



**National Assembly for Wales Public Accounts Committee
Inquiry into the value for money of motorway and trunk road investment**

Comments from Chartered Institution of Highways and Transportation (South Wales Branch)

Note: These comments supplement those provided by the North Wales Branch – Evidence reference MTRI 08 and should be read in conjunction with them.

1 Background

1.1 The Chartered Institution of Highways and Transportation (CIHT) was established in 1930 as the Institute of Highway Engineers; it was granted its Royal Charter in 2009. Today it has around 13,000 members worldwide, with over 700 members in Wales, across both the public and private sectors and a range of transportation disciplines. There are currently two branches in Wales – North and South – but from May 2015 there will be one branch representing the whole of Wales.

1.2 CIHT will be represented by:

a). Eurling David Meller, BSc(Hons), CEng, CEnv, MICE, FCIHT, MAPM, a committee member of the North Wales Branch with 30 years' experience in the highway industry, working on both trunk and county road improvements and maintenance projects. He has delivered a number of trunk road major projects in North Wales over the last 20 years, working direct to Welsh Government as client, and also worked extensively for North and Mid Wales Trunk Road Agent (NMWTRA).

b). Russell Bennett, BEng (Hons), MBA, CEng, MICE, MCIHT, MCMI, chair of the South Wales Branch. Russell has 26 years' experience of delivering major projects across Wales, including ones for the Welsh Government. He was previously Head of Major Projects in the Transport Department (2007 to 2012) of Welsh Government and is currently the Regional Director (Highways) with WSP Parson Brinckerhoff, a global engineering consultancy which has a long track record of delivering projects and services for the Welsh Government and SWTRA, NMWTRA and many local authorities in Wales.

The following comments focus on the issues relevant to South Wales and the experiences of committee members in the Branch. It should be noted that the South Wales branch of CIHT includes a wide range of members who work in both the private sector so the views try to provide a balanced view of our membership.

2 Whether the Welsh Government's approach to delivery of major trunk road projects provides value for money

2.1 The effectiveness of Welsh Government planning and costing of schemes

2.1.1 The Welsh Government's (WG's) approach to planning and costing of major trunk road projects is generally good. Our main observations are:

- i. The regular publication of a National Transport Plan (NTP) and formerly the Trunk Road Forward Programme (TRFP) provides industry with a clear view of forthcoming schemes giving time and opportunity to prepare for tendering and delivery, thus providing cost effective, high value delivery. There is however a tendency for schemes to be delayed through budgetary uncertainty and competing priorities for scarce resources as well as political indifference to road schemes generally. There are also a number of schemes which have remained in the NTP and TRFP for over a decade with no prospect of moving forward.
- ii. Whilst there are regular procurement updates to the supply chain on the timing and priority of schemes these are insufficient without clear Ministerial statements for industry to make investment decisions in their workforce and provide training to meet the increasing pipeline of work. Even the regular Wales Infrastructure Investment Plan updates do not provide sufficient certainty on the detail and timing of schemes.
- iii. The WG faces a difficult challenge in assessing the cost of schemes, particularly at the early stage of development. There isn't a large database of historical data to draw from so the WG is reliant on the expertise of its engineering advisors. There are rules for the application of allowances for optimism bias and calculating risk but these can't always be relied upon particularly as the Welsh Trunk Road network is diverse and includes some challenging terrain, as is being faced on the construction of the A465 Heads of the Valleys scheme between Gilwern and Brynmawr (Section 2).
- iv. Since the introduction of alternative forms of procurement, particularly the use of Early Contractor Involvement (ECI) forms of contract, the accuracy of the WGs planning and cost forecasting of its major highway schemes has improved. Schemes such as the M4 Widening around Cardiff, the A470 Cwmbach to Newbridge and the A477 St Clears to Red Roses improvement have all been delivered on time and within budget. The delivery of small to medium term size projects continue to face problems due to a variety of reasons but including the difficulty in accurately planning and costing schemes as mentioned above.
- v. The WG has improved the link between project delivery and future management of the resulting asset. The provision of whole life cost solutions is now being addressed during the design and construction stages of project. However, the WG has yet to embrace the full benefits of Building Information Modelling (BIM) techniques in both the delivery and future maintenance of its highways assets.

2.2 The approach to project delivery and evaluation of projects

2.2.1 The Welsh Government's (WG's) approach to the delivery of major trunk road projects is generally good. However, we consider the approach to the evaluation of projects, particularly post-completion is in need of improvement. Our main observations are:

- i. The WG uses the delivery processes set out in the UK Design Manual for Roads and Bridges (DMRB) as well as its own Road Procedures Guidance (RPG) which applies the WGs own requirements for the delivery and evaluation of projects. The RPG requires investment to enable processes to be modernised to reflect current practices across the industry in the UK.
- ii. The standardisation of more modern contract forms and the increased use of expert technical advisors has resulted in better governance and more accurate contract outcomes.
- iii. The interim evaluation of projects during the delivery stage doesn't appear to be routinely undertaken although internal Gateway Reviews are carried out on major projects.
- iv. We are aware that the post-completion evaluation of project delivery is routinely undertaken but the results are rarely published to enable lessons and good practice to be disseminated.

2.3 How the Welsh Government could improve its approach to planning and delivery of schemes

2.3.1 The WG could consider the following actions/initiatives:

- i. The publication of confirmed longer term budgets (greater than 1 to 3 years) for forward pipelines of work would provide greater certainty and confidence in the supply chain. In addition, committed timescales for individual projects with more accurate dates for delivery would be beneficial.
- ii. The WG should consult with other public sector bodies who procure highways projects (but particularly Highways England) to determine current best practice and lessons learned. The WG should consult more closely with industry, trade organisations and Institutions such as the CIHT (and the Institution of Civil Engineers - ICE).
- iii. The WG should work with the Highways Agency (soon to be Highways England) to develop joint cost databases which have a greater depth and range of information to inform/validate the costing of schemes.
- iv. Whilst the use of ECI forms of contract has improved the planning and costing of major schemes the WG should look for similar, innovative approaches to its medium and smaller scheme programme of work. The Highways Agency has developed Optimised Contractor Involvement (OCI) forms of contract which determine the best time to involve the constructing team in the development of projects. In general, the WG should investigate newer, more innovative forms of contract which could lead to greater efficiencies and increased value for money.
- v. The WG should provide detailed guidance on its requirement for BIM and give a firm commitment to implementing BIM Level 2 on all its projects by 2016 in line with the UK Government's commitment to do the same.

- vi. The WG should routinely publish the results of its project evaluation analyses to enable best practice and lessons learned to be disseminated across industry.

3 The extent to which the current approach to routine maintenance and improvement of the network via Trunk Road Agents has delivered value for money

3.1 There has been significant improvement in the delivery of routine maintenance and improvement of the Trunk Road and Motorway by the WGs Agents'. Our main observations are:

- i. The lack of confirmed longer term budgets (greater 3 years) provides uncertainty and an inability to plan for the longer term. Investment decisions are also focussed on the short term as budgets are generally insufficient to enable proper whole life cost decisions to be made.
- ii. There have been significant efficiency gains in SWTRA by adopting best practice from around the UK. To step to the next level consideration should be given to the benefits of more modern asset management style contracts (as adopted by the Highways Agency in England).
- iii. There have been improved efficiencies through greater collaboration with the supply chain and local authority direct labour organisations. The current model for delivering smaller maintenance and improvements schemes in SWTRA utilises long term frameworks with the private sector supply chain which has contributed to this, although local authorities still have an important part to play particularly in rural areas.
- iv. There are pros and cons with regard to whether the Agents' are best placed to deliver trunk road improvement schemes. The loss of in-house capability and capacity has meant the private sector supply has had to be engaged. The benefits include access to wider UK and International best practice whilst the disbenefits can be the loss of long term knowledge and local expertise within the Agent organisations.

4 How the maintenance and improvement functions delivered by the Trunk Road Agents can be improved, in the context of the on-going Welsh Government review of these agents.

4.1 We have following observations on areas of potential improvement:

- i. Budget certainty should be provided with longer term commitments to funding of routine and major maintenance. Funding periods of up to 5 years (as is proposed for Highways England and used by Network Rail for its 'Control Periods') should be considered to provide a more robust platform for whole life cost investment decision. The approach in England should be closely monitored to determine if similar arrangements should be implemented in Wales.
- ii. The WG should consult with other public sector bodies who procure highways maintenance contracts to determine the value (or otherwise) of engaging the private sector more closely and on longer term framework arrangements. The implementation of asset management contracts (with or without private funding)

should be considered. More innovative funding methods, including the establishment of a Not-for-Dividend organisations to maintain the network should be considered.

5 Conclusions

- 7.1 The WG generally obtains a good level of value for money in the maintenance and improvement of the Welsh trunk road network. The delivery of major trunk road projects is generally good, with scope for improvement in most areas.
- 7.2 Major project delivery would benefit from improved transparency for the supply chain on the timing of schemes as well more use of alternative, modern forms of contract. Increased guidance and investment in BIM as well as access to best practice and the lessons learned from previous projects would help provide increased value for money.
- 7.3 The WGs Trunk Road Agents would provide greater efficiency and value for money if they were provided with longer term budget certainty so that more robust, longer term whole life cost investment decisions can be made.
- 7.4 The WG should consult more closely with other public sector bodies, but particularly Highways England, to assess the value of adopting best practice and the use of more modern forms of procurement and funding.