

# Truck – Trailer data transmission for UN R79 Assistance functions, ISO 11992 standard

GRVA-04  
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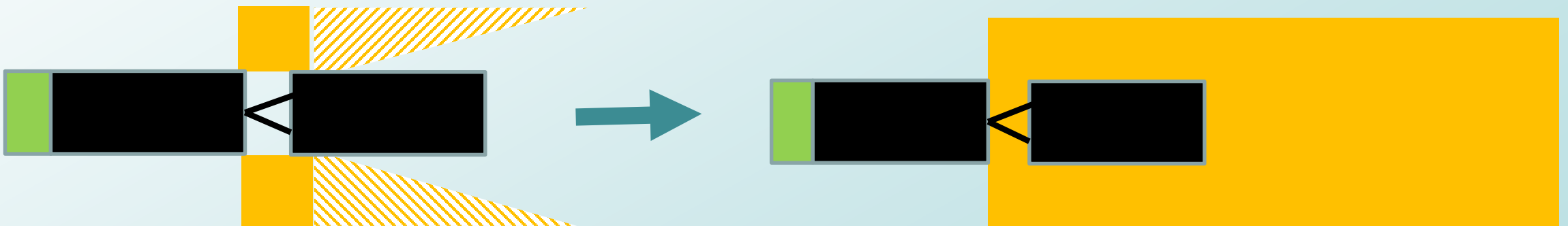
# Motivation

## Current situation

- The trailer restricts the rear vision from the truck.
- The truck does not benefit from sensors installed on the trailer

## Proposal

- With a standardized interface between truck and trailer, the truck would benefit from the sensors of the trailer, e.g. side sensor (short range), rear vision sensors (mid or long range), depending on the application (e.g. ACSF C, blind spot detection)



*Note: the proposal applies to both truck/trailer combination and tractor/semi-trailer combination*



# Principles

Principle of the proposed amendments to UN R79:

- Reference to ISO 11992-1 (physical layer) and to ISO 11992-3:2020 (application layer)
- Use of ISO 12098 15 pole connector
- Implementation of similar requirements and technical Annexes as in UN R13



# Necessary Amendments

Concept of proposed amendments to UN R79-03

**Amend Chapter 2:** New definitions for the interface and data communication

**Amend Chapter 5:** New requirements specifying the interface

**Amend Annex 8:** Add new tests for towing vehicle and trailer individually

## **New Annex 9\***

„Compatibility between towing vehicles and trailers with regard to data transmission according to ISO 11992 for environmental monitoring“

## **New Annex10\***

„Test method for evaluating the functional compatibility of vehicles with electrical control cables“

\* similar to UN-R13/11



# Necessary Amendments

## Concept of proposed amendments to UN R79-03

### **New Annex 9**

**„Compatibility between towing vehicles and trailers with regard to data transmission according to ISO 11992 for environmental monitoring“**

1. General requirements
2. Messages from ISO 11992-03 for towing vehicle and Trailer, including the direction of the messages (source and destination)

### **New Annex10**

**„Test method for evaluating the functional compatibility of vehicles with electrical control cables“**

1. General requirements
2. Content for the communication document
3. Towing vehicle
  - requirements for the trailer simulation
  - test methods
  - Definition of the messages and error warnings to be checked
  - possibly additional tests
4. Trailer
  - requirements for the truck simulation
  - test methods
  - Definition of the messages and error warnings to be checked
  - possibly additional tests



# Next steps

- Collect comments and questions by end of November 2019
- Prepare necessary amendments to R79-03, in order to present a text proposal at next GRVA-05 of February 2020.