

**National Assembly for Wales**  
Public Accounts Committee

# Value for Money of Motorway and Trunk Road Investment

June 2015

Cynulliad  
Cenedlaethol  
Cymru

National  
Assembly for  
Wales



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# Public Accounts Committee

The Committee was established on 22 June 2011. The role of the Public Accounts Committee is to ensure that proper and thorough scrutiny is given to Welsh Government expenditure. The specific functions of the Committee are set out in Standing Order 18. The Committee will consider reports prepared by the Auditor General for Wales on the accounts of the Welsh Government and other public bodies, and on the economy, efficiency and effectiveness with which resources were employed in the discharge of public functions.

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## Current Committee membership:



**Darren Millar (Chair)**  
Welsh Conservatives  
Clwyd West



**Mohammad Asghar**  
Plaid Cymru  
South Wales East



**Jocelyn Davies**  
Plaid Cymru  
South Wales East



**Mike Hedges**  
Welsh Labour  
Swansea East



**Sandy Mewies**  
Welsh Labour  
Delyn



**Julie Morgan**  
Welsh Labour  
Cardiff North



**Jenny Rathbone**  
Welsh Labour  
Cardiff Central



**Aled Roberts**  
Welsh Liberal Democrats  
North Wales

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The following Member was a Member of the Committee during this inquiry:



**William Graham**  
Welsh Conservatives  
South Wales East

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## Chair's Foreword

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Over the past two years, the Public Accounts Committee has developed new ways of working and undertaken a series of member initiated inquiries in addition to those which follow reports provided by the Auditor General. In December 2014 the Committee agreed to undertake such an inquiry into the maintenance of and investment into the Welsh trunk road network.

Our work considered whether the approach taken by the Welsh Government in delivering major trunk road projects and maintenance of the existing network had provided value for money.

Our inquiry drew on the findings of a January 2011 report by the Auditor General on Major Transport Projects, which our predecessor Committee was unable to consider fully. That report covered arrangements for the delivery of Welsh Government-funded schemes for trunk roads, as well as for other local roads and rail schemes. It found that even whilst taking into account higher than expected price inflation in relation to construction, budget constraints and reprogramming decisions, projects had still cost more and taken longer to deliver than expected.

The evidence we heard suggested that timescales for major projects were not specific enough and there was a lack of consistency and transparency around decision-making and budgets. Effective project management, followed by robust planning, is essential to ensuring major transport projects are completed on time and within budget. We believe that better value for money and accountability can be achieved by the Welsh Government through the implementation of the recommendations in this report, which include the publication of a regularly refreshed programme of work on the trunk road network, including information on political prioritisation of projects and anticipated timetables for their delivery.

The Committee is aware that the financial climate in the public sector has been challenging of late and we note that recent years have seen a deterioration in the maintenance of motorway and trunk road network in Wales. When resources are limited a balance must be struck

between investing in laudable new road projects and maintaining the existing road infrastructure.

The Committee was concerned by the evidence that suggested a reduction in the monitoring of the condition of the trunk road network and its assets. We believe that the timely maintenance of the network is essential to achieving best value for money for taxpayers and that effective planned and reactive maintenance are essential to securing its condition and longevity.

Moving from annual budgeting cycles to multi-year budgets may also assist in improving the management of the network in the future.

A well maintained and developed trunk road network in which disruption due to maintenance or improvement is minimised helps to underpin the strong Welsh economy that everyone in our nation is striving for. We trust that the recommendations in this report will help to deliver just that.

**Darren Millar AM**  
**Committee Chair**

## Recommendations

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**Recommendation 1.** The Committee recommends that the Welsh Government engage with the industry to understand its needs and ensure that information provided on the trunk road project pipeline is accurate and up-to-date. (Page 20)

**Recommendation 2.** The Committee recommends the Welsh Government should publish a clear prioritised list of all trunk road projects, with indicative dates. This list should include information on the current status of the projects and should be refreshed regularly, with reasons given for any change in status and priority. (Page 20)

**Recommendation 3.** The Committee recommends the Welsh Government publishes details of the scope, approach and timetable for the review of the Welsh Transport Appraisal Guidance (WelTAG), including the approach to consultation, and publishes the outcome of the review once completed. (Page 23)

**Recommendation 4.** The Committee recommends the Welsh Government undertake a review to understand the factors leading to cost overruns on lower value projects and consider whether Early Contract Involvement (ECI), or the principles of ECI, might improve performance on projects with a value of under £18 million. (Page 28)

**Recommendation 5.** The Committee recommends that the Welsh Government explores all possible avenues to improve engagement with statutory undertakers, including legislative tools and further engagement with the UK Government. We ask that the Welsh Government report back to the Committee in the autumn term on how its work in this area is progressing. (Page 33)

**Recommendation 6.** We are concerned that the current balance between planned and reactive maintenance may not be appropriate, and note SWTRA's comments regarding the impact of financial constraints on both the deterioration of the condition of the road network and the number of unplanned repairs leading to inefficient use of resources. The Committee recommends that the Welsh Government clearly identify the reasons for the recent deterioration of the trunk road network and publish a plan to address these issues and reverse this deterioration within a defined time period. (Page 38)

**Recommendation 7.** The Committee recommends that, in preparing the plan recommended above, the Welsh Government should set out clearly how it will achieve an effective balance between planned and reactive maintenance, and between major projects (new roads or major improvements) and maintenance of existing trunk roads, in the future. (Page 39)

**Recommendation 8.** The Committee recommends the Welsh Government ensures that there is consistency between the policies of the North Wales and South Wales Trunk Road Agents. (Page 43)

**Recommendation 9.** The Committee recommends that, as part of the on-going review of Trunk Road Agents, the Welsh Government should consider the advantages and disadvantages of establishing a single Trunk Road Agent and whether this could provide a more consistent approach to delivery of functions across Wales and improved value for money. (Page 44)

**Recommendation 10.** The Committee recommends that accountability for the planning and delivery of minor improvement schemes via Trunk Road Agents and their local authority and other organisational partners be clarified and publicised so that it can be clearly understood by members of the public. (Page 44)

**Recommendation 11.** The Committee recommends that options for longer-term funding periods to allow better planning of maintenance works should be considered as part of the review of Trunk Road Agents. The Welsh Government should monitor the effectiveness of the five-year budget cycles used to fund Highways England. (Page 51)

**Recommendation 12.** The Committee recommends the Welsh Government explores alternative methods of funding, including private investment, in schemes which offer the use of priority or freight lanes in congested areas. Any schemes considered by the Welsh Government should be subject to robust business planning, including a full cost benefit analysis. (Page 51)

**Recommendation 13.** The Committee recommends that the Welsh Government's response to this report sets out clearly the steps remaining for implementation of an effective information management tool for trunk road improvement projects, management of maintenance programmes and monitoring of network condition. This

should include the timeframe for each step and the deadline for full implementation. (Page 55)

**Recommendation 14.** The Committee recommends the Welsh Government undertakes an industry wide capability and competence audit across the private and public sector in Wales and sets out its approach to addressing any gaps identified. (Page 58)

**Recommendation 15.** The Committee recommends the Welsh Government develop a means of monitoring and reporting on performance in co-ordination, communication etc. of road works and management of incidents to allow the effectiveness of the approach taken to be understood. This should include regular reporting on the volume of complaints and publication of such data in the public domain. (Page 64)

**Recommendation 16.** The Committee recommends the Welsh Government continue to monitor the trial of screens on the M4 toll gates to Junction 35, to maintain the integrity of crash sites and mitigate against drivers trying to view the aftermath of a traffic accident and report back to the Committee on their success. (Page 64)

**Recommendation 17.** The Committee recommends the Welsh Government engages with road users and their representative organisations to better understand and address concerns about communication and co-ordination of local road works and management of incidents. (Page 64)

**Recommendation 18.** The Committee recommends that the Welsh Government improves its communication and co-ordination with Highways England regarding road works and schemes that have an impact on both sides of the border and ensure information is made available to the public. (Page 64)

# 1. Introduction

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## Background

1. In January 2011, the Auditor General for Wales (“the Auditor General”) published a report on Major Transport Projects.<sup>1</sup> The report examined whether Welsh Government funded major transport projects completed between 2004 and 2010 had met their objectives and were delivered to time and cost.
2. The scope of the report covered arrangements for the delivery of trunk road schemes, as well as for other local roads and rail schemes funded by the then Welsh Government Transport Grant. The report did not consider issues relating to maintenance of the road network or network management.
3. The Welsh Government responded to the Auditor General’s report and the Acting Director General for the then Department for Economy and Transport appeared before the Public Accounts Committee of the Third Assembly.<sup>2</sup> The Committee did not have opportunity to give the report further consideration.
4. On 13 January 2015, the Public Accounts Committee agreed to undertake an inquiry into value for money of Motorway and Trunk Road Investment.

## Welsh Trunk Road Network

5. The Welsh Ministers are the statutory “highway authority” for the Welsh trunk road network, and are directly responsible for its operation, maintenance and improvement (local authorities fulfil the same role for local roads).
6. The Welsh trunk road network has an asset value of around £13.5 billion. The most recent Welsh Government statistical bulletin on road lengths and conditions (December 2014)<sup>3</sup> states that in 2014 the network comprised 1,709km, composed of 1,576km of trunk road and

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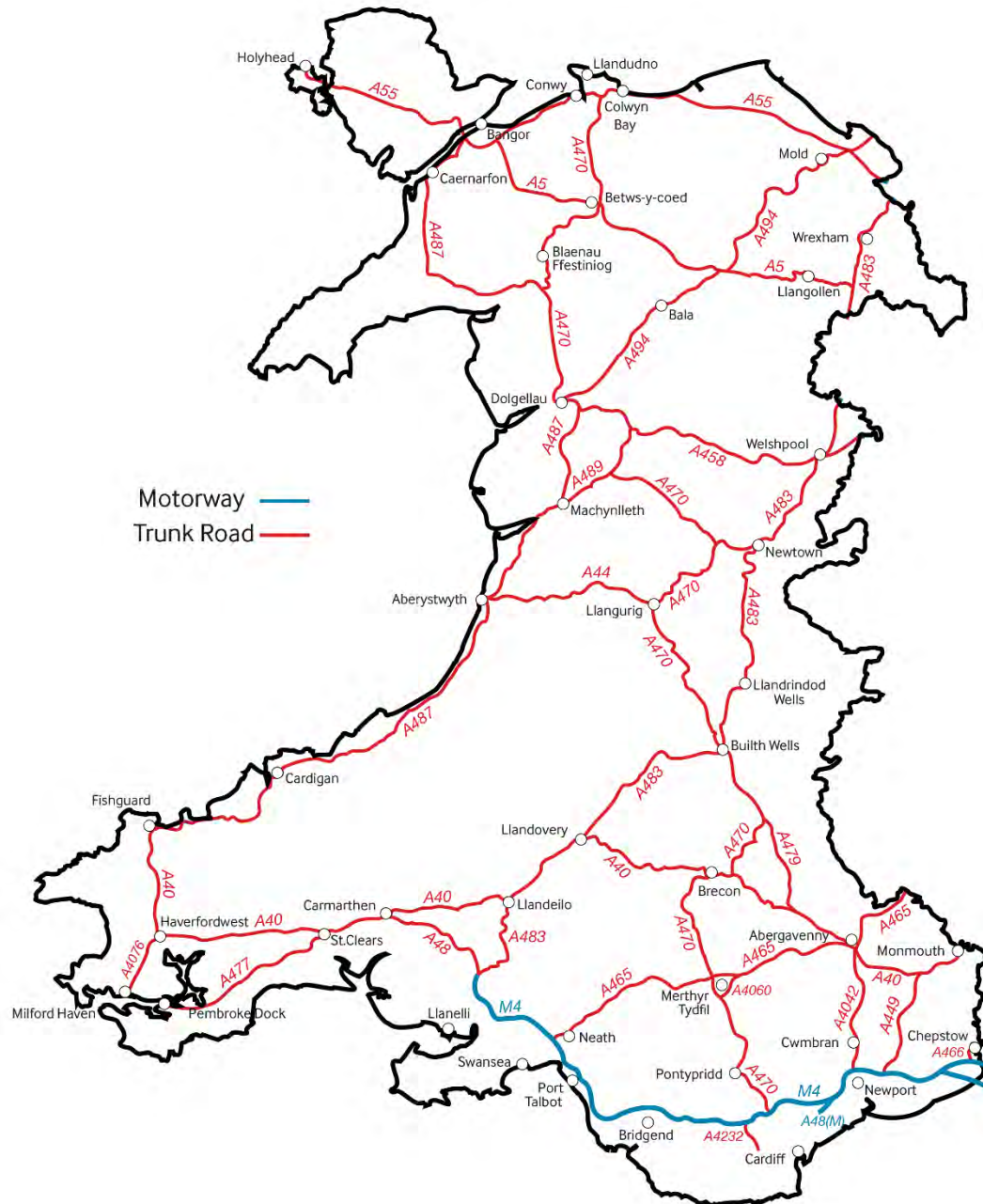
<sup>1</sup> Wales Audit Office: Major Transport Projects Report, 27 January 2011: [www.audit.wales/publication/major-transport-projects](http://www.audit.wales/publication/major-transport-projects)

<sup>2</sup> Public Accounts Committee, Third Assembly, 23 March 2011

<sup>3</sup> Statistical bulletin: <http://gov.wales/statistics-and-research/road-lengths-conditions/?lang=en>

133km of motorway.<sup>4</sup> The total road length of all classes in 2014 was 34,459km. Figure 1 shows the Welsh trunk road network.

7. Figure 1:<sup>5</sup>



<sup>4</sup> While motorways are technically classed as special roads they are managed as trunk roads

<sup>5</sup> Adapted from Welsh Government Cartographic Department, Trunk Road Network Map, © Crown Copyright October 2010. [Accessed 01 June 2015]

### ***Terms of scrutiny***

8. The Committee agreed to consider the following proposals as part of its inquiry:

- whether the Welsh Government's approach to delivery of major trunk road projects provides value for money including:
  - the effectiveness of Welsh Government planning and costing of schemes;
  - the approach to project delivery and evaluation of projects; and
  - how the Welsh Government could improve its approach to planning and delivery of schemes.
- the extent to which the current approach to routine maintenance and improvement of the network via Trunk Road Agents has delivered value for money; and
- 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.

9. Whilst this was the scope of the inquiry as initially defined, the Committee considered wider evidence, including the resilience of the network, communication and incident management and these issues are reflected in the Committee's report.

### ***The Committee's approach***

10. Between 14 January 2015 and 13 February 2015, the Committee undertook a public consultation to inform its work. [Twenty four responses](#) were received during the consideration of this issue.

11. In addition, the Committee held five oral evidence sessions with witnesses, including the Welsh Government, Trunk Road Agents and academics. Details are available at Annexe A.

12. Prior to the oral evidence sessions, the Committee wrote to the Director General for Economy, Science and Transport, Welsh Government ("the Director General") requesting information including



an updated response to the Auditor General's 2011 report and the action taken by Welsh Government to address the recommendations.<sup>6</sup>

13. Following receipt of the information from the Welsh Government, the Auditor General provided commentary on the information provided by the Welsh Government.<sup>7</sup>

14. A number of high level themes emerged from this inquiry and the report focuses on major projects and maintenance along with cross-cutting issues.

15. The following report details the Committee's conclusions and recommendations based on the evidence received during the course of its inquiry. The Committee would like to thank all those who contributed.

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<sup>6</sup> PAC(4)-06-15 Paper 1 - Information from Welsh Government on Motorway and Trunk Road Investment

<sup>7</sup> PAC(4)-06-15 Paper 2 - Letter from the Auditor General for Wales

## 2. Prioritisation of Major Projects

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16. A key issue discussed by the Committee in relation to major projects was how clear the timescales for projects were, how well managed and how well understood by third parties.

### Background

17. The Welsh Government sets out its priorities for transport in its National Transport Plan (“NTP”).<sup>8</sup> The current NTP was developed in line with the Welsh Government’s policies and objectives for transport as set out in the Wales Transport Strategy<sup>9</sup> and the Welsh Government’s wider policy objectives as set out in the Programme for Government.<sup>10</sup>

18. In December 2014, the Welsh Government published its draft NTP for consultation, which divided transport schemes into short, medium and long term. The draft NTP listed three trunk road schemes described as “currently under construction”<sup>11</sup>, 16 “committed” schemes, and committed to developing schemes to improve the A494/A55/A548 Deeside Corridor.<sup>12</sup>

19. The Welsh Government’s consultation document stated:

“The purpose of the new NTP is to set the context and evidence to inform decisions on all transport investment (capital and revenue). The evidence base will be used to identify the type of transport interventions required, to specify the interventions to be progressed and to confirm the priorities for future investment. The new NTP sets out a short term delivery plan as well as priorities for the medium and longer term.”<sup>13</sup>

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<sup>8</sup> The first National Transport Plan was published in 2010

<sup>9</sup> The Wales Transport Strategy is a statutory document required by the Transport (Wales) Act 2006: [www.legislation.gov.uk/ukpga/2006/5/contents](http://www.legislation.gov.uk/ukpga/2006/5/contents)

<sup>10</sup> Programme for Government: <http://gov.wales/about/programmeforgov/?lang=en>

<sup>11</sup> Trunk road schemes Include: Improvements under construction to A465 Brynmawr to Tredegar (Section 3 of the Heads of the Valley dualling); Junction 33 M4 west/A4232 south dedicated slip road; A55 Safe Havens/Emergency Crossovers. The 16 committed schemes can be found at <http://gov.wales/docs/det/consultation/ntp/141210-ntp-draft-en.pdf>

<sup>12</sup> Welsh Government, Consultation Document: National Transport Plan 2015 – Draft

<sup>13</sup> *ibid*

20. The Welsh Government confirmed the final NTP would set out four general principles to inform the Welsh Government’s approach to prioritisation. These four general principles require that:

- the case for any intervention or specific project proposed should be backed by clear evidence;
- a project will only be progressed if it supported by a viable business case;
- where evidence suggests an intervention/project is not being delivered effectively, this will be investigated and the scheme halted if that is the most appropriate and cost effective solution;
- all projects will be evaluated and the benefits delivered recorded and tested against the businesses case.<sup>14</sup>

### **Evidence from respondents**

21. Witnesses were concerned that the timescales for major projects were not specific enough and there was a lack of budget transparency. In relation to the timescales outlined in the draft NTP, the South Wales Chartered Institute of Highways and Transportation (“CIHT”) said:

“...the timescales aren’t specific enough. ‘Short, medium and long term’—to the industry, is that a year, or three, or is it five years? So, I think, if we could see longer-term budgets with a bit more political commitment in terms of the timing of schemes and the time periods, it would go a long way towards having an industry in Wales that can deliver effectively on projects.”<sup>15</sup>

22. Several witnesses said that ‘stop-start’ funding of projects increased costs. The North Wales CIHT said that over “the last fifteen years or so, projects have appeared and disappeared, or disappeared and re-emerged for reasons which are not entirely clear”. They felt this led to increased costs as preparatory work had to be updated or repeated.

23. The North Wales CIHT referred to:

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<sup>14</sup> PAC(4)-10-15 Paper 3 - Additional Information from Welsh Government on Motorway and Trunk Road Investment (21 April 2015)

<sup>15</sup> Record of Proceedings (RoP), paragraph 140, 17 March 2015

“the importance of a clear pipeline of work, which allows the industry (both contractors and consultants) to maximise efficiency in delivery of schemes”<sup>16</sup>

24. The Freight Transport Association (“FTA”) agreed that stop-start funding was a “massive problem within all highway projects”, not simply in Wales, and that time and money is wasted “on projects simply because they’ve got so far down the line and then stopped”.<sup>17</sup>

25. The FTA said that if or when a project is “resurrected” because of the amount of time that has elapsed “you’ve effectively got to start all over again, certainly on the cost issues”. They said that this was one of the reasons they supported the “Highways England concept” (discussed further in Chapter 8).<sup>18</sup>

### **Evidence from the Welsh Government**

26. The Welsh Government said that alongside the finalised NTP there would be a delivery plan with times and budgets. In 2013 a Ministerial Task Force on North Wales Transport<sup>19</sup> was established. The Task Force submitted its report in December 2014, in response the Welsh Government said:

“The Delivery Schedule that will be published alongside the NTP will set out a forward plan of infrastructure projects that will be delivered over a rolling three year period.”<sup>20</sup>

27. The Director General said that the draft NTP now includes:

“...evidence in terms of journey times, average speed, modal shift...What we now need to do is ensure that that comes through a coherent framework with proper metrics and with proper cost-benefit analysis underpinning everything we do. Now, we always did as much of that as we could do; we’ve now got more information than we’ve ever had before.”<sup>21</sup>

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<sup>16</sup> Written Evidence, MTRI 08

<sup>17</sup> RoP, paragraph 186, 3 March 2015

<sup>18</sup> *ibid*

<sup>19</sup> North Wales Task Force: <http://gov.wales/topics/transport/rail/north-wales-task-force/?lang=en>

<sup>20</sup> Ministerial Task Force on North Wales Transport: <http://gov.wales/topics/transport/rail/north-wales-task-force/?lang=en>

<sup>21</sup> RoP, paragraph 128, 21 April 2015

28. The Deputy Director for Infrastructure Delivery said the Welsh Government hold supplier events to provide information on their programme for the following six to 12 months. He said this allowed suppliers to “gear up” and plan their resources, as well as encouraging “industry to work with their suppliers, so that, again, they’re not suddenly going to suppliers at the last minute to put prices together to bid for our works.”<sup>22</sup>

29. In explaining why projects appear and disappear from the delivery programme, the Welsh Government pointed to shifting political priorities, for example north-south versus east-west connectivity, and the need to ensure an “affordable list of schemes” as opposed to an undeliverable long-list.<sup>23</sup>

### **Our view**

30. The Committee acknowledges the delivery of trunk road schemes are subject to statutory process, including potential for local public inquiries and the requirement to obtain statutory approval can add unavoidable delays. We also understand the issues raised by the Director General when he referred to the effect of changing political priorities and the difficulty of committing to a delivery deadline which may unavoidably change; these can raise and then disappoint public expectations.

31. However, evidence received suggested that if the Welsh Government were to publish a clear pipeline of work, it would ensure industry could maximise efficiency in delivery of schemes. If longer-term budgets, which have been politically committed to, were available it could increase value for money in scheme delivery.

32. The Committee is also concerned that 12 months advance notice, or the information contained in delivery plans/schedule, referred to by the Welsh Government (above) may not be sufficient for contractors given the lead-in times for works and is not yet clear where or exactly when delivery plans will be published.

33. The Committee believes there is a need for the clearest possible information to be provided to the industry and the public alike. The Committee believes that it should be possible to provide information

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<sup>22</sup> RoP, paragraph 164, 21 April 2015

<sup>23</sup> RoP, paragraph 128, 21 April 2015

on delivery plans, and to update this regularly in such a way as to ensure the industry and the public are fully aware of the status of schemes.

**The Committee recommends that the Welsh Government engage with the industry to understand its needs and ensure that information provided on the trunk road project pipeline is accurate and up-to-date.**

**The Committee recommends the Welsh Government should publish a clear prioritised list of all trunk road projects, with indicative dates. This list should include information on the current status of the projects and should be refreshed regularly, with reasons given for any change in status and priority.**

### **3. Welsh Transport Appraisal Guidance (WelTAG)**

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#### **Background**

34. The Welsh Transport Appraisal Guidance (WelTAG) 2008 is the transport appraisal tool for Wales. All major transport initiatives must be appraised using this guidance at the planning stage, to ensure that schemes' impact on the economy, environment and society are considered. Developed by the Welsh Government, it applies to all Welsh Government funded transport strategies, plans and schemes.

35. The Welsh Government commissioned the Public Policy Institute of Wales to provide expert advice on strategic transport planning, which was undertaken by Professor John Preston of the University of Southampton. The study, *Approaches to Strategic Transport Planning*<sup>24</sup> identified shortcomings in WelTAG compared to WebTAG (the UK Government equivalent).

36. This study noted that WebTAG is a quantitative approach in which the impacts (positive and negative) of different interventions are set out in monetary terms, generating a benefit/cost ratio. The report stated:

“There have been a number of international reviews of transport appraisal...with the WebTAG system widely acknowledged as being world leading. By contrast, WelTAG seems light on quantification and does not provide value for money assessments. It seems to lack both a sound scientific basis and an underlying evidence base.”<sup>25</sup>

#### **Evidence from respondents**

37. The Committee received little evidence on WelTAG; only three respondents commented on the tool. Two respondents<sup>26</sup> were positive in their view and the third<sup>27</sup> made reference to Professor Preston's comment that WelTAG was “light on quantification”.

38. The Institution of Civil Engineers said:

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<sup>24</sup> *Approaches to Strategic Transport Planning Report*:  
<http://ppi.w.org.uk/files/2014/11/Approaches-to-strategic-transport-planning.pdf>

<sup>25</sup> *ibid*

<sup>26</sup> Written Evidence, MTRI 2 & 10

<sup>27</sup> Written Evidence, MTRI 11

“the Welsh Government approach to project delivery and evaluation of projects is robust in its use of WelTAG.”<sup>28</sup>

### **Evidence from the Welsh Government**

39. The Welsh Government confirmed that WelTAG does incorporate and draw on WebTAG so that quantitative elements of WebTAG are referenced and applied in WelTAG. The Director General said:

“WelTAG was always as good as WebTAG. In fact, that was its original genesis. We have tried to build on expertise elsewhere and not try and create something completely different for Wales. The bits that are coming into the Welsh model have been around sustainability, around making sure that we were consistent across different modes of transport, et cetera, et cetera. So, far from saying ours was inferior, I would probably say, if anything, ours was a bit better; of course, we are of a smaller geographical size and probably have less international interest focused on us.”<sup>29</sup>

40. The Welsh Government noted the criticism received from Professor Preston of WelTAG and said they had “sought clarification from him”.<sup>30</sup> The Director General said:

“that was a report commissioned by the Welsh Government to try and make our transport planning best in class, and we continue to engage with him and others who’ve done work on that. I think he might have changed some of his views on some of the detail in this...We’re working together to evolve our views on it. But we’re not in the place we’d like to be. We’d like things to be better, as I’ve said before.”<sup>31</sup>

41. The Welsh Government confirmed a review of WelTAG was expected to be undertaken in the second part of the year as part of “continuous improvement” and a “need to get to a position where we’ve got the best transport appraisal guidance”.<sup>32</sup>

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<sup>28</sup> Written Evidence, MTRI 02

<sup>29</sup> RoP, paragraph 16, 21 April 2015

<sup>30</sup> RoP, paragraph 20, 21 April 2015

<sup>31</sup> RoP, paragraph 23, 21 April 2015

<sup>32</sup> RoP, paragraph 24, 21 April 2015



## Clarification from the Public Policy Institute for Wales

42. Following the evidence session with the Welsh Government, the Public Policy Institute for Wales wrote to the Committee. They said that the purpose of the report by Professor Preston was to examine the international evidence about effective approaches to strategic transport planning and highlight any lessons that Wales might learn from these. They said it was focused at a strategic level, concerned with policies and plans rather than the application of particular approaches to specific programmes and projects.<sup>33</sup> They continued:

“The author, Professor Preston, based his observations about WelTAG on the Stage 1 application by AECOM to the National Transport Plan in 2010. He has since written confirming that they do not apply to Stage 2 WelTAG applications at a project level, which are largely based on WebTAG. I apologise for any confusion which the wording of his report may have caused and trust that this clarifies for members of the committee the context and scope of Professor Preston’s analysis.”<sup>34</sup>

### Our view

43. The Committee notes the evidence from the Welsh Government on the scope of WelTAG and its relationship with WebTAG, and is grateful for the clarification from the Public Policy Institute for Wales on the content of Professor Preston’s report. We also acknowledge that the Welsh Government will be undertaking a review of WelTAG. However, we are unclear on the scope and likely timeframe for the review or whether an updated version of WelTAG would be produced.

**The Committee recommends the Welsh Government publishes details of the scope, approach and timetable for the review of the Welsh Transport Appraisal Guidance (WelTAG), including the approach to consultation, and publishes the outcome of the review once completed.**

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<sup>33</sup> PAC(4)-15-15 PTN5 - Letter from Steve Martin Public Policy Institute for Wales (2 June 2015)

<sup>34</sup> *ibid*

## 4. Project Management and Procurement

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44. The Committee discussed the project management of major projects, including issues relating to procurement, cost overrun, delay and implementation of Early Contractor Involvement (ECI). The ECI model, where the contractor is involved before the detailed design stage, is an approach to contracting that supports improved team working, innovation and planning to deliver value for money. The benefit of ECI is that it utilises contractors' unique understanding of construction processes to optimise the design and delivery process.

### Background

45. The Auditor General's 2011 report highlighted significant delays and cost increases on major projects. The report noted:

“The Assembly Government’s procurement of trunk road projects has evolved in line with common practice, moving towards Early Contractor Involvement (ECI) as its preferred approach for contracts worth more than £18 million.”<sup>35</sup>

46. In the update letter from the Auditor General he said that while performance had appeared to improve, lower value schemes seemed to have experienced greater cost increases in later stages of delivery.<sup>36</sup>

47. The Auditor General's 2011 report stated the Welsh Government had introduced more disciplined project management and internal reporting arrangements to improve project performance during the construction phase of trunk road projects, although there remained weaknesses in information systems and record keeping.<sup>37</sup> The report also said:

“The Assembly Government has developed a set of key indicators to help manage contractor performance but their application is still not fully developed.”<sup>38</sup>

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<sup>35</sup> Wales Audit Office: Major Transport Projects Report, 27 January 2011

<sup>36</sup> PAC(4)-06-15 Paper 2 - Letter from the Auditor General for Wales (3 March 2015)

<sup>37</sup> Wales Audit Office: Major Transport Projects Report, 27 January 2011

<sup>38</sup> *ibid*

## Evidence from respondents

### *Procurement*

48. In terms of the approach to procurement of schemes, the engineering solutions provider Costain suggested:

“At present schemes are individually procured and delivered. There is no synergy between projects, there is no sharing of best practice or resources between contractors. In England the sharing of innovation / best practice between contractors is far more advanced.”<sup>39</sup>

49. The North Wales CIHT pointed to “a lack of a really good database of prices” which increased the subjective element of contractor selection making it more difficult to identify where bids were too low. They said in part this was the result of the nature of the “unique” trunk road network in Wales which is very varied making cost comparisons from one project to another difficult.<sup>40</sup> They said:

“So, to take costs from one project and compare them with a project in another part of Wales isn’t always that easy. There are a lot of historical data, but it’s quite hard to mix and match. In terms of the assessment of tenders, it really depends on the economic conditions at the time.”<sup>41</sup>

50. The North Wales CIHT also referred to a tendency for contractors to submit low bids to win the contract, with costs then escalating during delivery.<sup>42</sup>

51. However, there was recognition from the South Wales CIHT that the Welsh Government’s procurement was working well, by shortlisting five tenders to enable comparisons to be made and using an average price criterion in selection, rather than lowest price. It was noted that low bids could have been a result of the difficult economic period with some companies bidding “for the survival of their organisation”.<sup>43</sup>

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<sup>39</sup> Written Evidence, MTRI 13

<sup>40</sup> RoP, paragraph 155, 17 March 2015

<sup>41</sup> RoP, paragraph 156, 17 March 2015

<sup>42</sup> RoP, paragraph 155, 17 March 2015

<sup>43</sup> RoP, paragraph 157, 17 March 2015

52. Professor Lark agreed that there may be a benefit in investigating “whether even closer alliances / public private partnerships / private finance initiatives might be established with such providers to benefit from their commercial management and ability to invest in research and development”. However, he acknowledged that this could detract from the benefits of “competitive tendering that can be obtained at different points in the current procurement protocols.”<sup>44</sup>

### **Early Contractor Involvement**

53. It was widely accepted by witnesses and respondents that the ECI model was improving cost and time performance. Professor Lark said:

“The procedures that are currently being adopted by the Welsh Government are consistent with what is generally considered to be good practice in the industry. Early Contractor Involvement (“ECI”) is considered to be key to efficient planning, the provision of reliable cost and completion date estimates and the timely delivery of project outputs.”<sup>45</sup>

54. The North Wales CIHT agreed that once there is a commitment through ECI and contracts are in place “there’s a disincentive to cause any delay to that, because there are tangible costs.”<sup>46</sup>

55. The South Wales CIHT said “the Welsh Government has done really well on its form of procurement”. However, they suggested that the Welsh Government could learn lessons from other bodies including Highways England.<sup>47</sup>

56. The Civil Engineering Contractors Association Wales also felt there should be better collaboration between the four corners of industry: Welsh Government, local government, consultants and contractors. They said:

“I think that there is room for us to improve the way that we draw things together. To start doing this, we need to have discussions. Discussion is very important in setting a foundation for Wales. Then we need this vision of what the

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<sup>44</sup> Written Evidence, MTRI 17

<sup>45</sup> *ibid*

<sup>46</sup> RoP, paragraph 137, 17 March 2015

<sup>47</sup> RoP, paragraph 167, 17 March 2015

requirements are and to what direction we want to go in terms of structure and infrastructure throughout Wales.”<sup>48</sup>

### **Evidence from the Welsh Government**

57. On the issue of cost overrun, the Welsh Government said there had been an improvement since the Auditor General’s 2011 report. The Director General confirmed:

“if you look at the performance of our intervention since that report, we are, on average, about, I think, 1.6 per cent over budget, compared to, at that point, about 15 or 16 per cent over budget.”<sup>49</sup>

58. The Welsh Government said it was working to address the risk of overrun and had identified a need to continue to manage schemes effectively and ensure projects are value engineered, and contractors did not “over-engineer projects”.<sup>50</sup>

59. The Welsh Government confirmed “the vast majority of projects taken forward now are on the ECI contract basis” which is used on projects over £18 million.<sup>51</sup>

60. However, the Committee raised concerns that most of the cost overruns have been on lower value schemes and questioned the Welsh Government as to whether this was as a result of it not using the ECI model.<sup>52</sup>

61. The Director General said there were a few projects mainly in north Wales that had overrun by a higher percentage and agreed that this could have been related to the fact that “none of them went through the ECI process” but that this was not entirely clear.<sup>53</sup>

62. The evidence provided by the Welsh Government suggested that a revised Key Performance Indicator (KPI) system had been developed to monitor the performance of consultants and contractors during

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<sup>48</sup> RoP, paragraph 196, 17 March 2015

<sup>49</sup> RoP, paragraph 98, 21 April 2015

<sup>50</sup> RoP, paragraph 102, 21 April 2015

<sup>51</sup> RoP, paragraph 108, 21 April 2015

<sup>52</sup> RoP, paragraph 109, 21 April 2015

<sup>53</sup> RoP, paragraph 112, 21 April 2015

schemes. They said this was being piloted on the A465 dualling scheme and would be rolled out on future major road projects.<sup>54</sup>

### **Our view**

63. The Committee welcomes the progress made by the Welsh Government in managing the costs of higher value trunk road projects. We believe this represents a significant improvement in performance. However, the Committee is concerned that less progress has been made on lower value schemes where greater cost increases appear to occur at later stages of delivery and where ECI is not used.

**The Committee recommends the Welsh Government undertake a review to understand the factors leading to cost overruns on lower value projects and consider whether Early Contract Involvement (ECI), or the principles of ECI, might improve performance on projects with a value of under £18 million.**

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<sup>54</sup> PAC(4)-06-15 Paper 1 - Information from Welsh Government on Motorway and Trunk Road Investment (3 March 2015)

## 5. Statutory Undertakers and Utility Companies

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### Background

64. Statutory undertakers are companies and agencies, including utilities and telecom companies, with legal rights to undertake certain highway works as part of their own schemes and who may have to take action as a consequence of work required by the Welsh Government.

65. The Auditor General's 2011 report stated that "relationships with utilities companies have been problematic at times", largely due to poor communications and lack of Welsh Government influence over their priorities. The Auditor General recommended:

"That the Assembly Government engages with local government and the utility companies to develop some clearly agreed principles in terms of how they should work together throughout the lifecycle of major transport projects."<sup>55</sup>

66. The Auditor General's report suggested a number of options for improving working relationships with utility companies, including, if necessary, the scope for a change in the supporting legislation<sup>56</sup> to place a greater onus on utility companies to deliver their work in a way that is cost-effective and timely from the perspective of the public sector employer.<sup>57</sup>

67. The Director General's update letter stated that the Welsh Government was a member of the Welsh Highways Authorities and Utilities Committee and through that Committee, they were developing a Streetworks Strategy. Referring to the development of a Streetworks Strategy, the Director General said:

"This [strategy] is currently in draft and will go out for consultation in spring 2015, prior to Ministerial approval."<sup>58</sup>

68. The Auditor General's update letter noted that the Welsh Government had reported some progress in developing their

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<sup>55</sup> Wales Audit Office: Major Transport Projects Report, 27 January 2011

<sup>56</sup> The New Roads and Street Works Act 1991 and the Street Works - Sharing the Cost of Works [Wales] Regulations 2005

<sup>57</sup> Wales Audit Office: Major Transport Projects Report, 27 January 2011

<sup>58</sup> PAC(4)-12-15 PTN4 - Letter from Director General, Welsh Government, 28 April 2015

Streetworks strategy and revising standard contract documents. However, he remained concerned that utilities schemes still contributed to the more significant delays and cost overruns on some recently completed trunk road schemes.

69. The Auditor General also noted that when the acting Director General appeared before the then Committee in 2011, he said that the Welsh Government had begun to explore how it could strengthen the relationship with utility companies. The acting Director General stated that the Welsh Government was looking to get a “high-level agreement at a UK level”<sup>59</sup> because this was a common problem across the UK. It is unclear from the evidence we have heard whether the Welsh Government has obtained a bilateral agreement on a way forward.<sup>60</sup>

### **Evidence from respondents**

70. Most respondents agreed that problems persist with statutory undertakers and better planning could alleviate these issues. Professor Smith said scheduling maintenance work at the same time as utility work “has been a problem for some time”.<sup>61</sup>

71. The North Wales CIHT shared this view but did believe “it has improved considerably in the last five to 10 years”. They suggested “good planning and bringing them [statutory undertakers] in at the very earliest of stages in a scheme’s development” could improve the situation.<sup>62</sup>

72. The North Wales CIHT said that problems arise from statutory undertakers not being involved early enough and this can lead to cost escalating and delays in delivery. They said:

“Quite often, the apparatus that they need to bring in has very, very long lead times. For gas mains, you can be talking about a 12-month delivery lead time.”<sup>63</sup>

73. The South Wales CIHT said that there had been an improvement with the use of the ECI process (discussed in Chapter 4), which had

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<sup>59</sup> Public Accounts Committee, Third Assembly, RoP, paragraph 248, 23 March 2011

<sup>60</sup> PAC(4)-06-15 Paper 2 - Letter from the Auditor General for Wales, 3 March 2015

<sup>61</sup> RoP, paragraph 49, 17 March 2015

<sup>62</sup> RoP, paragraph 149, 17 March 2015

<sup>63</sup> RoP, paragraph 149, 17 March 2015



enabled early programming interventions and better planning with statutory undertakers. They suggested:

“the next stage for Welsh Government is to work with the utility authorities on a national basis to set up national agreements, so the smaller projects can benefit from the collaboration on bigger project as well.”<sup>64</sup>

### **Evidence from the Welsh Government**

74. The Welsh Government acknowledged there was a significant on-going issue with statutory undertakers. As statutory undertakers’ interests are commercial and not aligned with Welsh Government priorities, timescales drift and costs increase.<sup>65</sup>

75. The Director General said the Welsh Government had revised its standard contract documents to transfer the programme risk of the statutory undertaker performance to the contractor “as they are best placed to manage the risk”.<sup>66</sup>

76. The Deputy Director for Infrastructure Delivery, confirmed the Welsh Government was also considering how to incentivise statutory undertakers to complete work on time within cost.<sup>67</sup>

77. The Committee questioned the Welsh Government as to why its Streetworks strategy was still in development four years after the Auditor General’s 2011 report highlighted the need to develop clear joint working principles. During oral evidence the Welsh Government was unable to explain why work on this appeared to be delayed and why the strategy was not yet complete.<sup>68</sup>

78. The Director General agreed to look into the reasons why. In a follow-up letter to the Committee he explained:

“The preparation of a new Street Works Strategy for Wales began in 2012 and has taken approximately 2½ years to develop into its current draft form...A comprehensive strategy

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<sup>64</sup> RoP, paragraph 152, 17 March 2015

<sup>65</sup> RoP, paragraph 104, 21 April 2015

<sup>66</sup> PAC(4)-06-15 Paper 1 - Information from Welsh Government on Motorway and Trunk Road Investment

<sup>67</sup> RoP, paragraph 106, 21 April 2015

<sup>68</sup> RoP, paragraph 121, 21 April 2015

has therefore been developed rather than individual protocols, in order to achieve wider objectives such as reduced congestion and improved journey time reliability. Pending the outcome of a formal consultation process the Strategy will be published in 2015.”<sup>69</sup>

## **Our view**

79. The Committee notes the evidence from South Wales CIHT suggesting the ECI process has improved handling of streetworks. However, it is clear from the Welsh Government’s own evidence that co-ordination with statutory undertakers remains a significant issue.

80. Given that the Welsh Government acknowledges the significance of this issue, we are particularly concerned about the pace of development of the Welsh Government’s Streetworks Strategy. The Committee notes it has been four years since the Auditor General’s 2011 report and the Welsh Government’s strategy has not yet materialised and has not yet been issued for consultation.

81. The Committee is also concerned whether the Streetworks Strategy will cover issues relevant to major transport projects. At the time of the Auditor General’s 2011 report, the Welsh Government had produced, in collaboration with the UK Government, a good practice guide on managing works in the street aimed at project employers and utility companies. However, that guidance did not refer explicitly to major projects and the potentially significant impact of poor communication between highways authorities and utility companies.

82. The Committee is concerned that the issues relating to statutory undertakers and utilities are still part of the reason for delays or cost overruns on road schemes. The Committee recognises that these issues are not specific to Wales and notes the Auditor General’s reference to a lack of clarity as to whether the Welsh Government has moved forward on securing a high-level agreement at a UK level.

83. The Committee invited utilities companies to provide evidence to allow us to hear the industries’ perspective on the issue. We were disappointed that we did not receive any responses.

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<sup>69</sup> PAC(4)-12-15 PTN4 - Letter from Director General, 5 May 2015

**The Committee recommends that the Welsh Government explores all possible avenues to improve engagement with statutory undertakers, including legislative tools and further engagement with the UK Government. We ask that the Welsh Government report back to the Committee in the autumn term on how its work in this area is progressing.**

## 6. Preventative / Reactive Maintenance

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84. The Committee heard evidence that the condition of the trunk road network has deteriorated over recent years and less frequent monitoring of the roads surface is now undertaken.

### Background

85. The Welsh Government's statistical bulletin on road lengths and conditions (December 2014)<sup>70</sup> showed that the percentage of the network requiring "close monitoring of structural condition"<sup>71</sup> increased between 2011 and 2013:

"In 2013, 12.8 per cent of the motorway network and 14.3 per cent of the trunk road network required close monitoring of structural condition compared with 10.0 per cent and 9.5 per cent respectively in 2011."<sup>72</sup>

86. Trunk road maintenance is a Programme for Government indicator. The most recent update for this indicator (to 31 December 2012) stated the "current target is for no more than 8 per cent of the trunk road and motorway network to require maintenance at any one time". It stated the recent increase in the percentage of the network requiring maintenance "can partly be attributed to adverse weather conditions".<sup>73</sup>

87. The Welsh Government's statistical bulletin on road traffic (August 2014)<sup>74</sup> showed that traffic on the Welsh trunk road and motorway network had increased above the pre-recession peak of 10.08 billion vehicle kilometres in 2008 to 10.14 billion km in 2013. An increase in use would suggest greater need for the road to be maintained.

88. The Welsh Government's March 2014 Freight Task and Finish Group report<sup>75</sup> included Department for Transport forecasts for road

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<sup>70</sup> <http://wales.gov.uk/statistics-and-research/road-lengths-conditions/?lang=en>

<sup>71</sup> Close monitoring is required when the residual life of a section of road has fallen below zero (i.e. a 'negative residual life').

<sup>72</sup> Statistical bulletin on road lengths and conditions (December 2014)

<sup>73</sup> Programme for Government:

<sup>74</sup> <http://gov.wales/statistics-and-research/road-traffic/?lang=en>

<sup>75</sup> <http://wales.gov.uk/topics/transport/freight/wales-freight-group/?lang=en>

traffic in the UK, highlighting the predicted increase in all traffic, including road freight.

### **Evidence from respondents**

89. Professor Smith<sup>76</sup> highlighted a need to determine exactly what the objective is in highway maintenance and said he was not clear from the material he had seen what the Welsh Government's priority was in Wales. He said that in order to plan "we have to determine exactly what our objective is in managing that part of the highway asset".<sup>77</sup>

90. Professor Smith described the importance of planned maintenance and the need for "timely interventions". He said:

"If the regular cycle of routine maintenance is not adhered to and the period between interventions increases then the operational effectiveness of the asset decreases and the cost of maintenance intervention increases putting additional pressures on future budgets."<sup>78</sup>

91. Professor Smith also highlighted that once the pavement (i.e. road surface) is constructed it starts to deteriorate immediately and when the condition falls from "excellent to good...that's the time our routine maintenance" should begin. He continued:

"If we don't make timely intervention at that time, we get further deterioration that, initially, is not too serious, but very quickly becomes more damaging to the road carriageway construction sandwich and we then can't do routine maintenance; we actually have to do something on a much higher scale, which costs a lot more money and delays the traffic using the road—it causes congestion—and ultimately that reduces the asset value of the highway itself."<sup>79</sup>

92. It was also suggested by Professor Smith that the cost of repairing potholes "is about 20 times the cost of a standard routine maintenance repair to the carriageway and the amount of time that it

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<sup>76</sup> Professor Smith, Professor of Project and Transport Infrastructure Management, School of Civil Engineering, University of Leeds

<sup>77</sup> RoP, paragraph 21, 17 March 2015

<sup>78</sup> Written Evidence, MTRI 04

<sup>79</sup> RoP, paragraph 12, 17 March 2015

lasts before it starts to deteriorate again is much shorter”.<sup>80</sup> Therefore, underinvestment in routine maintenance was “a false saving”.<sup>81</sup>

93. The Road Haulage Association (“RHA”) called for maintenance budgets to be protected, stating that they would prefer budgets to be spent on “maintaining the current roads, as opposed to building new ones” to ensure the network is in good condition.<sup>82</sup>

94. While the Welsh Government’s Programme for Government attributes the declining condition of the trunk road network “partly” to adverse weather conditions, the South Wales Trunk Road Agent (“SWTRA”) suggests the level of capital funding available is also a key factor in the decline. They said:

“During the past six years, the level of Capital investment in Major Maintenance of the Trunk Road Asset has fallen. This is manifest in the increased level of Network requiring intervention (up from 8% to 13%). The impact of this is an increase in the number of unplanned repairs which can lead to inefficient use of resources, increase costs and the number of network interventions.”<sup>83</sup>

95. The FTA highlighted their members had reported “the performance of the road network in Great Britain has deteriorated with a reduction in reliability of 55 per cent on the motorway network and 45 per cent on urban roads”.<sup>84</sup>

96. Professor Smith noted:

“if you look at deterioration from things like SCANNER—surface condition assessment for the national network of roads—which looks at surface defects...it would seem that the overall condition of the surface of the carriageway has fallen in recent years. Even the statistical budget that you supplied, I think from the Welsh Parliament, showed that, although there’d been an improvement a few years ago in the condition of the road, the last published figures, which were between 2010 and 2012-

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<sup>80</sup> RoP, paragraph 27, 17 March 2015

<sup>81</sup> RoP, paragraph 13, 17 March 2015

<sup>82</sup> RoP, paragraph 189, 3 March 2015

<sup>83</sup> Written Evidence, MTRI 07

<sup>84</sup> Written Evidence, MTRI 10

13, showed that it had actually deteriorated slightly, partially because of the increase in traffic, partly maybe with the reduction of maintenance.”<sup>85</sup>

97. Professor Smith continued:

“So, I think the question is whether the information is available on the quality of the carriageway and whether there’s been the investment there.”<sup>86</sup>

98. In relation to the frequency of data collection surveys, Professor Smith noted the deflectograph survey<sup>87</sup> had reduced in recent years “from a 3 year cycle to a 5 year cycle.” He raised concerns that over five years “quite a bit of damage can occur”.<sup>88</sup> He continued:

“when you actually make a decision about your level of intervention for routine maintenance, you need to have a good idea of the condition of the asset. Because if you don’t know what condition the asset’s in, then what’s the basis for making a decision? If we’re averaging conditions over a five-year period, a lot can change in that five-year period...”<sup>89</sup>

99. The Trunk Road Agents felt the balance between programmed and reactive maintenance must be optimised within available funding due to the high costs and disruption associated with a reactive approach. The SWTRA confirmed that “in terms of the assessment of the network, there are other tools that are used” in addition to the deflectograph survey. They said there was a balance to be made between spending money on assessing the road condition and spending money of repairs.<sup>90</sup>

### **Evidence from Welsh Government**

100. The Welsh Government said that routine inspection and maintenance of the network was carried out in accordance with the

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<sup>85</sup> RoP, paragraph 15, 17 March 2015

<sup>86</sup> *ibid*

<sup>87</sup> A deflectograph survey is a method of measuring the condition of all layers of a road, not just the surface layer. It is used to estimate the residual life of a road. It measures the extent to which a road pavement will deflect when subjected to load from the wheels of the survey vehicle.

<sup>88</sup> RoP, paragraph 53, 17 March 2015

<sup>89</sup> RoP, paragraph 56, 17 March 2015

<sup>90</sup> RoP, paragraph 92, 24 March 2015

Welsh Government's specification 'Trunk Road Maintenance Manual' (TRMM). They continued:

"This identifies basic service requirements for service providers engaged in delivering routine, adverse weather and emergency response activities. It specifies frequencies for the inspection and maintenance for the range of assets necessary to keep the highway safe and serviceable and preserve its value."<sup>91</sup>

101. In relation to prioritisation of maintenance schemes, the Welsh Government said:

"The schemes in each programme are prioritised on the basis of set criteria that ensure the Welsh Ministers' statutory duty to maintain network safety is met, the serviceability of the existing asset maintained at minimum whole life cost whilst improvements support delivery of the Welsh Government's strategic objectives."<sup>92</sup>

### **Our view**

102. The Committee recognises that the current public financial climate has led to real term reductions in Welsh Government budgets in recent years. However, we also note the recent deterioration in the condition of the Welsh motorway and trunk road network.

103. The Committee notes evidence received from witnesses describing the importance of planned maintenance and the need for timely interventions to ensure the network is kept in a good condition.

**We are concerned that the current balance between planned and reactive maintenance may not be appropriate, and note SWTRA's comments regarding the impact of financial constraints on both the deterioration of the condition of the road network and the number of unplanned repairs leading to inefficient use of resources. The Committee recommends that the Welsh Government clearly identify the reasons for the recent deterioration of the trunk road network and publish a plan to**

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<sup>91</sup> PAC(4)-10-15 Paper 1 - Information from Welsh Government on Motorway and Trunk Road Investment, 21 April 2015

<sup>92</sup> PAC(4)-06-15 Paper 1 - Information from Welsh Government on Motorway and Trunk Road Investment, 3 March 2015



**address these issues and reverse this deterioration within a defined time period.**

**The Committee recommends that, in preparing the plan recommended above, the Welsh Government should set out clearly how it will achieve an effective balance between planned and reactive maintenance, and between major projects (new roads or major improvements) and maintenance of existing trunk roads, in the future.**

## 7. The structure and review of the Trunk Road Agents

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### Background

104. Day to day operation, maintenance and improvement is currently undertaken by two public sector agents:

- [North and Mid Wales Trunk Road Agent \(NMWTRA\)](#): responsible for trunk roads in all six north Wales local authority areas, along with Powys and Ceredigion; and
- [South Wales Trunk Road Agent \(SWTRA\)](#): responsible for the network in the remaining local authority areas.<sup>93</sup>

105. The trunk road agents employ a core planning staff and deliver their functions on a partnership basis with local authorities in their area acting as supply chain partners.

106. The Trunk Road Agent structure was reviewed in 2005/06, and again in 2012. The Welsh Government is currently undertaking a further review. The Welsh Government announced that it would centralise the Trunk Road Agent planning function in Welsh Government from April 2015 to allow “greater direction and control”.<sup>94</sup>

107. In England, management of the strategic roads network has recently been reformed. In 2011, Alan Cook, non-executive Chair of the Highways Agency Board, published an independent review<sup>95</sup> of the Strategic Road Network. The Department for Transport summarised the issues raised in the Cook review in its July 2013 Command Paper *Action for Roads*:

“The Highways Agency lacks independence from central government, and historically central government has not given the Agency a clear and consistent picture of its long-term aims.

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<sup>93</sup> Gwynedd and Neath Port Talbot Councils currently operate as lead authorities in each area

<sup>94</sup> Plenary, RoP, 11 November 2014

<sup>95</sup> Independent report: Strategic road network: a fresh start:  
[www.gov.uk/government/publications/a-fresh-start-for-the-strategic-road-network](http://www.gov.uk/government/publications/a-fresh-start-for-the-strategic-road-network)

The annual funding of the Agency makes it more vulnerable than other parts of transport in difficult times. Stop-start funding makes it harder to secure efficiencies.”<sup>96</sup>

108. Action for Roads stated that the UK Government would “introduce a Roads Investment Strategy (RIS), setting out plans for construction and maintenance to 2021 and beyond, as well as performance criteria”. In implementing the RIS, Highways England will have “far greater independence, greater certainty of funding and a long-term strategic vision.”<sup>97</sup>

109. In January 2015 responsibility for the English Strategic Road Network (“SRN”) was passed from the Highways Agency to a new strategic highways company called Highways England, which is owned by the Secretary of State for Transport.

### **Evidence from respondents**

110. SWTRA confirmed the Trunk Road Agents are currently in the process of preparing a submission to Welsh Government to set out proposals for achieving the following ministerial objectives:<sup>98</sup>

- Drive and Capture Efficiency to deliver substantial savings;
- Agility – ability to scale up and down;
- Harmonisation in approach across Wales;
- Primacy for decision and expenditure with Welsh Government;
- Improvements in service delivery and value for money.

111. The move to centralise planning within the Welsh Government appears to contrast with the direction taken in England where Action for Roads sought to address a perceived lack of independence from central government.

112. NMWTRA’s written evidence refers to the benefit of operating at arm’s length from government including “probity and governance” in managing Welsh Government interests.<sup>99</sup>

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<sup>96</sup> Written Evidence, MTRI 07

<sup>97</sup> UK Government Policy paper - Action for roads: a network for the 21st century

<sup>98</sup> Written Evidence, MTRI 05

<sup>99</sup> *ibid*

113. Professor Smith suggested there was merit to considering the “creation of a single entity”, given it operates “quite well” in Scotland, which has a similar trunk road network to Wales.

114. Professor Lark agreed that “there would be value” in one approach to the network throughout Wales to ensure consistency is applied through the system.<sup>100</sup>

115. However, NMWTRA and SWTRA said that local knowledge was important, particularly given the variation in the Welsh network, therefore a single body might not be desirable. NWTRA said:

“...when you compare trunk road agents or agencies in Wales with the Highways Agency in England, that the models aren’t directly comparable. Much of what the Highways Agency—the functions the Highways Agency— currently undertakes are actually undertaken by Welsh Government themselves, and the move to move some of the planning functions, to centralise those in Wales, will increase that role of Welsh Government...we feel that the current size of the agency areas are probably at that optimum size.”<sup>101</sup>

116. On the issue of accountability for delivery of minor improvement schemes, the Committee received correspondence from a member of the public on a specific issue in relation to the reconfiguration of the A470 at its junctions with the A494 and A493 at Dolgellau. The correspondent was not clear, nor was the Committee, on the appropriate means to raise concerns in relation to this scheme, given that the Trunk Road Agent lead authority is the local authority for the area.<sup>102</sup>

117. While the Committee did not have time available to discuss these issues with the Trunk Road Agents or the Welsh Government, the correspondence suggested a need to ensure a clear accountability in the delivery of minor improvement schemes, particularly the accountability of the Welsh Government and the Trunk Road Agent and the fact that the Trunk Road Agent was contracting with other parties for the actual design and delivery of the scheme.

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<sup>100</sup> RoP, paragraph 123 and 125, 17 March 2015

<sup>101</sup> RoP, paragraph 55, 24 March 2015

<sup>102</sup> Written Evidence, MTRI 24

## Evidence from Welsh Government

118. The Welsh Government said that since 2002 there had been a number of reviews and consultations of the Trunk Road Agents and the number of agents had reduced from eight to three and later reduced to two which is the current arrangement. The Welsh Government said:

“These changes have produced some savings both in terms of the management and service delivery through reducing duplication and streamlining delivery. Despite these changes, however, the Welsh Government is of the view that more can be achieved and this was confirmed by an EC Harris audit in 2013. The audit team had concerns over the transparency of the contractual relationship with the partnering authorities and the visibility of their costs and was not able to provide assurance that the arrangements are delivering Value for Money.”<sup>103</sup>

119. The Welsh Government said that regular meetings take place between senior Welsh Government and the Trunk Road Agents’ officials to discuss “where savings might be made, the principles underlying the changes required and the level of evidence likely to be required to support the savings claimed”.<sup>104</sup>

## Our view

120. The Committee does not take a view on whether the North and South Wales Trunk Road Agents should be amalgamated, as suggested in some evidence. However, we would expect that the potential benefits or otherwise of this approach will be considered as part of the on-going review of Trunk Road Agent functions. Should any re-structure of be undertaken we believe it should be possible to achieve the benefits of uniformity and sharing good practice while also preserving local knowledge and accountability.

**The Committee recommends the Welsh Government ensures that there is consistency between the policies of the North Wales and South Wales Trunk Road Agents.**

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<sup>103</sup> PAC(4)-06-15 Paper 1 - Information from Welsh Government on Motorway and Trunk Road Investment, 3 March 2015

<sup>104</sup> *ibid*

**The Committee recommends that, as part of the on-going review of Trunk Road Agents, the Welsh Government should consider the advantages and disadvantages of establishing a single Trunk Road Agent and whether this could provide a more consistent approach to delivery of functions across Wales and improved value for money.**

**The Committee recommends that accountability for the planning and delivery of minor improvement schemes via Trunk Road Agents and their local authority and other organisational partners be clarified and publicised so that it can be clearly understood by members of the public.**

## 8. Funding Cycles for Trunk Road Maintenance

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### Background

121. As set out in Chapter 7 there are different structures for the management of the strategic road network in England and Wales. The Committee also discussed the different funding arrangements between the two countries.

122. From 2015 onwards as a result of legislation, Highways England will have longer-term funding, initially to 2021. Highways England has confirmed that capital budgets, and revenue budgets for maintenance and renewals, are confirmed for a five year period from 2015/16 to 2020/21. Other elements of revenue funding, such as Private Finance Initiative (PFI) contracts, are not included within this arrangement and will be agreed through the normal funding round.

123. As Wales is funded on an annual basis, some witnesses suggested the longer-term funding cycles in England would have advantages if introduced in Wales.

### Evidence from respondents

124. Most witnesses suggested that annual funding and late confirmation of budgets was seen to reduce the effectiveness of planning and the ability of contractors to deliver value for money.

125. The Highways Term Maintenance Association (“HTMA”) said that the Welsh Government budgets are released on an annual basis, which can cause difficulties for the Trunk Road Agents in programming work packages, leading to peaks and troughs of work. They said this has a knock on effect on contractors who have to respond by supplementing the local workforce to cope with the peaks and downsize the workforce to cope with times of lower demand.<sup>105</sup>

126. HTMA was also concerned that budget allocations may not be confirmed until after the start of the financial year which could make it difficult to programme work effectively and could lead to short term inefficient works being prioritised.<sup>106</sup>

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<sup>105</sup> Written Evidence, MTRI 09

<sup>106</sup> *ibid*

127. SWTRA confirmed that between 2011 and 2016, their budget was confirmed after the start of the financial year on two occasions, and that the earliest confirmation of budget was on 13 March.<sup>107</sup>

128. The Trunk Road Agents also identified a number of constraints currently affecting their work. NMWTRA said challenges and constraints on delivery included:

“Fluctuation in budget allocations with funding opportunities regularly arising in quarter four that can place significant pressure on NMWTRA’s supply chain and road space availability.”<sup>108</sup>

129. SWTRA shared this view and said “we have a baseline budget” but that additional funding confirmed late in the financial year can be up to 20 per cent of the Trunk Road Agents’ total budget.<sup>109</sup>

130. NMWTRA said:

“If there is late funding likely to be made available, it’s usually around the end of October, early November that we get some indication. We start being asked to put forward schemes that we feel we can deliver before the year-end. Actual allocations tend to arrive around late December.”<sup>110</sup>

131. When asked whether it was more expensive to procure contractors during this period due to shorter daylight hours and lower temperatures affecting resurfacing, NMWTRA agreed. However, they said they had established supply chains, particularly for resurfacing through framework contracts, therefore the costs was fixed on an annual basis.<sup>111</sup> NMWTRA went on to say:

“Where the cost may be a little higher is if we do saturate our suppliers. Then we, on occasion, end up using our second-choice supplier through the framework, which may be at a

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<sup>107</sup> PAC(4)-10-15 PTN9 - Additional Information from South Wales Trunk Road Agent, 21 April 2015

<sup>108</sup> Written Evidence, MTRI 05

<sup>109</sup> RoP, paragraphs 108, 111 & 113, 24 March 2015

<sup>110</sup> RoP, paragraph 101, 24 March 2015

<sup>111</sup> RoP, paragraph 107, 24 March 2015



slightly higher rate, though still pre-tendered rates. So, that would be where some additional costs may be accrued.”<sup>112</sup>

132. Several witnesses commented favourably on the establishment of Highways England and its longer-term funding certainty. Many witnesses supported the idea of a multi-year funding approach being applied in Wales to improve planning.

133. FTA highlighted that the new funding arrangements for Highways England would have “a lot of implications” on the strategic road network.<sup>113</sup> They said:

“It’ll be a five-year cycle, but, within that five-year cycle, they will move things through, but not rush at the end of the financial year to make sure they’ve spent the money for that year. So, they’ve got more surety, and they’ll be able to plan those works out.”<sup>114</sup>

134. HTMA also supported the adoption of longer-term budgets and workload forecasting. They said:

“Provided that this is delivered it will give companies and their supply chain the confidence to invest in their people, plant and equipment and build better relationships with suppliers, leading to a reduction in costs. We recommend that a funding plan, based on asset management principles, for a minimum 5 year rolling period should be developed and implemented. This would allow the current framework contracts to deliver improved value on a consistent and coordinated manner. It will also provide longer term job security for the Welsh workforce and increase the effective spending of each Welsh pound.”<sup>115</sup>

135. FTA highlighted that equivalent funding systems in rail, have a five-year cycle, which provides more certainty and therefore they are better “able to recruit better and design” rail projects more effectively.<sup>116</sup>

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<sup>112</sup> RoP, paragraph 107, 24 March 2015

<sup>113</sup> RoP, paragraph 176, 3 March 2015

<sup>114</sup> RoP, paragraph 178, 3 March 2015

<sup>115</sup> Written Evidence, MTRI 09

<sup>116</sup> RoP, paragraph 186 & 187, 3 March 2015

136. The North Wales CIHT said that the five year funding model in Highways England was “aimed at improving efficiency through increased certainty, bringing the highways sector into line with what is already happening in the rail and water industries”.<sup>117</sup>

137. However, the North Wales CIHT did raise concerns that “the transition between funding periods can lead to troughs in workload, with associated loss of staff and experience, and a lag in delivery capacity as the supply chain mobilises for the new funding period.”<sup>118</sup>

138. The South Wales CIHT said the lack of confirmed longer-term budgets provided uncertainty and an inability to plan for the longer term. They said:

“Investment decisions are also focussed on the short term as budgets are generally insufficient to enable proper whole life cost decisions to be made.”<sup>119</sup>

139. Whilst Professor Smith agreed that having a similar approach in Wales as in England “could be useful”, he noted that approximately 58 per cent of funding for Highways England was from private investors.<sup>120</sup> He said:

“So, it’s a question of how attractive investing in Wales is to international pension funds, hedge funds and sovereign wealth funds, because there isn’t the public sector money to make that available. Anything we can do to get rid of mad March [where spending is hurried before year-end] and getting an artificial constraint in the way in which we carry things out has got to be welcome.”<sup>121</sup>

140. It was suggested by some witnesses that the Welsh Government should give consideration to private funding. The North Wales CIHT suggested a Public Private Partnership and/or an alliancing model similar to that employed in the water industry “by establishing new

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<sup>117</sup> Written Evidence, MTRI 08

<sup>118</sup> *ibid*

<sup>119</sup> Written Evidence, MTRI 18

<sup>120</sup> RoP, paragraph 127, 17 March 2015

<sup>121</sup> *ibid*

delivery arrangements in advance of the new funding period; an alternative may be a rolling 3-year regime”.<sup>122</sup>

141. The South Wales CIHT said:

“I think the Welsh Government should give consideration to that [private] funding, particularly with borrowing powers, but also, I think, the innovative contracts that come with that, the longer-term contracts of 20 to 25 years plus, where you can really invest in your assets for the future, so you don’t get any short-term fixes, particularly on the maintenance.”<sup>123</sup>

142. Professor Smith suggested that in the long term, private sector management of highways through a Public Private Partnership concession with investment funded from toll income might be desirable. In evidence he discussed options for “price-managed” lanes where some road users pay to access one or more lanes while the rest are available to all users.<sup>124</sup>

143. This view was shared by FTA and RHA. The FTA referred to the example of west Yorkshire where “the idea is to...talk to the distribution centres and the industrial estates about the use of those [priority] lanes and about the cost of those lanes, looking for [capital] contributions”.<sup>125</sup>

144. In relation to priority lanes the RHA said “the problem that we have with the congestion is the pinch points” and they are “consistently talking about things like consolidation centres and freight priority lanes” to make the cost to freight industry more effective.<sup>126</sup>

### **Evidence from the Welsh Government**

145. The Welsh Government referred to budget pressures “across the transport division”. The Deputy Director for Network Management said

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<sup>122</sup> Written Evidence, MTRI 08

<sup>123</sup> RoP, paragraph 228, 17 March 2015

<sup>124</sup> RoP, paragraph 100, 17 March 2015

<sup>125</sup> RoP, paragraph 140, 3 March 2015

<sup>126</sup> RoP, paragraph 93, 3 March 2015

flexibility was required in year to manage overrun schemes and underspends.<sup>127</sup>

146. The Deputy Director for Network Management said the Trunk Road Agents submit bids in October/November with dialogue continuing until March “so, they know that they’ve got that commitment for their workforce”.<sup>128</sup>

147. On the issue of the 20 per cent variation in funding of the Trunk Road Agents’ budget, the Director General confirmed this was as a result of the Agents bidding to undertake work and the Welsh Government finding additional resource for additional schemes. He said for routine maintenance which is necessary to deliver their statutory objectives the Agents “always know what they’re going to get”. In terms of the additional 20 per cent he said:

“we managed to find the additional money to do those schemes. They weren’t originally planned...They wanted the money to do them to benefit our assets, so we all gained, but it just didn’t suddenly appear; we were planning it probably for two years and certainly for the whole year it occurred in, and it wouldn’t have been a surprise to anyone”

148. In relation to Highways England five-year budget cycles, the Welsh Government felt it was “too early” to comment on how this has worked in England.<sup>129</sup> The Director General said:

“There are potential positives in having a longer investment cycle— absolutely. You would tend to even out spend...Equally, some evidence from the longer private sector contracts in England suggests that what you actually do is exacerbate the tendency to spend at the back end or not spend at the back end over a five-year period rather than over a one-year period, particularly if it’s let to a private sector contractor. We’ve yet to see how they’re going to share risk and reward on that basis.”<sup>130</sup>

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<sup>127</sup> RoP, paragraph 188, 21 April 2015

<sup>128</sup> RoP, paragraph 184, 21 April 2015

<sup>129</sup> RoP, paragraph 14, 21 April 2015

<sup>130</sup> *ibid*

## **Our view**

149. The on-going review of the Trunk Road Agents is discussed in Chapter 7. However, the Committee notes that the outstanding elements of the review identified by the Trunk Road Agents do not appear to address continuity/certainty of funding, one of the key weaknesses of the current approach identified in evidence.

150. The impact of the current annual funding round was raised consistently by a range of witnesses and respondents. The Committee are concerned that annual funding may limit the Agents' ability to plan at a time when public finances are under pressure, and consider that this may affect the ability of the Agents to properly implement an effective programme of preventative maintenance.

**The Committee recommends that options for longer-term funding periods to allow better planning of maintenance works should be considered as part of the review of Trunk Road Agents. The Welsh Government should monitor the effectiveness of the five-year budget cycles used to fund Highways England.**

**The Committee recommends the Welsh Government explores alternative methods of funding, including private investment, in schemes which offer the use of priority or freight lanes in congested areas. Any schemes considered by the Welsh Government should be subject to robust business planning, including a full cost benefit analysis.**

## 9. Information Management

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151. The Committee identified a number of cross-cutting issues affecting major projects and maintenance of the network, including information management.

### Background

152. In relation to major projects, the Auditor General's 2011 report, stated:

“The Assembly Government does not currently have an information system to support robust collection and analysis of information on the performance of trunk road projects, in terms of their delivery to cost and time. Until three years ago, the Assembly Government used a bespoke database system established in the mid 1990s, to record basic cost and time data in respect of Trunk Road Forward Programme projects.”<sup>131</sup>

153. The report said the system (referred to above) became outdated and was not compatible with the Welsh Government's central finance system that was introduced in 2008. The report said that the loss of key staff also meant the Welsh Government was unable to maintain and make best use of the system.<sup>132</sup>

154. The report continued:

“The Assembly Government told us that it is considering its requirements for a new information system to support delivery of the Trunk Road Forward Programme, with a view that the new system should also support the delivery of other transport programmes. These requirements may ultimately be met within the context of a new central project and programme management information system for the whole of the Assembly Government, which is expected to be implemented during 2011-12. In the meantime, officials have developed an interim

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<sup>131</sup> Wales Audit Office: Major Transport Projects Report, 27 January 2011

<sup>132</sup> *ibid*

spreadsheet based system to track current and forecast trunk road project expenditure.”<sup>133</sup>

155. In the Auditor General’s 2011 report, he recommended that the Welsh Government ensured that the new system could record information to track the performance of all major transport projects at key stages of their delivery, amongst other things.<sup>134</sup>

### **Evidence from respondents**

156. In relation to information management of maintenance programmes, NMWTRA said that a range of disparate asset management tools are currently being used to assess and prioritise funding decisions and that a more formal approach would assist in improving long term asset management and associated whole life costs. They said:

“This is being progressed in part using the Integrated Roads Information System (IRIS) being developed by consultants WDM on behalf of [Welsh Government]. Once fully implemented this system should assist [Welsh Government] in improved funding decisions across all asset types. Both Trunk Road Agents are working closely with [Welsh Government] and their contractor to ensure successful delivery of this important initiative. Early delivery of IRIS would improve the effectiveness of both WG and Agent delivery.”<sup>135</sup>

157. Professor Robert Lark,<sup>136</sup> referred to his research interest in Building Information Modelling (BIM)<sup>137</sup>. He stated:

“a step change in highway infrastructure asset management is required in the form of a high powered (Cloud Computing based), intelligent and BIM compliant decision making framework for the "real time operation, maintenance and

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<sup>133</sup> *ibid*

<sup>134</sup> Wales Audit Office: Major Transport Projects Report, 27 January 2011

<sup>135</sup> Written Evidence, MTRI 05

<sup>136</sup> Professor Lark, Professor of Civil Engineering, College of Physical Sciences and Engineering, Cardiff University

<sup>137</sup> The US National Building Information Model Standard Project Committee describes BIM as “a digital representation of physical and functional characteristics of a facility. A BIM is a shared knowledge resource for information about a facility forming a reliable basis for decisions during its life-cycle; defined as existing from earliest conception to demolition”.

improvement of a highway network". This should provide a flexible system that would enable the Welsh Government and their Maintaining Agents to meet their statutory duties for safety, while minimising the whole life costs of the assets for which they are responsible and achieving their wider policy objectives."<sup>138</sup>

### Evidence from Welsh Government

158. In relation to the Auditor General's 2011 recommendation on information management on major transport projects, the Director General's update stated:

"Information to track the performance of major road projects is recorded in a suite of spreadsheets, with individual projects combined to oversee the delivery of the roads programme. This suite of spreadsheets is subject to review to reduce complexity and ensure accuracy of management information. An Integrated Road Information System (IRIS) is now operational, we will explore ways of integrating with this system."<sup>139</sup>

159. The Director General continued:

"projects are benchmarked against industry wide data when budgets are reviewed at key stage boundaries."<sup>140</sup>

### Our view

160. The Committee is concerned that the Welsh Government continues to use spreadsheets to manage information on major trunk road projects four years after the publication of the Auditor General's 2011 report. Given that the Auditor General stated in his report that spreadsheets had, at that time, been in use for three years, this means that the Welsh Government has now been using spreadsheets to manage information on trunk road projects for a total of seven years.

161. We also note that the Director General's update commits only to "review" the number of spreadsheets to reduce complexity and states that the Welsh Government "**will explore** *[emphasis added]* ways of

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<sup>138</sup> Written Evidence, MTRI 17

<sup>139</sup> PAC(4)-06-15 Paper 1 - Information from Welsh Government on Motorway and Trunk Road Investment, 3 March 2015

<sup>140</sup> *ibid*



integrating” IRIS with the spreadsheets used to manage major projects.<sup>141</sup> It is therefore unclear whether an effective system for information management of major trunk road projects will be put in place.

162. We also understand that IRIS is primarily concerned with road quality and maintenance rather than delivery of major transport schemes. Therefore it is not apparent to us how IRIS can be used to track delivery of major schemes.

163. With regard to the implementation of IRIS to replace the “disparate” range of tools currently used by Trunk Road Agents we note that the Director General states that IRIS “is now operational”. However, NMWTRA states that IRIS is being developed and that both Agents “are working closely with [Welsh Government] and their contractor to ensure successful delivery of this important initiative”.<sup>142</sup>

**The Committee recommends that the Welsh Government’s response to this report sets out clearly the steps remaining for implementation of an effective information management tool for trunk road improvement projects, management of maintenance programmes and monitoring of network condition. This should include the timeframe for each step and the deadline for full implementation.**

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<sup>141</sup> PAC(4)-10-15 Paper 1 - Information from Welsh Government on Motorway and Trunk Road Investment, 21 April 2015

<sup>142</sup> Written Evidence, MTRI 05

## 10. Skills and Capacity: Maintenance and Major Project Delivery

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### Background

164. In relation to major schemes, the Auditor General’s commentary on the Welsh Government’s update paper for this inquiry suggested the Committee could consider how the Welsh Government balances in-house expertise and use of external contractors and consultants.

### Evidence from respondents

165. Most witnesses acknowledged that skills and capacity within the industry had been lost over the recent years and that investment in training was needed to ensure industry had the necessary skills.

166. SWTRA said “31,000 people, according to one report, have been lost to the industry during this recession”.<sup>143</sup> They continued:

“There is no way of switching the tap on overnight to recreate and to refill those gaps, but I think that what is important is that we do use the work programme to ensure that there is appropriate investment into what is necessary, and that companies, whether they are consultants or contractors or in the world of local government and are part of the agency as well, have that opportunity to invest appropriately in the necessary skills.”<sup>144</sup>

167. The North Wales CIHT did not believe there was a problem within the Trunk Road Agents themselves but certainly within the supporting local authorities “we’re seeing a loss of staff certainly from the consultancy side—from the white-collar side”.<sup>145</sup>

168. The North Wales CIHT suggested that local government financial pressures could mean training budgets for “white-collar services” were reduced. They said:

“This comes at a time when many greatly experienced people are being lost through voluntary redundancies and yet the

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<sup>143</sup> RoP, paragraph 184, 17 March 2015

<sup>144</sup> *ibid*

<sup>145</sup> RoP, paragraph 186, 17 March 2015

requirement for training is even greater, with the need to develop capability across a range of areas, for example in the application of BIM (Building Information Modelling). The same financial pressures are stifling investment in technology (both hardware and software) so that delivery processes are failing to keep pace with developments in current best practice. Across North and Mid Wales we are seeing the complete closure of in-house consultancy organisations in some authorities, with a consequent loss of capacity and capability.”<sup>146</sup>

169. The North Wales CIHT also felt that whilst in theory the private sector framework contractors should “pick up the slack... it seems that the private sector consultants are now experiencing growing workload and being far more selective in accepting work”.<sup>147</sup> They referred to the closure of in-house consultancies in Wrexham and Flintshire local authorities as examples of the loss of expertise.<sup>148</sup>

170. The South Wales CIHT said “it’s very difficult to attract youngsters into the industry” particularly women, during a “difficult time” when it was easier to enter other industries. They said:

“So, having a mix of people coming into the industry, at a young level, to bridge that skills gap. As I say, it’s not a public sector issue; it’s a problem for the private sector as well. So, for me, it’s about forward planning...have efficient contracts, but also attract the right people into the agents that see a long-term career.”

171. In relation to maintenance the Committee also heard that in order to run an effective maintenance strategy, people with the right skills and competence were required. Professor Smith said:

“you need people with the right skills and competences, which may require staff training or additional investment.”<sup>149</sup>

172. Mr Moodley, University of Leeds agreed that consistency of funding for training was “imperative”. He said:

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<sup>146</sup> Written Evidence MTRI 08

<sup>147</sup> *ibid*

<sup>148</sup> RoP, paragraph 186, 17 March 2015

<sup>149</sup> RoP, paragraph 121, 17 March 2015

“it’s not just from the operator and the asset owner, which is the Welsh Government; it’s also for the contractors and suppliers.”<sup>150</sup>

173. Professor Smith suggested that a partnership with the private sector “might be a very effective way, particularly in the short term, of getting some of that expertise in”.<sup>151</sup> He also suggested that in Wales “it would...be relevant to consider a capability and competence audit” in line with HM Treasury Guidance on Improving Infrastructure Delivery.<sup>152</sup>

### **Our view**

174. The evidence we received suggests there is a risk that key skills required for both maintenance and major project delivery may well be in short supply in Wales in both the private and public sector. We recognise that skills available in Wales cannot be considered in isolation from the UK as a whole. The Committee believes that this may have an impact on value for money, both in terms of the quality and cost of delivery.

**The Committee recommends the Welsh Government undertakes an industry wide capability and competence audit across the private and public sector in Wales and sets out its approach to addressing any gaps identified.**

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<sup>150</sup> RoP, paragraph 129, 17 March 2015

<sup>151</sup> RoP, paragraph 121, 17 March 2015

<sup>152</sup> Written Evidence, MTRI 04

# 11. Network Resilience, Communication and Incident Management

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## Background

175. The Welsh Government has a traffic management and information service, Traffic Wales,<sup>153</sup> which is aimed at ensuring motorists can access up-to date key information to assist them to make informed travel decisions. Traffic Wales includes a calendar of planned roadworks and links to all Welsh local authority roadworks and road closure information sites, amongst other things.

## Evidence from respondents

176. Several witnesses including FTA and RHA identified a need for improved management and communication of road works and incident management. Incomplete or inaccurate information on road works were also felt to be a problem.

177. RHA said that in England they are advised about roadworks, road closures and weight restrictions and suggested communications in Wales was “lacking compared to England”.<sup>154</sup> They said:

“the Welsh side tends not to be as coherent as that. We don’t tend to get as much information, which would be more useful”.<sup>155</sup>

178. FTA and RHA also highlighted the significant cost to industry when information or communication of road works is inaccurate and suggested problems included “diversions that have taken lorries down routes with weight restrictions, width limits and bridges that can’t take lorries”.<sup>156</sup> FTA said:

“We calculate from our vehicle operating costs that a large goods vehicle, just standing still, not doing anything, is costing that company £1 a minute. That’s the sort of cost.”<sup>157</sup>

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<sup>153</sup> Traffic Wales: [www.traffic-wales.com/](http://www.traffic-wales.com/)

<sup>154</sup> RoP, paragraph 28, 3 March 2015

<sup>155</sup> ibid

<sup>156</sup> ibid

<sup>157</sup> RoP, paragraph 26, 3 March 2015

179. FTA believed that another problem with providing effective information was the number of highways authorities “and there are many of them”. They said the liaison between national highway authorities and local highway authorities “sometimes breaks down”.<sup>158</sup>

180. FTA referred to a three month trial being undertaken by Highways England “to see how they can better manipulate” data.<sup>159</sup> They continued:

“As far as information is concerned, that needs to work better. I think, for the industry and information to the industry, we perhaps have a developing situation in England that we believe could be copied in Wales...If you give the whole thing to the industry, we’ve got to start wading through those vast amounts of data; that is one of the problems. So, we need some form of spearhead, if you like, and we’ve asked the national highway authority in England to help us with that. We would hope that Wales could do the same and, indeed, we have talked to Transport Scotland in a similar way.”<sup>160</sup>

181. SWTRA said they are “currently working closely with local authorities through formal coordination meetings on a quarterly basis” as required by statute.<sup>161</sup> They said these meetings ensure that “while local authorities undertake work and we undertake work, we minimise any clashes on any diversion routes”.<sup>162</sup>

182. SWTRA confirmed the Welsh Government and the Trunk Road Agents were looking at improving the Traffic Wales information website in terms of having a more integrated approach to local authority information and the Welsh Government information in a single portal, similar to the Elgin system used in England. They said:

“The system being developed in Wales will be compatible with that [English] system, so it will allow, when developed, which will hopefully be within the next financial year, a system where members of the public or road hauliers or other stakeholders

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<sup>158</sup> RoP, paragraph 51, 3 March 2015

<sup>159</sup> RoP, paragraph 52, 3 March 2015

<sup>160</sup> RoP, paragraph 52, 3 March 2015

<sup>161</sup> New Roads and Street Works Act 1991:

[www.legislation.gov.uk/ukpga/1991/22/contents](http://www.legislation.gov.uk/ukpga/1991/22/contents)

<sup>162</sup> RoP, paragraph 12, 24 March 2015

can go to a single portal to look at roadworks, both from a local authority perspective and on the strategic road network as well.”<sup>163</sup>

183. A number of witnesses raised concerns about the level of road closure times when minor collisions had occurred and whether there was sufficient co-ordination between the emergency services.

184. RHA said that “obviously, if it’s a fatal accident, the road has to be closed and there has to be the necessary time taken”. However, they challenged whether the time could be reduced for minor collisions and other incidents such as lane closures when a car or lorry is changing tyres on the hard shoulder.

185. FTA said that often there is a lack of communication and a co-ordinated approach between the police and the other various agencies when dealing with a collisions “because they all have their priorities”.<sup>164</sup>

186. On the issue of closure times, the Police Liaison Unit<sup>165</sup> confirmed a recent review of working practices of Trunk Road Agents route stewards who attend scenes of fatalities or serious injury on the strategic road network had been carried out and instruction had been sent to the four Welsh police forces for early discussion between the police at scene and route stewards.<sup>166</sup>

187. The Committee also discussed the use of screens to maintain the integrity of crash sites and mitigate against drivers trying to view the aftermath of a traffic accident, causing further danger and delays. The Regional Ambulance Service Headquarters and Clinical Contact Centre agreed that the use of screens could reduce the risk of further collisions due to “rubbernecking”.<sup>167</sup>

188. The RHA said that several years ago the Highways Agency did try using screens, although they faced difficulties such as being blown over by the wind.<sup>168</sup> They said:

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<sup>163</sup> RoP, paragraph 12, 24 March 2015

<sup>164</sup> RoP, paragraph 68, 3 March 2015

<sup>165</sup> Police Liaison Unit on behalf of all four Welsh Police Forces

<sup>166</sup> Written Evidence MRTI 21

<sup>167</sup> Written Evidence MRTI 24

<sup>168</sup> RoP, paragraph 63, 3 March 2015

“Practically, it didn’t work. So, they did look at it and rejected it. However, there’s no reason I can see why they can’t revisit it or improve it.”<sup>169</sup>

189. The Police Liaison Unit confirmed the use of screens would be trialled in April 2015 for 12 months on the M4 toll gates to Junction 35 and if successful a further roll-out would cover the M4 west and the A55.<sup>170</sup>

### **Evidence from Welsh Government**

190. In relation to a planned approach of road works and ensuring alternative diversion routes were clear the Welsh Government acknowledged limitations in its approach. The Director General said:

“In terms of planning what we do on the trunk road, I wouldn’t say that we plan it exceptionally well, but we try to plan it exceptionally well and we try to avoid all closures, pretty much at all costs in fact. So, the downtime of the trunk road network is always kept to a minimum anyway.”<sup>171</sup>

191. The Committee asked the Welsh Government whether traffic light sequencing was altered to deal with the increased flow of diverted traffic to ensure there is not an excessive build-up of long queues.

192. In response, the Deputy Director for Network Management said the Welsh Government “try to co-ordinate as best we can” with local authorities and if the diversion is on a local authority road as part of the co-ordination meetings, the Welsh Government would suggest “some re-phasing of the signals depending on the traffic going onto that route”. She also said the Welsh Government “try to do it in the time when there’s the least amount of local traffic on the network as well”.<sup>172</sup>

193. The Director General confirmed that if it was using a diversionary route for which the Welsh Government is not responsible for, it can only encourage re-phasing of the lights “we can’t instruct, and

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<sup>169</sup> RoP, paragraph 63, 3 March 2015

<sup>170</sup> Written Evidence MRTI 21

<sup>171</sup> RoP, paragraph 29, 21 April 2015

<sup>172</sup> RoP, paragraph 36, 21 April 2015



sometimes that causes an issue. Linked to that, if it's unplanned, it's very difficult sometimes to get things moving."<sup>173</sup>

194. The Committee questioned the Welsh Government about how many complaints they receive. The Deputy Director for Network Management said "as a percentage, probably 5 per cent or so of the interventions". Later on in the evidence session the Deputy Director said:

"I'm just trying to give an order of feel of the number of people who complain. As it is, most days people get to their work, they manage to commute and they get to their place of work, so it's just a kind of order of feel, the 5%."<sup>174</sup>

195. The Committee remained unclear about the amount of complaints received and asked the Welsh Government to provide further information. In a letter from the Director General, he said:

"We have investigated correspondence to the Department for the whole of the NMWTRA area for the calendar year 2014... Therefore, the complaints are approximately 5% of all correspondence received in that period."<sup>175</sup>

196. In relation to planned maintenance, the Welsh Government said that they try to plan work to ensure it is scheduled to avoid peak periods and carried out overnight where it is possible to "maximise cost effectiveness and minimise disruption".<sup>176</sup>

197. The Committee referred to the A55 as an example where work had been carried out overnight but yet the roads remained closed during the day. The Director General said:

"The reason the lane closures were kept in longer than it probably appeared they needed to be kept in...was that the concrete had to have sufficient time to set. Even though the work was being done at night, or lots of the work was being done at night, the closures then remained in the day. Now, is that acceptable? The honest answer is I don't know, and the

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<sup>173</sup> RoP, paragraph 41, 21 April 2015

<sup>174</sup> RoP, paragraph 79, 21 April 2015

<sup>175</sup> PAC(4)-12-15 PTN4 - Letter from Director General, 5 May 2015

<sup>176</sup> PAC(4)-06-15 Paper 1 - Information from Welsh Government on Motorway and Trunk Road Investment, 3 March 2015

reason I don't know is I don't know whether the entire supply chain had done everything it possibly could to minimise the disruption using rapid-cure cement, if that was possible, et cetera, et cetera."<sup>177</sup>

## **Our View**

198. The Committee is concerned that some evidence we have received suggests there is greater work to be done in Wales in terms of providing information and accurate communication of road works.

199. The Committee believes there should be better co-ordination between the Welsh Government and local authorities when diversionary routes are put into place as a consequence of road works, for example more consideration should be given to re-phasing of traffic lights to assist traffic flow.

**The Committee recommends the Welsh Government develop a means of monitoring and reporting on performance in co-ordination, communication etc. of road works and management of incidents to allow the effectiveness of the approach taken to be understood. This should include regular reporting on the volume of complaints and publication of such data in the public domain.**

**The Committee recommends the Welsh Government continue to monitor the trial of screens on the M4 toll gates to Junction 35, to maintain the integrity of crash sites and mitigate against drivers trying to view the aftermath of a traffic accident and report back to the Committee on their success.**

**The Committee recommends the Welsh Government engages with road users and their representative organisations to better understand and address concerns about communication and co-ordination of local road works and management of incidents.**

**The Committee recommends that the Welsh Government improves its communication and co-ordination with Highways England regarding road works and schemes that have an impact on both sides of the border and ensure information is made available to the public.**

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<sup>177</sup> RoP, paragraph 56, 21 April 2015

## Annexe A: Witnesses

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The following witnesses provided oral evidence to the Committee on the dates noted below. Transcripts of all oral evidence sessions can be viewed in full at

[www.senedd.assembly.wales/mgIssueHistoryHome.aspx?Ild=1311](http://www.senedd.assembly.wales/mgIssueHistoryHome.aspx?Ild=1311)

### *3 March*

Malcolm Bingham  
Simon Higgins

### *Organisation*

Freight Transport Association  
Road Haulage Association Ltd

### *17 March*

Russell Bennett

### *Organisation*

Chartered Institution of Highways and  
Transportation (South Wales Branch)

David Meller

Chartered Institution of Highways and  
Transportation (North Wales Branch)

Rhodri-Gwynn Jones

Civil Engineering Contractors Association Wales

Professor Bob Lark

Cardiff University

Professor Nigel Smith

University of Leeds

Kris Moodley

University of Leeds

Dave Cooil

North & Mid Wales Trunk Road Agent

Ian Hughes

North & Mid Wales Trunk Road Agent

Richard Jones

South Wales Trunk Road Agent

### *21 April 2015*

James Price

### *Organisation*

Welsh Government

Andy Falley

Welsh Government

Sheena Hague

Welsh Government

## Annexe B: List of written evidence

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The following people and organisations provided written evidence to the Committee. All written evidence can be viewed in full at [www.senedd.assembly.wales/mgConsultationDisplay.aspx?ID=165](http://www.senedd.assembly.wales/mgConsultationDisplay.aspx?ID=165)

<i>Organisation</i>	<i>Reference</i>
Isle of Anglesey County Council	MTRI 01
ICE Wales	MTRI 02
Pembrokeshire County Council	MTRI 03
School of Civil Engineering University of Leeds	MTRI 04
North and Mid Wales Trunk Road Agent	MTRI 05
Road Haulage Association Ltd	MTRI 06
South Wales Trunk Road Agent	MTRI 07
North Wales Chartered Institution of Highways and Transportation	MTRI 08
Highways Term Maintenance Association	MTRI 09
Freight Transport Association	MTRI 10
Friends of the Earth Cymru	MTRI 11
Welsh Local Government Association	MTRI 12
Costain	MTRI 13
Auditor General for Wales	MTRI 14
Conwy County Borough Council	MTRI 15
County Surveyors Society Cymru	MTRI 16
Cardiff University School of Engineering	MTRI 17
Chartered Institution of Highways and Transportation (South Wales Branch)	MTRI 18
South Wales Fire and Rescue Service	MTRI 19
Mid and West Wales Fire and Rescue Service	MTRI 20
Police Liaison Unit on behalf of all four Welsh Police Forces	MTRI 21
North Wales Fire and Rescue Service	MTRI 22
Highways Agency	MTRI 23
Mr E T Wilde, individual response	MTRI 24