

Phenomena Project

Assessment of Potential **HE**alth Benefits of **NO**ise **AbateMENT** **MeAS**ures in the EU

The Phenomena project aims to support the European Commission in defining the potential of measures capable of delivering significant reductions (20%-50%) of the health burden due to environmental noise from major roads, railways and airports, and to assess how legislation could be enhanced to strengthen the implementation of mitigation measures, whilst considering the constraints and specificities of each transport mode.

This will be undertaken by evaluating the current situation and potential improvements, considering realistic abatement measures and legislative options in a series of scenarios.

The project encompasses:

- assessment of international and national noise legislation and relevant literature;
- assessment of noise action plans and their implementation
- identification and quantification of appropriate noise abatement solutions
- global modelling of characteristic traffic noise situations, scaling up from a series of site noise maps to EU level
- cost-benefit analysis (CBA) of each noise abatement measure
- a broad stakeholder consultation and two stakeholder workshops;
- baseline definition and scenario development;
- cost-benefit analysis (CBA) per measure and per scenario;
- comparative assessment of selected scenarios.

A final report will provide recommendations for enhanced legislation to achieve the targets for reduction of health burden.

Infrastructure in the scope is focussed on

- roads and railways inside agglomerations of more than 100.000 inhabitants;
- locations around major roads of more than 3 million vehicles a year, where noise levels are above 53 dB Lden;
- around major railway lines of more than 30.000 trains a year, where noise levels are above 54 dB Lden; and
- around major airports of more than 50.000 movements a year, where noise levels are above 45 dB Lden.

Existing noise mitigation measures will be considered, such as:

for roads: quieter tyres, vehicles and road surfaces, barriers and local planning;

for railways: infrastructure improvement, barriers and local planning;

for aircraft: improved landing and take-off profiles, flight dispersion, operating restrictions, phasing out of older aircraft and local planning.

Legislation options to be considered may include for example: mandatory action plans, noise limits at dwellings, vehicle noise limits, link between END and vehicle legislation.

Timeline: 15 months, starting December 2019.

Contractors: VVA (consortium leader), TNO, Tecnalía, UAB, Anotec

