

## **Status report to 66th GRPE**

### 1. Meetings and documentation

A first VPSD meeting was held in Brussels on February 26th. The documents are available as VPSD-01-\* on UNECE website.

A second meeting was held via a phone-web-conference on April 4th. The documents are available as VPSD-02-\* on UNECE website. VPSD-02-03 includes all comments and indicates all issues under discussion on May 3rd. VPSD-02-04 includes additional comments and proposals from the European Commission (May 22nd).

Other related informal working groups under GRPE (WLTP, HDH, EVE, GFV, L-EPPR) have been informed, as well as other GR's and their informal working groups dealing with powertrain issues. The VPSD activity is understood as an iterative process with the work of other informal working group under WP.29 and the GR's, but mainly with WLTP.

### 2. (In principle) agreed issues

The document which will be finally delivered to WP.29 and AC.3 will contain two parts, an explanatory report (part A) and the definitions (part B), the latter foreseen to be introduced as annexes to R.E.3 and S.R.1.

The terms and structure of the main definitions are agreed (however, detailed wording is under discussion (see documents VPSD-02-3 & -4)):

- “Powertrain” means the total combination in a vehicle of energy storage system(s), energy converter(s) and drivetrain(s) for the purpose of vehicle propulsion, including peripherals and excluding ancillaries.
- Energy storage systems are subdivided in “Fuel Storage Systems” and “Rechargeable Energy Storage Systems” (electric, mechanic, pneumatic, hydraulic).
- Energy converters are subdivided in “Internal Combustion Engine”, Electric Machine”, “Fuel Cell”.

- Vehicle definitions: “ICE Vehicle”, “Hybrid Vehicle”, “Electrified Vehicle (EV)”.
- EV’s are subdivided in “Pure Electric Vehicle (PEV)”, “Hybrid Electric Vehicle (HEV)”, “Fuel Cell vehicle (FCV)”, “Fuel Cell Hybrid Electric Vehicle (FCHEV)”.

### 3. Open issues

- Several of the detailed wording needs to be finalized.
- Definitions of peripherals and ancillaries, including general discussion about this approach.
- Terms and abbreviations of “Rechargeable energy storage systems”.
- Sub definitions of mono-, bi-, flex- and dual-fuel vehicles, being reviewed in collaboration with the GFV IWG.
- Do we need to add powertrain definitions (e.g. “ICE powertrain”, “Hybrid powertrain”, “Fuel Cell powertrain) for regulatory purposes, or are the vehicle-definitions sufficient ?
- Characteristics [Criteria] of vehicle powertrains. This chapter wasn’t discussed in detail yet.

### 4. Next steps

(a) Status report to WP.29 and AC.3 at the June 2013 session.

(b) Taking into account, that there will be a drafting group meeting of WLTP end of June, it is proposed to held a third VPSD meeting via phone-web-conference in July. At that meeting it should be decided, if a first proposal for annexes (with all agreed definitions) could be send for adoption to GRPE/WP.29/AC.3 at their next sessions, or as alternative step to continue the work on the entire document.

(c) 4<sup>th</sup> VPSD meeting (face to face or phone-web-conference) in autumn.

(d) Document to GRPE in January 2014.