low emissions of greenhouse gases, high recyclability of materials, lower energy consumption, and less noise" (Montezemolo).



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The POSMETRANS Consortium