

For the controlling and planning of a complex, dynamic, decentral transport system it is necessary that the operative, technical homogenous driver-less vehicles of such a system can individually select, evaluate and improve their decisions. This is especially needed if those vehicles should react to the dynamic changes of the environment at runtime. To thereby solve heterogeneous problems simultaneously (logistic as well as technical problems (e.g. the improvement of the comfort, the rail guidance or the breaking behaviour) the driver-less vehicles must be divided into sub-modules to control their technical complexity. Each of those sub-modules must be capable of learning to improve themselves individually based on external and internal impulses. Thereby the sub-modules improve themselves based on their goals and the overall goal of the vehicle. Those goals can be changed continuously based on internal or external changing conditions. This means that the weights of the goals can be adjusted, new goals can be selected and/or former goals can be deleted. Based on the continuously changing goals the vehicle with its sub-modules is capable of constantly generating new experiences. This process leads to a continuously experienced-based self-optimization of the behaviour of the individual sub-modules and with it an experience based self-optimization of the behaviour of the vehicle.