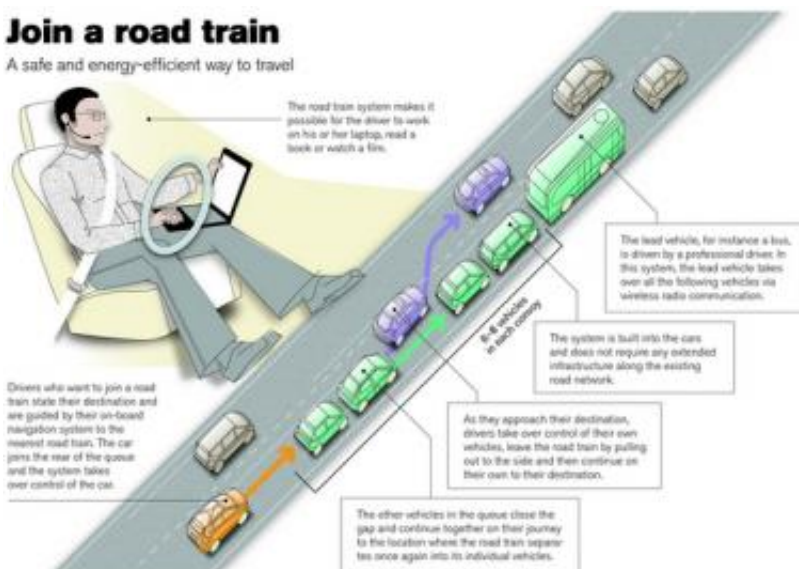


SARTRE car platoon road tests to begin (w/ Video)

December 10 2010, by Lin Edwards



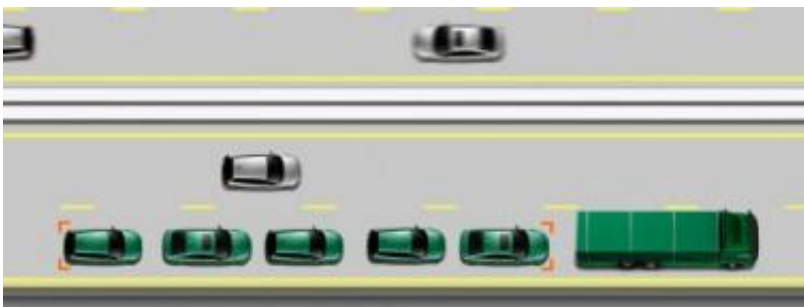
(PhysOrg.com) -- The Safe Road Trains for the Environment (SARTRE) project in Europe aims to develop a wireless system that will allow cars on a public highway or motorway to join in a platoon, or semi-autonomous “road train” of vehicles with a professional driver in a single vehicle (such as a bus or truck) at the front driving for all vehicles in the platoon. The project will reach a major milestone of its first on-road tests before the end of this year.

The SARTRE system, described earlier in [PhysOrg](#) when the project

began, will proceed to road tests of a leading vehicle and one following vehicle before the end of December. The required hardware will be installed into the two vehicles, including communications equipment and sensors. The required software integration has already begun. The road tests are intended to validate the sensors, actuators and control system in the two-vehicle platoon.

The three-year project aims to provide improvements in traffic flow, faster journey times and savings in fuel consumption while allowing drivers to relax and arrive at their destinations with less stress, which it is hoped will also reduce the number of traffic accidents. It will operate on ordinary, unmodified public highways on which other vehicles are traveling.

Drivers will be free to join and leave the single-file platoon at any point, but while in the platoon their [car](#) will be driven for them. Once the vehicle joins the platoon a computer will take over steering, braking and acceleration, allowing the driver to carry out other activities that would normally be too dangerous, such as reading a book, watching TV, operating a phone or computer, or eating breakfast. The lead vehicle of the platoon will follow a set route and speed.



The first year of the project concentrated on refining the concept and investigating the most feasible means of creating a platooning system. Realistic simulations have also been carried out at Tecnalia in Bilbao, Spain, to gauge the reactions of a wide variety of drivers to being placed in a platoon in which they travel at high speed close behind another vehicle but without controlling their [vehicle](#) themselves. The simulator also monitored the reactions of drivers who were not part of the platoon, but were driving in the same environment.

In 2011 and 2012 the group aims to demonstrate the system with a five-vehicle convoy as a final goal of the project.

The SARTRE project is being funded by the European Commission under its Framework 7 program, and is being developed by seven companies, including Ricardo UK Ltd, Volvo Technology in Sweden, and Robotiker-Tecnalia in Spain. It is likely to be another decade before the system is fully operational.

More information: www.sartre-project.eu/en/Sidor/default.aspx

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