Opening Statement

Joint Committee on Transport and Communications Networks

Peter Walsh, Chief Executive

Transport Infrastructure Ireland

Chairman, Members of the Committee, I thank you for your invitation to attend today. I am joined by my colleagues Pat Maher, Director of Network Management and Dr Suzanne Meade from TII's Road Safety Section.

I understand that the Committee is undertaking pre-legislative scrutiny of the General Scheme of the Road Traffic (Miscellaneous Provisions) Bill.

The section of the General Scheme specific to TII is in Part 6 which relates to making provision for variable speed limits.

I will first describe the work that TII has been undertaking in this area and I will go on to set out what is required in the Bill to support this work.

Since 2014, TII has been developing, and is currently constructing, a project on the M50, referred to as Enhanced Motorway Operation Service or eMOS.

eMOS will allow for the availability of lanes and the applicable speed limits of relevant stretches of roads to be controlled in a dynamic way. This system of motorway control will improve safety and efficiency and reduce environmental impacts of traffic. We think of this as "dynamic traffic management".

The eMOS system is needed to address the increasing numbers of collisions and levels of congestion on the M50.

In 2019, M50 operations crews attended 1,161 incidents. That averages 22 incidents each week of the year. The M50 is congested. In 2019, an average of 350,000 trips were undertaken each day on the M50. This represents an increase of 40% on 2011 figures.

The objective of eMOS is to improve safety for both road users and the people who respond to collisions and other incidents on the M50. This improvement in safety will be achieved by establishing speed limits that are appropriate to the traffic and weather conditions and closing lanes when required.

This level of control will also contribute to a reduction of carbon and particulate matter emissions through the elimination of 'stop-start' driving.

The eMOS project has a budget of €80m and a benefit-to-cost ratio of 2.8. The Business Case for the project has been reviewed and approved in accordance with the Public Spending Code and received Ministerial approval.

EMOS involves the installation 380 dynamic lane control signs on 98 gantries over 38km of the M50. Fibre optic cabling, connecting to road-side weather stations and traffic sensors, will transmit information to computers at the TII's Motorway Control Centre. These computers will continuously run algorithms to determine the appropriate speed required to achieve the safest and most efficient operating conditions for those 350,000 trips undertaken on the M50 every day.

This dynamic speed limit and lane control system is used on motorways in the UK, in continental Europe and in North America on the approaches to major cities. The M25 around London and the M6/M40/M42 Birmingham Box and the motorways of the Netherlands are good examples.

These systems are reliable and have provided significant improvements to the safety and emissions performance of those roads.

Work on construction of the required infrastructure has been on-going, almost entirely at night, for the last two years. Work on this project relates to critical transport infrastructure. TII personnel and contractors have worked continuously throughout the COVID-19 restrictions.

I would like to take this opportunity to acknowledge their work and, in particular, to thank the foreign specialist workers who have observed all quarantine restrictions and as a consequence have been away from their families for periods that were longer than initially planned for.

The work of construction and installation has progressed well, and the system will be capable of going live by October of this year.

What is required of the Bill to support this work?

1. Setting of speed limits is a reserve function of local authorities. The M50 motorway passes through the administrative areas of the four Dublin local authorities. It is not feasible to seek the approval of each local authority to dynamically set and revise speed limit zones in response to rapidly changing traffic or weather conditions. TII is not a road authority

for this purpose and does not have powers to set speed limits on national roads. This Bill must provide those powers to TII. The Bill must also provide TII with the ability to close lanes when needed.

2. The power of TII to provide, manage and operate the eMOS system needs to be clear.

3. A legislative framework which allows the system to be deployed and enforced in a practical and effective manner is required.

   The legislation must reflect the dynamic nature of the system. Speed limits will be set by the Motorway Control Centre, based on the outputs from the system, which will take into account a wide range of factors, including the computer analysis of weather and traffic conditions.

   The Motorway Control Centre staff must also be empowered to restrict the availability of traffic lanes through the use of "Red X" and Lane Divert Arrows, displayed on over-lane digital signage. This is required to improve the safety of road users, emergency services personnel and road workers.

4. This system will only be as good as its enforcement. TII recommends that the approach, reflected elsewhere in the Road Traffic Acts, regarding the correctness of equipment should be applied to this system. There should be a presumption, capable of being rebutted in court, that the system is working correctly in the context of a prosecution.

The conclusion of the committee's pre-legislative scrutiny of this Bill will go a long way towards providing the legislative framework required to allow this project to deliver the benefits that it is capable of.

I invite all members, who might be interested in seeing how the system is intended to operate, to view a demonstration of the system, if that would be of assistance to your considerations of this important legislation.

I am happy to attempt to answer any questions that the Committee may have. If my colleagues or I cannot provide a comprehensive answer today I will provide a response as soon as practicable.

That concludes my opening Statement. Thank you for your attention.

Peter Walsh
Chief Executive