



## Special session proposal

### **Assessing impacts of automated driving and automated mobility**

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Since the 1920's, the idea of automated vehicles has given birth to many prototypes; from radio-controlled cars to electromagnetic guiding roads. But since the 1980's, a clear direction towards robotic vehicles is taken, as shown by the *Autonomous Land Vehicle* (1985-1988) and *PROMETHEUS* (1987-1995) projects.

The recent technological advances in computer science, robotics and electronics, as notably demonstrated by the *Grand DARPA Challenges* between 2004 and 2007, make driving automation now achievable as a *recombinant innovation* (Lipson et Kurman, 2017, p 166). At least, this expectation leads to many investments from automotive and IT industries' firms. Governments have also entered the race, supporting the industry through investments and regulatory adaptations. However, public decision concerning this topic is needed in terms of technology strategy, regulation and transport planning. To support and inform those decisions, the study of the potential impacts of automated vehicles on the road, i.e. an assessment of acceptance, safety, mobility, social, economic and environmental effects, is needed.

Research activities related to these impacts are still scarce, but rapidly increasing in the US, Japan, Australia and Europe. Studies already done concern the economic effects, particularly on industries related activities; regional and urban transports' effects, notably based on modelling results and assessment frameworks' definition.

In this context, we propose a thematic session on road automation assessment at the urban, regional, national or international levels. We welcome theoretical, methodological or empirical contributions related to this "assessment topic". Impact analyses on user acceptance, traffic, traffic safety, energy demand, environment and especially socio-economic effects -capable of supporting public or private decision- are welcomed.