



ice | wales cymru

17 April 2018

By email: [SeneddEIS@assembly.wales](mailto:SeneddEIS@assembly.wales)

Dear Sir / Madam,

Institution of Civil Engineers  
2<sup>nd</sup> Floor, Cambrian Buildings  
Mount Stuart Square  
Cardiff Bay CF10 5FL

Sefydliad y Peirianwyr Sifil  
Cambrian Buildings  
Sgwâr Mount Stuart  
Bae Caerdydd CF10 5FL

**e/ebost** keith.jones@ice.org.uk  
www.ice.org.uk/wales  
@ICEWalesCymru

### **The National Assembly for Wales' Economy, Infrastructure and Skills Committee inquiry into the State of Roads in Wales.**

I am delighted to provide input into the Committee's inquiry into these issues. I note that you have split the inquiry into three sections and I have given my input accordingly.

- ***The current condition of roads in Wales and whether the approach to funding and delivery of maintenance programmes for the local road, trunk road and motorway network in Wales is effective, managed so as to minimise disruption to road users, and provides value for money.***
1. There has been a long term underinvestment into the local road network in Wales. Whilst the investment into the maintenance of the motorway network was probably sufficient, and the trunk road network less so, the local (Unitary Council maintained) roads have severely lacked investment. Latterly however, the conditions of parts of the Motorway and All-Purpose Trunk Road networks are showing signs of a need to carry out repairs – potholes on these roads are growing. This is of particular concern as these are generally high speed routes.
  2. Considering that the road infrastructure represents arguably the most important infrastructure in Wales, this underinvestment is particularly alarming. All sectors Wales the business, commercial and residential sectors rely and use the road transport network at all times of the day and night. It is vital that this underinvestment is changed and given the priority status it deserves.
  3. Although politicians across all sectors have very difficult decisions to make across competing demands for funds with priorities given to Health, Education and Social Services – statutory Services, it must be remembered that all of these services rely on safe, well maintained roads to access their services and property.





4. The poorly maintained roads have an adverse effect on some road users, not just damaging tyres and suspensions but affect ambulances who need to gain rapid, safe (and smooth) movements for their patients as well as some vulnerable users – cyclists and motorcyclists. Accidents involving these users can be tragic.
5. Regrettably, without a well-planned long term asset management system in place – where regular planned maintenance does not take place, roads deteriorate and require higher cost surfacing and reconstruction. Roads are particularly vulnerable to frost and icy conditions, small cracks that form through lack of maintenance or poor utility reinstatement widen from a process termed ‘freeze thaw’ where water ingress into a crack expands on the formation of ice. This is repeated during night / day – freeze / thaw and destroys the fabric of the roads – both carriageway and footways. Well maintained roads are sealed and do not allow the formation of cracks that water can access.
6. Whilst Councils could for example enable some one percent of their local roads to be resurfaced in a year, for a resident this would mean that on average each road is only resurfaced every one hundred years; thus residents are unlikely to ever see their local road resurfaced in their lifetime.
7. There is a well proven link between investment in the infrastructure of a country (Wales) and its economic growth. Wales must continue to invest in the road infrastructure. For every pound invested, there is a rate of return multiplier of 2.85%.
8. An immediate capital injection of funds to address the backlog of repairs is needed together with adequate funds for the future. Highway maintenance is not an elective service, it is a statutory duty.
  - ***Whether major enhancement projects on the local road, trunk road and motorway network are prioritised, funded, planned and delivered effectively, and provide value for money. Relevant issues include the implementation of the Early Contractor Involvement approach and the opportunities offered by the Welsh Government’s Mutual Investment Model.***
9. Wales needs and deserves an efficient and reliable road transport network. The lack of investment in a capital programme for the road transport network has led to a backlog of projects that need to be constructed. The change from the use of the former ICE 5<sup>th</sup> and 6<sup>th</sup> Editions of the Conditions of Contract to a non-adversarial type of contract e.g. the NEC 3 suite of contracts provides better value for money for clients with all parties to the contracts having a stake in a successful output. One of the main changes is the introduction of Early Contractor Involvement where the construction expertise of contractors working closely with designers achieves better, sustainable results. Each sharing in a common goal of a successful project delivered on time and to budget.





ice | **wales cymru**

10. There is a growing backlog of projects that are required to be completed across Wales. Examples include the A465, Caernarfon to Bontnewydd, Newtown By-pass as well as improvements to the A55.
11. The Welsh Government Mutual Investment Model (MIM) is a way to invest in public infrastructure developed in Wales. MIM has been designed by the Welsh Government to finance major capital projects due to a scarcity of capital funding. The MIM can support additional investment in social and economic infrastructure projects and help to improve public services in Wales. MIM schemes can see private partners build and maintain public assets. In return, the Welsh Government will pay a fee to the private partner, which will cover the cost of construction, maintenance and financing the project. At the end of the contract the asset will be transferred into public ownership. These types of funding are not widely used for road projects in Wales; they are a form of funding used for example for hospitals and have been widely criticised because of the high long term costs and non-sustainable approach.
  - ***Whether Wales is adopting a sustainable approach to the maintenance and enhancement of its road network in the context of key legislation such as the Well-being of Future Generations (Wales) Act 2015 and the Active Travel (Wales) Act 2013.***
12. All funding in Wales needs to be considered in the context of the Well-being of Future Generations (Wales) Act 2015. Wales needs to be adopting the principles of sustainable development and changing the modal split to more sustainable forms of transport and considering the requirements of the Active Travel (Wales) Act 2013. An excellent example of how this can be done is with the proposed M4 Corridor around Newport. Not only does the project address the long needed full efficient motorway access through the blockages / pinch points associated with the Bryn Glas Tunnels but the existing (to be former) motorway network can be changed to provide better bus/cycling/walking services.

On behalf of the Institution of Civil Engineers Wales Cymru I would like to express our thanks for giving me the opportunity to comment on these issues.

Yours sincerely,

**Keith Jones**

Director, ICE Wales Cymru

**Notes:**

The Institution of Civil Engineers (ICE) was founded in 1818 to ensure professionalism in civil engineering. It represents 90,000 qualified and student civil engineers in the UK and across the globe and has over 3,600 members in Wales

ICE has long worked with governments of the day to help it to achieve its objectives, and has worked with industry to ensure that construction and civil engineering remain major contributors to the UK economy and UK exports For further information visit [www.ice.org.uk](http://www.ice.org.uk) and [www.ice.org.uk/wales](http://www.ice.org.uk/wales)

