Replanning city methodology for a safe, sustainable and democratic urban transportation

Thousands of vulnerable road users (VRUs) are killed or injured every year in city traffic, causing human suffering and economic consequences in several countries.

Making public space a safe place for VRUs is a big challenge for cities around the world and requires a “thinking out of the box” approach, taking nothing for granted from the existing forms of urban street network.

The objective of this project is to create a new methodology for replanning cities in a way that VRUs will be able to move safely. In order to define the research problem, it was necessary to find and examine what causes hostility in everyday transportation. Through the critical review of urban planning history and social rivalries in cities, it is found that the type of public space and street network is deeply connected with user behaviour, psychology and power relations in everyday transportation. The basic principles of urban replanning are formulated in this new methodology and future urban streets are proposed. The city of the future is an organic network of Sustainable Mobility Cells (SMCs) well connected through public and individual transportation.

The main novelty in this new methodology approach is the combination of urban planning with the modern technology of Autonomous Vehicles (AVs) and Intelligent Transport Systems (ITS) for the creation of a safe, sustainable and democratic urban transportation.