PARTNER SEARCH FORM

FP7 Theme	Transport (Inc. Aeronautics)
Call identifier	FP7-SST– 2008- RTD-1
Activity	Activity 7.2.4 Improving Safety and Security
Topic	SST-2008-4.1.1 Safety and Security by design
Contact	OTIT Ltd Company,Department: Technotower Dr. Bahadir BAHADIROGLU E-Mail: bbahadiroglu@technotower.com Tel: +902164579421 Fax: +902165753310
Partners Sought	International Transportation Company (Carrier or forwarder)
Project Title	Europe Mobile Platform for Safety (MEPS)
Project idea, objectives	Safety could receive a substantial contribution from the integrated technologies developed in the MEPS project. The diffusion of simple and inexpensive devices could save many lives and highly improve transport and mobility. For the MEPS project a specific V2V device will be tested, to study the potential of short range alert systems. The pile-up (multiple crashes) situation will be analyzed and the V2V communication will be tested in order to verify its applicability and future extensions. The main objective is to reduce the number of victims and injured persons during the road crashes via development of an intelligent warning system, which observes the traffic far ahead of the vehicle and warns its driver against a crash, multi-crash or jammed traffic. This way a driver is able to see approximately ten times farther than his eyes independently of weather conditions, day and night. One of the most fatal traffic accidents is a pile-up (multiple crash). It takes place in very heavy road conditions, e.g. under winter icing or dense fog or very severe jam. Usually, many victims and badly injured persons are then taken down. To avoid such accidents the early warning system is needed. The present day technology can do much, e.g. it allows finding the completely lost people in mountains via helicopters using emergency line 112. However, according to operators: “such actions are unprofitable” (New Herald Tribune, February 2003) so the new technology is not enough. The project should also be a revealing and inexpensive one. The Vehicle Unit, which controls the vehicle-to-vehicle communication (802.16x, 802.20 protocols), is installed in all vehicles and is an advanced driver assistant. It has an integrated data bus interface. It monitors location of vehicle (via GNSS, GPS, EGNOS, Galileo positioning system), road conditions, traffic density, and dangerous events on the road. Monitoring information will be provided to other vehicles after being routed through and analyzed at the CC (control center), if it is not possible to forward the information directly via the vehicle-to-vehicle (VTV) communication. For this purpose, the VU comprises an open communication interface, which allows communication via GPRS/UMTS/satellite, for transmitting information to the SSS. In addition to this, the VU provides information about the type and condition of the transported goods (RFID). The information collected by the VU will be valuable for determining a less dangerous route to the destination. Therefore, the risk of fatal accidents that are caused by bad road conditions is reduced, increasing the safety of transportation. The vehicle unit will guide the customer with voice in case of a nearby accident for example; a car crash occurs on a highway, already in-car OEM assembled crash sensors will send this alarm signal to CC via the vehicle control unit. The CC (Control Center) will receive the following information: 1) Technical information regarding the vehicles on the road 2) The information about the driver 3) Physical and atmospheric information which consists of 6 parameters. Only the information regarding to the zone of concerned CC will be received and the CC will proceed the mentioned actions above for the zone it is responsible of. The CC will detect the co-ordinations of the crash and the send the warning signal to other

	vehicles in this area. CC can make the rear red lights operate via VU, or CC can activate the voice warning “Dear customer, our system has detected a possible crash within the region you are cruising. Please increase your attention and decrease your speed accordingly”. The information received from the vehicle unit will be distributed by the software; essentially when necessary to the automotive manufacturer, state traffic/police department, nearby hospital, nearby car dealer in case of a need for a repair, the fleet owner, state’s environmental department (for high emission detection) and to other nearby vehicles.