

# PROJECT PROFILE



<b>Title</b>	<b>A probabilistic framework for improved roads management NOISE ADAPT</b>
<b>Contractor</b>	Professor Enda Murphy
<b>Contact details</b>	School of Architecture, Planning & Environmental Policy, Planning Building, Richview, Dublin 4,
<b>TII Mentor</b>	Vincent o Malley
<b>Start date</b>	May-17
<b>End date</b>	May-19
<b>Status</b>	Complete
<b>Type of project</b>	TII Research Project
<b>Project reference</b>	

<b>Description</b>	<p>This project was a collaborative research project commissioned by the EPA entitled “Common Noise assessment methodology (CNOSSOS). This project was to identify Ireland’s adaptation needs for transitioning to the CNOSSOS-EU standardised noise modelling approach as well as the standardised approach for population exposure estimation. Assessment Methodology for Round 4 noise mapping under the Environmental Noise Directive” under their Research Call 2017 programme. The objective of the research was to identify the technical challenges and develop practical solutions for the successful implementation of the EU’s new common noise develop practical solutions for the successful implementation of the EU’s new common noise assessment methodology (CNOSSOS). This project was to identify Ireland’s adaptation needs for transitioning to the CNOSSOS-EU standardised noise modelling approach as well as the standardised approach for population exposure estimation.</p>
--------------------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

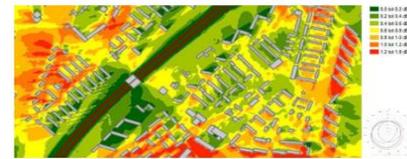


Figure 1. calculations with the CNOSSOS calculation method and the noise level difference symmetrical and asymmetrical compass rose.

**Calculations with the CNOSSOS calculation method and the noise level difference symmetrical and asymmetrical compass rose.**

<b>Objectives</b>	<p>The specific objectives of the study included:</p> <ol style="list-style-type: none"> <li>1. To provide a data needs/gaps assessment for adapting to CNOSSOS-EU in the Irish context for road, rail, air and industry;</li> <li>2. To test the CNOSSOS-EU method within an Irish city (Dublin) and along a major road outside and agglomeration to assess its suitability/shortcomings for Ireland including issues related to the point-to-point propagation under CNOSSOS-EU;</li> <li>3. To explore the applicability of the CNOSSOS-EU method for estimating population exposure in Ireland;</li> <li>4. To reassess past noise mapping data and population exposure estimates using CNOSSOS-EU;</li> <li>5. To develop practitioner guidance for future noise mapping rounds using CNOSSOS-EU;</li> <li>6. To assess the suitability of existing noise policy/legislation in light of the transitioning to CNOSSOS-EU.</li> </ol>
-------------------	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

<b>Benefits</b>	<p>Understanding environment–health priorities is a core objective for national action in the EPA 2014-2020 Strategy and noise pollution is an important component of such priorities. This research informed the implementation of the implementation of the EU Environmental Noise Directive in 2022 under CNOSSOS-EU. Whilst Ireland has a statutory obligation to meet the requirements of the Directive the additional benefit is that noise pollution is an important issue for maintaining and reinforcing environmental sustainability.</p> <p>Additionally, the proposal addresses the EPA’s thematic research priority area of health and well-being, in particular developing national capacity at the interface of health policy and environmental regulation, and contributing towards meeting Ireland’s legislative obligations under EU law. In this regard, the current project directly addresses Ireland’s obligations under the terms of the EU Environmental Noise Directive and Ireland’s transposition of the Directive under Statutory instrument no.140 of 2006. The project also has the potential to contribute to wider EU environmental policy and guidance in the area of CNOSSOS-EU implementation.</p>
-----------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

**Outputs**

This information was used to inform the deliberative process of the National Overview Committee