Abstract
Road safety risk factors are strongly connected to the human in terms of — intended or unintended — unsafe behaviour, limited capacities and inherent characteristics such as age or diseases. But also the solution to mitigating risks can be the human (e.g. training). SafetyCube’s work related to the Road User aimed at gathering and (re-) analyzing the scientific evidence on risks and measures. The DSS currently contains about 450 individual study outcomes and 49 synopses dealing with Road Users’ risks (speeding, distraction, fatigue etc.) and measures (fitness to drive, education, enforcement, campaigns and licensing) associated with all kinds of road users (vehicle drivers, cyclists, pedestrians, elderly, young, commercial drivers).

Methodology
To arrive at an inventory of evaluated risks and measures, a method was developed and applied in a standardized manner across the topics road user, infrastructure, vehicle and serious injuries – including these steps:
- Identification of human related risk factors and measures and creation of taxonomies
- Stakeholder consultation to identify hot topics
- Systematic search for studies on safety effects
- Coding of identified studies
- Analysis of safety effects on basis of coded studies
- Summarised effects and conclusion in synopses per analysed risk factor or measure

Measuring the Road User!? – Risks
It is crucial to note that quantifying human aspects in traffic can be a challenging endeavor, for many reasons. Some risk factors involve deliberate behaviours (e.g. drink-driving); others are generic (e.g. age). Oftentimes, such risk factors are hard to link to actual accidents, since their presence is not always objectively identifiable in retrospect (e.g. emotions) or it is unclear to what extent a particular factor contributed to an accident. Furthermore, some human related risk factors tend to be interrelated and evoke further risks (e.g. age, alcohol, speed). There is the additional challenge of combined activities such as increased enforcement accompanied by campaigns, where the isolated effect of either measure is hard to determine.

Ultimately, these challenges highlight the importance of evidence based decision making as well as the provision of background knowledge (as provided in the synopses) beyond mere numbers – especially when it comes to modification of human behaviour.

Hot topics and stakeholders’ priorities
Risk factors
- Speed choice
- Drunk/dragged driving/riding
- Fatigue
- Cell phone use
- Cognitive impairment
- Aggression and anger
- Elderly road users
- Children & young adult drivers

Measures
- Law and enforcement
- Education & training
- Driver training & licensing
- Fitness to drive assessment
- Screening
- Rehabilitation
- Road safety campaigns

safetycube-project.eu | roadsafety-dss.eu
This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 633485.