Transportation systems represent one of the main problems in European cities, characterised by high traffic flows that produce significant impacts mainly in terms of congestion and pollution.

The European Commission (EC) favours the development of more sustainable transport systems with less dependence on the use of private transport in its smart mobility vision. The aim of this project is to develop an intelligent transport system that increases both the comfort of private transport (i.e. flexibility and door-to-door transport) and the benefits of public transport (reduction of externalities and better use of infrastructures/roads). It needs to change the user’s perspective towards the means of transport: the users no longer move to the nearest bus stop, but the transport service collects them wherever they are. The technical idea consists of an infrastructure nestled in the road pavement, with pre-assembled standard locks for easy installation, maintenance and replacement. This system provides safe paths and ensures electrical power to the vehicle.

The driverless vehicle is named PSC (Personal Smart Car) and is equipped with a computer that drives along the network according to the optimal path. The user has an application to book his travel and checks in real time the position of the PSC. At the same time, this application can calculate the fastest path and possible stops to bring other passengers on board so that it could optimise the urban transportation system and reduce pollution.