Driving me sane? Yes with eCoMove and fuel optimisation!

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Eco-driving & eco-traffic management - here's the concept behind eCoMove, a research project under the EU's FP7 that targets the two main sources of avoidable fuel consumption, i.e inefficient routing and drivers' behaviour.

Members of eCoMove's consortium believe that the new 3-year project will lead to 20% cuts in CO2 emissions and overall fuel savings through eco-cooperative traffic management. eCoMove measures combine the eco-support of individual vehicles with energy-optimised traffic management measures on the road network.

These innovations will mean that drivers and road operators can benefit from extra, real time information - such as vehicle fuel consumption data, speed, route destination, traffic signal phase data, etc - which help them to drive more economically.

The project will develop, test and validate a number of "Green ITS" technologies and applications, using vehicle-to-vehicle and vehicle-to-infrastructure communication to integrate systems to support "eco-driving" with those for "eco-traffic management" - i.e. trips by private vehicles and those by goods vehicles, and tackle energy inefficiency in three domains: drivers' behaviour, route choice and traffic management.

The eCoMove applications are intended to bring a dynamic ecoSmartDriving "virtual coach" that provides advice to adapt driving behaviour for minimum fuel use, but also personalised recommendations based on driving experience for eco-driving optimisation.

According to eCoMove, in the future the "perfect eco-driver" will travel through the "perfectly eco-managed" road network. The project's core concept is that a combination of cooperative applications for eco-driving and for eco-traffic management can - for any given trip by a particular driver in a particular vehicle - help to approach the theoretical least possible fuel consumption (and thus CO2 emissions). This can be done without compromising the quality of mobility for people and goods.

Examples of applications: Dynamic eco-pre-TripPlanning and on trip Green Routing tools to select the lowest energy route; An ecoDriver Coaching System that combines dynamic eco-driving support with training and incentive systems for commercial vehicle drivers;

An ecoFleet Planning & Routing application combining eco-driving support and logistics planning for commercial vehicles with energy-efficient traffic control measures, e.g. selective

priority for trucks;

An ecoAdaptive Balancing & Control system that applies local energy-optimised strategies for traffic control, e.g. traffic light coordination based on a map of energy "hot-spots";

Project Coordinator: ERTICO - ITS Europe, Project Coordination:

JC.pandazis@mail.ertico.com
Tel. +32-2-4000714

http://ecomove-project.eu

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