

Chartered Institution of Highways & Transportation response to the DfT consultation on Transport Assessment Guidance

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CIHT is a charity, learned society and membership body with over 14,000 members spread across 12 UK regions and four international groups. We represent and qualify professionals who plan, design, build, manage and operate transport and infrastructure networks. Our vision is for world-class transportation infrastructure and services. Our values are to be Professional, Inclusive, Collaborative and Progressive.

Introduction

1. CIHT welcomes this consultation on *transport appraisal and modelling strategy: informing future investment decisions*, as there is a widespread feeling among our members that current systems of decision making are not leading to desirable results. Governments have repeatedly declared their intentions to create a healthy society, fight climate change, reduce poverty, strengthen local communities and tackle many other vital issues but the schemes that are eventually built do not reflect those goals.
2. CIHT's recent work on *CIHT Futures*¹ interviewed transport professionals across the country and found that there were several ways that they felt current practices, including WebTAG failed or even inhibited them from creating better schemes, many of which are outlined below.

Q1 Do you agree that these themes reflect the most pressing priorities for development of our Appraisal and Modelling guidance? If not, what other themes do you think we should be exploring?

3. CIHT thinks that the themes broadly tackle the concerns of CIHT members with current appraisal methods but has some specific comments;
 - Public health must be considered more fully, either as part of the 'People and Place' theme or as an issue by itself. It's one of the areas where there is the most uncertainty yet the most opportunity to improve.
 - It is unclear why 'Modelling and appraising transformational investments and housing' is a single theme, as the issues facing major projects are separate to the ones facing even large new towns and are vastly different to the difficulties faced by the majority of housebuilding.
 - The most pressing priority for any guidance is to explore how it is used in the real world. There is more value in altering the implementation of WebTAG than there is in introducing more factors which will inevitably make it more complex
 - There is an overall goal of using the transport planning system to achieve the society that we want which requires moving from a 'predict and provide' model to a 'decide and provide' model.
4. CIHT believes that WebTAG should encourage better outcomes through supporting long term plans established by the government. For example, the Cycling and Walking Investment Strategy aims to make cycling and walking the default choice for short journeys, the Air Quality action plan aims to reduce, not just keep level, roadside emissions and the Inclusive Transport Strategy seeks to ensure that the needs of all users are considered. Any scheme assessed as viable through WebTAG should be able to meet those goals.

¹ Lyons, G. (2016) "*Uncertainty Ahead: Which Way Forward for Transport*", CIHT. Accessed at www.ciht.org.uk

5. This means addressing the reactive nature of funding which is dependent on often arbitrary benefit cost ratio's avoiding vested interests and challenging risk aversion which makes it easier for schemes which look similar to what has been done in the past easier to implement.
6. CIHT understands that the question 'Is it DfT compliant?' holds significant sway over local authorities, especially when central government funding is involved (even non-DfT). It is important to stress that WebTag is a tool to support decision making and not a replacement for local strategic planning and development

Q2 What considerations should inform the scope and priorities of our strategy, particularly over the first 18-24 months?

7. CIHT argues that improving the ability of WebTAG to evaluate the impact of sustainable transport schemes is vital, especially in terms of the active mode appraisal kit, the propensity to cycle tool, value of pedestrian activity and passenger transport. There is currently limited guidance and standardisation of approach which makes it difficult to make the case for investment, two examples from our members are;
 - New cycle and walking routes are in practice evaluated on cost per kilometre which makes it difficult to ever justify enhancing a complicated junction to make it safer to cross.
 - Treating increased revenue from fuel duty as a benefit inherently biases the process towards more polluting methods of transportation.
8. CIHT notes that when the new NPPF was consulted and launched that the Ministry for Housing, Communities and Local Government held numerous events explaining to planning officers the changes and showing them how the tools were intended to be used. It would be encouraging to see DfT take the same approach in working together with highways officers.
9. CIHT supports investigating how WebTAG can better understand induced demand, spatial planning and long-term implications for the transport network, as these will be key to moving towards a 'decide and provide' model.

Q3 What should be our priorities for improving the appraisal of people and place and why? Please select up to three areas.

10. CIHT welcomes the focus on sustainable transport uptake (paragraph 4.10) and recognition of the work that has been done on active travel in recent years. Key to achieving those ambitions is understanding the value choice of transport mode has for end users, and that weight should be given to providing the ability to move freely and safely in multiple ways. This will help create developments which are accessible in multiple ways, be it on foot, bike or via public transport.
11. CIHT agrees that work on 'valuing attractiveness' (paragraph 4.2) will be useful to practitioners and believes that there needs to be a greater understanding that our local highways provide multiple functions separate to that of managing traffic. This can include social activity, individual leisure, exercise and more but all of which depend on a safe and attractive environment. There is particular conflict over high streets which require suitable space for traffic and parking as well as being places for pedestrians There must be a method of evaluating the impact of transport schemes on these multiple uses to fairly appraise the overall impact on people and place.
12. CIHT considers that 'valuing journey improvements' (paragraph 4.11) is an area that can benefit from further work. The weight currently given to the aggregate treatment of short duration time savings has been queried, as when beneath the normal variation in user journey time they are of limited real utility. Further time savings are biased towards user benefits and we have not sufficiently

priced third-party costs or the land use changes which may come about as a result. It may be more appropriate to look at journey reliability and predictability as benchmarks for a project's utility.

13. There will always be societal benefits that are difficult to model, and we should ensure that we are not relying on things that are easy to measure compared with what will give best results. This could be achieved in part by placing emphasis on 'Strategic Case' within the Treasury 5 case model and allowing greater use of quality of life objectives and less emphasis on 'partly monetised social cost benefit'.

Q4 What should our priorities be for improving our understanding and treatment of uncertainty in modelling and appraisal and why? Please select up to three.

Priority one: Move from regime compliance to regime testing

14. CIHT FUTURES argues that transport planning in the UK needs to be re-focused away from our current 'regime-compliant' pathway which extrapolates a future with limited appetite to deviate. This results in practitioners concealing uncertainty, putting misplaced confidence on historic data and reducing policy making to a single long-term decision.

15. Instead we need to shift to a 'regime-testing' pathway which emphasises the ability to change and the need to accommodate unknowns into decision making. This enables assessment of plausible policy paths that allow adaptation to unanticipated change, including around technology, demographic and political changes.

16. The regime-testing pathway introduces real options analysis (ROA) as an alternative to cost-benefit analysis. ROA examines building in the option to do something at a later date if circumstances become appropriate. A simple example was used to explain this in the workshops – a parking facility where ROA is used to consider the merits of designing the structure at some greater expense to be strong enough to accommodate vertical expansion (i.e., building additional floors) should future demand exceed projections.

17. The below table, compares the major differences between the two models.²

Regime Compliant	Regime Testing
Predicted and practical outputs	Plausible and preferred outlooks
Transport economic coupling	Access and economic coupling
Weak planning	Strong planning
Concealed uncertainty	Exposed Uncertainty
Justified decisions	Guided decisions
Cost-benefit analysis	Real options analysis
Predict and Provide	Decide and Provide

Priority two: Use Scenario Planning

18. CIHT FUTURES advocated for the use of scenario-based planning, and we continue to argue for greater use of these tools to expose uncertainty and the range of evidence.

Priority three: Adopt technology and reduce complexity

² Basford, L. (2018). Presentation given to CIHT Conference.

19. The costs of roadsides surveys and other data is increasingly expensive and that there should be a focus on using new, cheaper and more reliable data sets provided by technology that will help effective modelling.
20. That WebTAG is already highly complicated and not used to its full potential, or at all, by many practitioners. Therefore, a priority should be not making the tool any more complex than it already is except for major schemes or strategies.

Q5 What do you see as the main challenges to adopting a more sophisticated approach to uncertainty in Business Cases and what suggestions do you have for overcoming these?

21. CIHT suggests that adopting a more sophisticated approach to uncertainty is as dependent upon the overarching decision-making processes being followed, as on the specific statistical tools. The current approach in the UK seems to suit decision makers who need to project an air of confidence in the investment decisions being made – a certainty and solidity is offered by numerically derived decisions. This has seen the responsibility of professionals for outcomes be eroded and this issue should be addressed.
22. The familiarity with what are seen as ‘tried and tested’ approaches of this approach significantly contributes to its continued prevalence, as do existing skillsets within the profession and resource constraints. One of the findings from CIHT Futures was that transport professionals do not necessarily believe in the approaches they use but they feel compelled to follow nevertheless – leading to frustration. A lack of evaluation is likely allowing the status quo to be maintained.
23. CIHT states that there is a need to recognise the dynamics in play using a PESTLE analysis (Political, Economic, Social, Technological, Legal and Environmental) that prevent uncertainties from being fully recognised in current processes. It is already clear that in WebTAG that scheme promoters should evaluate uncertainties but in practice answers are framed to ‘solve’ that uncertainty without revealing it fully. WebTAG must stress that all uncertainty should be transparent and not just reframe the original answers.
24. CIHT believes that there is a strong call from transport professionals for change. Therefore, priorities need to be:
- Clear guidance to help assist a culture change towards an approach which exposes uncertainty and allows assessment of realistic policy paths in order to present real options.
 - Improving skillsets; in terms of the need for creative thinking, willingness to collaborate, and ability to communicate with other professions.
 - Effective engagement with the public in the process of decision making; including groups that are not widely consulted with to truly model the impact on various demographics and communities.
 - Resources for local authorities to conduct appraisals. Opting for a full Monte Carlo approach may give statistically better results but that this should be weighed up against those analysis being performed at all.

Q6 What should our priorities be for improving the modelling and appraisal of transformational investments and housing and why? Please select up to three.

25. CIHT argues that the priorities in the consultation document do not sufficiently address the problems which we are seeing in current developments. The modelling and appraisal of housing developments does not sufficiently evaluate the downsides of private motor vehicle dependent developments and the consequences of that on public health, transport poverty, air pollution and congestion in

neighbouring areas. There needs to be work done on fairly evaluating the quality of life of residents and using that in the appraisal.

26. For example, in areas without sufficient public transport can present a barrier to low paid or part time work and can create issues around accessibility of employment. This is particularly important as DfT funding is used to enable housing schemes so improperly capturing the impact of transport on quality of life will skew the types of housing that is ultimately built.

27. CIHT members have suggested that it is difficult to model the negative effects of road building to unlock land for house building using current tools. This includes network effects from latent/induced demand.

28. CIHT argues that there needs to be joined up work between government departments, in particular DfT and MCHLG, to appraise the full impact of housing schemes to quantify the full range of benefits. WebTAG, the NPPF and PPG need to work together to deliver for the UK socially and Economically. CIHT will be producing guidelines on “Better planning, better transport and better place” in early 2019

Q7 What transformational impacts do you currently find it difficult to represent in a scheme appraisal? What are the barriers to their inclusion and how would you suggest these are overcome whilst maintaining a consistent and robust approach?

29. No further comment

Q8 What are the main barriers and challenges to applying WebTAG? How do you think these could be overcome?

- The main barriers to applying WebTAG highlighted by our members are;
- Time: As completing a project appraisal is a lengthy process
- Cost: Collecting and analysing data can be expensive
- Skills: The skills required to use the tools are not always available within local authorities

30. In terms of challenges there is a widespread belief that WebTAG is difficult to use for sustainable transport appraisal and public transport (dedicated bus lanes etc) and therefore it is less widely used in that context.

Q9 What more could be done to articulate the flexibilities in WebTAG and support scheme promoters apply the guidance?

31. CIHT has over 14,000 members involved with the design, building and operation of transport infrastructure across 12 UK regions and we believe that outreach is necessary to fully implement any outputs from this consultation. We offer to work with the department to hold regional events which impart the latest knowledge and guidance to our members.

32. Scheme promoters can be supported in applying the guidance by stressing what the ‘decide and provide’ model has to offer in terms of transparency and achieving better results than currently used predict-and provide models.

Q10 How can we improve the way in which WebTAG is presented? Why? We are particularly interested to hear about how we can improve accessibility and clarity of the guidance.

33. WebTAG is a collection over a thousand pages of documentation, numerous data workbooks and at least four software packages costing thousands of pounds, all of which make it a highly specialised tool.

34. There needs to be consideration of who WebTAG is aimed at, as it is a lot of work to produce results that are only understandable to specialists. If the final product was understandable to residents, councillors and local journalists users would receive far more benefit to adopting it. This would mean more use of plain English, a unified glossary for planning specific terms and a clear process for navigating the system

35. There is also a case to be made that any major update of WebTAG is accompanied by seminars similar to what has taken place with the NPPF to ensure that views are heard prior to its release.

Q11 What should our priorities be for improving the development of modelling and appraisal tools and why? Please select up to three.

- Usability, as most schemes do not currently use WebTAG
- Integrating planning and transport, as the demand for new housing is one of the biggest shapers of transport
- Understanding the benefits of sustainable and public transport.

Q12 How can we best encourage innovation whilst maintaining a consistent and robust approach?

36. No further comment

Q13 What new and emerging techniques and methods should we potentially explore and what specific problems might they solve?

37. Developments with simulation-based modelling and agent-based modelling could potentially be explored.

38. Moving to a regime testing approach which would demonstrate in built bias in the current transport appraisal system and allow for more innovation in delivering the transport projects the UK needs for growth and social inclusion.