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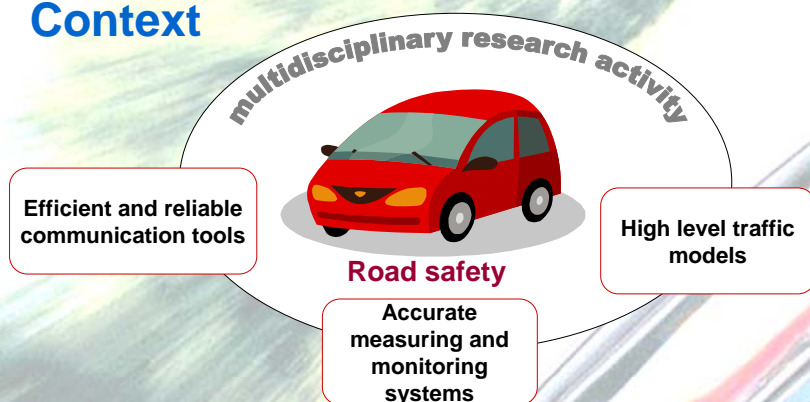
Nearctis
Excellence in co-operative Traffic Management
Role of technologies: positioning and communication

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

multidisciplinary research activity

Efficient and reliable communication tools

Road safety

High level traffic models

Accurate measuring and monitoring systems

Role of 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

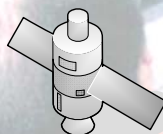❖ Millimeter-wave ITS applications

❖ Security and privacy strategies

Potential technologies

Positioning

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

http://www.nearctis.org/

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