

The European Commission's science and knowledge service

Joint Research Centre



PMP INFORMAL WORKING GROUP

TASK FORCE 2

Development of a Common Methodology for Brake Particles Sampling and Measurement

Kick-off Teleconference Meeting – 13.09.2017

PROPOSED APPROACH

Three major steps were set (PMP IWG Terms of Reference – June 2016) for the development of the proposed methodology:

- ✓ Development of a new braking test cycle representative of real-world conditions
- ✓ Development of a suitable methodology for sampling brake wear particles
- ✓ Selection of the most suitable methods for brake wear particles' measurement and characterization

PROPOSED APPROACH

Step 1 – Development of a real-world braking test cycle – Current Status

- ✓ A dedicated TF has been created for accelerating the work
- ✓ A braking schedule derived from the WLTP database has been developed by FORD/H. Steven and will become available to the PMP Group as soon as it is finalized
- ✓ A short LACT based profile (~3h) has been developed for the purposes of the H2020 LOWBRASYS Project and will become available to the PMP Group
- ✓ TF members will test and validate both schedules at least in terms of temperature profile and wear

PROPOSED APPROACH

STEP 2 – SAMPLING METHODOLOGY

- ✓ Selection of the testing method (Concluded)
- ✓ Comparison of existing systems/test rig configurations (Deadline: January 2018)
- ✓ Selection of testing and functional Parameters (Deadline: January 2018)
- ✓ Testing and validation of the selected configuration (Deadline: To be defined depending on the progress)

PROPOSED APPROACH

STEP 3 – MEASUREMENT AND CHARACTERIZATION

- ✓ Comparison of Existing Methodologies (Deadline: January 2018)
- ✓ Selection of the most suitable methodologies based on the selected sampling configuration (Deadline: To be defined depending on the progress)
- ✓ Testing and Validation of the Selected Methodologies (Deadline: To be defined depending on the progress)
- ✓ Data processing method (Deadline: To be defined depending on the progress)

PROPOSED APPROACH

STEPS 2 & 3 – PROPOSED WAY FORWARD FOR THE TF2

- ✓ Presentation of existing systems/test rig configurations as well as the relative instrumentation
- ✓ Discussion and understanding on the details of existing systems and testing functional Parameters
- ✓ Discussion on the target parameters and the extend to which they can be fulfilled with the existing systems