THE CONCEPT

A personal driving guidance system to empower drivers to optimize their action plan towards an eco-friendly style when moving by car. A behavioural shift inspired by playful experiences in the real world and in real-time. An intelligent unobtrusive platform sensing physiological parameters to assess performances. A multiplayer gaming environment, were participants can define missions, set goals, share strategies or challenge others to be the best eco-driver.

The GamECAR project, funded by the European Union under the Horizon 2020 Framework Programme, will conduct interdisciplinary research on interactive serious games for changing drivers motivation to adopt a more efficient driving style. Two test campaigns will take place in UK, Spain and France to validate the efficacy of the models and technologies developed.

An eco-driving approach will prove beneficial not only for the environment, but also for the road safety and for society as a whole.

PROJECT COORDINATOR

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**STARTING POINT**

Road transport is troubled by two major issues: environmental pollution induced by cars and serious injuries to people from traffic crashes. The common denominator between these problems can be found in the aggressive driving style. Fuel consumption can be affected by the driver’s style up to 35%. Hard acceleration and braking, excessive speed result in higher emission rates from a vehicle compared with a more calm driving style.

Eco-driving has been defined as a decision making process that significantly affects the fuel economy and emission intensity of a vehicle, reducing its environmental impact. Ecological, economic, but also road safety and social benefits can be derived from adopting eco-driving conduct. However, changing the behavior of a driver seems to be a challenging task.

**OUR GOAL**

To change their behaviour, car drivers need to be motivated. They need to see or feel the results of their actions through tailor-made feedback. The GamECAR project will develop a highly innovative and interactive serious game platform that will engage users in adopting an eco-friendly driving mode, without distracting them. Late-breaking personalized user models will optimize the strategic plan on each user’s performance.

Dynamic car and driver parameters will be monitored by an unobtrusive, wireless sensing technology, building the progress of the games on the basis of real-world interactions. Role-specific representation of the driving style trends and goal-oriented recommendations will be displayed on user-friendly tools, with the support of Augmented Reality.

**THE WINNING TEAM**

The GamECAR Consortium has a clear European trait being composed by members from Greece, UK, France, Spain and Italy. Together they provide a valuable, cross-border perspective on the effectiveness of the eco-driving style. Their interdisciplinary approach will generate innovative solutions aimed at provoking targeted behavioral shifts while experiencing fun and enjoyment in everyday tasks.

Partners include research and academic organizations demonstrating scientific excellence in their respective fields, as well as leader companies in the development of serious games, hardware and software for smart devices, automation and ambient intelligence and technological solutions in domains with advanced automation and safety critical human machine interactions.