

# **RUCONBAR**

## **RUBBERISED CONCRETE NOISE BARRIERS**

Contract number: ECO/10/277317/SI2.595674

### **D6.1 Project information updates**

#### **Until June 30<sup>th</sup>, 2012**

## Project Information Sheet

### Rubberized concrete noise barriers (RUCONBAR)

<b>Programme area:</b>	Greening business, innovative product
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<b>Website:</b>	www.ruconbar.com
<b>Benefits</b>	RUCONBAR can help reduce the gap between the EU members and official & potential EU candidates through noise mitigation and waste management.
<b>Keywords:</b>	recycling, waste tyres, noise mitigation
<b>Sector:</b>	Green Business
<b>Type of solution</b>	Product
<b>Duration:</b>	01/09/2011 – 01/09/2014
<b>Budget:</b>	€ 1.102.809,00 (EU contribution: 50%)
<b>Contract number:</b>	ECO/10/277317/SI2.595674

### Summary

RUCONBAR is innovative, ecological and sustainable building product used for traffic noise reduction. The main concept of this solution is utilisation of recycled tyres as a new material in noise control. In its nutshell, RUCONBAR is a concrete noise wall panel composed of bearing and absorbing layer, which incorporates rubber granules recycled from waste tyres (Figure 1). Benefits of this concept are: preventing disposal of recyclable materials on landfills, preventing landscape degradation from the excavation of natural aggregates and clay (used in production of noise barriers) and noise protection by utilisation of recycled materials.

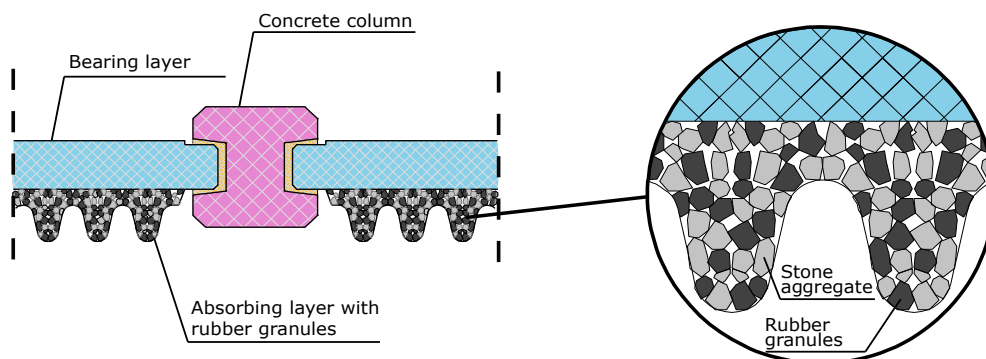


Figure 1 RUCONBAR cross section

The project relies on a SME for recycling of waste tyres and a SME for production of concrete elements. The aim of the project is to develop production line capable of producing RUCONBAR at desired and constant market quality and to develop market strategy for the introduction of this innovative product. In order to ensure high visibility of the project results, products first application will be in Zoological Garden of Zagreb: it will replace the inadequate fence between ZOO and Maksimirska Street, which is burdened with heavy traffic (Figure 2).



### Expected and/or achieved results

(1) **Major outputs:** developing easily transferable and highly replicative concept of waste tyres recycling by traffic sector as well as uptaking of scientific results to commercial, standardised and certified level of environmentally friendly product ready for market.

(2) **Impacts:** reduction in GHG emissions and consumption of non-renewable resources as well as recycling of waste tyres.

(3) **Potential market:** Croatia, new EU member states and neighbouring countries – those markets are recognised as potential beneficiaries of RUCONBAR project results, due to the amount of unmanaged waste tyres, underdeveloped transportation infrastructure or/and little efforts taken in traffic noise mitigation compared to EU15.

(4) **Expected uptake** of RUCONBAR has been assessed upon the future investments in roads and railways in potential market. Forecasted market demand on the nucleus market (Croatia) and replication market (Bosnia & Herzegovina, Bulgaria, Montenegro, Serbia) amount to 745 800 m<sup>2</sup> of barriers. It is expected that 50% of the market forecast will be realised during RUCONBAR project, given the current global economic situation.



Figure 2 Visualization of the first application of RUCONBAR