

May, 2010

ROADIDEA

Road Map for Radical Innovations in European Transport Services

European Commission
Information Society and Media

ROADIDEA looks for new ideas to combine traffic and weather data into new services using brainstorm and idea generation techniques. A road map will be presented to a more innovative and competitive European transport service sector, utilising new kinds of data and data fusion.

At a Glance

Project:

ROADIDEA FP7-ICT-2007-1
Specific Targeted Research Project 215455
Co-funded by the European Commission
under the 7th Community Framework
Programme for Research and Technological
Development

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Germany: Deutsches Zentrum für Luft- und
Raumfahrt, Institute of Transport Research,
Pöyry Infra Traffic GmbH
Italy: ARPAV, Centro Meteorologico Teolo
Hungary: Road Safety Engineering Bureau
Croatia: Meteo-Info d.o.o.
Slovenia: Amanova d.o.o.

Duration: 34 months

Total cost: 4.903.707 €

Programme: FP7 Theme 3
« Information and Communication
Technologies »

Further information:

<http://www.roadidea.eu>



Objectives

ROADIDEA studies the potential of the European transport service sector for innovations, analysing available data sources, revealing existing problems and bottlenecks, and developing better methods and models to be utilized in service platforms. These will be capable of providing new, innovative transport services for various transport user groups



The hypothesis

ROADIDEA argues that effective accessibility to all kinds of useful background information combined with advanced data fusion methods and technological information platforms with high level of standardization are prerequisites for creation of innovative mobility services. These help developing better information infrastructure as well as public and private services providing Clean, Safe and Efficient mobility for people and goods.

The main focus



The hypothesis is a framework for technical development in the project, and verified in Northern, Central and South-Eastern parts of Europe. The differences of the existing transport systems and available data sources are analysed as well as the problems caused by local climate and geography. The main focus for research will be road transport with all its user sectors, but co- and multi-modality and other forms of transport will be included.

Description of work

Work is organized into three main layers:

- *The infrastructure layer*, analysing and developing transport infrastructure, in particular sources and collection of data, development of methods such as data filtering and fusion, and weather and road condition models.
- *The innovation layer*, where new innovative transport service ideas are produced in a systematic way by organising two annual Futures Seminars.
- *The exploitation layer*, including piloting and testing the new innovations in real service platforms, evaluating their business potential and user acceptance.

Innovation process



After the first of two Innovation Seminars there were 19 short-listed ideas, of which five pilots were selected for further study and practical pilots. The ideas are as follows:

SERVICE IDEAS

- *Cross border weather alerts*, location-based systems
- *Mobile sensor data acquisition*
- *My Route* Mobile Pocket Guide is a system for providing travel information and updates over a mobile network. It gives the traveler / driver comprehensive real time traffic information needed for well-informed travel decisions (pre-trip information) as well as information during the journey (on-trip).
- *My Travel Toilet Tom-Tom* service is offered to all drivers and travelers. It gives a driver / traveler the possibility to find information on availability of toilets along a planned route, with particular impact on places for disabled persons and mothers with small children. It could also give the driver / traveler possibility to check the other resting possibilities at chosen place.
- *In vehicle information* about speed, road condition and traffic situation
- *European road weather databases* using sponsor-based business model
- *Road Eye*: friction data collection and transmission (acoustic, optical, in vehicle etc.)

MODELLING IDEAS

- *Pulp Friction* model: combined with RWIS and weather and maintenance activities
- *Traffic forecast* models
- *Port-related traffic modelling*



GENERAL DEVELOPMENT IDEAS

- *Free Data*: free geospatial and weather data
- *RTFM*: Better and tailored user-interfaces of text, image, audio, considering personal characteristics of users: language, disabilities, age, health, and other personal needs
- *Stay At Home*: What are the effects of choosing staying home instead of choosing to travel a certain route?



PILOTS

The selected five pilots to study practical and theoretical implementation aspects are:

- *Model "Pulp Friction"* - Modelling road surface friction (Practical implementation)
- *Will I get wet?* Route planner for cyclists and motorcyclists (Practical implementation)
- *Fog pilot*: The Fog Warning System in the Venice Region (Practical implementation)
- *Gothenburg pilot*: Merging of traffic and weather data in Gothenburg area (Theoretical study)
- *Port pilot*: Modelling the Multimodal Traffic Situation in the Port of Hamburg (Theoretical study)



The innovation process continued in the second Innovation Seminar in Croatia, Dubrovnik on 14-15 May 2009. The main aim was to further innovate mobility services and process gathered knowledge into a Road map, now with longer focus in the future. Radical innovations were further encouraged. Best ideas were:

- *Semi-public transport*: Service production & support systems of advanced private & public transport services
- *DYNAMOBI*: Cooperative dynamic navigation, multimodal and scalable
- *No-man driving*: Autonomous driving
- *Waste-to-energy*: Bio-waste used as energy for cars

The Road map

As the final result, ROADIDEA will present a Road Map to a more innovative and competitive European transport service sector, to be utilized by transport service developers, policy and decision makers. You will find the Road Map and all other public documents from project's web site: <http://www.roadidea.eu> On the front page, you can give us your own ideas!

