

SUMMARY

This study is one of the ten area studies within the ACTIF project, carried out between October 2000 and February 2001. The document structure reflects the three following phases: assessment of the current situation, analysis of solutions and variants, conclusions, consequences for the ACTIF architecture and recommendations.

The scope of the study focuses on services using what is referred to as “short range” technology (DSRC services). It is thus a “technical” study as opposed to a functional study (Please refer to studies table in § 6.1.3.4) and is based on DSRC technologies in existence at the time of the study (October 2000- April 2001).

Due to the technical nature of the study, it is therefore limited to these existing technologies.

In Phase 1, an analysis of the current situation enabled an inventory of existing technologies to be made, which included projects or applications based on this type of technology. The Bluetooth technology was ruled out as it cannot be used for the selected services.

In Phase 2, we selected services that the High Level Group (GHN- ACTIF) wished to examine more deeply. The main results of this brain storming led us to define a terminator in the ACTIF architecture for the entity referred to as “Other Vehicle”. The reasons behind this decision were the following: DSRC technologies provide a link between a vehicle (test vehicle), the external world including infrastructure (roads, buildings, etc.) and other vehicles (as opposed to test vehicles). An Infrastructure terminator exists within ACTIF, or at least a Functional Area representing infrastructure and a Functional Area representing the test vehicle. However, the creation of an additional terminator was deemed necessary, in order to represent the other vehicle, thereby enabling communication between vehicles, from a private vehicle point of view.

In the third phase, the case study enabled recommendations to be produced related to data as well as architecture. Apart from the addition of new data flows, the main modification concerns the addition of the terminator “Other Vehicle” mentioned above.

The technology that has been selected as the most appropriate for the services considered, is the DSRC technology. From a more general point of view, it is worth underlining that the co-ordination actions recommended by this study are already more or less operational thanks to initiatives such as TIS (Remote Toll) or MARTA (interoperability – at a European level- between traffic information systems using a 5.8 GHz DSRC communication). It should also be noted that the major actors of these services are the bodies managing the road networks and car manufacturers who will equip vehicles, ensuring wide availability and optimum use of these services.