

**Design principles for advanced driver assistance systems:
Keeping drivers in-the-loop**

ITS-19-07

(Draft Nov 22, 2010 submitted by the IHRA Working Group on ITS)

OICA comments

While OICA has always supported the basic concept of "driver in the loop", in that any driver assistance systems should always ensure that the driver is in control of his vehicle, OICA fails to understand the merit of the IHRA paper. It indeed simply generally confirms this statement, which is already strongly supported by all stakeholders, and therefore does not bring any added value.

In addition, the paper fails to bring clear background information and well documented justifications. It seems to severely misjudge modern systems and contains several technical flaws. This may be the result of the use of well over 10 years' old literature, not suitable to assess modern Driver Assistance Systems, and therefore also unable to provide useful design advice. As an example, some of the quoted studies are based on systems which were available between 1992 and 1997, and it is obvious that these Driver Assistance Systems (including aspects of Human Machine Interface) have meanwhile become much more sophisticated.

The paper also contains quite some bias, in that most of the referenced studies are cited with the (correct) conditional words "could", "may" or "can"; on the other hand however, such very conditional citations are used as proof that ADAS results in situations where the driver would be "out of the loop".

Finally, it should be recognized that there is no clear indication or at least justification in the document that the proposed principles in chapter 4 can really help to keep the driver "in the loop".

OICA considers that the IHRA draft does not reflect current state of the art and does not see any justification for its further consideration.
