**Questionnaire - DCAS Phase 3**

Please fill in the table indicating need for new requirements, modifications of existing ones, or current DCAS requirements already addressing the specific topic.

EME Comments:

* We support SIM in non-highway developments for upcoming DCAS Phase 3
	+ Correspondingly, performance requirements should be reviewed to consider suitability for non-highway
	+ DCAS assistance continuity in non-highway should be considered with accommodating driver monitoring requirements
* Furthermore, we would like to raise how SIM in non-highway may benefit from further control-related developments:
	+ Currently, there are two driver control related states – hands on steering wheel, or hands-off by withholding of the HOR
	+ With non-highway DCAS assistance and SIM, depending on DCAS system capability, other than 100% hands-on state may bring useability and assistance benefits

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| **Topic/Category** | **SIM on Highway with withholding HOR** | **SIM in non-highway with Hands-On** |
| **Monitoring of DCAS by the driver:** The driver is able to detect/anticipate wrong actions of DCAS | * By which means can the driver detect or anticipate a wrong behavior of DCAS?
* How does Hands-Off driving additionally influence the Monitoring?
* Is this already addressed by current DCAS requirements?
 | * By which means can the driver detect or anticipate a wrong behavior of DCAS?EME: By observing how DCAS assistance matches intended path, e.g. destination related route, related speed control, signaling function and anticipatory behavior of the DCAS assistance overall.
* Haptic feedback is present and can be used to detect the beginning of a maneuverEME: Non-highway driving would entail more SIM, therefore additional feedback to the driver may cause distractions, sensory overload and/or desensitization.
* Is this already addressed by current DCAS requirements?

EME: Yes, covered in 5.3.7.2.4.Review needed as some provisions may be excessive for non-highway driving assistance.  |
| **Attentiveness:** The driver is attentive, aware of the situation and focused on the driving task  | * How does the driver remain attentive and focused on the driving task?
* How does the driver remain engaged and situationally aware during SIM?
* Is this already addressed by current DCAS requirements?
 | * How does the driver remain attentive and focused on the driving task? Also, when involved in HMI interactions?EME: By ensuring ability for the driver to maintain normal driving behavior without restrictive DMS and HMI that may distract with notifications and/or system’s feedback, if it goes beyond safety relevant and critical information.
* Is this already addressed by current DCAS requirements?

EME: Yes, covered in 5.5.4.2. We propose that req 5.5.4.2.5.1. should be addressed to consider eye gaze or head posture, as already enabled by requirement 5.5.4.2.5.2. That is to enable driver monitoring in the full range of driving task relevant position. |
| **Controllability:** The driver can control the vehicle (safely override) as needed | * How can the driver control the vehicle (safely override) if needed?
* How to ensure appropriate driver’s response after continued/prolonged use?
* Is this already addressed by current DCAS requirements?
 | * How can the driver control the vehicle (safely override) if needed?EME: With primary driving controls, including DCAS activation/deactivation related controls.
* Is this already addressed by current DCAS requirements?EME: Yes, covered in 5.5.3.4.
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| **Reactiveness:** The driver remains aware and ready to intervene even when not contributing to the operational control | * How can the driver remain aware and ready to intervene even when not contributing to the operational control? And with use of hands-free systems?
* Is this already addressed by current DCAS requirements?
 | * How can the driver remain aware and ready to intervene even when not contributing to the operational control? EME: Firstly, driver monitoring system supports ensuring driver’s continue engagement. Furthermore, reduced cognitive load may improve driver’s awareness.
* Is this already addressed by current DCAS requirements?EME: Yes, covered in 5.5.4.We furthermore propose that req 5.5.4.2.5.1. should be addressed to consider eye gaze or head posture, as already enabled by requirement 5.5.4.2.5.2. That is to enable driver monitoring in the full range of driving task relevant position.
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