NEDC/WLTP correlation process

Correlation workshop, Ispra, 15 May 2017

Climate Action

Why the correlation procedure?

With WLTP CO2 emission values increase on average but impact differs between different manufacturers:

1. **How to ensure comparable stringency of CO2 targets based on WLTP?**

2. **How to verify CO2 target compliance during the transition period?**

3. **How to facilitate the transition?**

Comparable stringency

Legal requirement:

"… ensuring that reduction requirements of comparable stringency for manufacturers and vehicles of different utility are required under the old and new test procedure"

Correlation procedure to ensure that

- **A manufacturer that meets its NEDC based target should also meet its WLTP based target**
- **The distribution of the reduction effort among manufacturers is maintained**

CO2 correlation procedure

- **NEDC based CO2 standards are maintained until 2020**
- **All new registered vehicles should have both NEDC and WLTP CO2 emissions determined at type approval**
- **Creation of comparable WLTP and NEDC datasets for all manufacturers as a basis for target translation**
- **Shift to WLTP based manufacturer targets in 2021 determined on the basis of the 2020 comparable datasets**

European Commission

CO2MPAS correlation tool

- **Facilitates transition to WLTP by avoiding extensive double testing campaigns**
- **Uses WLTP test results as input for simulating corresponding NEDC values**
- **Takes account of NEDC test conditions that are explicitly regulated or confirmed by national type approval authorities**

State of play

- **WLTP: adoption in May, publication + entry into force June/July** (WLTP Regulation + correcting Regulation)

- **Correlation procedure for cars and vans: adoption in May, publication and entry into force same date as WLTP** (Correlation Implementing Regulations for cars and vans + correcting Regulation for cars(

- **Target translation mechanism for cars and vans – adoption in May, 2 months scrutiny by EP/Council + publication and entry into force in August** (Delegated Regulations for cars and vans)

Transition to WLTP

Date	Vehicle category
1 September 2017	M1 + N1 class 1 new types
1 September 2018	M1 + N1 class 1 all vehicles
	N1 class 2 and 3 new types
31 August 2019	M1 end of series
1 September 2019	N1 class 2 and 3 all vehicles
30 March 2020	N1 class 1 end of series
30 March 2021	N1 class 2 and 3 end of series

Monitoring data 2017 to 2022

Calendar year	CO2 Monitoring Data	CO2 Cars & Vans Targets
2017	NEDC	NEDC 130/175
2018	NEDC + WLTP	NEDC 130/175
2019	NEDC + WLTP	NEDC 130/175
2020	NEDC + WLTP	NEDC 95 (95%) NEDC 147
2021	WLTP (NEDC super credit threshold 50g, i.e. PHEVs)	NEDC 95 (100%)/147 WLTP manufacturer targets
2022	WLTP (NEDC super credit threshold 50g, i.e. PHEVs)	WLTP manufacturer targets

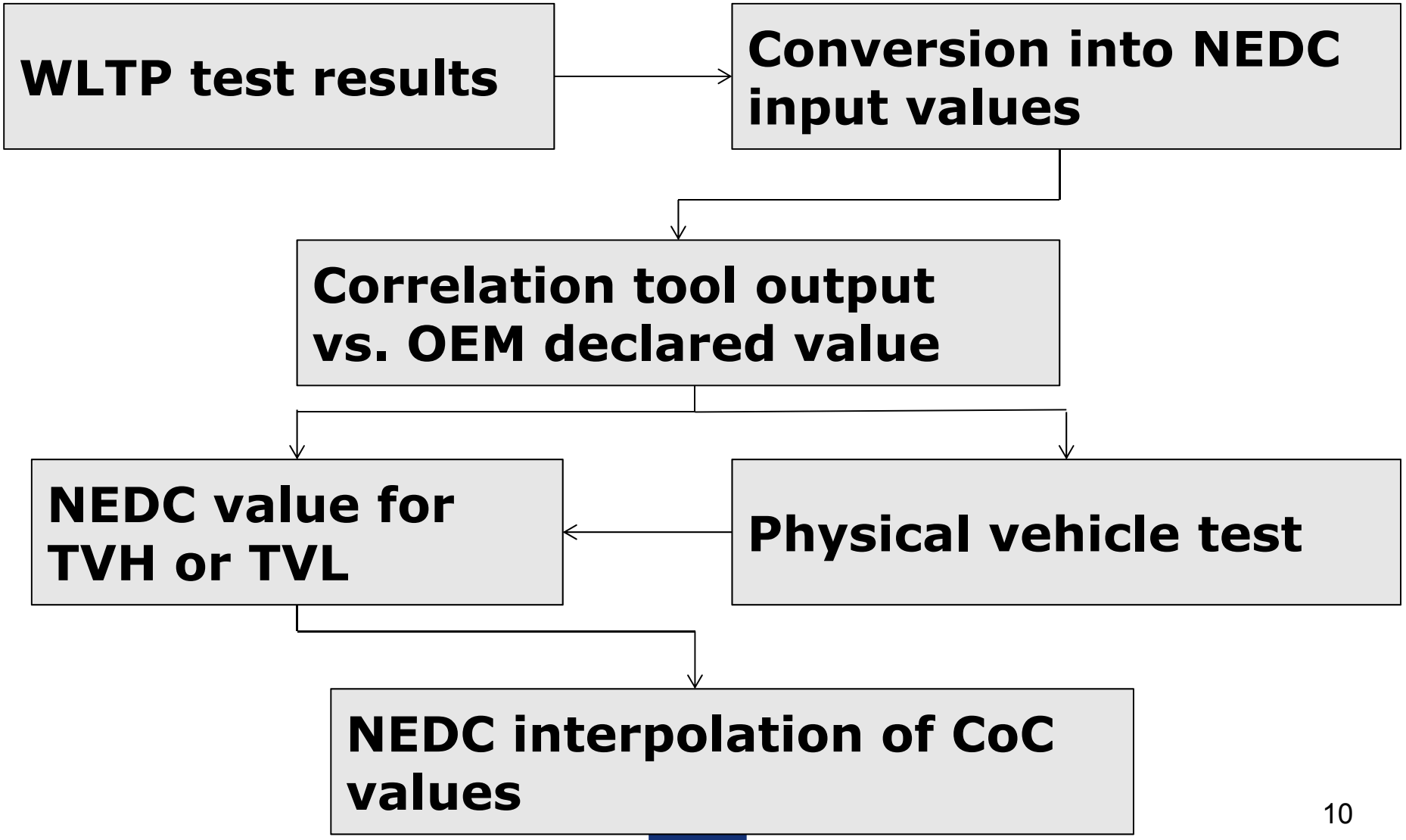
Vans & Cars correlation – agreed by Member States on 27 April

- **Cars & Vans correlation procedures: same essential elements**
- **Specificities for vans:**
  - Road load setting methodology
  - Multistage vans
  - End of series

Changes:

- **Adjustment of the input data matrix**
- **Clarification of the correlation data exchange**
- **Clarification of the random selection function**
- **Simplification of calculation formulae**

Correlation procedure



CO2MPAS accreditation

1st step:

- **Member States designate one user per Technical Service/Type Approval Authority**
- **Notify the Commission by sending contact details, i.e. an email address**

2nd step:

- **The designated user sends a request to the Commission from the notified email address;**
- **A configuration file, including configuration instructions , and an electronic key will be provided to the designated user.**

DG CLIMA webpage:
https://ec.europa.eu/clima/policies/transport/vehicles/cars_en#tab-0-1

Safeguard measures

To safeguard against abuse of too low correlation output values

- **Physical tests following a random selection using the "dice"**
- **Physical tests requested by the type approval authority**
- **Verification of the input data**

The "Dice"

- **Objective to confirm the correctness of the correlation tool output**
- **The "dice" is thrown every time the correlation tool is formally run**
- **In 10% of the cases where the difference between the OEM declared value and the correlation output is less than 4%, the dice will select a vehicle for a physical vehicle test**
- **Record of all formal correlation tool runs through the email exchange**

Deviation factor

Deviation factor: the difference between the physical test result and the manufacturer declared value determined in the following cases:

- **If the value is 4% or less the correlation output is confirmed**
- **If the value exceeds 4%, the manufacturer's average emissions will be increased by a correction factor**

Verification factor

- **In random and requested physical tests the correctness of the correlation input data should be verified, in particular the presence of**
  - Fuel saving gear for automatic transmission
  - Start-stop activation time
  - Brake energy recuperation
- **If incorrect: a verification factor of 1 is recorded in the type approval certificate (if correct: 0)**

Unless

- **The deviation in the input data is to the disadvantage of the manufacturer, in which case the Verification factor is set to 0**

Recording data

Type approval authorities shall record in the type approval certificate:

- **Deviation factors from all random physical tests or from physical tests requested by the type approval authority (<>0,04)**

- **Verification factors: 1 or 0**

Note: not all type approval certificates will include these factors (leave the entry empty)

Correction factor

A manufacturer's average emissions will be corrected if the monitoring data includes:

- **A deviation factor higher than 0,04**
- **The verification factor 1**

***Correction factor*: is determined taking into account all deviation factors recorded in the monitoring data of the manufacturer for that year (i.e. also those lower than 0,04)**

THANK YOU!

Climate Action