

Written evidence submitted by Mr Henry Peacock (RSM0034)

I am concerned about how the safety of motorways has been assessed and compared by the Department for Transport, and whether the unusual and arbitrary 'fatal and weighted injuries' (FWI) rate adopted by the DfT for this exercise is the appropriate measure.

Smart Motorways; How safety is measured

1. The benefits and safety of Smart Motorways are to be investigated by the Transport Committee. The Chair of the Transport Committee, Huw Merriman MP, said: "The Department for Transport says Smart Motorways help us cope with a 23 per cent rise in traffic since 2000, helping congestion. The Department's own Stocktake report points to lower fatal casualty rates for smart motorways without a permanent hard shoulder than on motorways with a hard shoulder. The serious casualty rate is slightly higher."

2. For the purpose of this exercise, the Department for Transport has adopted an unusual and arbitrary measure of road safety, the 'fatal and weighted injuries' (FWI) rate. Other measures may well produce a different result. I am concerned that the Chair appears to have accepted the Evidence Stocktake and Action Plan at face value before it has been scrutinised.

3. In his Foreword to the Evidence Stocktake and Action Plan, Grant Shapps, Secretary of State for Transport, says; "In three of these four years, the "weighted rate" - that is, all casualties (fatal, serious and slight) weighted by seriousness - was lower for smart motorways without a permanent hard shoulder than it is on motorways with a hard shoulder."

4. In a fair comparison, like should be compared with like. Traffic speed is a factor that affects road safety. It also affects journey times. Smart Motorways are, by their nature, busy and congested roads. Traffic speed on a Smart Motorway is therefore likely to be lower than that on a conventional motorway. This should be taken into account in any comparison of safety, but

it is not a factor directly considered in the 'fatal and weighted injuries' (FWI) rate.

5. On the other hand, fatal injuries are heavily weighted in the 'fatal and weighted injuries' (FWI) rate. But fatal injuries are determined by factors which go beyond the type of motorway, for instance, access to emergency and medical care. And fatal injuries are much less frequent than serious injuries. In both respects, fatal injuries are not necessarily a good indicator of road safety.

6. There is no clear justification for adopting the 'fatal and weighted injuries' (FWI) rate as the measure of safety. The weightings are quite arbitrary. I am not convinced at all that this is the appropriate measure of safety, though I cannot say whether it is biased in favour of or against Smart Motorways. I hope that the inquiry will be able to dispel any suspicion that the Department for Transport has searched for a measure of safety that will show Smart Motorways in a good light.

7. I would like to see the 'fatal and weighted injuries' (FWI) rate adjusted for traffic speed and compared with measurements of safety which have a different weighting or are not weighted at all. I suggest a 'KSI (Killed or Seriously Injured) and weighted injuries' rate, with KSI and slight injuries weighted by seriousness.

8. While Smart Motorways do bring safety features, these are counter-balanced by the removal of the hard shoulder. And by any measure, a motorway with a hard shoulder is safer than the same motorway without a hard shoulder. This has a great impact on public confidence in Smart Motorways.

9. The Introduction to the Evidence Stocktake and Action Plan states: "Smart motorways are needed to keep the country moving. They have raised the capacity of our busiest motorways by up to a third."

10. "Safety is paramount for all road users," posted Transport Minister Jesse Norman on 22 November 2018. I hope that the Department for Transport will

remember this and not place a higher value on the capacity of a motorway than its safety.

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