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Drive2TheFuture - Needs, wants and behaviour of 'drivers' and automated vehicle users today and intothe future

Scientific Responsible
Professor **George Yannis**

Drive2theFuture aims to prepare "drivers", travelers and vehicle operators of the future to accept and use connected, cooperative and automated transport modes and the industry of these technologies to understand and meet their needs and wants. To achieve this, it models the behaviour of different automated vehicle "drivers" & prognoses acceptance for several automated driving scenarios, develops specialized training tools (3D automated scenarios for VR-goggles, web applications and social media platforms), content, optimized HMI for "driver"-vehicle handovers, CEA and MCA studies for selection of most favorable automated functions realisation and then demonstrates them in 12 Pilots across Europe, and in 3 major events. Pilots cover all automated transportation modes (Automated car, PTW, truck, bus, mini-bus, rail, workboat and drones) and involve driving/riding/rail simulators, VR/AR simulation toolkits, test tracks and real world environments, in which over 1000 AV drivers/passengers, 200 AV operators and 20000 involved citizens experience automation from few hours to 6 months. KPI's, such as user acceptance, user awareness/appreciation of actual automated function performance (gap between expectations and reality), automated operation efficiency and cost effectiveness, are defined and will be followed through subjective and objective (conflicts analysis) tools. The automated vehicles "driver"/rider/operator behaviour will be modelled and due emphasis is given to cross fertilization issues among different modes. The project will also research relevant legal, ethical and operational issues (with strong user involvement through FIA and 4 of its Clubs, UITP and IRU), the interaction between automated vehicles and relevant MaaS and will issue guidelines, recommendations and a user acceptance path Roadmap to Automation. This challenging task is undertaken by 31 Partners from 13 European countries; through 9 interrelated workpackages, over 36 months.