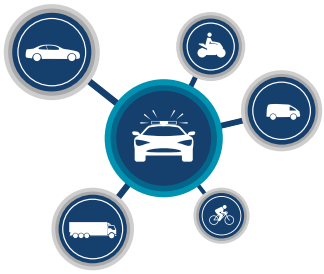
IMOPOL+
iMobility and Police



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Technologies, Concepts and Solutions for Security Related Deployment Scenarios

Exploring the iMobility Landscape

In course of the scientific research carried out in the first part of the IMOPOL+ project, the topic iMobility was defined. Based on existing literature, relevant stakeholders and central research topics in iMobility were identified. Therefore, four core stakeholder groups were identified in the iMobility field: automotive industries (with manufacturers and suppliers), consumers (private car users and privately held fleets), public bodies (legal administration, public fleets and authorities) and third parties (i.e. service providers, insurances). In this landscape, police forces are operating primarily at the interface between public bodies and consumers, but are also linked to the other stakeholders for example with investigations. Besides, six central iMobility thematic fields were identified, that will be validated in the forthcoming gathering and evaluation phases: Entertainment technologies, assistant systems, car-2-X-communication, autonomous driving, cyber security & privacy, as well as vehicle identification.

Thematic Fields of iMobility

Based on previous scientific work, ongoing research and development projects and portfolios of automotive industries, an extensive collection of literature, technical standards, hardware and software was assembled. From this collection, the six thematic fields entertainment technologies, assistant systems, car-2-X-communication, autonomous driving, cyber security & privacy, as well as vehicle identification were deduced. In the course of the in-depth analysis of hardware and software solution they will be validated and put into concrete terms, with the aim to create a more detailed solution taxonomy. These thematic fields are of utmost importance for police operations, as they lead to a broad number of challenges and opportunities related to everyday routine tasks as well as for exceptional situations like disasters relief.

Police, iMobility, Safety and Security

First insights and current media articles underline the relevance of the IMOPOL+ project. While computer scientists from the United States demonstrate how to hack a car via its multimedia system enabling external control of the vehicle, autonomous driving gains increasing importance, as demonstrated most prominently by the Google Self-Driving. Besides, manufacturers work on wireless service and diagnosis interfaces for vehicles, which should also enable remote software updates. These developments lead to novel challenges in police operation in traffic management, law enforcement and personal safety and security of officers on duty. These challenges will be addressed in the analysis and evaluation steps in the upcoming months, also considering other external project work.

Upgraded Technologies

There is a range of upgrade systems already on the market, primarily telematics boxes offered by various insurance agencies retrofitted to older cars, which provide iMobility services. Through a wireless module, a SIM card, GPS receiver, accelerometers and an interface to the diagnosis plug of the car services like an emergency button, crash sensors and localization services in case of theft are enabled. According to the providers, the diagnosis plug is only used for power supply, gathering no additional data about the car or the driver. One example would be the telematics boxes offered by IMOPOL+ essential end user ÖAMTC, which will be considered for deeper analysis in the police context.

Project Dates

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