

## **Input from Denmark: UNECE R10 - definition of immunity related function**

Occasionally discussions arise with manufacturers if their ESA shall be tested as immunity related or not.

A key point of discussion is clause 2.12. defining “immunity related functions” where the absence of ESA related examples tends to make manufactures conclude that their ESA does not include or affect immunity related functions.

In the sub-clauses (c)(i) and (ii) regarding optical and acoustical disturbances, I would recommend making it explicit that light or sound origination from the ESA shall be considered when determining if the ESA has immunity related functions.

An example could be a tablet-like user interface to be placed centrally in the dash board area allowing the drive to monitor and/or control the ESA while in route.

A risk of optical disturbance to the driver exists - an example of incorrect operation is the screen turning white at maximum light intensity blinding the drivers night vision.

It can be discussed if a normal tablet has enough audio power to qualify as a potential disturbance over other audio sources normally present in or around the vehicle including acoustical feedback from the vehicle, entertainment audio, mobile phones, etc.

However if the ESA includes a high power audio amplifier the risk of disturbing/confusing the driver is present – one case of incorrect operation is jumping from low or no audio to maximum volume.

Are you aware of any R10 interpretation rulings or guidance documents that are relevant when discussing the subject of immunity related or not.