



PMP VIRTUAL MEETING

Non-Exhaust Emissions

GROUP UPDATE

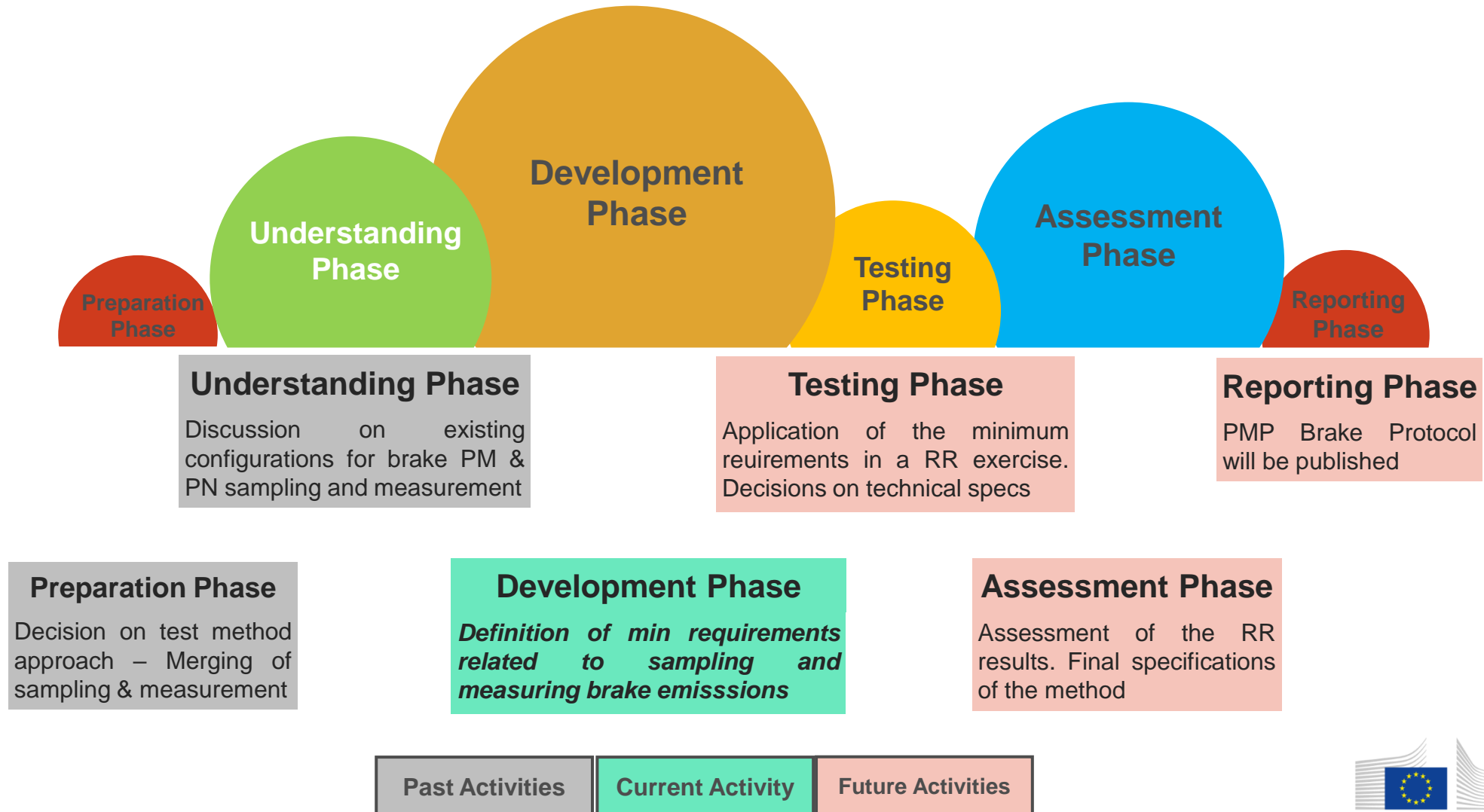
*T. Grigoratos, G. Martini,
Webconf, 24th MAR 2021*

Agenda Point 3

Non-exhaust emissions – Brake measurement procedure

- IPR Issue
- Short Update on the Interlaboratory Study
- Request to GRPE to develop a GTR
- Regenerative Breaking technology – Way forward

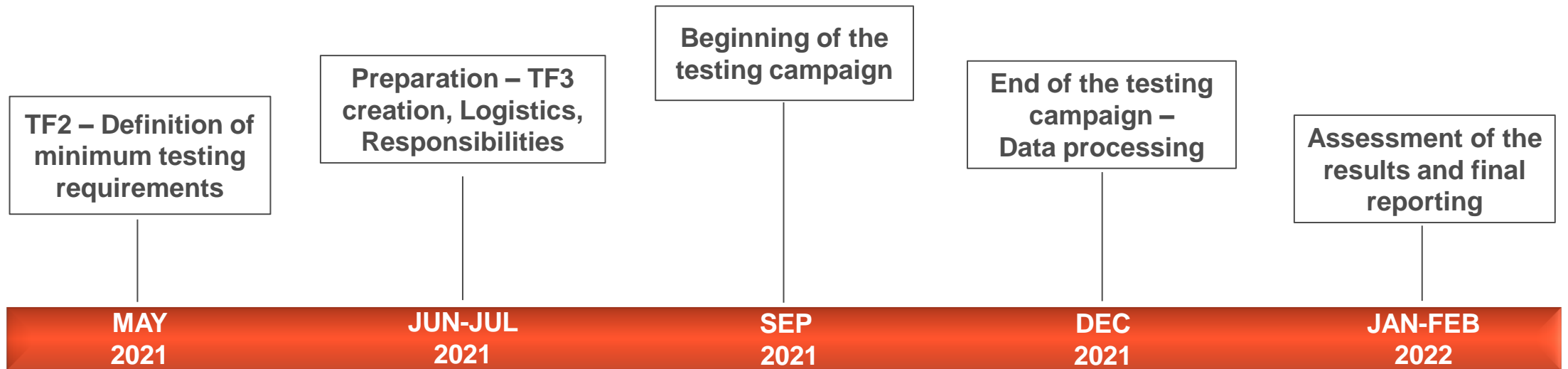
Procedure at a Glance



Interlaboratory Study

Primary Objectives

- ✓ Application of the agreed specifications – recommendations on improving and extending the minimum specifications
- ✓ Control the repeatability (within the labs) and reproducibility (among the labs) of PM and PN measurements with the application of the proposed minimum specs



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Non-exhaust emissions – Brake measurement procedure

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Proposed Terms of Reference

- ✓ In January 2020, several UNECE GRPE Contracting Parties asked the PMP IWG to start considering a possible use of the proposed method as a regulatory tool
- ✓ In June 2020, the PMP IWG submitted the first part of the PMP Brake Protocol for measuring brake particle emissions (GRPE-81-12)
- ✓ in January 2021, the European Commission requested the GRPE to include the development of a Global Technical Regulation (GTR) on brake emissions in its priority list (GRPE-82-06)

Development of a test procedure to be applied in a Global Technical Regulation (GTR) for sampling and assessing brake wear particles both in terms of mass and number

Terms of Reference – Items

- ✓ Validation of the developed novel test cycle for the investigation of Brake Wear Particles [Item completed]
- ✓ Definition of the minimum requirements for brake wear particles generation and sampling [Deadline May 2021]
- ✓ Definition of the appropriate instrumentation and sampling methodology for the measurement and characterization of brake wear particles – PM and PN measurement equipment [Deadline May 2021]
- ✓ Application of the proposed approach for the measurement and characterization of brake wear particles – Interlaboratory Study [Deadline December 2021]
- ✓ Adaptation of the proposed methodology to include regenerative braking and – to the possible extent – future technologies [Deadline March 2022]
- ✓ Preparation of the PMP Brake protocol for sampling and measuring brake wear PM and PN emissions [Deadline March 2022]
- ✓ Refinement and validation of the PMP Brake protocol – Final Interlaboratory Study (if necessary)

Agenda Point 5

Update on other activities

- Monitoring of Procedures
- Common Calibration Procedures
- Tire Wear Emissions

Tire Emissions – Summary

H2020 Project

- ✓ The LC-MG-1-14-2020 call aims in addressing the issue of **particle emissions** and noise from tyres. Starting date is 01.06.2021 and LEON-T will work among others on the following topics.
 - Assessment and characterization of tyre wear particles emitted under different driving conditions both in the lab and on-road
 - Development of reliable and repeatable methodologies for the assessment of tyre emissions in the laboratory and on-road and for measuring tyre abrasion rate
 - Particles tracing and quantification in different environmental compartments with focus on microplastics emissions

Abrasion Rate

- ✓ DG-GROW is assessing the proposals regarding the development of a tyre abrasion methodology. The winning consortium will be announced and the project is expected to start soon
- ✓ PMP's target remains to explore the possible correlation of tyre abrasion rate with PM₁₀ and PM_{2.5} emissions as soon as the method becomes available

Keep in touch



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Thank you



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