# I-GEAR

## I-GEAR: Incentives and Gaming Environments for Automobile Routing

Traffic congestion is a problem in many countries and with government budgets being squeezed, large road infrastructure projects and roadside assistance systems are no longer feasible. The I-GEAR project specifically addresses these problems by looking at new ways to change driver behaviour through the use of incentives, social networking and pervasive gaming concepts.

Starting with the premise that sitting in a traffic jam is lost time and money, the I-GEAR project will explore how we can best channel the motivations of drivers in a way that will optimize traffic flow. For example, by encouraging counter intuitive driving strategies such as driving more slowly or taking a seemingly longer route. It will also explore social driving approaches such as car sharing or driving in a platoon (or convoy) to specific destinations. Our underlying idea is the people would rather do something else rather that sit in a traffic jam but that in order to encourage this behaviour we need to provide them with social, economic or personal incentives.

The project raises a number of challenges, which range from identifying the motivations of drivers and relevant incentives though to how to design in-car information systems that do not distract the driver. In order to support these areas the project will utilise a contextual design approach that places the driver from the outset at the very heart of the process which will include extensive fieldwork coupled with detailed laboratory and in-situ studies.

## Drive Lab

Drive Lab will contain a number of networked car cockpits, which will include standard car controls in addition to input devices such as tablet PCs and eye-tracking systems. In order to support research within the FNR funded I-GEAR, Move and other projects the lab will add support for accurate traffic simulation data drawn from Luxembourg therefore allowing researchers to explore the impact of real-world context. Results from Drive Lab will be used to design and implement future in-car IT systems and services. The laboratory is located on the Usability Lab at the Walferdange campus and is part of a collaboration between SnT and the EMACS Research Unit.

## Project Information

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