

# ACHIEVEMENTS

Being the project aimed to promote resource efficiency and waste management and improving health conditions of the population, the data on socio-economic characteristics are a relevant part of the whole project.

The achievements can be summarized in terms of:

**Socio-Economic and environmental benefits due to enhanced recycling market and to the use the WMA technology achievable through the application of new warm asphalt mixes composed by RAP and CRM from ELTs, compared to traditional hot mixes.**

- ✓ About **42,000 kg** of rubber from ELTs have been recycled. The actual results are about double those expected (**42,000 kg actual vs 24,000 Kg expected**)
- ✓ Reduction of the quantity of virgin stone aggregates and bitumen by using RAP: **327 tons of RAP** and about **15 tons of bitumen** deriving from it were used, so that as many virgin materials were **saved**.
- ✓ Reduction of working temperatures using WMA technology instead of traditional HMA. A total of about **118000 MJ of energy** were **saved** in the production of 4561 m of experimental Low Noise Pavement Surfaces (LNPs).



**Socio-economic and environmental benefits due to noise quality improvements:** Lden measured values were elaborated to obtain DALY values that were considered as estimate for health improvement.

Comparing measures ANTE – POST mitigation actions, it results:

- ✓ **ALden value** measured on each site (each consisting of 6 different trials sections) **is equal to - 3.5 dB** for site I and **- 4.0 dB** for site II.
- ✓ In terms of disability-adjusted life years (DALY), **the total DALY is reduced by 4**.
- ✓ The result of the survey on the population carried out through interviews or questionnaires showed a general positive impact as a lowering of perceived noise; the new road pavement looks effective in **reducing the noise emission** at the receiver also from the point of view of the **annoyance perceived**.

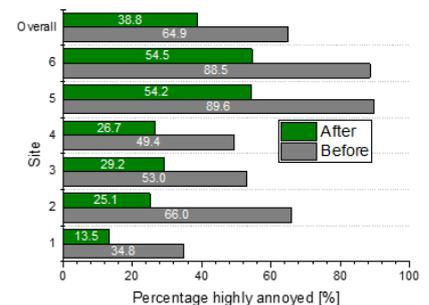


Figure 5- Comparison of the percentage of highly annoyed people (after and before)

**Socio economic and environmental effects due to the improvement of occupational health:** the improvement of occupational health was evaluated from PAH parameters.

- ✓ It came out that all the concentrations measured are under the most restricted limits and data related to the rubberized asphalt is lower than non-rubberized asphalt

**Socio-economic effects due to capacity building improvements in the local territory and in EU:** the impact was monitored according to the number of informed municipalities, authorities and employers involved in the local activities and in the networking and dissemination activities. Authorities and working groups involved in networking and dissemination will be reported as a proxy of the knowledge transfer performed during the project.

- ✓ The company winning the tender and the ones informed during the dissemination activities will be able to replicate the technologies and foster the use of such mixtures and techniques at least at national level.
- ✓ The experience of local companies will take positive effects to local economy due to more skilled and informed employers.
- ✓ The positive impact of the project in terms of capacity building improvements are directly linked also to the effect of dissemination activities and networking opportunities carried out during the Life NEREiDE Project.

*Deliverables C.2 Assessment of the socio economic impact*

*B.17b Report on replication and transfer strategy*