PROJECT PROFILE

Title	**Assessment of ecological mitigation measures used on national road schemes**
Contractor	University College Cork
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NRA Mentor	Christian Nea
Start date	Jan-10
End date	Dec-12
Status	On-going
Type of project	Research Fellowship: 3-year PhD project (Eugene Finnerty)
Project reference	RFP013/09

Description	During the recent road construction programme an evolution has taken place in the development of ecological mitigation measures and the NRA has attempted to follow best international practice in the design and implementation of appropriate measures. However, a number of issues have occurred in the operation and functionality of the end product, often as a result of a failure to assess and modify as necessary the specific design features at construction stage. As a result mammal passage facilities go unused and their target species continue to suffer losses as compensatory habitats and landscape features fail to develop as designed. This research project will consist of an evaluation of the environmental mitigation measures adopted in various road schemes, including a study of the initial requirements and the performance of the adapted solution. The research outputs will be used to improve guidance on the selection of appropriate mitigation on the basis of performance and value for money.
Objectives	The research entails a review of the various environmental mitigation measures used on different road schemes around the country (selected in conjunction with the NRA). This will include, in each case, a study of the Environmental Impact Statement, the tender documents and translated requirements, the detailed design, and the construction and implementation of the mitigation measures. An assessment of the feature and its functionality in accordance with the initial design requirement and objective will then follow.
Benefits	This research will contribute to sustainable development by protecting the natural environment and demonstrating that mitigation measures are developed in a cost-effective manner. It will enable the Authority to fulfil its legal obligations and demonstrate adherence to its own Environmental Operation Plan. The main deliverable will be an assessment of whether the end-product mitigation measure meets the initial design objectives and requirements and if not, where it falls down and at what stage in the process it has failed. The assessment will identify the significance of any failings and the implications in view of legislative requirements or commitments given in the EIA stage. It will finally provide recommendations for rectification and for over-coming these short-comings in future and ongoing projects.
Outputs	Reports on: 1. The effect of national road schemes on habitat connectivity and dispersal behaviour of various species including otters, badgers and birds; 2. Recommendations for the improvement of the NRA's guidelines having regard to engineering, cost and legal implications; 3. A GIS database indicating the location of mammal fatalities on the national road network along with recommendations for the cost-effective remediation of hotspots; 4. Fulfil the NRA's commitments as outlined in the Species Action Plans for otters and other animals.