

INFORMATION SOCIETY TECHNOLOGIES (IST) PROGRAMME



GOOD ROUTE IST-4-027873-STREP

Title	Greek Workshop "GOOD ROUTE project user needs" minutes
Authors:	Dionisios Negkas (ELPA), Evangelos Bekiaris (CERTH/HIT), Georgios Ageridis (ELPA), Maria Gemou (CERTH/HIT)
Summary:	This report includes the minutes of the Greek workshop, held on 13/04/06, at ELPA, Mesogeion Aven. 395, 153 43, Athens, Greece.
Status:	F
Distribution:	All Partners
Document ID:	GOODROUTE-ELPA_CERTH-WP10-v2-Greek workshop minutes
Issue date:	01/05/2006

List of Participants

No	Partner name	Company
1	Ageridis Georgios	ELPA
2	Bekiaris Evangelos	CERTH/HIT
3	Dertouzos Dimitris	BP
4	Kalatzis Dionisis	TROXOGNOMON
5	Kepetzis Ioannis	ELPA
6	Krokos Konstantinos	Police Headquarters for Traffic Code Enforcement
7	Markou Xristoforos	Police Headquarters for Traffic Code Enforcement
8	Mialis Nikolaos	National Headquarters of Fire Fighting and Rescue Forces
9	Negkas Dionisios	ELPA
10	Pagle Katia	ICCS
11	Spetzas Konstantinos	National Technical University of Athens- Department of Vehicle's Ergonomics
12	Theofanidis Konstantinos	Safety Advisor

Workshop agenda

09:30-10:00	Registration	
10:00-10:15	Short participants presentation	Participants
10:15-10:30	GOOD ROUTE Project overview	E. Bekiaris, CERTH/HIT
10:30-11:30	User Needs survey-Questionnaires- Present Situation	D. Negkas, ELPA
11:30-12:30	Coffee break	
12:30-13:30	Dangerous Good Transportation practices. Present Situation-Future Situation	Moderator: E. Bekiaris, CERTH/HIT
13:30-14:00	Proposed scenarios for use	Moderator: D. Negkas, ELPA
14:00-14:30	Lunch	
14:30-15:30	Participants proposals for the directions to be adopted by the project	Moderator: E. Bekiaris, CERTH/HIT
15:30-16:30	Questionnaires filling in	All
16:30-17:30	Conclusion and closure of the workshop	Moderator: E. Bekiaris, CERTH/HIT D. Negkas, ELPA

1. Introduction

The Greek workshop was held in the offices of ELPA in Athens, organised also by ELPA. The aim of the workshop was the identification of the GOOD ROUTE project user groups' needs. Prior to the workshop realisation, questionnaires aiming to track user needs were disseminated to a number of experts, including the workshop guests.

The workshop was attended by 8 external experts coming from several key actors sectors, as seen above in the list of participants.

The schedule of the agenda was followed, as foreseen. After the registration of the attendees, a series of presentations was made, accompanied by respective discussion moderated by the GOOD ROUTE project Partners (ELPA, CERTH/HIT) and the workshop guests.

A presentation was initially made by E. Bekiaris (CERTH/HIT) on the GOOD ROUTE project aim, objectives and concept, provided as Annex 1 of this document.

A presentation was made by D. Negkas (ELPA) on the GOOD ROUTE project user needs and the survey conducted in this framework, provided as Annex 2 of this document.

A presentation was made by E. Bekiaris (CERTH/HIT) on the current followed practices in the Dangerous Goods (DG) transportation sector, provided as Annex 3 of this document.

A presentation was made by G. Ageridis (ELPA) on the proposed scenarios of use for GOOD ROUTE project, provided as Annex 4 of this document.

The items of the discussion taking place during the workshop are presented in the following chapter. The outcomes of the Greek workshop, consolidated with the other national workshops ones, will provide feedback for the identification of the priority application scenarios of GOOD ROUTE project; thus are considered highly valuable for the project progress.

2. Discussion

2.1. *The needs of different actors*

- ⇒ **DG vehicle owners:** Concerning the oil and gas transporting vehicles, they would like to have dynamic info every time a storage compartment opens and on the remaining level per compartment. In Greece, the delivery of gas is done by whole compartments delivery but generally in Europe, also part of compartment delivery is feasible.
- ⇒ **Fire brigade:** The data the fire brigade is interested in are namely: type of cargo (per ADR division), quantity, level of cargo per each compartment, contact person at the dispatching company, language of cooperation with the drivers. It is particularly important to know the level of cargo in each specific compartment at the time of the accidents, in order to be able to move/turn/etc. the vehicle in a safe way. A direct contact with the cargo owner of the fire

brigade en route (before reaching the accident location) would help, to inform the fire fighters on specific properties and dangers of the cargo, since their training and their equipment typically does not cover all types of DG's.

⇒ **Traffic Police:** Currently, traffic police is checking at check points the following attributes of trucks: speed (from tachograph), total load, load per axle, tire conditions, driving license of the drivers, loading documents of the vehicle, technical inspection documents of the vehicle and alcohol consumptions level of the driver. The overall vehicle check is rather fast (takes 2-3 minutes). However, it requires specific load check equipment, which is expensive (15,000 € per piece). Thus, in whole Greece, only 2 pieces of equipment in Athens and 1 in Thessaloniki exist. Thus, the automatic uptake of such info by GOOD ROUTE would save so much time as it would enable traffic police to carry on much more tests that today is not able to do so, due to lack of sufficient equipment. Another problem of the current system is that the central units of the traffic police lack proper training, thus the manual control is not always effective.

2.2. The Greek Market

The relevant Market in Greece is approximated to 8,000 ADR vehicles, 1,500 ADR transportation companies and 15,000 ADR drivers (relevant companies and drivers do not transport/drive exclusively ADR goods though).

2.3. Self-ignition problem

Heavy vehicles tires may self-ignite in high temperatures, if they have high wear. Also, quick loading may cause self-ignition, due to static electricity. Currently, a practise used is to pass the vehicle over shallow water before entering a long tunnel, to cool-off its tires. This might be an attribute (i.e. tires temperature and wear) to be monitored by the GOOD ROUTE system.

2.4. Financing of ADR control system

For the financing of the system it was proposed to use PPP (Public-Private-Partnership) schemes, where the infrastructure (i.e. road operators) will pay, in order to avoid danger and wear (overloading effect) of their infrastructure, and the same will be done by the DG carriers, to be able to use the infrastructure. Also, funds may come partly from fines to the unlawful vehicles. The same is true today for the financing of the control cameras at the road. They are installed, paid and maintained by infrastructure owners but their signal is used for control by the traffic police.

2.5. Traffic limitations in Greece

DG vehicles are not allowed to circulate in several parts of the modern highway and peri-urban infrastructure in Greece, such as several parts of the “Imittos Peripheric Road”, and the highway network (i.e. “Kakia Skala”) tunnel after 15:00 everyday, they can't use 3 out of the 15 modern tunnels. One of the most dangerous cases is Egnatia road in Northern Greece, where they are not allowed to pass in the Port Beroia-Kozani and they use instead the mountainous road of Kastania area, with high risk for a fatal accident.

There are also limitations depending upon the type of cargo and the time of day of the week. For example, for several days and hours DG vehicles can't use the Preveza-Aktio submerged tunnel. For this reason, several DG cargos may not be declared (i.e. explosives), when it is not obvious that the truck carries such goods.

All trucks are not allowed to travel in the highway: to leave the city after 16:00 on Friday, to enter the city before 15:00 on Sunday. Thus, trucks that are blocked are usually parked just at the Emergency Lane, at the side of the road (as other foreseen area for adequate parking does not exist).

2.6. Need for new data

It was found interesting to use GOOD ROUTE system to:

- ⇒ Inform the driver and authorities on the compatibility between tractor and trailer.
- ⇒ Inform the driver about black spots ahead (especially foreign drivers).
- ⇒ Apply lower speed limits to such vehicles (relevant Ministerial Decree is under way but would mean new technographs for these vehicles).
- ⇒ Inform the driver about any cargo misalignment either during loading or later during the trip.
- ⇒ Control if the vehicle is driving at the left-most lane(s) (not allowed for trucks). This would mean the integration of lane info GOOD ROUTE system (is it feasible?).

2.7. Driving time/labour issues

The current law in Greece defines as maximum driving time the 8 hrs. and as maximum duty time the 12 hrs. As of 05/11/05, the electronic tachograph is implemented, which also controls the time the vehicle is continuously on the move.

2.8. Marketing and business data

Currently, most DG vehicles are connected to their dispatch centres by GPS/GPRS. A central database controls their positions speeds, stops, etc. The controller is informed, only in case of exceptions (i.e. violations) Thus, GOOD ROUTE should:

- ⇒ Be linked to such existing systems.
- ⇒ Monitor its date and inform the controller only in case of need (exception, violation, etc.) to keep the communication and organizational cost limited).
- ⇒ Support added value services, such as:
 - Definition of the actual quantities of goods delivered at each stop in order to fight also relevant crime.
 - Detection if the driver is smoking.
 - Detection of the vehicle malfunctions (i.e. burned light) and communication to the Centre.
 - Provision of the statistical data of each trip from one point to another, using alternative routes; mean time of journey per driver; productivity of each route per day, etc.

- Provision of information to the DG recipient (i.e. gas station owner) of the position of his/her cargo and the expected supply time (dynamically en route).
- Use of mobile phone by the driver.

2.9. Data protection and protection against crime

There is a need for a strong firewall between GOOD ROUTE info and the Intranet of the companies, so that competitors do not know the whereabouts of the vehicles location, cargo, etc. Also, the infrastructure should only know the cargo data, not business related info (i.e. owner of the shipment). However, then there would be a problem to realise the “Equity” schemes suggested by GOOD ROUTE.

The major competitive advantages of such a system would be:

- Passage through a specific only if GOOD ROUTE system is on board or reduction of passage fee in this case.
- Lack of control (i.e. physical control, escorting waiting, time) if GOOD ROUTE is on board.
- Guarantee of passage/priority time slot through GOOD ROUTE.
- With some of the above, there would be enhanced quality of service and guaranteed time of delivery (major business benefit).

Thus, GOOD ROUTE would become equivalent to a “safe operator” card.

2.10. Type of priority infrastructure of GOOD ROUTE

The following type of infrastructure would be prioritized for GOOD ROUTE application:

- Tunnels (both urban and highway).
- Bridges.
- Ferry lines and harbors.
- Peri-urban motorways of big cities.
- New roads of high speed.
- Entry points to a state and especially to the EC (i.e. borders with Albania, Bulgaria, Turkey, etc.). Albania and Turkey do not apply ADR systematically and Bulgaria applies it non-optimally. However, Yougoslavia and its former countries seem to apply it successfully.

2.11. Proposed Use Cases

The following Use Cases have been proposed as priority ones for GOOD ROUTE:

- Issue of passage permission through a given infrastructure.
- Route guidance in case of trip change/extension due to business reasons (i.e. remaining cargo, client is closed, etc.).
- Performance of remote and non-stop enforcement control (especially at the borders).
- Transportation efficiency enhancement through use and analysis of gathered statistical data.
- Fight of illegal business by effective control of legal operation and content and accurate cargo and vehicle monitoring.
- On-line and continuous client info on (dynamic) time of arrival.

- On-line and remote maintenance and problem notification to Operation Centre (through all available info at CAN-Bus).
- Risk accident emergency notification (panic button for the driver plus automatically) and management.

2.12. Users

Key users of the system include:

- Drivers of the vehicle.
- Transporter (company).
- DG owner/producer.
- Infrastructure operators.
- Enforcement and emergency response authorities.
- Client (i.e. to prepare his/her station to receive the incoming cargo).

2.13. Other issues

The following issues have been proposed for further investigation from GOOD ROUTE project:

- Car-to-car communication to be of lower interest, since there should be many equipped cars to be of use and, even in such a case, there would most likely not be another equipped vehicle before the own vehicle at the site of an accident.
- In infrastructure without a Control Center how would the system operate? Who should be the data recipient/controller?
- The system could be pushed by Insurance companies (not necessarily by funds, i.e. simply not covering the cargo if no such system is available). It refers to the Insurance company of the vehicle, the cargo and the infrastructure!
- Drivers will see this system positively in some ADR divisions (i.e. explosives, toxic, nuclear, etc.) but in others (especially fuel) they might react, as the system would reduce their ability to make marginal gains from hand-overs, etc.