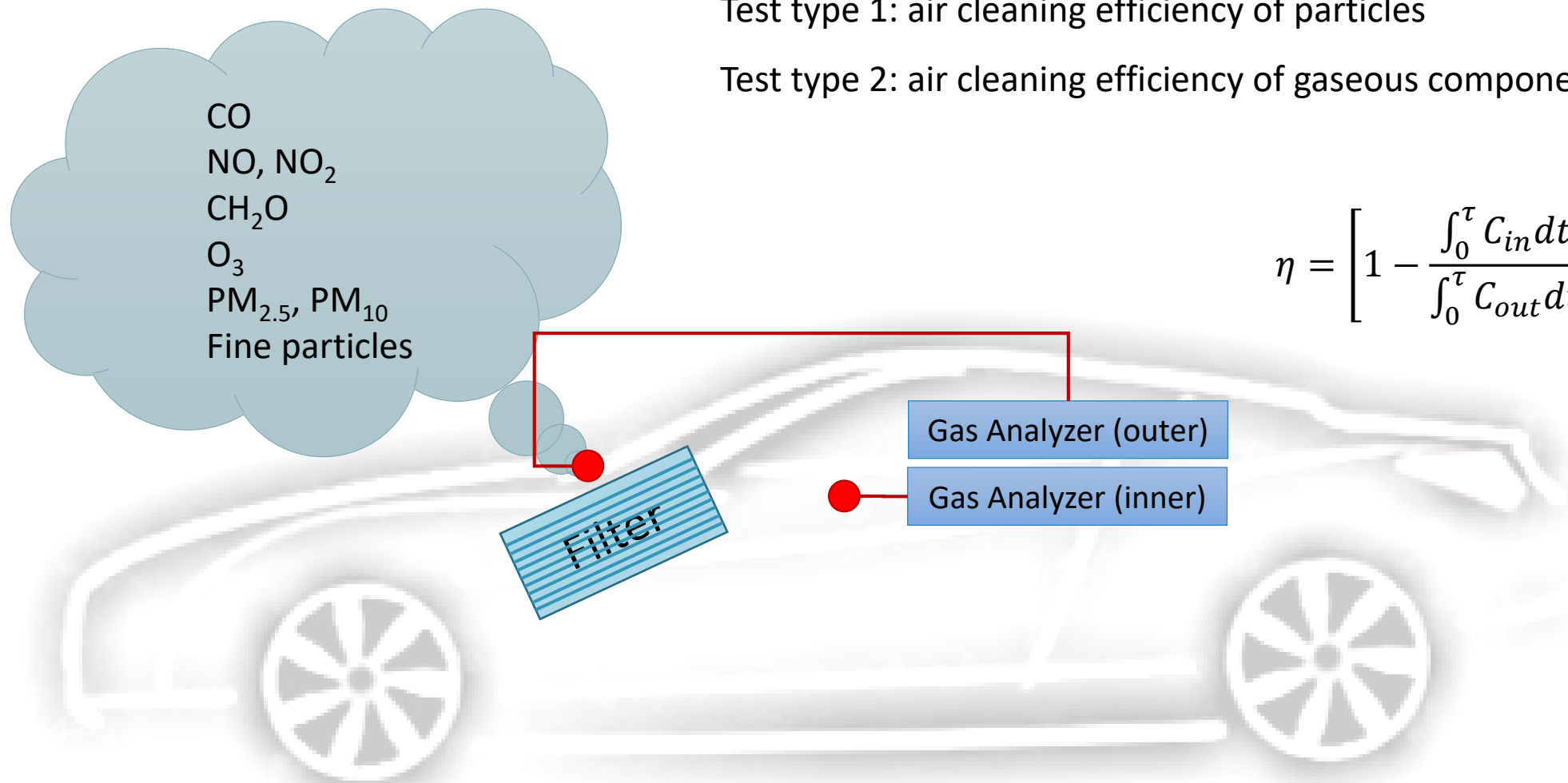


**Proposals for 3rd and 4th stages of UN ECE
Vehicle Interior Air Quality
Informal Working Group activity**

Paris, March 9-10th 2020

Test type 1: air cleaning efficiency of particles

Test type 2: air cleaning efficiency of gaseous components



$$\eta = \left[1 - \frac{\int_0^{\tau} C_{in} dt}{\int_0^{\tau} C_{out} dt} \right] \cdot 100\%$$

Fourth Stage

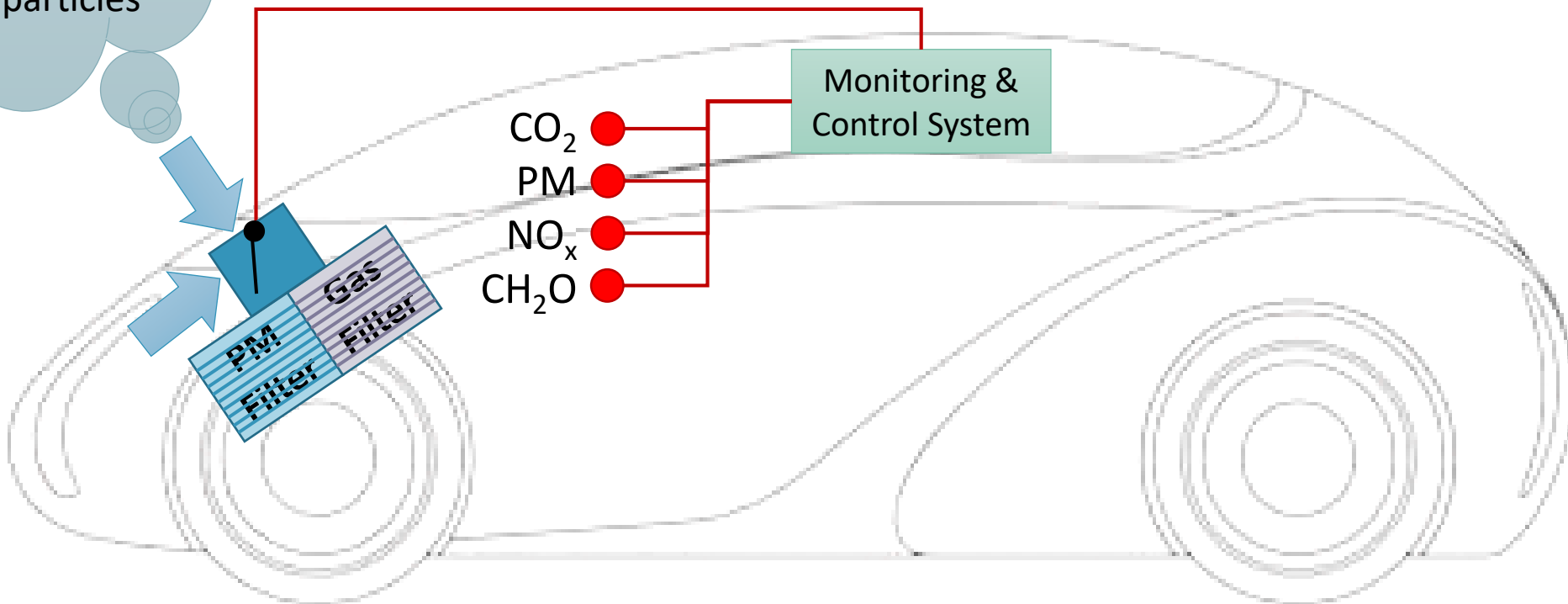
CO
NO, NO₂
CH₂O
O₃
PM_{2.5}, PM₁₀
Fine particles

Test type 1: CO₂ concentration control efficiency

Test type 2: PM concentration control efficiency

Test type 3: Gaseous pollutants concentration control efficiency

Control efficiency = System response time



Objective: Developing of harmonized methodology for assessing of interior air cleaning efficiency in a complete vehicle

1. Data collection and analysis
 - Concentration of harmful substances in ambient air (in cities, in suburban areas, on highways)
 - Concentration of harmful substances in vehicle interior air depending on driving conditions, external pollution level, HVAC mode etc.)
 - Influence of type of HVAC system and cabin air filter type to interior air quality
2. Analysis of existing test procedures
 - Existing approaches and methodologies
 - Comparison and analysis of results from different test approaches
3. Collection and analysis of test results obtained by VIAQ IWG members
 - For different countries
 - For different driving conditions
 - For different types of HVAC, cabin filters, air cleaning devices
4. Developing of harmonized test procedure for assessing of interior air filtering efficiency in a complete vehicle

Timeline

