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Cost-effectiveness of railway noise measures in practice

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The Dutch noise nuisance law enforces railinframanager ProRail to take noise measures when railway transport is growing, new lines are built or changes are made to the existing lines. Also, measures are taken by the Dutch government at existing "hotspots". At the moment the toolbox of measures includes noise barriers, sleeper renewal, raildampers, acoustic grinding and façade insulation. The life-cycle costs of these measures have been derived from recent projects. This paper focuses on the evaluation of the cost-effectiveness of these measures in typical situations where the choice of the application of noise mitigation measures was made recently. In what circumstances is it considered to be appropriate to take measures, and how much money will be available? Are source measures like raildampers more cost-effective compared to noise barriers? The introduction of a track-access-charge system which differentiates on the noise emission of trains concludes this paper.