OICA comments on GTR22
EVE-IWG #69
16.-17.04.2024

Part C Family concept :
Since this is an algorithmic validation, the same concept as the Part A family can be used.

6.1.1. For Part A: Verification of Monitors
Only vehicles that are substantially similar with respect to the following elements may be part of the same monitor family:
(a)   Algorithm for estimating on-board SOCR and on-board SOCE;
(b)   Sensor configuration (for sensors used in determination of SOCR and SOCE estimates);
(c)   Characteristics of battery cell which have a non-negligible influence on accuracy of monitor;
(d)   Type of vehicle (PEVs or OVC-HEVs).
At the request of the manufacturer, with the approval of the responsible authority and with appropriate technical justification, the manufacturer may deviate from the above criteria for families.

6.1.x. For Part C: Verification of Monitors
Only vehicles that are substantially similar with respect to the following elements may be part of the same monitor family:
(a)   Algorithm for **reported virtual distance**;
(b)   Sensor configuration (for sensors used in determination of **virtual distance** estimates);
(c)   Characteristics of battery cell which have a non-negligible influence on accuracy of monitor;
(d)   Type of vehicle (PEVs or OVC-HEVs).
At the request of the manufacturer, with the approval of the responsible authority and with appropriate technical justification, the manufacturer may deviate from the above criteria for families.

Clarification to 5.1.

5.   **Requirements**

5.1.   State-of-Certified Range and State-of Certified Energy (SOCR and SOCE) monitors

The manufacturer shall install SOCR and SOCE monitors that operate during the life of the vehicle. The SOCR monitor shall maintain an estimate of the state of certified range (on-board SOCR), and the SOCE monitor shall maintain an estimate of the state of certified energy (on-board SOCE).

The manufacturer shall determine the algorithms by which on-board SOCR and on-board SOCE are determined for the vehicles they produce. The manufacturer shall update the on-board SOCR and SOCE with sufficient frequency as to maintain the necessary degree of accuracy during all normal vehicle operation.

The on-board SOCR and SOCE shall have a resolution of 1 part in 100 and be reported as the nearest whole number from 0 to 100.

The manufacturer shall make available the most recently determined values of the on-board SOCR and on-board SOCE via the OBD port and optionally over-the-air (OTA).

For the purposes of consumer information, the manufacturer shall make easily available to the owner of the vehicle the most recently determined value of the SOCE monitor via at least one appropriate method. The resolution for the customer values shall be determined in agreement with the authorities. For example:

(a)   dashboard indicator;

(b)   infotainment system;

- During Euro 7 discussion the topic of the resolution for customer information was raised
- In CARB_ACC2 was decided to use the same resolution for customer information as standardised by SAE for the OBD information

- OICA members discussed about the best solution for the customer an concluded:

How to display the SOCE to customers may differ from market to market , therefor the current text should remain as it is.