BESTFACT first International Workshop:
Eco-efficient solutions in freight transport chains

Amsterdam, 21 & 22 June 2012

ICT Solutions for European Green Transport

The Role of R&D Projects in the European Transport Framework

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Content

• The European Commission strategy based on the White Paper
• Research, development and Innovations
• The role of GETA in supporting new projects
• Brief overview on JERID / OLTIS Group R&D Projects
• OG Profile and examples ICT solutions
European Transport

WHITE PAPER, Brussels, 28.3.2011:

Roadmap to a Single European Transport Area
Towards a competitive and resource efficient transport system

• (1.13) The transport system is not sustainable
• (1.14) This Roadmap takes a global look at developments in the transport sector, at its future challenges and at the policy initiatives that need to be considered.

• (2.19) Future development must rely on a number of strands:
  – Optimising the performance of multimodal logistic chains, including by making greater use of inherently more resource-efficient modes, where other technological innovations may be insufficient

• (2.5) Ten Goals for a competitive and resource efficient transport system:
  Optimising the performance of multimodal logistic chains, including by making greater use of more energy-efficient modes:
  • 30% of road freight over 300 km should shift to other modes such as rail or waterborne transport by 2030, and more than 50% by 2050, facilitated by efficient and green freight corridors (3)
3. THE STRATEGY – WHAT NEEDS TO BE DONE:

• Innovation is essential for this strategy. EU research needs to address the full cycle of research, innovation and deployment in an integrated way through focusing on the most promising technologies and bringing together all actors involved. Innovation can also play a role in promoting more sustainable behaviour.

3.2 Innovating for the future – technology and behaviour
   – "A European Transport research, innovation and deployment strategy"
European R&D Programs in the "green" transport

- CENTRAL EUROPE
- FP7
- HORIZON 2020
- SHIFT²RAIL
- Eurostars
- EUREKA
- Marco Polo

from pilot to praxis
= real operation
= product
= profit
GETA
The Green European Transport Association of Research & Development Organisations and Professionals

Characteristic:
• A Network of European Green Transport and Logistics R&D Organizations, Partners & Projects

Goal:
• To enable exchange information and experience by making international communication available to all members

Mission:
• The mission of the association is to support and generate new European market oriented research and development projects in the area of sustainable and environment friendly (green) kinds of transport and logistics

www.GETA.eu
GETA
The Green European Transport Association of Research & Development Organisations and Professionals

What is the GETA not?
• A Project, running or finished
• A Program that finance the projects
• A Profit activity

What is the GETA?
• Non-profit, independent legal entity with a market oriented focus
• Professional organisation with members and partners cooperating together
• International network for communication, partnership and sharing experience
• Information source on European research and development
• Platform for dissemination and publishing project results
• Platform to support and generate new projects in green transport and logistics

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Web Databases

Open Lists:
- Projects
- Organisations
- Universities
- R&D Institutions
- Companies

Information:
- Events
- Links
- Programs
- Publications

GETA Forum:
- Rail Freight
- Intermodal
- Logistics
- Telematics
- Infrastructure
- Waterways

www.GETA.eu
GETA support

- ICT projects
- eFreight projects

How to „Win“ a Project?

- **Project Idea**
  = real market needs

- **Project Partnership**
  = reliable partners

- Projects intended to be realised even without a financial support are the best ones...
EUREKA E!3161 RailMap
Electronic Railway Map of Europe (2003-2006)

Railway Features
- Highlighted railway net
- 22 200 railway stations
- 40 European countries
- 5 Asian countries
- Information on stations
- Wagon positioning
- European and Asian railway corridors
- Infrastructure parameters

General Features
- Full digital geographical map
- The whole Europe covered
- Desktop or Internet application
- User’s marks, export, import
- Road routing
- Continuous data & map update
- Further RailMap development
EUREKA E!3161 RailMap

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Bringing a System into Your Logistics
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EUREKA E!3161 RailMap

- European railway infrastructure simulation and optimisation
EUREKA E!3161 RailMap

- Wagon monitoring
EUREKA E!3161 RailMap

- Wagon monitoring
EUREKA E!3861 JEWEL
(2007-2010)

- Improvement of communication equipment for control of railway wagons
EUREKA E!4062 ERWIN

European RailWay Infrastructure Network (2008-2011)

- Integration of national railway infrastructure databases with track parameters from Network Statements, developing tools for data and graphic processing of the European railway infrastructure with functions over the joint rail network graph
EUREKA E!4509 EIMIS
European Inter-Modal Information System (2010-2013)

- Development of an IT system for European inter-modal transport as an independent information centre with searching tools, for all market players, for desktop and web applications, web components and web services, with a digital map of Europe and Asia.
EUREKA E!5025 LOGI-GATE

RFID reader gate for railway rolling stock, road vehicles and storage mechanisms (2010-2013)

• Development of an integrated system for collection and processing of information on vehicles and logistics units on transport networks, in logistic centres and warehouses, based on uploaded (retrieved) information from RFID tags, installation of a prototype system and testing.
EUREKA E!6725 REAL-Bridge

- The aim of this project is to develop the European unique central database system with information and code-lists needful for Eurasian railway freight transport as a sustainable and environment friendly transport mode, supporting and based on CIM/SMGS railway legal regime and creating conditions for trouble-free realisation of rail and intermodal transports on long distance corridors in direction east-west and vice versa.
EUREKA E!6726 LOADFIX


• Development of the multi-lingual web application focused on cargo loading into railway wagons as an extensive database system with European regulations, instructions and examples, to guarantee the trouble-free fixing of the cargo during the transportation and to prevent accidents on railways.
**D-RAIL (FP7 / call 4)**

Monitoring techniques reducing the occurrences and impacts of freight train derailments

- University of Newcastle, United Kingdom
- UIC, France
- Rail Safety and Standards Board, UK
- TU Wien, Austria
- PANTEIA, Netherlands
- Chalmers Tekniska Hoegskola, Sweden
- Politecnico di Milano, Italy
- Manchester Metropolitan University, UK
- LUCCHINI RS, Italy
- MER MEC, Italy
- FAIVELEY Transport Italia, Italy
- TELSYS, Germany
- OLTIS Group, Czech Republic
- VÚŽ, Czech Republic
- Deutsche Bahn, Germany
- HARSCO RAIL, United Kingdom
- SBB, Switzerland
- ÖBB-Infrastruktur, Austria
- SNCF, France
- TRAFIKVERKET, Sweden
MERLIN (FP7 / call 5)
Sustainable and intelligent management of energy for smarter railway systems in Europe: an integrated optimisation approach (2012-2014)

- UNIFE, Belgium
- UIC, France
- ADIF, Spain
- ALSTOM Transport, France
- ANSALDO STS, Italy
- CAF, Spain
- D’Appolonia, Italy
- FFE, Spain
- University of Newcastle, United Kingdom
- ZS, Serbia
- RFF, France
- RENFE, Spain
- ATOC, United Kingdom
- Mer Mec, Italy
- OLTIS Group, Czech Republic
- ANSALDOBREDA, Italy
- NETWORK RAIL, United Kingdom
- RWTH, Germany
- TRAFIKVERKET, Sweden
- SIEMENS, Germany
OLTIS Group Profile

Bringing a System into Your Logistics

Information systems for transport and logistics:
• Providing IT systems for transport and logistics
• Comprehensive and flexible SW development
• Numerous tailor-made components
• Full range of accompanying services

Specialized software companies:
• A solely Czech & Slovak business group
• Close and effective cooperation since 1993
• The main development background is based in the Czech Republic
• Own subsidiaries in Slovakia and Poland
• Representations: Germany, Ukraine, Belarus, Russia
Top References

- 1000 Customers in 24 countries
- railway undertakings, operators and infrastructure managers, freight forwarders, carriers, shippers, universities, international associations and organizations
Certicates and Awards

**2nd place 2007 in the 10th Annual Export Award DHL**

**EUREKA INNOVATION DAYS AWARD**
for the best EUREKA project in 2009
Award for the project: E!3161 LOGCHAIN+ E-RAILMAP

**INNOVATION AWARD OF THE YEAR 2009**
2nd place for RailMap, European Digital Railway Map

**ACRI**
ANNUAL AWARD ACRI 2010 in the category EVENT of the YEAR

**LEADER of the RAIL TRANSPORT 2010**
Award in category TELEMATICS for KONTI System
Membership and Partnership (Europe and the world)

- Organization for Cooperation of Railways (Warsaw)
- Association of the European Rail Industry (Brussels)
- European Railway Research Advisory Council (Brussels)
- Open Telematics Alliance (Frankfurt)
- Rail Forum Europe (Brussels)
- International Association of Public Transport (Brussels)
- Community of European Railway Forwarders (Berlin)
- GREEN EUROPEAN TRANSPORT ASSOCIATION
- Polish Chamber of Railway Devices and Services Producers
OG Areas of Activities

- Infrastructure Manager
- Rail Freight Transport
- Passenger Transport
- Urban Transport
- Road Transport
- Logistics, Warehouses
A High-Level Chart of the Process Areas

- **Passenger Transport**
  - Smart Cards
  - Passengers Check-In
  - ITS Organisation
  - Passenger Bus Transport

- **Railway Infrastructure Manager**
  - Controlling Personnel and Vehicles
  - Railway Traffic Control
  - Basic Control and Planning

- **Freight Transport**
  - Railway Freight Transport

- **Logistics**
  - Production Plant
  - Warehouse
  - Storage Forwarding

**Bringing a System into Your Logistics**
OG IT Products 1/2

**Freight Transport**
- Optimized planning of the marshalling processes (EMAN)
- Dispatching control (ISOR)
- Optimized dispatching control of the wagon circulation (UDIV)
- European Rail Information Centre (ERIC)
- System of Intelligent MONitoring of rail vehicles (SIMON)
- Digital railway map of Europe and Asia (RAILMAP)

**Railway Infrastructure Manager**
- Railway route capacity ordering and selling (KADR)
- Electronic traffic documentation (DK)
- Registering and route preparation for the exceptional consignments (MIMOZA)
- Dispatching control (ISOR)
OG IT Products 2/2

Passenger Transport

- Automated planning of the rolling stock and crew circulations (ASO)
- Audio-visual information system (INISS)
- Integrated electronic timetable (IDOS)
- Contactless smart card with a wide range of applications
- Sales and reservation ticketing systems (PARIS, ARES 3)

Logistics

- Information system for railway forwarders and carriers (NEWSPED)
- Information system of transport and logistics (ISDL)
- Information system for freight and passenger road carriers (LORI)
- System for feeder service, road, air and sea transport (COLLI)
- Controlling and management of logistics, production or commercial warehouses (LOGI)
Conclusion

• European Green Transport: ICT solutions with contribution...
  – ...for end users:
    • more flexibility
    • more accessibility
    • reducing transport costs
    • the possibility of offering new services
  – ...for the freight and terminal operators:
    • increase in the efficiency of operations
    • increasing its overall market potential

• White Paper of the EC ⇒ Research, Development, Innovations
• European R&D Programs ⇒ from pilot/study to product/profit
• Invitation to join GETA ⇒ its role in supporting new projects
• ICT solutions of OLTIS Group ⇒ Examples of eFreight
New Railway Systems
East-West Transit Corridors
Interoperability 1435/1520
Russian Railway’s Development Plan to 2050
e-Commerce for Rail Freight
Best Business Cases
Modern Logistics Solutions
Railways, Intermodal and Infrastructure
Support of the Global Cooperation

www.RailConference.com
www.IRFC.eu
Thank you for your attention...

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