PROJECT PROFILE

Title	Collision Prediction Model for the Irish National Road Network
Contractor	TRL Transport Infrastructure Ireland
Contact details	TRL Limited Crowthorne House Nine Mile Ride, Crowthorne, Wokingham RG40 3GA
TII Project Manager	Suzanne Meade
Start date	Nov-21
End date	Nov-23
Status	Complete
Type of project	TII Research Project
Project reference	TII268 Lot 1: Developing an Accident Prediction Model for Ireland
Description	The aim of this work was to develop accident Prediction Models (APMs) using pre-existing data for TII's road network. APMs relate crash numbers to physical road features and exposure (traffic) data. Regression techniques were used to provide quantitative estimates of the impacts of these road characteristics on safety. Practitioners can use the developed Crash Modification Factors (CMFs) to assist them to identify the most appropriate road designs in given circumstances. These can also be used in economic appraisal for road design upgrades over the long term; this again assists decision making and improves transparency.
Objectives	The objectives of the project were: 1) To understand the extent to which APMs can feasibly be developed from Irish data using establishe methadologies (identified through a literature review), and 2) To develop a tool for practitioners to make better use of APM findings and CMFs
Benefits	This research demonstrated that APMs can be developed for the Irish context. The output CMFs and crash reduction tool provide empirical and evidence based information for project appraisal - road safety practitioners can use these to more accurately estimate the impact (on crash reduction and economically) of proposed schemes.
Outputs	Collision prediction models with crash modification factors (CMFs) - one for each of four road types. A collision reduction calculator tool for use by road safety practitioners. Two technical reports outlining the methodology and results.