

Feedback on light vehicles CLIV proposals

CLIV-11 workshop

Hangzhou, August 26-28, 2025



INTRODUCTION

- CLEPA feedback to summary of questionnaire presented at CLIV-10:
 - "CLIV Overview Summary on Light Vehicle Feedback IWG-10-05-Rev1e.pdf"
- The following pages mirror the structure of the summary document
- CLEPA position will be mentioned for each page, plus additional motivation, where applicable
- The initial thoughts about light vehicles discussion topics were shared by China at CLIV-08 workshop:
 - "LV Requirements China CLIV IWG-08-04-Rev2e.pdf"



1. TECHNOLOGY FUSION OVERVIEW

- CLIV-10 Primary summary
 - *The regulations should not limit what technical means to use. Keep technology neutral. Regulations and NCAP should not be in conflict with each other.*
- CLEPA position
 - CLEPA is supporting a technology neutral approach
 - Solutions shall be suitable to properly and robustly address the CLIV situation
 - Appropriate test cases need to be defined
 - Avoiding conflicts between regulation and existing NCAP CPD protocols is important

2. TEST CASES, CHILD AGES AND CRS TYPES



- CLIV-10 Primary summary

- *TBD, suggest at least include test 1 and test 6*

Test 1: The newborn dummy is used to sit on the rearward-facing CRS, and the dummy is in a sleeping state.

Test 2: A one-year-old dummy is used to sit on a rearward-facing CRS, and the dummy is in a sleeping state.

Test 3: A one-year-old dummy is used to sit on a rearward-facing CRS, and the dummy is awake (can have movement).

Test 4: A 3-year-old dummy is used to sit on a forward-facing CRS, and the dummy is in a sleeping state.

Test 5: A 3-year-old dummy is used to ride on a forward-facing CRS, and the dummy is awake (can have movement).

Test 6: A 6-year-old dummy is used to sit on a forward-facing CRS, and the dummy is in a sleeping state.

Test 7: A 6-year-old dummy is used to sit on a forward-facing CRS, and the dummy is awake (can have movement);

- CLEPA position

- Include the 3yo in forward-facing CRS to the "at least" list, to cover smaller FF child size.
- Include at least one test with limb movement, e.g. 3yo, to address real world situations
 - ⇒ Minimum proposal: tests 1, 4, 5, 6
- Include a test with deployed sun canopy on RF CRS with newborn to cover real-life situations (link to items 9 & 14)



(photo provided by
CLEPA member)

3.&4. TEMPORARY AND LONG TERM DEACTIVATION



- CLIV-10 Primary summary
 - *TBD*
- CLEPA position
 - CLEPA supporting optional availability of temporary and long term deactivation



5. SYSTEM TRIGGER

- CLIV-10 Primary summary
 - *TBD, suggest trigger time should be determined after discussion (current options include: 15s, 30s and 60s)*
- CLEPA position
 - 15s as max. trigger time threshold after locking the doors
 - Rationale:
 - Short trigger time threshold needed to alert the driver while still in the vicinity of the vehicle
 - Scope of CLIV focussed on vehicle based audio/visual warnings
 - Longer trigger time thresholds only appropriate for connectivity based approaches (to our understanding excluded from current CLIV scope)
 - Today's systems are capable of detecting within that time period



6. ATD FOR DIRECT SENSING

- CLIV-10 Primary summary
 - *Dedicated ISO CPD test tool group. Think about whether to create a plan B*
- CLEPA position
 - Keep target to use ISO CPD surrogates
 - Focus on 50%ile surrogates



7. APPLICABLE CATEGORIES M1 & N1

- CLIV-10 Primary summary
 - *M1 category must be included, the IWG is to consider extension of current TOR and N1 may be considered*
- CLEPA position
 - Ensure M1/Cat 1-1 as minimum, consider coverage of larger "family vehicles" (may require ToR review)



8. DETECTION RANGE (SEATS/ROWS)

- CLIV-10 Primary summary
 - *TBD, how to think about front row (excluded driver seat) and rear row seats*
- CLEPA position
 - Rear row seats (3rd row - if fitted - included)
 - Front passenger seat has some relevance for installing CRS in EU or other markets
 - Including the front passenger seat may have some importance for knowingly left cases even for countries with restricted front seat CRS usage



9. WAY OF DETECTION: INDIRECT OR DIRECT?

- CLIV-10 Primary summary
 - *TBD, only direct sensing or direct & indirect sensing*
- CLEPA position
 - Systems shall be able to "detect" presence of children, only "assuming" presence is not sufficient
 - Known weaknesses of "indirect" systems (fatalities already occurred – Kids&Cars collects data)
 - Definition of appropriate real-life test cases:
 - Trigger warning for child in vehicle
 - Do not trigger warning when only an object was loaded to rear seats prior to journey
 - Empty CRS should not trigger warning



10. AGE RANGE

- CLIV-10 Primary summary
 - *TBD, test only cover 0 year old or 0 & 6 years old*
- CLEPA position
 - Test cases must include newborns and can go up to 6yo
 - Shift to 50%ile sized test tools (current trend in ISO CPD test tool group)



11. SCENARIOS TO BE COVERED

- CLIV-10 Primary summary
 - *Cover children intentionally/unintentionally left in vehicle, not include "Gained Access" case*
- CLEPA position
 - Agree, summary reflects initial CLEPA position

12. SELF-CHECK



- CLIV-10 Primary summary
 - *TBD, exclude or include self-check, and if the system fails for a tell-tale symbol to illuminate to warn the driver of this malfunction.*
- CLEPA position
 - Agree to excluding self-check from regulation (OEMs likely anyhow define minimum self-check requirements),
 - Failure warning is acceptable



13. SPECIAL SCENARIOS

- CLIV-10 Primary summary
 - *TBD, Further discussion is needed*
- CLEPA position
 - Child without CRS is possibly a meaningful test case for certain world regions (e.g. 17% of reported cases in US without CRS, China confirmed that many parents still don't use CRS)
 - More than one child in the vehicle - CPD systems shall cover such a situation
 - Mid-journey events shall not influence system functionality at end of journey
 - Additional test cases with CRS canopy (real-life usage for rear-facing CRS)



14. SYSTEM ROBUSTNESS

- CLIV-10 Primary summary
 - *TBD, Further discussion is needed*
- CLEPA position
 - Address system robustness by appropriate test conditions/requirements
 - CLEPA proposals within test cases (see also items 2., 9., 13.)
 - Environmental factor test cases (e.g. sun, day/night)
 - R10 (EMC) consideration is fine (likely covered within OEM specifications)



15. TYPES OF ALERT SIGNALS

- CLIV-10 Primary summary
 - *Audible & visual from vehicle, discuss whether standardisation of warning signals or not*
- CLEPA position
 - Supporting audio&visual warning
 - Align with existing UN regulations on "alert systems", amend them - if necessary - to allow for appropriate CLIV warnings
 - Euro NCAP skipped the "audio & visual" requirement (amended to "audio or visual"), as vehicle manufacturers reported type-approval issues due to existing UN regulations (and there were diverging interpretations of Technical Services)



16. WARNING PHASES (INITIAL TO ESCALATION)

- CLIV-10 Primary summary
 - *TBD, Further discussion is needed*
- CLEPA position
 - As connectivity approaches are excluded from the scope, escalation would probably be limited to a re-usage of the initial warning (repetition, duration, volume to be defined)



17. INTERVENTION

- CLIV-10 Primary summary
 - *TBD, Further discussion is needed*
- CLEPA position
 - Agree not to include in regulation, leave to NCAP or OEMs



18. CANCELLATION OF ALARM

- CLIV-10 Primary summary
 - *TBD, Further discussion is needed*
- CLEPA position
 - Opening of door
 - Considering other aspects from Euro NCAP?
 - Cancellation via other means when in vicinity of vehicle (e.g. unlocking via key fob, to avoid audible annoyance)?
 - Recheck for child if door is closed/locked again?



19. FALSE POSITIVE

- CLIV-10 Primary summary
 - *TBD, Further discussion is needed*
- CLEPA position
 - Exclude false positive testing from regulation

Thank you!

CLEPA

Cours Saint-Michel 30g
B-1040 Brussels, Belgium
+32 2 743 91 30
www.clepa.eu

in [@CLEPA](https://www.linkedin.com/company/clepa)

X [@CLEPA_eu](https://twitter.com/CLEPA_eu)