



HAVEit

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The future of driving.

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Executive summary

The HAVEit consortium confidential deliverable D22.1 is focused on the detailed specification of the different communication channels within the HAVE-it demonstrators. As a matter of fact, the HAVEit vehicles are using several different communication networks with different communication protocols and different architectures.

The D22.1 document is articulated in four main sections which are the different communication channels. Those are the FlexRay and the CAN networks, which are *on vehicle* channels, and the car-to-car (C2C) and the car-to-infrastructure (C2I) networks. In the CAN and the FlexRay section the specification is sorted by demonstrator as the communication networks are different for WP4100 and WP4200. The car-to-car and the car-to-infrastructure channels are identical in each demonstrator.

The specification embraces different aspects for each channel. First, the network architecture showing the different ECUs and the way they are connected together is being specified. Second, the general communication parameters are being set. Those are for example the data rates and the cycle time of the different communication frames. Finally, the complete and detailed communication matrixes are being specified. That means that the frames and the signals included in each of those are being defined. This document builds therefore the common base between the partners for developing their application which will later exchange information.

From the report following conclusions can be drawn:

- The communication for the particular safety relevant x-by-wire platforms has been defined and agreed between all partners involved. Results achieved will form the basis for the implementation phase. During the implementation phase some parameters may change or be added.
- The C2C and C2I communications have been defined. Data to be exchanged between vehicles have been agreed by partners concerned. Additional parameters to be exchanged between vehicles and infrastructure may be added during the application development and implementation phases.