

Verification of Noise Mapping in Serbia Using CNOSSOS-EU:2015 and the EU Interim Method

Grilo, Álvaro¹
INERCO Acústica. Seville, Spain

Shilton, Simon²
Acustica, Manchester, United Kingdom

Tommasi, RafDouglas C.³
Tommasi and Tommasi. Udine, Italy

Michalík, Jiří⁴
Institute of Public Health, Ostrava, Czech Republic

Perić, Kristina⁵
Ministry of Environmental Protection. Belgrade, Republic of Serbia

Krstić, Ivana⁶
Department of Environmental Protection. Niš, Republic of Serbia

ABSTRACT

Computer models have been used widely for the assessment of environmental noise levels since the late 1980s. Once the results of the noise calculations have been developed, it is becoming increasingly common to undertake some form of validation exercise to cross reference the calculated levels with measurements. In order to reduce uncertainty in the evaluation data it is necessary to capture the dynamic elements of the situation during the noise level measurement campaign. Based upon the results of the monitoring, the long-term noise level measurements may then be analysed with reference to the source data and meteorological data in order to establish a stratified set of measurement windows. The dynamic elements may be introduced into the calculation model, to enable the model to replicate the situation during the measurement windows, creating a series of meta-models. The results from the calculations of each of these meta-models may then be compared with the noise measurement results as the basis for the validation study. This paper presents an overview of a verification project undertaken in the Republic of

¹ agrilo@inercos.com

² simon.shilton@acustica.co.uk

³ rafdouglas@gmail.com

⁴ jiri.michalik@gmail.com

⁵ Kristina.Peric@ekologija.gov.rs

⁶ ivana.krstic@gu.ni.rs

Serbia where such a process was followed using both the CNOSSOS-EU:2015 and EU Interim Methods as the basis of comparison.

Keywords: CNOSSOS, noise mapping validation.

I-INCE Classification of Subject Number: 76