Excellence in co-operative Traffic Management
Role of technologies: positioning and communication

Statement
The way that technologies are approached within the traffic management domain
- Better knowledge required for future applications
- Enhanced quality of traffic state information
- **Accurate positioning** and **secure communications** as the key requirements

Context
Efficient and reliable communication tools
Road safety
High level traffic models
Accurate measuring and monitoring systems

Potential technologies
Positioning, tracking and communication play a **key role in cooperative systems** and particularly in the following services: traffic management and operations, traveller information and vehicles services.
Main requirements for technologies:
- Safety-of-life
- Liability-critical
- Non safety-of-life and non liability-critical

Current capabilities
NEARCTIS has identified technologies for immediate prospects:
- Geographical databases: certification of map databases and improvement of geographical data model
- Positioning sensors: sensor fusion, combination of local (V2V, V2I) and global positioning (GNSS)
- GNSS: future GNSS systems
- Mixing technologies
- Millimeter-wave ITS applications
- Security and privacy strategies

Role of technologies
Providing reliable positioning is still an issue for safety-related or liability critical applications
- Reliable positioning and tracking in dense traffic areas
- Secure vehicles positioning for traffic management (detection of false location)

Communication
- Combination of multiple technologies like the 5.9 GHz WAWE and Short Range Radar
- Concept of embedded systems for communication, detection and relative positioning needs to be developed within the context of V2V and V2I

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