

PROJECT PROFILE

Title	Weight limits for motor vehicles and trailers in Ireland: Impact of an increase in vehicle weights on structures	
Contractor	RODIS	
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Start date	Jan-11	
End date	May-11	
Status	On-going	
Type of project	NRA Research Project	
Project reference	NRA04250/RFPhgvregs	

Description	<p>This research project relates to the requirement to investigate the full impact of adopting a higher weight limit for HGVs on Irish roads. The current EU accepted weight limits are 40 tonnes on a five-axle vehicle and 44 tonnes on a six axle vehicle. However, in Ireland a derogation to allow 42 tonnes on a five axle vehicle was implemented on a temporary basis: this derogation expired in September 2011. A study has previously been carried out by the Road Safety Section of the Department of Transport over the past number of months in relation to the derogation class as well as other appropriate vehicle weight limits. The recommendation from this study, approved by the Minister of Transport, was that a detailed analysis of the affect on structures of the 5 axle (2+3) 42 tonne and the proposed 6 axle 46 tonne vehicles be carried out. This project was commissioned to comply with this recommendation.</p> 
Objectives	<p>The purpose of this research project is to carry out detailed analyses to identify the full impact of these changes on bridges in Ireland so that a permanent solution can be implemented before the current derogation expires in June 2011. The aim is to move towards a minimum 4 tonne differential between the five axle and six axle articulated vehicles to encourage uptake of the six axle vehicle. To do this requires either the elimination of the derogation and re-establishing the 40/44 tonne allowances or provide justification for implementing a 40/46 tonne limit (or maybe even a 42/46 tonne limit if possible). This research will enable a definitive decision to be made at Departmental level.</p>
Benefits	<p>This study will allow an informed decision to be made as to whether an increase in the gross vehicle weight of 5- or 6-axle vehicles can be made with regard to its effect on existing highway structures. The analysis will include the full range of structures on Irish roads in terms of length, construction material and form. The conclusions of the study will be used to inform DOT policy on the vehicle weight legislation.</p>
Outputs	<p>The output of this project are as follows:</p> <ul style="list-style-type: none"> - Preliminary report on comparison between proposed vehicles and design and assessment load models - Report on detailed analysis of critical loading situations - Recommendations revisions to HGV loading regulations