




ALMA MATER STUDIORUM
UNIVERSITÀ DI BOLOGNA

TRANSPORT SAFETY

Safety in the field of transportation has today become a primary objective. The loss of equilibrium within the mobility system causes accidents and fatalities. Research has to focus on the new trends of mobility to keep the system stable.



Safety in transports aims to the protection of lives and assets through regulation, management and technology development of all modes of transportation. At a European level, research wants to reconcile the growing mobility needs with improved transport fluidity, through innovative solutions for continuous, inclusive, affordable, safe, secure and robust transport systems that make full use of modern information and communication technologies (ICT) capabilities.

Research at the University of Bologna covers a wide range of issues:

- Study of transport safety across transport modes towards the goals set by the Transport White Paper on close to zero road fatalities by 2050
- Focus on the human factors as the largest cause of accidents across all transport modes
- Understand the way in which humans interact with the road or rail vehicles, vessels or aircraft to improve safety by decreasing the human element
- Promote the modal-shift towards cycling by means of increased and perceptible users safety
- Foster the acceptance of technological and social change within the transportation infrastructure users and practitioners
- Identification of new (and currently unknown) risk factors which might arise in the conversion towards increasing automation in transportation

HIGHLIGHTS

H2020 project [X-Cycle](#). Advanced measures to reduce cyclists' fatalities and increase comfort in the interaction with motorised vehicles. Road safety urgently requires innovative and efficient advanced safety measures to reduce the number of accidents, often of high severity, involving cyclists in interaction with motorised vehicles. In fact, cyclists suffer a disproportionate share of serious injuries and fatalities, and indeed in recent years that disadvantage has been growing. New technologies are needed to improve active and passive detection of cyclists, systems informing both drivers and cyclists of an hazard at junctions, effective methods of presenting information in vehicles and on-site and cooperation systems aimed at reducing collisions with cyclists.