



PAVE Europe Virtual Panel #6 Wednesday 19th July 2023

Automated Vehicles and Road Safety: expectations and potential benefits

George Yannis,Professor NTUA



Department of Transportation Planning and Engineering, National Technical University of Athens NTUA Road Safety Research Group

More than 35 years of research excellence

A dedicated team of more than 35 scientists

With wide network of international partners: European Commission, UNECE, WHO, OECD/ITF, WCTR, CEDR, TRB, ERF, ETSC, decades of Universities and road safety Research Institutes

Trying to decode the future with Cooperative, Connected and Automated Mobility (CCAM), through the participation in several EU Horizon projects: Hadrian, Levitate, Drive2TheFuture, metaCCAZE





EU Progress towards "Vision Zero"

The EU promotes **automation** within the EU Strategic Action Plan on Road Safety (priorities 7 and 3, 4, 5)

The EU is engaged in **concrete steps** towards automation:

- Safety regulations for ADAS
- Horizon Europe and Missions RTD Programs
- Major funding to CCAMs pilots
- Establishing the necessary legislation





Holistic Approach for Road Safety

Human factors co-contribute to 90-95% of all crashes, with speeding being a key risk factor

Vision Zero is based on the Safe System Approach

- 1. Shared responsibility between the user and the systems operators
- 2. Non-surprising and forgiving road network
- 3. Assistance to all road users with focus on VRUs (40% of total fatalities, 60% in cities)

AVs can actively contribute towards this direction





Systemic Approach for Road Safety

- There is a need to address simultaneously several crash risk factors (e.g.: 30km/h city wide speed limits)
- Automation depends on respecting the rules, leading to no speeding and thus less crashes

AVs should be interlinked with Road Safety culture, leading to its improvement



Public Engagement for Safer Cities

Need for Efficient and Clear Communication Messages, beyond scientific pleas

Collaboration with Social Culture Specialists

Prioritizing VRUs safety through 30 km/h city-wide speed limits

Promoting more actively the 30 km/h city-wide speed limit through the challenge of running 30 Marathons in 30 months









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