Reply to the questionary DCAS – phase 3

TF on ADAS 39th session

Wednesday, May the 28th

242
CLUBS

147
COUNTRIES

80M+
MEMBERS

NORTH & CENTRAL AMERICA
29 Clubs
20 Countries

EUROPE
103 Clubs
50 Countries

MENA
32 Clubs
21 Countries

SOUTH AMERICA
14 Clubs
11 Countries

AFRICA
27 Clubs
21 Countries

ASIA PACIFIC
37 Clubs
24 Countries

ONE OF THE WORLD'S LARGEST NOT-FOR-PROFIT CONSUMER ORGANISATIONS

FIA IS IN A UNIQUE POSITION TO FACILITATE COMMUNICATION AND EXCHANGE OF IDEAS AMONG THE 80M+ ROAD USERS IT REPRESENTS

"Insufficient Emphasis on System Requirements in Current Assessment Framework"

FIA may be concerned about the questions posed, as they place a one-sided emphasis on the driver's role and responsibilities .

The focus is primarily – and almost exclusively – on HMI and human factors, while system requirements and actual system performance are only addressed to a very limited extent.

This creates an imbalanced basis for evaluation and makes some of the questions feel nearly impossible to answer in a qualified manner.

Our concern that the entire responsibility remains with the driver is not addressed.

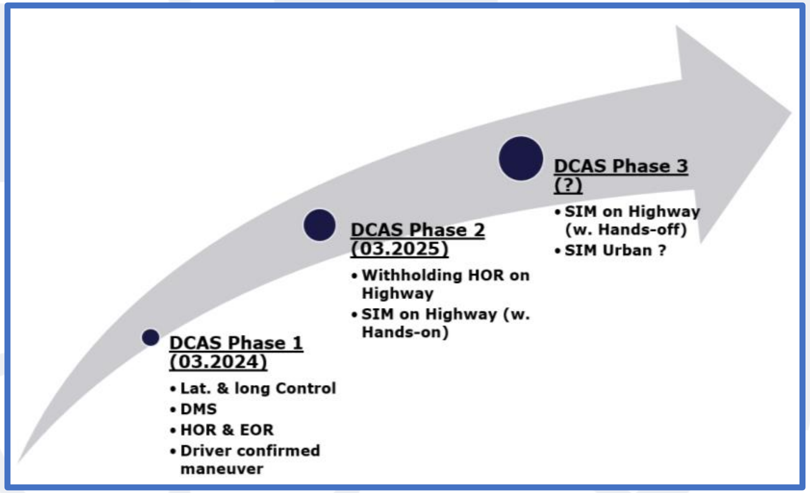
FIAs Position on Advancing to Phase 3 of DCAS

FIA firmly believes that discussions surrounding the transition to Phase 3 of DCAS should be delayed until substantial, validated experience has been gathered from production vehicles that have been type-approved under Phase 2 regulations. At present, there is no concrete evidence that a higher level of automation contributes to continued Road-safety.

We **strongly recommend** the initiates **comprehensive field studies** as soon as Phase 2 systems become available on the market.

These studies should focus on evaluating the critical KPIs, including:

- **Driver Monitoring**
- **Driver Attentiveness**
- **System Controllability**
- **Reactiveness**



In addition to these technical KPIs, it is essential to assess;

Driver Acceptance and the **perceived benefits**

of these systems in real-world conditions.

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? *In scenarios where detection is initiated by the system, alerts may be communicated through visual, acoustic, or haptic signals. In contrast, driver-initiated detection typically relies on the recognition of disproportionate steering or braking interventions. However, anticipating and interpreting such events remains inherently complex, as the boundary between actual system malfunction and the driver's subjective perception of incorrect behavior is not always clearly defined.* *This complexity highlights the critical importance of robust system self-detection capabilities, as well as the need for transparent and unambiguous communication of system status and anomalies to the driver.* *In light of these challenges, FIA recommends that such functionalities undergo further validation through real-world studies prior to broader deployment. This is essential to ensure both the technical reliability of the systems and the establishment of user confidence and trust.* • How does Hands-Off driving additionally influence the Monitoring? *Hands-off driving reduces haptic feedback and may impair situational awareness, increasing the risk of driver overreliance. To ensure consumer protection, systems should monitor driver behavior—such as fallback readiness—and leverage DSSAD to enhance transparency. Importantly, such monitoring should not rely solely on hands-on detection but also support alternative methods.FIA therefore recommends postponing Phase 3 until more real-world data is available.* • Is this already addressed by current DCAS requirements? *Not sufficiently validated in real-world conditions. More empirical evidence is needed.*	• By which means can the driver detect or anticipate a wrong behavior of DCAS? • Is this already addressed by current DCAS requirements? *Visual, haptic, and acoustic cues can support driver awareness, but in complex urban environments, these signals may be insufficient. Situations involving variable lane widths or unclear surroundings further highlight the need for reliable system self-detection.* *The key question remains: can the system accurately assess and respond to such conditions without driver input?* *FIA recommends extensive real-world testing to validate these functionalities before broader deployment.* • Haptic feedback is present and can be used to detect the beginning of a maneuver *Not sufficiently validated in real-world conditions. More empirical evidence is needed*

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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? *Driver monitoring systems (DMS) can help, but their effectiveness in prolonged hands-off scenarios is unclear. FIA calls for field studies to assess attentiveness over time.* • How does the driver remain engaged and situationally aware during SIM? *Driver engagement may decline over time, increasing the risk of inattention. To ensure system robustness, implementation should also include exposure to unexpected or surprising scenarios.* *FIA emphasizes the need for clear KPIs to monitor attentiveness and recommends postponing Phase 3 until such data is available.* • Is this already addressed by current DCAS requirements? *No Current standards lack validation in long-term, real-world use. Eye-Tracking can not guarantee situation awareness.*	• How does the driver remain attentive and focused on the driving task? Also, when involved in HMI interactions? *HMI interactions unrelated to the driving task can divert attention and reduce driver focus. A combination of notifications and periodic prompts—potentially adapted to the driving environment—should be carefully assessed to avoid cognitive overload and ensure safe engagement.* *FIA recommends limiting such interactions during simulation testing and evaluating their impact through field studies.* • Is this already addressed by current DCAS requirements? *No, this remains a gap in current regulations.* *Eye-Tracking cannot guarantee situation awareness.*

Topic/Category	SIM on Highway with withholding HOR	SIM in non-highway with Hands-On
Controllability: The driver can control the vehicle (safely override) as needed	• How can the driver control the vehicle (safely override) if needed *Manual override must be intuitive and immediate to ensure safe driver intervention. As with conventional vehicles, familiar actions—or dedicated controls such as a hotkey for emergency maneuvers like braking or lane departure—should be supported to maintain usability and safety.* *FIA supports the development of clear fallback strategies but emphasizes that real-world validation of these mechanisms remains limited. Further testing is essential to confirm their effectiveness under diverse conditions.* • How to ensure appropriate driver's response after continued/prolonged use? *This is a critical concern. FIA recommends studying driver behavior over time to ensure readiness to intervene.* • Is this already addressed by current DCAS requirements? *Not sufficient. More data is needed to confirm effectiveness.*	• How can the driver control the vehicle (safely override) if needed? *Manual override must be intuitive and immediate.* *FIA supports clear fallback strategies but notes that real-world validation is lacking.* • Is this already addressed by current DCAS requirements? *Only partially. More data is needed to confirm effectiveness.*

Topic/Category	SIM on Highway with withholding HOR	SIM in non-highway with Hands-On
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? *Override mechanisms must be robust and responsive, particularly in complex environments. To avoid overwhelming the driver, intervention strategies should be tiered and context-sensitive—taking into account factors such as risk level, journey duration, and system intervention frequency. Without such calibration, there is a risk of cognitive overload and reduced attentiveness, undermining overall safety.* *FIA urges caution before expanding to urban ODDs, where the demands on both system and driver are significantly higher.* • Is this already addressed by current DCAS requirements? *Not for non-highway use.*	• How can the driver remain aware and ready to intervene even when not contributing to the operational control? *In urban settings, maintaining readiness is even more challenging. ADAC advises against hands-free operation in environments with vulnerable road users.* • Is this already addressed by current DCAS requirements? *No, this remains a significant regulatory gap.*

We maintain our position, that DCAS Phase 3 should not be permitted at this stage, as the distinction between assisted and automated driving — including system limitations — remains insufficiently clear to drivers.