



# TASK FORCE ANNEX 4 W.1827



## WLTP-Annex 4 update proposal

### 1/ Wind tunnel for RL Matrix

→ Add the possibility to use the wind tunnel method to test the Representative Vehicle in the case of a RL Matrix family as long as facilities are approved according § 6.2.

### Modification of § 5.1. in sub-annex4:

5.1. Calculation of road load and running resistance for vehicles based on a representative vehicle of a road load matrix family.

If the road load of the representative vehicle is determined according to a method described in paragraph 4.3. **or paragraph 6.** of this annex, the road load of an individual vehicle shall be calculated according to paragraph 5.1.1. of this annex.

### Original text

5.1. Calculation of road load and running resistance for vehicles based on a representative vehicle of a road load matrix family.

If the road load of the representative vehicle is determined according to a method described in paragraph 4.3. of this annex, the road load of an individual vehicle shall be calculated according to paragraph 5.1.1. of this annex.



### 2/ RL Matrix definition precision

→ The Road Load Matrix is a way like Default Road Load to determine coast down for LCV with many different bodyworks and masses. Compared to NEDC approval, Road Load Matrix and Default Road Load methods are used for vehicles granted according the “table method”.

The word “*designed*” used for the technically permissible maximum laden mass may be misunderstood. To avoid different interpretation, we would like to modify this part of the Road Load Matrix definition.

Modification of § 5.8. in the General requirements:

5.8. Road load matrix family.

The road load matrix family may be applied for vehicles designed with a technically permissible maximum laden mass  $\geq$  3,000 kg (this Road Load Matrix can include vehicles with permissible maximum laden mass  $<$  3,000 kg only if these vehicles belong to the same interpolation family).

Original text

5.8. Road load matrix family.

The road load matrix family may be applied for vehicles designed for a technically permissible maximum laden mass  $\geq$  3,000 kg.



### 3/ Interpolation range in case of Default Road Load method

→ Road Load Matrix was created as palliative to the Default Road Load to have more representative CO<sub>2</sub> value to cover a large bodywork diversity.

There is no maximum CO<sub>2</sub> delta for Interpolation families granted by the RL Matrix method, the rule should be the same for Interpolation families granted using the Default RL method.

#### Modification of 2.3.2.2. restriction in Annex 6:

2.3.2.2. The maximum delta CO<sub>2</sub> allowed over the applicable cycle resulting from step 9 of Table A7/1 of Annex 7 between test vehicles L and H is 20 per cent plus 5 g/km of the CO<sub>2</sub> emissions from vehicle H, but at least 15 g/km and not exceeding 30 g/km.

This restriction does not apply for the application of a road load matrix family **or a default road load**.

#### Original text

2.3.2.2. The maximum delta CO<sub>2</sub> allowed over the applicable cycle resulting from step 9 of Table A7/1 of Annex 7 between test vehicles L and H is 20 per cent plus 5 g/km of the CO<sub>2</sub> emissions from vehicle H, but at least 15 g/km and not exceeding 30 g/km.

This restriction does not apply for the application of a road load matrix family.

