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BRAKE PARTICLE EMISSIONS

TASK FORCE 1
DEVELOPMENT OF A BRAKING TEST CYCLE

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TASK FORCE COMPOSITION

- Carlos AGUDELO (LINK Engineering)
- Sebastian GRAMSTAT (AUDI)
- Jarek GROCHOWICZ (FORD)
- Ilja PLENNE (TMD Friction)
- Francesco RICCOBONO (BREMBO)
- Matthew ROBERE (GENERAL MOTORS)
- Agusti SIN (ITT Motion Technologies)
- Theo GRIGORATOS (JRC)

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STEP 1 - DEVELOPMENT OF A BRAKING TEST CYCLE

- WLTP Database Analysis (Concluded)
- Comparison of WLTP data with Existing Industrial Cycles (Concluded)
- Development of a first version of the new (WLTP based) and backup (LACT based) braking schedule (Concluded)
- Validation of the cycles (repeatability assessment of the cycle between dyno and real-world) - Round robin (reproducibility assessment on different dynos) (Deadline: March – April 2018)

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BRAKING TEST CYCLE – DECISIONS MADE

- The selected profile shall be used for bedding in of the pads. It will be challenging to stay within a reasonable timeframe
- The cycle includes urban, rural, and motorway parts. Urban applications dominate the cycle based on the WLTP statistics presented previously at the PMP
- The WLTP based schedule is the preferable option compared to the short LACT version as it is more representative of global real-world conditions

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BRAKING TEST CYCLE – DECISIONS TO BE MADE

Details regarding testing boundary conditions need to be discussed and agreed within the TF1

- Environmental conditions (i.e. temperature, relative humidity)
- Applied inertia (based on available data for #passengers/vehicle)
- Possible application of correction due to the coastdown effect

BRAKING TEST CYCLE – CURRENT STATUS

- FORD has developed the WLTP based profile in collaboration with Mr. Steven. The profile is being validated by FORD both on-road and on the dyno
- A short LACT based schedule has been developed in the framework of the H2020 LOWBRASYS Project and will serve as a back-up cycle
- A round robin has been scheduled for the next months with the purpose of validating both braking schedules in terms of temperature. All labs will participate and the RR is expected to finish in mid 2018

Any questions?

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