Next, the labeled audio clips were exported as independent *.wav* audio files using a sampling rate of 48 KHz and 16 bits/sample. Each filename contained the following parts: type of sensor (*s*: Bruel & Kjaer 2250 Sonometer, or *z*: Zoom H4n recorder plus Bluewave sensor), type of event (*rtn*, *bck*, *peop*, *musi*, *tram*, *sire*, *stru*, *horn*, *brak*, *thun*, *bird*, *trck*, *door*, *airp*, *wind*, *bike*, *mega*, *busd*, *chai*, or *dog*), order of appearance of this type of event in the same audio project (from 0 to 100), direction of measurement in relation with the traffic direction (*f* : forward, *b*: backward, *fb*: in both directions, or *o*: orthogonal), elevation angle of the measurements (0º, 45º or -45º), type of road (*h*: highway, *r1*: two-way wide road, *r2*: one-way wide road, *r3*: two way narrow road, *r4*: one way narrow road, *w1*: two-way wide road with wet pavement, *w3*: two-way narrow road with wet pavement), type of traffic (*df*: dense and fluid, *dr*: dense with retentions, *l*: low, or *vl*: very low). Additionally, ANE audio clips were also tagged with a computation of the relative amount of ANE amplitude with respect to BCK noise in dBs manually. This computation was performed individually for each audio clip, taking into account the signal to background noise ratio along the ANE with respect to a portion of audio of at least 30 immediately before or after the occurrence of the anomalous event. This extra information was added to include valuable information for the training step of the ANED algorithm (i.e., for excluding from training the anomalous events that have a very low amplitude with respect the background noise).

CONCLUSIONS AND FUTURE WORK

In this work, we have described the environmental noise recording campaign performed in May 2015 in the two pilot areas of the LIFE+ DYNAMAP project: Rome and Milan. The main goal of the campaign has been collecting enough representative acoustic data to train, validate and test the ANED algorithm included in the project to avoid including noise sources different from traffic when computing noise maps dynamically. After obtaining nearly 10 hours of audio, subsequent labelling and post-processing has led to 7 hours, 48 minutes and 38 seconds of RTN, 38 minutes and 37 seconds of BCK, and 25 minutes and 54 seconds of ANE. The rest of the recorded audio was labeled as complex audio passages. During this work, we have realized that the latter passages will need further analyses. Future work will be focused on training the ANED with the obtained acoustic database and validating its performance with respect to the results obtained previously based on synthetic databases.

ACKNOWLEDGMENTS

The research presented in this work has been partially supported by the LIFE DYNAMAP project (LIFE13-ENV/IT/001254). We would like to thank our colleagues in ANAS S.p.A. and Università de Milano-Biccoca for their support during the recording campaign.

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