

ECONOMIC COMMISSION FOR EUROPE

INLAND TRANSPORT COMMITTEE

Working Party on Road Traffic Safety

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SARTRE Project submitted by the Secretariat

The SARTRE Project

I. Summary

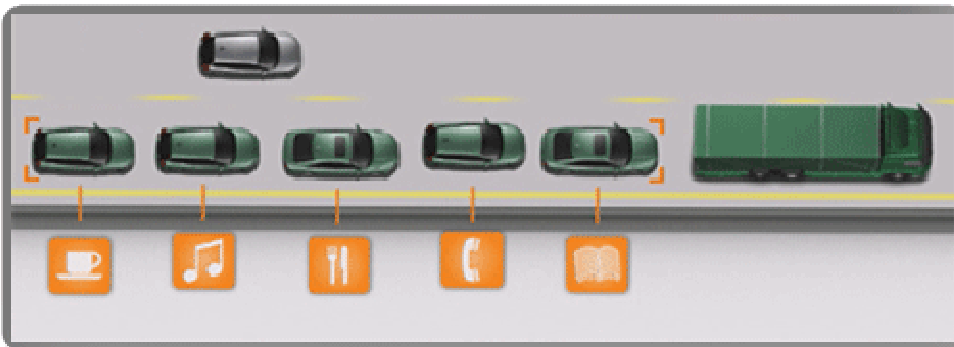
The SARTRE project stands for Safe Road Trains for the Environment. Part-funded by the European Commission under the Framework 7 programme, SARTRE is led by Ricardo UK Ltd and comprises collaboration between the following additional participating companies: Idiada and Robotiker-Tecnalia of Spain, Institut für Kraftfahrwesen Aachen (IKA) of Germany, and SP Technical Research Institute of Sweden, Volvo Car Corporation and Volvo Technology of Sweden.

SARTRE aims to encourage a step change in personal transport usage through the development of safe environmental road trains (platoons). Systems are being developed in prototype form that will facilitate the safe adoption of road trains on un-modified public highways with full interaction with non-platoon vehicles.

The project is addressing the three cornerstone transportation issues of environment, safety and congestion while at the same time encouraging driver acceptance through the prospect of increased "driver comfort". The objectives of SARTRE may be summarised as:

1. To define a set of acceptable platooning strategies that will allow road trains to operate on public highways without changes to the road and roadside infrastructure.
2. To enhance, develop and integrate technologies for a prototype platooning system such that the defined strategies can be assessed under real world scenarios.
3. To demonstrate how the use of platoons can lead to environmental, safety and congestion improvements.
4. To illustrate how a new business model can be used to encourage the use of platoons with benefits to both lead vehicle operators and to platoon subscribers.

If successful, the benefits from SARTRE are expected to be significant. The estimated fuel consumption saving for high speed highway operation of road trains is in the region of 20 percent depending on vehicle spacing and geometry. Safety benefits will arise from the reduction of accidents caused by driver action and driver fatigue. The utilization of existing road capacity will also be increased with a potential consequential reduction in journey times. For users of the technology, the practical attractions of a smoother, more predicable and lower cost journey which offers the opportunity of additional free time will be considerable. The SARTRE project formally started in September 2009 and will run for a total of three years. www.SARTRE-project.eu



II. Actions

The secretariat suggests that, pending successful conclusion of the project, possible new requirements for type approval could be needed in the Regulations developed by WP.29.

In addition, the secretariat seeks the AC.2 advice to inform the Working Party on Road Safety (WP.1).