

1. About EASVOLEE

The primary objectives of EASVOLEE are to:

- i. Quantify the contributions of secondary PM formation from transport engines to air quality problems in Europe.
- ii. Develop and identify health-related metrics, mitigation strategies, and policies to improve air quality limiting the concentrations of aerosol due to vehicle exhaust.

2. EASVOLEE will:

- Quantify** the role of engine exhaust emissions including contributions to secondary PM and particle number in Europe.
- Assess** toxicity of the secondary PM from transportation.
- Reduce** smog episodes and population exposure to air pollution (especially PM) in Europe.
- Reduce** uncertainty about sources of PM especially the often-dominant secondary fraction.
- Develop** appropriate chemical transport models for the simulation of semi-volatile PM, secondary organic aerosol (SOA) and particle number.
- Support** Zero-Pollution Plan of EU Green Deal.

3. EASVOLEE state-of-the-art measurement and modelling techniques

- Measurement of emissions:

- under real driving conditions



Figure 1. CRMT installations for RDE emission measurements of: (a) bus; (b) car; (c) street sweeper; (d) flow measurement in a truck; (e) PEMS and FTIR.

- under simulated driving conditions on a dynamometer

- in a parking structure



Figure 2. A parking structure that SOA formation experiments can be performed

- in a traffic tunnel

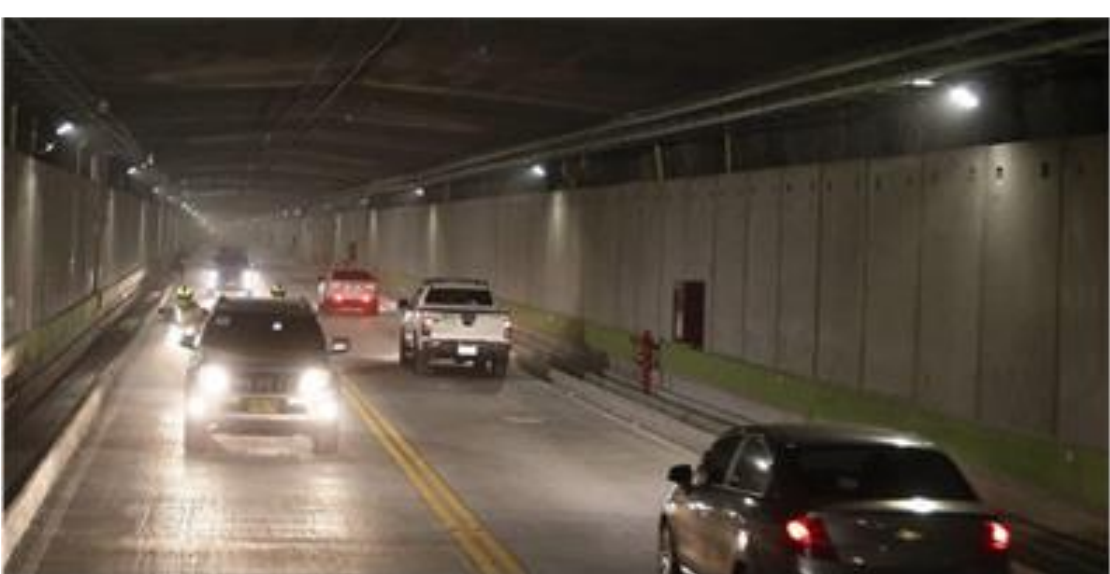


Figure 3. A traffic tunnel that SOA formation experiments can be performed

- Measurement of all organic pollutants that are relevant to aerosol formation (volatile, intermediate volatility, semi-volatile, low-volatility organic compounds)
- Quantification of atmospheric processing using oxidation flow reactors and mobile atmospheric simulation chambers.
- Oxidative potential measurements
- Mechanistic understanding of biological effects using cells

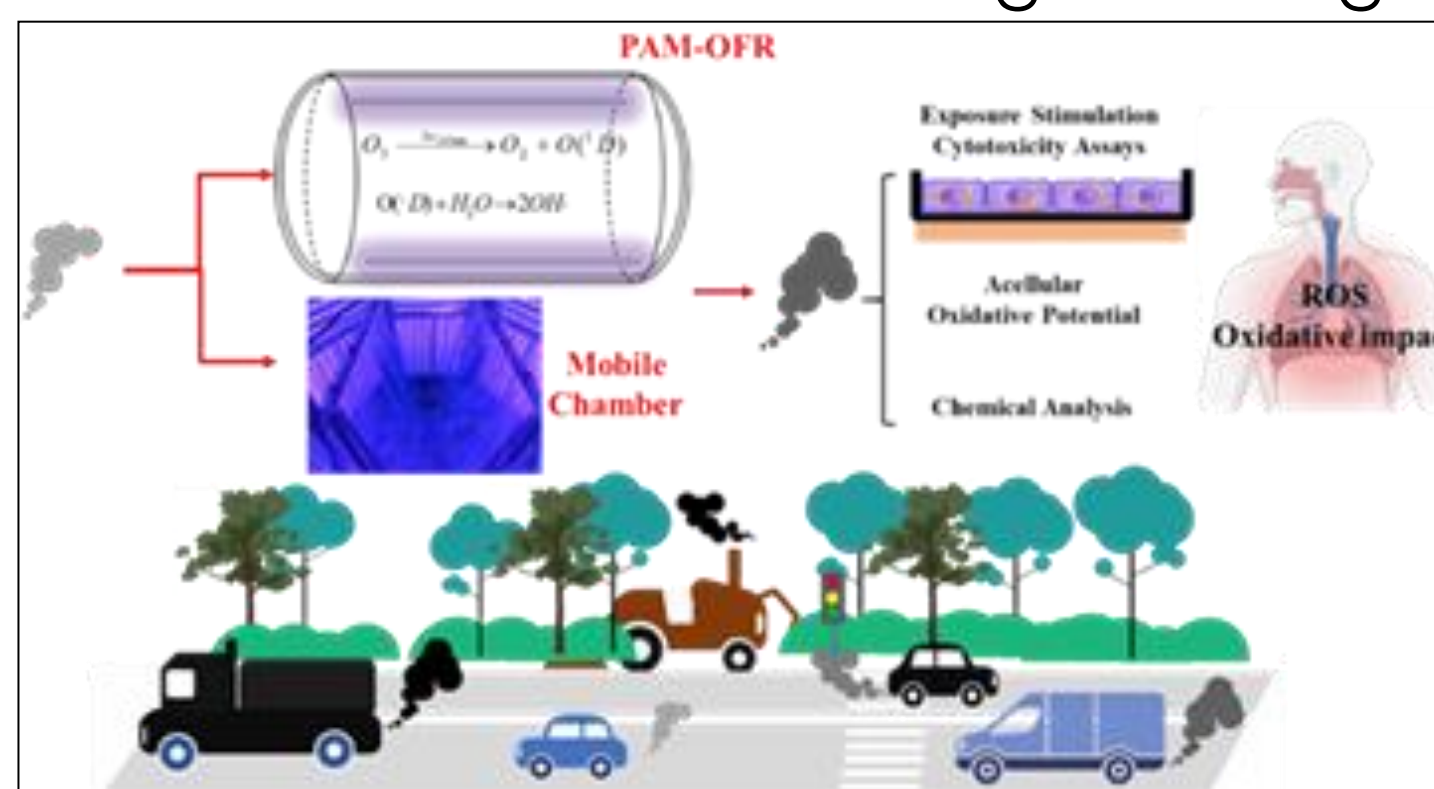


Figure 4. Schematic of the EASVOLEE health-related measurements.

- Development of a new state-of-the-art European emission inventory

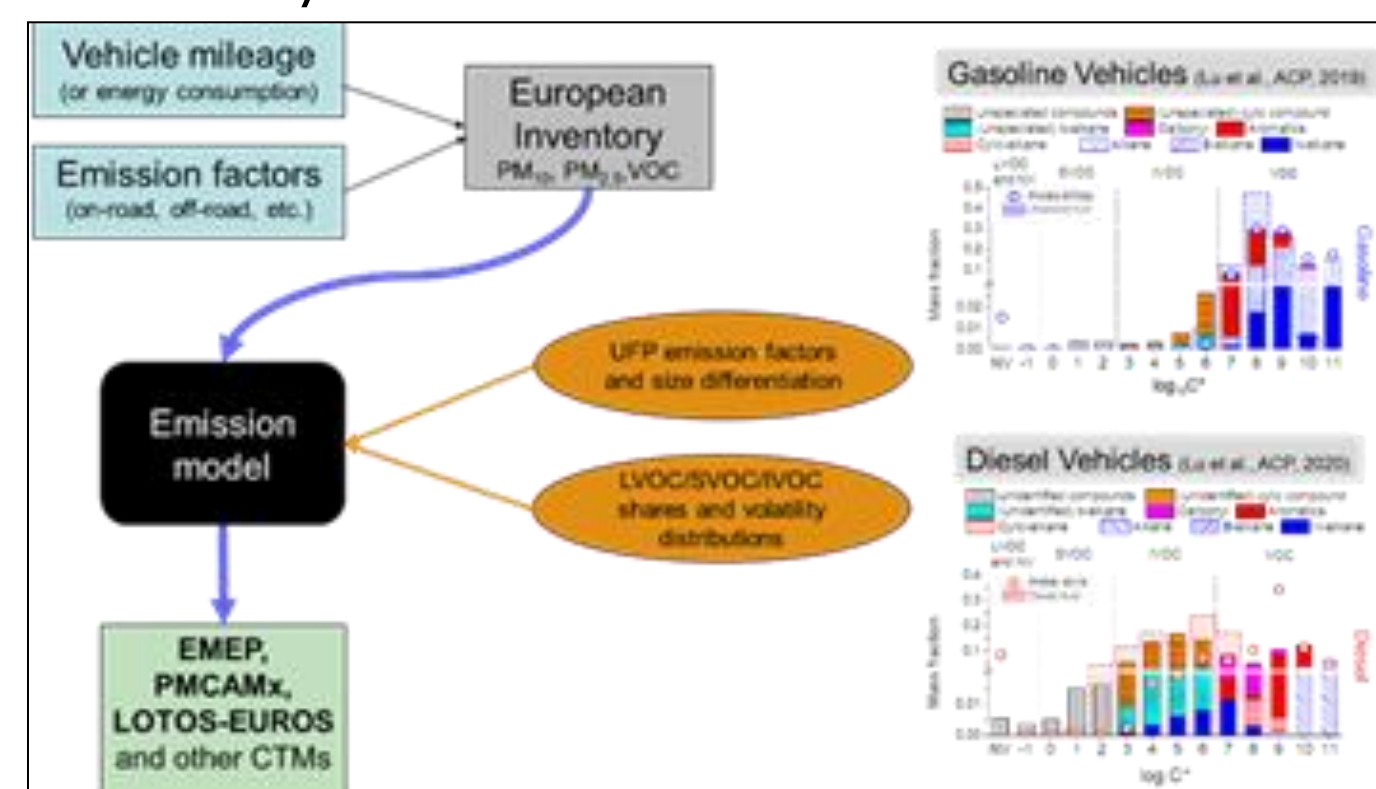


Figure 5. Proposed emission modelling system for the EASVOLEE inventory.

- Creation of new emission indexes

4. Consortium



5. Target groups

- Research/scientific communities
- Public authorities and Government
- International bodies
- Private sector/Industries
- General public and society

6. Website & Social media

<http://www.easvolee.eu/>

@EASVOLEE_EU

@EASVOLEE project

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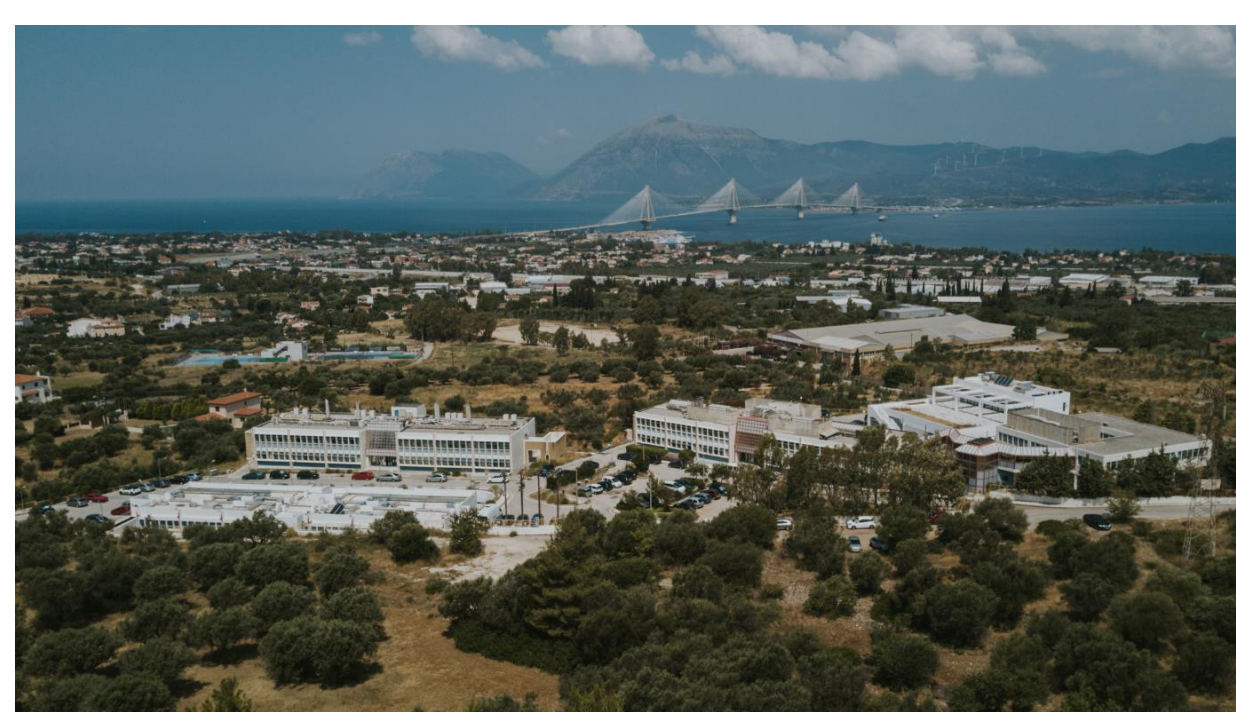


Figure 6. A view of the FORTH/ICE-HT buildings