

ACOUSTICS2008/2153 Strategic Noise Mapping of the City of Ljubljana, Slovenia

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Currently Ljubljana is the only agglomeration according to the definition of the directive 2002/49/EC in Slovenia. For this agglomeration, separate noise maps not only for road and rail traffic but also for industrial sources were made. As for the first phase of preparation there is no precise methodology stated for representing industrial noise sources in strategic noise maps regarding END and following the vision of other EU countries, only industrial plants classified as IPPC installations were taken into consideration of noise mapping. Short term noise measurements around industrial plants conducted according to ISO 1996 during previous three years were used as reverse engineering techniques for the determination of sound power levels of industrial plants. Elaboration of road and rail traffic noise maps required development of perfect acoustical model with 3D terrain modelling including all possible obstacles (barriers, walls, bridges, viaducts, etc.). For calibration of noise maps more than 30 measurements were performed following the standard DIN 45642. During all stages of elaborating noise maps, quality assurance procedures were performed with a view to estimate accuracy of the results. Strategic noise maps of the agglomeration performed at municipal level of Ljubljana will be used mainly for drawing up action plans and spatial planning of areas with different noise levels allowed.