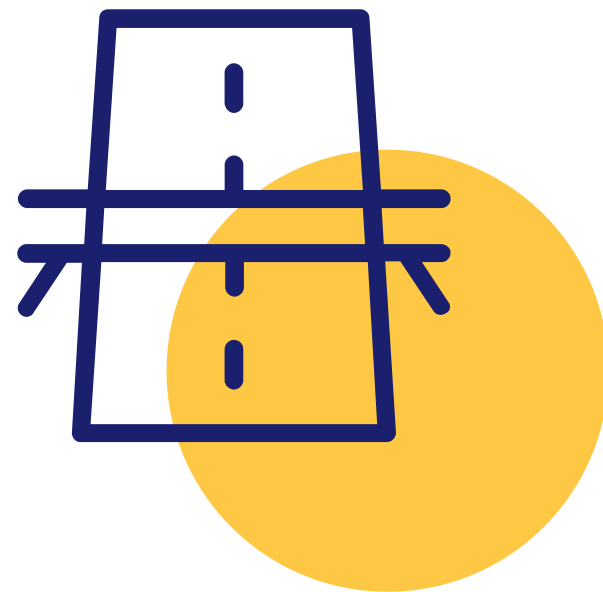


**Transport Infrastructure Ireland**

# **Noise and Vibration Assessment of Proposed National Roads – Standard Document**

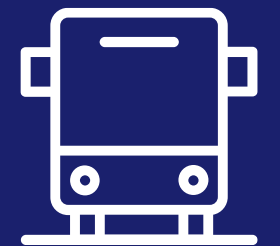


16 – 18 June 2025

# Agenda

Noise and Vibration Assessment of Proposed National Roads – Standard Document

- 1. Background – Challenges to be addressed**
- 2. Overview of Standard Development (Work Phase A and Work Phase B)**
- 3. Programme and next steps**



# Background

## Challenges to be addressed

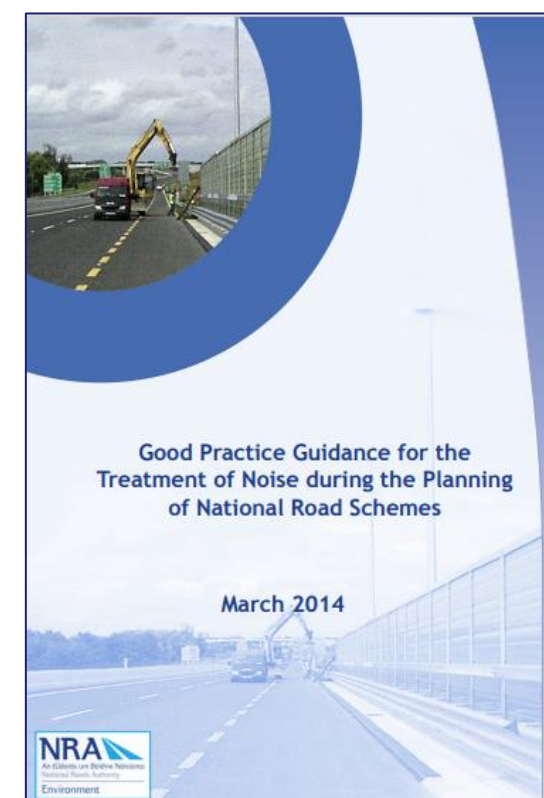
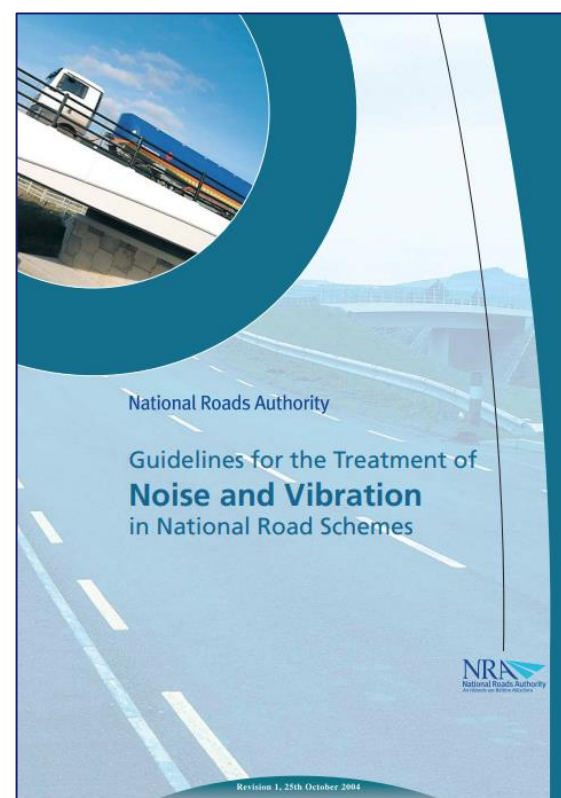


# Background

## Noise and Vibration Assessment of Proposed National Roads – Standard Document

### Guidelines for the Treatment of Noise and Vibration in National Road Schemes 2004

- Design Goal of 60dB L<sub>den</sub> for new national roads projects to ensure that the roads programme proceeded on a path of sustainable development
- Design Goal did not take into consideration the existing receiving environment and varying sensitivities of different receptors
- Good Practice Guidance for the Treatment of Noise during the Planning of National Road Schemes (2014)

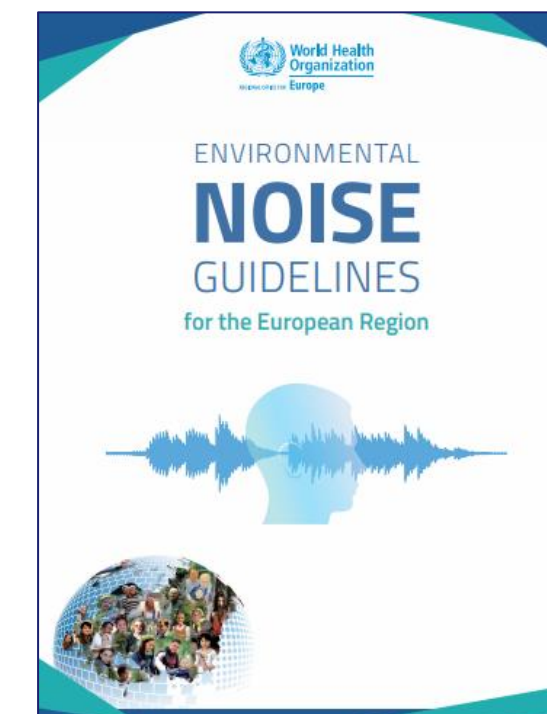


# Background

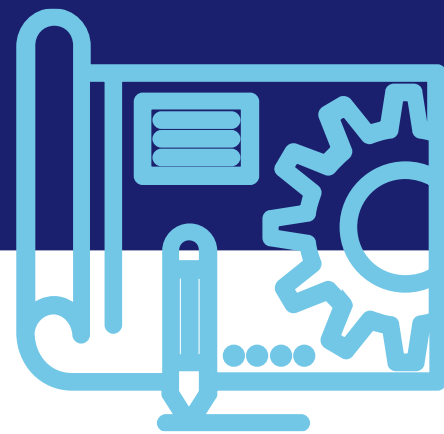
## Noise and Vibration Assessment of Proposed National Roads – Standard Document

### Developments at European level

- Environmental Noise Guidelines for the European Region – World Health Organisation [WHO ENG]
- Pathway to a Healthy Planet for All EU Action Plan: Towards Zero Pollution for Air, Water and Soil – European Commission
- CNOSSOS-EU noise prediction methodology
- Integration with other environmental impact factors (Population and Human Health, Biodiversity, Landscape, Traffic and Transportation)
- Standard development to consider the implications for TII of developments and inform an assessment methodology to ensure the sustainability of developing national roads



# Overview of Standard Development



# Overview of Standard Development

## Noise and Vibration Assessment of Proposed National Roads – Standard Document

- TII 2021 Open Research Call: Assessment of Noise Impacts from National Roads Projects considering the World Health Organization Environmental Noise Guidelines for the European Region
- Project Partners: University of Galway, University College Dublin, RPS (Tetra Tech), Austrian Institute of Technology
- TII Project Manager: Stephen Byrne
- Contract Signed: September 2022
- Contract Duration: 3 years (including extension)
- TII Publications: Planning and Evaluation (PE) Environment (Env)



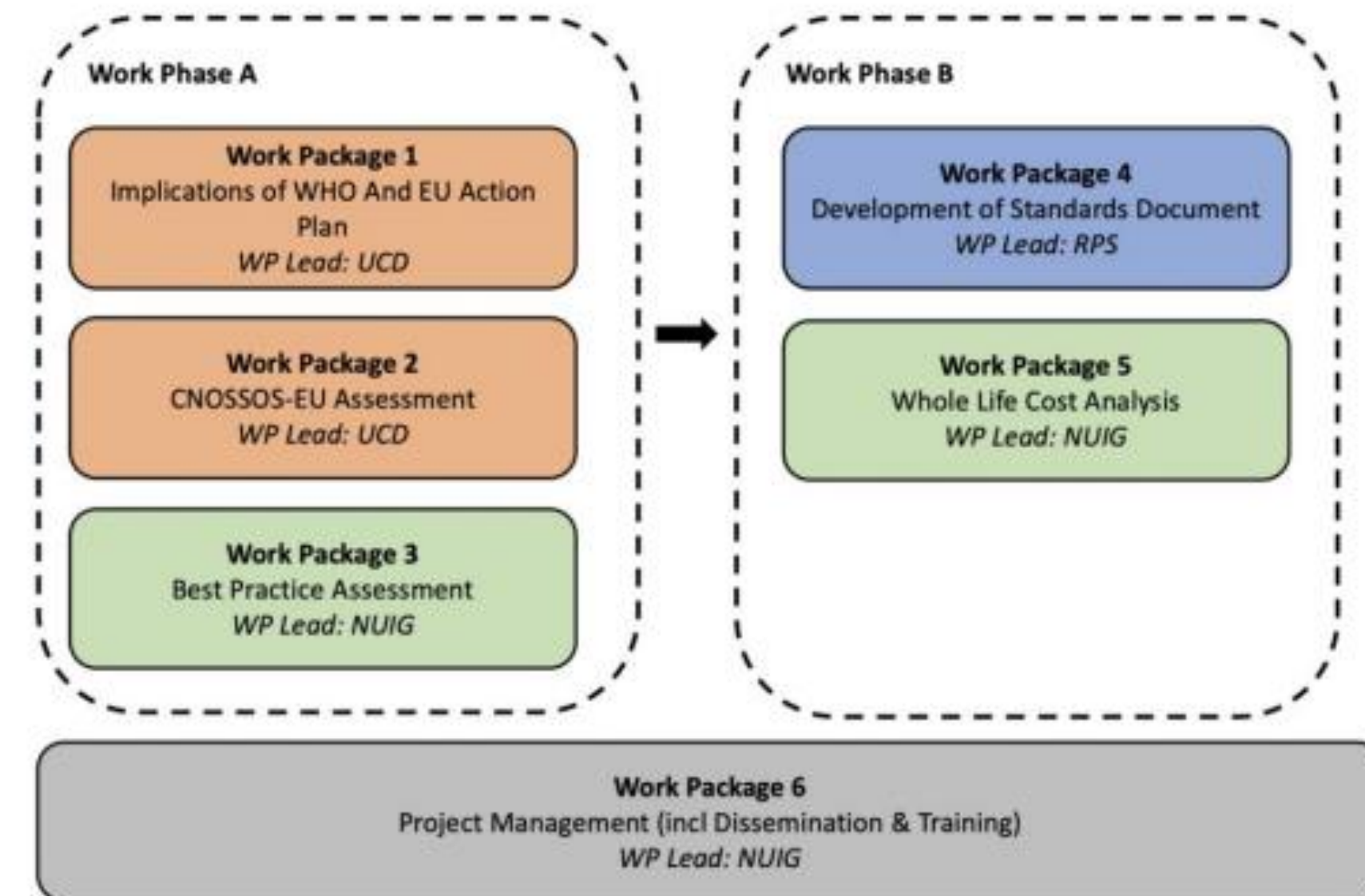


# Overview of Standard Development

## Noise and Vibration Assessment of Proposed National Roads – Standard Document

### Work Phase A - Complete

- International Benchmarking: Assessment best international practice for noise impact assessment
- Consideration of the implications of the 2018 WHO Noise Guidelines, as well as the EU's Pathway to a Healthy Planet
- Compared two noise calculation methods:
  - UK's Calculation of Road Traffic Noise (CRTN) and the European CNOSSOS-EU method
- Conducted a review of the costs of noise mitigation measures, along with an assessment of the socioeconomic costs of road traffic noise in Ireland
- Current Design Goals were assessed, and recommendations for updates developed



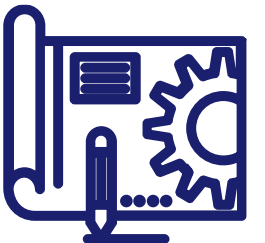


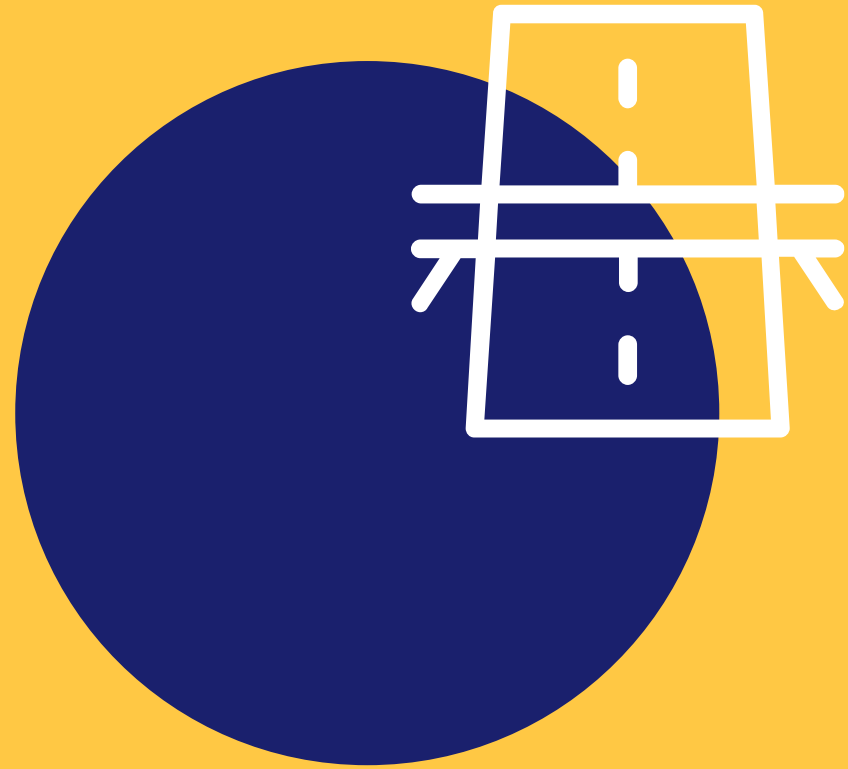
# Overview of Standard Development

## Noise and Vibration Assessment of Proposed National Roads – Standard Document

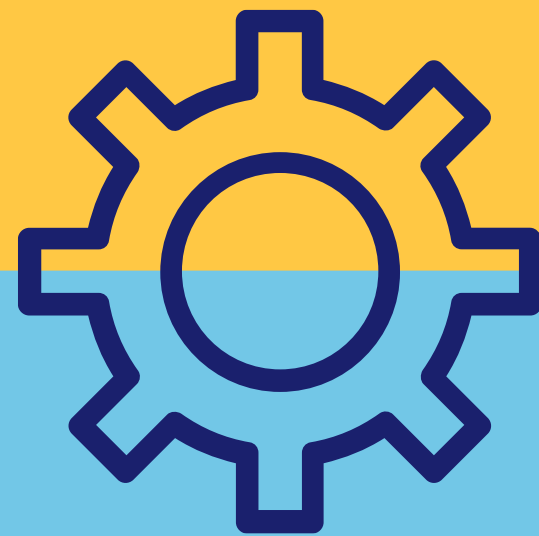
### Work Phase B (ongoing)

- Standard Document under development (1<sup>st</sup> Draft reviewed by TII)
- Integration with Project Appraisal Guidelines (PAG), Project Management Guidelines (PMG) and Project Mangers Manual (PMM).
- Focussed on Noise and Vibration Input, Objectives, Activities & Project Deliverables for Phases 0 - 4
- Approach to Construction Noise and Vibration
- Relative Operational Impact Noise Assessment Criteria
- Noise prediction methodology (leveraging previous TII funded research)
- Approach to assessment of service areas, toll schemes, and other infrastructure associated with national road projects
- Requirements for of the Competent Noise and Vibration Assessment Practitioner





# Programme and Next Steps



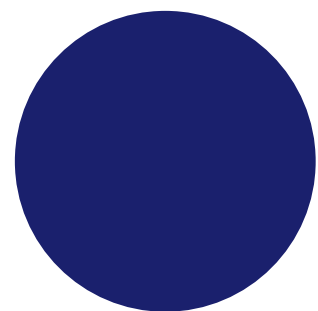
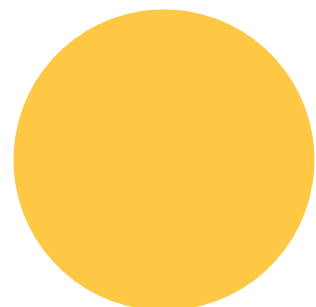
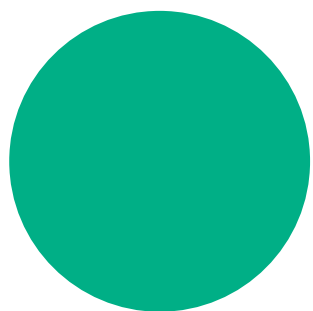
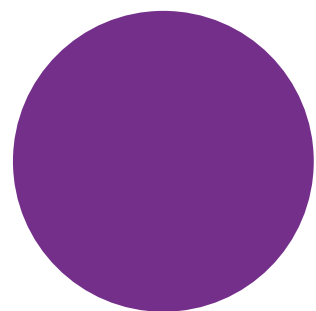
# Programme and Next Steps

## Noise and Vibration Assessment of Proposed National Roads – Standard Document

- Further development of Standard Document in Q2 and Q3 with input from TII Capital Programme – Roads and Network Management
- Finalisation and Publication in Q4 2025
- Support implementation for proposed national road projects
- Deliver training roadshows across Ireland in Q1 / Q2 2026
- Modern, noise standard that aims to protect stakeholders while enabling essential, sustainable national road infrastructure and services
- Contribute to TII achieving its objectives as set out in TII Statement of Strategy (2021-2025)

# Thank you

## Questions?



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