LIFE SNEAK PROJECT NEWSLETTER

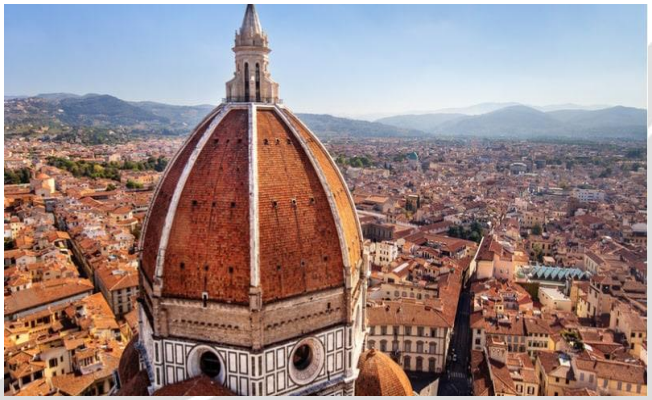
NUMBER #5 – FEB.2024

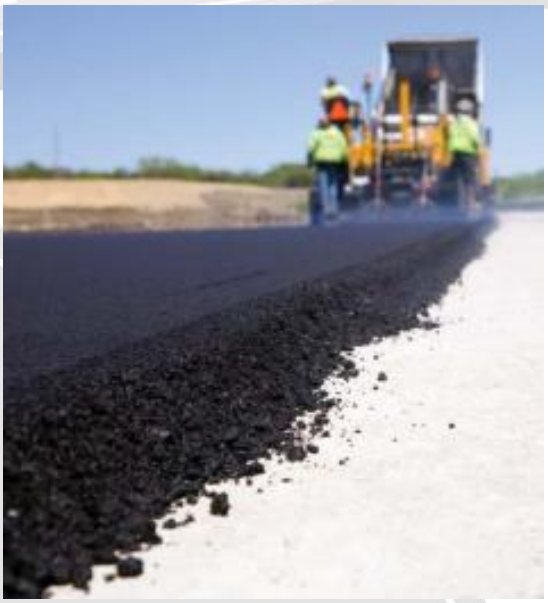
http://www.lifesneak.eu

THE PROJECT

The Municipality of Florence coordinates, in partnership with ASSTRA, ECOPNEUS, MOPI, UNIFI, UNIRC and VIENROSE, the European project LIFE SNEAK (optimized Surfaces against NoisE and vibrations produced by tramway track and road traffic).

The main challenge of the LIFE SNEAK project is the reduction of noise from road traffic that mainly affects densely populated urban areas, such as that of Florence, where the noise and vibrations produced by the tram overlap with the noises produced by road traffic. This will be achieved by means of low-noise/vibration surfaces and retrofitting solutions with life cycle costs comparable to those of traditional surfaces, obtaining a substantial reduction in noise.





The main objectives are:

- reduction of noise deriving from the superposition of air-borne noise produced by the wheel-rail and pavement-tire interaction and ground/structure-borne noise deriving from the same interactions that propagate through the ground and the road superstructure;
- use of “quiet pavements” to mitigate air-born noise by rail-wheel and pavement-tyre, also by minimising pavement-tyre interaction effects and their propagation;
- reduction of squeal noise due to contact between the rail and the wheel through a system of sound-absorbing panels (made of recycled material) to be applied on the tram (bogie skirts) and evaluation of the

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effectiveness of a prototype of watering system to be installed on trams;
- reduction of annoyance due to noise and vibrations generated by roads and tramways;
- promotion at European level of the proposed solutions for noise pollution;
- integrate the vehicle noise emission databases defined by Directive (EU) 2015/996 with the emission data of the straight and curved tram collected in the pilot study with particular reference to the screeching conditions currently not considered by the Directive.

REGULATIONS OF REFERENCE

The project is in line with the provisions of Directive 2002/49/EC " on the assessment and management of environmental noise - Statement by the Commission in the Conciliation Committee on the Directive on the assessment and management of environmental noise" and the European Green Deal (COM/2019/640 final).

PROJECT KEY DATA

Project Location	Italy: Toscana, Calabria, Lombardia, Lazio
Project Duration	1 September 2021 – 31 August 2025
Total Budget	1,988,982 Euro
Eu Contribution	1,036,188 Euro
Eligible Budget	1,883,982 Euro
Project Website:	http://www.lifesneak.eu

ACTIONS

For the realization of the project, the following actions have been defined:

A. Preparatory actions

A1 Theoretical General Framework

A2 Ante Operam Specific Project Framework

B. Implementation actions

B1 Technical Solutions Optimization

B2 Pilot Case Implementation

B3 Post Operam Performance Tests And Measurements

B4 Citizen Perception

C Monitoring of the impact of the project actions

C1 KPI and Impacts Assessment

C2 Life Cycle Assessment & Life Cycle Cost

D Public awareness and dissemination of results

D1 Dissemination and Public Awareness

D2 Sustainability: Replication, Continuation, Transfer

E Project management

E1 Coordination, Project Management And Monitoring

E2 After Life

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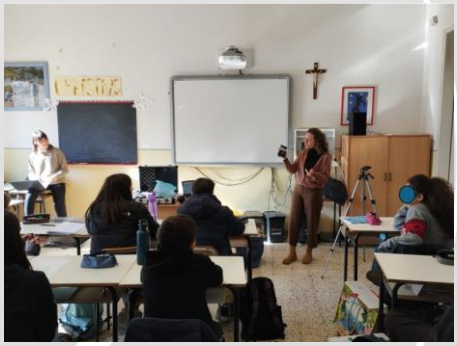
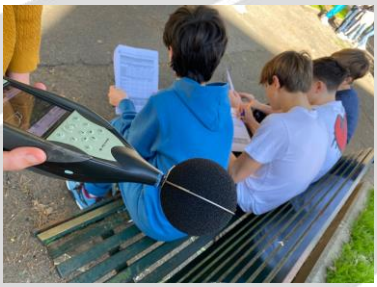
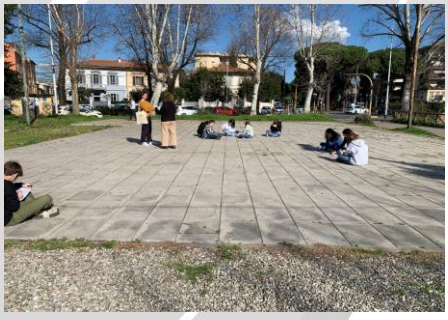
Meetings with schools – At the San Giuseppe Institute in Florence as part of the “Sounds and Noises” project, proposed by Vie en.ro.se

On Monday, 26th February 2024, a series of six meetings ended at the San Giuseppe Institute in Florence as part of the "Sounds and Noises" project, proposed by Vie en.ro.se. Engineering as part of the initiatives of “Le Chiavi della Città” promoted by the municipality of Florence.
The third year of the secondary school has completed a training course on sound and noise education, structured in lectures and practical experiences.
In the first lesson, the technicians of Vie en.ro.se introduced the definitions of sounds and noises, talked about the physics of sound, the auditory mechanism, the potential damage from excessive exposure to noise, and how to listen "safely". The second lesson focused on the fundamentals of acoustics and how to ensure the best acoustic comfort at school, while in the third lesson these theoretical concepts were translated into a practical experience of measuring reverberation time in a classroom and laboratory. The fourth lecture introduced the objectives and ongoing activities of the European project LIFE SNEAK and the concept of soundscape and soundwalk. In the fifth lesson, a sound walk was carried out in the proximity of the school, during which students and teachers filled out a questionnaire on the perception of the soundscape at each listening point. In the sixth lesson, the results of the questionnaires administered during the walk were illustrated and a simple acoustic redevelopment project of the classroom was carried out by the students, guided by technicians.
The lectures were accompanied by the viewing of the cartoons "Noisella short stories", available online.
Let's hope this is the first of other "sound" collaborations.

For more information visit the website: www.lifesneak.eu







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PARTNERS OF CONSORTIUM

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