

SAFESPOT INTEGRATED PROJECT - IST-4-026963-IP**DELIVERABLE****SP4 – SCOVA– Cooperative Systems Applications
Vehicle Based****Conceptualization of on-board information system and
extended HMI**

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EXECUTIVE SUMMARY

This deliverable D4.3.4 titled “Conceptualization of on-board information system and extended HMI” is based on the results of WP4.2 and treats the on-board information part of the cooperative system applications. It takes into account the variety of output devices as well as the different typologies of vehicles that will be used by the SAFESPOT project. HMI for passenger cars, trucks and powered 2-wheelers are considered.

The defined information strategies provided to the driver are taking into account three levels of urgency:

1. preview and advisory information,
2. cautionary,
3. imminent warnings frequency and safety relevance of the information to avoid the occurrence of discomfort effects.

Results from previous HMI oriented projects, such as AIDE (www.aide-eu.org) or PReVENT (www.prevent-ip.org) are investigated and used to define an appropriate HMI for SAFESPOT applications. In particular the elaborated results on information management towards the driver are adapted to the needs of SAFESPOT. Input and output modalities are assigned and the layout is performed following existing design guidelines for ADAS and IVIS. The results include textual specifications and draft layout visualizations as well as technical sketches.

Regarding the delivery creation methodology, it was agreed at an early stage to split the overall work into 8 complementary activities, according to the expertise of the involved participants. This setup permits to cover efficiently the scope of the on-board information system and the related HMI.

The structure of the document deals with two main contents:

1. the architecture of the SAFESPOT HMI system and
2. the design and concept of the SAFESPOT HMI.

The end result provides a substantial basis for developing a non-obtrusive and highly intuitive HMI for informing the driver about the different critical situations close to the vehicle. Guidelines are proposed for a concrete instantiation of the HMI System with respect to:

1. the architectural constraints,
2. the different types of vehicles,
3. the inter-functionality and interoperability aspects,
4. the existing core concepts such as the *Safety Margin Assistant* (SMA) and
5. the large scope of use-cases and applications are also part of the results.

The output of this delivery should be used as a reference for the HMI implementation phase.