**Project Mission**

Speed up real-life implementation and interoperability of wireless communication based automated driving.

**Project Abstract**

i-GAME uses a two-way parallel approach to design and setup interoperable automated driving systems, by developing a functional architecture and demonstrating it in a multi-vendor challenge. First, a functional architecture will be developed. The components of the system (like the communication and the overall supervisory control system) will be developed on simulation level first and then tested in practice using benchmark vehicles. Second, a multi-vendor grand cooperative driving challenge (GCDC) will be organized, for which teams will be invited. Possible scenarios are platoon forming and priority and speed adaptation (including stop) at a traffic light, considering mixed-traffic operation. A series of verification and validation workshops will be organized for the participating teams, having its climax in the final challenge on cooperative automated driving, together with leading RTDs, and supported by OEMs and suppliers.

The interoperability in i-GAME is ensured on one hand by a reference group of OEM’s and suppliers, and, on the other hand, through the participating (university) teams in the second edition of the Grand Cooperative Driving Challenge. For i-GAME an open approach is used, to create a multi-vendor arena that should catalyze the scale-up and commercial rollout of vehicles equipped with automated solutions. The results will be presented to stakeholders such as standardization bodies, road authorities, OEMs and suppliers to create a new reference for practical implementation of automated driving solutions.

**Project Objectives**

- Unified functional architecture and requirements for an interoperable cooperative automated driving platform
- Supervisory control system and interaction protocol for cooperative automated driving applications
- Standardized interaction messages for interoperable wireless communications based automated driving
- Validation and verification tools and events for performance and interoperability testing of cooperative automated driving applications

**Project Partners**

- TNO (coordinator), The Netherlands
- TU/e, The Netherlands
- Viktoria Swedish ICT, Sweden
- IDIADA, Spain

**Reference group**

**Teams**

- TNO (coordinator), The Netherlands
- TU/e, The Netherlands
- Viktoria Swedish ICT, Sweden
- IDIADA, Spain

**Budget**

- Total: 3.764 M€
- EC Funding: 2.600 M€
- Resources: 325 person months

**Contact (Coordinator)**

Tjerk Bijlsma
P.O. Box 756, 5700 AT Helmond, The Netherlands
Email: tjerk.bijlsma@tno.nl