



Department
for Transport

Analysis to Inform RIS2 - DFT's Strategy

Moving Britain Ahead

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Foreword



A message from the Chief Analyst

Through its Second Road Investment Strategy, the Department will be spending billions of pounds on vital infrastructure that millions of people use each day. Our strategic road network also transports the vast majority of goods, including essential food supplies, to shops, factories, hospitals, schools, and to ports and airports for export. The infrastructure that we invest in now will be serving this country for well over 50 years, shaping our national landscape and the way we live our lives for decades to come.

It is crucial, therefore, that we make investment decisions using the best evidence possible. This demands a process of continuous improvement in analysis and our analytical models. We are working hard to do that, responding to the advice of users, stakeholders and technical experts.

This paper sets out DfT's strategy for analysis for the second Road Investment Strategy, working alongside Highways England, Transport Focus and the Office of Rail and Road. It sits alongside the core consultation document and provides an overview of the other analytical documents being published at consultation. Our aim for analysis is that it is relevant, robust and trusted, with users and their needs at its core. As part of the consultation you are invited to comment on the degree to which these aims are achieved by the analysis. Your comments will play an important role in the shaping and structure of future work and I would welcome your contribution.

Executive summary

This paper outlines the approach being taken by DfT, working with our partner organisations Highways England, Transport Focus and the Office of Rail and Road (ORR), to develop the analysis that will inform the second Road Investment Strategy (RIS2).

RIS2 will set out investment in the Strategic Road Network (SRN) during the second Road Period (2020-2025). It will build on the work taken forward in RIS1 on investing in the network and improving the way it is operated and maintained. It will set out the performance specification that we will expect Highways England to adhere to during that period and a strategic vision for the future of the SRN looking towards 2050. To inform it we have worked with colleagues in other government departments to ensure it fits in with cross-government plans, consulted a wide range of organisations to understand their needs and assembled local and national information on problems the SRN is facing. We will assess that information using DfT's 5-case business case framework (strategic, economic, financial, management and commercial cases) to support refinement of options. Within that process "analysis" plays a key role involving the creation and application of a range of technical methods and tools to produce evidence. In this context, that covers territory familiar from the first Road Investment Strategy, such as:

- Statistics measuring the performance of the road network;
- Understanding what matters to road users;
- Road demand forecasts; and
- The likely impacts of benefits from potential road improvements.

But we will also consider more innovative work, such as developing projections of road performance metrics and technology uptake, benefits to road users of operations, maintenance and renewals, and deepening understanding of potential efficiency paths.

Analysis therefore has an important role to play in informing RIS2, and we aim for it to be relevant, robust and trusted. We intend our approach to:

- Build on the sound approach developed to inform RIS1;
- Continue to develop our analysis to better understand user needs; and
- Advance as part of delivering the overarching DfT appraisal development strategy.

We and our partner organisations have therefore been developing the analytical methods and tools in a number of areas:

- We are working to develop our understanding of future road user needs through improved scenarios of travel behaviour on the SRN;
- We are updating our guidance on key roads appraisal areas including on wider economic impacts, and environmental impacts;
- Highways England has developed an analytical platform to better assess road investment impacts. New traffic models will allow us to better understand induced demand. A new wider economy model will provide better understanding of impacts on the economy, building on Highways England's strategic economic growth plan "The Road to Growth"¹. Finally, outcome models are being developed to measure the performance of the SRN for road users and provide early assessments of environmental impacts;
- We have worked with Transport Focus to ensure the latest evidence on what road users need informs our thinking. In addition, Transport Focus has published research on Road Users' Priorities for the Road Investment Strategy, 2020-25²;
- Finally, ORR is developing ways to better benchmark efficiency and will be publishing updates on these results once they are completed.

We and our partner organisations have worked with experts and stakeholders in a number of events, workshops, and panel discussions to develop this approach. We have set out our emerging plans, discussed our methods and tools in more detail, and sought feedback. The resulting views from experts on what they see as robust and proportionate, and what stakeholders see as important for building trust in the analysis, have helped to shape the approach outlined in this paper.

We believe the approach we have developed represents a significant step forward from that used in RIS1. It advances analysis for RIS2 in line with the DfT appraisal development strategy and we are confident it addresses themes identified in our engagement with stakeholders.

We are now inviting views from a wider audience. This document accompanies DfT's consultation³ on Highways England's SRN Initial Report, in which we ask:

Does the analytical approach taken have the right balance between ambition, robustness, and proportionality?

If not, what do you suggest we do differently?

Full details of how to respond are included in the main consultation document. We will use your responses to inform the development of our analysis, both for RIS2 and beyond.

¹ <https://www.gov.uk/guidance/highways-england-supporting-growth>

² www.transportfocus.org.uk/research-publications/publications/road-users-priorities-for-the-road-investment-strategy-2020-25/

³ Shaping the Future of England's Strategic Roads, <https://www.gov.uk/df#consultations>

1. Introduction

- 1.1 This document sets out a strategic outline of the approach being taken on analysis for the second Road Investment Strategy (RIS2) by DfT, working with its partner organisations; Highways England, Transport Focus and the Office of Rail and Road (ORR). It forms a key part of the RIS2 consultation linking to the main consultation document, *Highways England's SRN Initial Report* and Highways England's more detailed *Analytical Methods Paper*. It sets out:
- The role of analysis in RIS2;
 - The approach we are taking to RIS2 analysis;
 - How we are engaging with stakeholders and experts to make sure our analysis takes into account their views;
 - How the analysis is evolving in line with:
 - DfT's appraisal development strategy— for example on wider economy impacts;
 - Changing user needs; and
 - Discussions with stakeholders and experts.
 - How we will build confidence that the analysis is robust;
 - How we aim to develop the analysis post RIS2 consultation; and
 - How we invite you to comment on the analysis for the consultation.

Background

- 1.2 The first Road Investment Strategy (RIS1) set out a £15bn investment programme for the Strategic Road Network (SRN), covering 2015-2020. It included new capital enhancements, maintenance of the network and its operations such as management of the network and operation of the Traffic Officer Service. It also set out the Vision, Performance Specification and Statement of Funds Available (SOFA) for RIS1.
- 1.3 RIS2 will set out investment in the SRN during the second Road Period (2020-2025) and will build on the work taken forward in RIS1 on investing in the network and improving the way it is operated and maintained. Key decisions will need to be taken about how much to invest, what to invest in and what the time profile of investment should be. It will be based on a Strategic Vision for the future of the SRN looking towards 2050 and a revised Performance Specification for Highways England to adhere to between 2020 and 2025. RIS2 will be supported by a new SOFA setting out annual funding across the five year period.

- 1.4 The approach we have adopted builds directly on the principles established for RIS1. However we have sought to build on the analytical foundation and to be at the forefront of delivery of DfT's appraisal development strategy and enhance the focus on the user.

Analysis is playing a key role in informing the debate

- 1.5 Analysis is informing all parts of RIS2, including the:
- Strategic Vision – examining what the future might look like, developing scenarios and tackling emerging issues like the role and impact of technology;
 - Investment Plan – analysis will be used to examine the impacts of packages of investment, to support the identification of a high performing investment plan;
 - Performance Specification – by identifying the impact of investment, analysis will inform targets and be used to develop the metrics that are key to assessing performance; and
 - Statement of Funds Available (SOFA) – analysis is being used to assess future funding scenarios for RIS2.
- 1.6 In line with our general approach to RIS2, the analysis involves working in partnership across all four RIS2 partner organisations: Department for Transport, Highways England, Transport Focus and ORR.

Our Analysis is building on RIS1

- 1.7 Analysis informed many parts of RIS1, including investigation of:
- The drivers of road demand which fed into future forecasts of road use and congestion and ultimately into Road Traffic Forecasts 2015 (RTF15);
 - User needs to ensure RIS1 was tailored towards the user; and
 - The economic costs and benefits of RIS1 interventions, allowing us to estimate the Value for Money (VfM) of the investment plan.

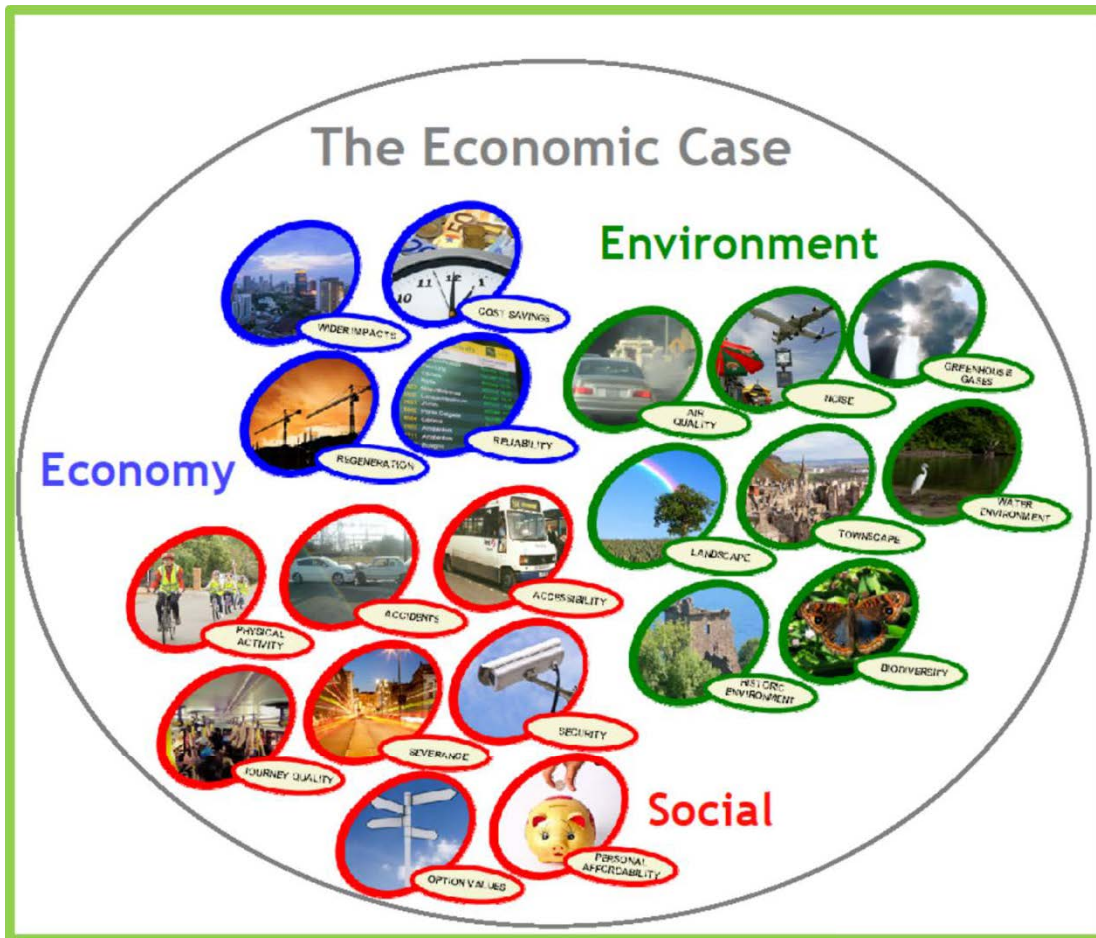
Figure 1: Some of the Key Analytical Publications for RIS1



1.8 Our Investment Plan was based on the sound application of the Department for Transport's comprehensive appraisal framework for assessing Economic, Social and Environmental impacts to RIS1 schemes. Figure 2 sets out the 20 themes covered by WebTAG. This framework is acknowledged in the recent report "Transport Investment and Economic Performance", as providing a rigorous framework for appraising projects⁴.

⁴ Venables, A.J, Laird, J. and Overmann, H., 2014, Transport investment and economic performance: Implications for project appraisal, https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/386126/TIEP_Report.pdf

Figure 2: The different elements of appraisal covered by WebTAG:



Our Analytical Objectives

- 1.9 The ambition for RIS2 analysis is to create relevant, robust and trusted analysis:
- By relevant we mean that it should support decision making for RIS2;
 - Robust means that it provides sound information which can be relied upon when forming decisions; and
 - Trusted means that we are building consensus amongst policy makers, analysts and key stakeholders on the methods and results.
- 1.10 We intend our approach to build on the sound approach developed to inform RIS1. It will evolve to keep pace with changing user needs and advance as part of delivering the overarching DfT appraisal development strategy.
- 1.11 Going forward we aim to develop the analysis for RIS2 further. We will continue to evolve our understanding of user needs and perspectives. We will craft tailored analysis to inform each element of RIS2: Strategic Vision, Investment Plan, SOFA

and Performance Specification. Finally we will develop our analytical tools in each area so that they are even better at informing key decisions.

1.12 We believe this approach will achieve relevant, robust and trusted analysis. In the next section we explain our approach to understanding users and how we have engaged with stakeholders.

2. Understanding users' needs and engaging with stakeholders

- 2.1 We have undertaken a number of activities to understand users' needs including:
- Route strategies – Highways England has engaged with stakeholders to identify priority areas for investment in RIS2 including:
 - A national call for evidence (with over 4,000 responses);
 - Customer surveys by Transport Focus (4,400 interviews).
 - Strategic studies – DfT and Highways England have engaged with local stakeholders, sub national transport bodies and Local Enterprise Partnerships (LEPs) to work up options for tackling key strategic problems, for example the congestion problems faced by the M60 North West Quadrant; and
 - Performance Specification – DfT held tailored events with key stakeholders on each of the performance specification outcome areas between July and September 2017 to take their views on how they should be developed for RIS2.
- 2.2 Each of these activities has allowed us to inform analytical work on identifying issues and potential options on the SRN.

We are working closely with Transport Focus to ensure we are building the user perspective into everything we do.

- 2.3 We are working closely with Transport Focus to ensure that the recommendations it made in *Road Users' Priorities for the Road Investment Strategy, 2020-25*⁵ have been acted on as far as possible.
- 2.4 We have worked with Transport Focus to clarify how key user issues identified in their research are being dealt with in our analytical framework, for example:
- How we take account of the impact of accidents on users and the impact of SRN investments on traffic on the local road network in our appraisals; and
 - How we assess the impact of designated funds to protect vulnerable users on the SRN and to future proof the SRN to meet new technological developments.
- 2.5 And we have improved our knowledge of areas important to users. Priority areas agreed with Transport Focus include road surface quality, information provision,

⁵ www.transportfocus.org.uk/research-publications/publications/road-users-priorities-for-the-road-investment-strategy-2020-25/

coverage of the Traffic Officer Service, roadside facilities and bus and coach facilities.

- 2.6 Our aim is to improve and refine the approach we take, building up the evidence base over RIS2 and RIS3.

We have built trust in the analysis by actively engaging with stakeholders

- 2.7 We have discussed our plans for analysis with national stakeholder groups alongside more general plans for RIS2 development.
- 2.8 We have set out plans for analysis at 7 regional stakeholder events in July 2017.
- 2.9 We have held a number of analytical workshops with national stakeholders focusing on key stakeholder interests and appraisal development strategy. This has allowed us to build a sound understanding of our existing and developing methods for RIS2 analysis including:
- Modelling the environmental impact;
 - Assessing the impact of interventions on outcomes;
 - Taking account of uncertainty and technology; and
 - Dealing with induced demand in traffic modelling and how wider economy impacts are assessed.
- 2.10 DfT's consultation on Highways England's SRN Initial Report will form the next step of our engagement process. As part of the consultation you have the chance to comment on our analytical approach and feed into further work on the analysis; see Chapter 6.
- 2.11 Going forward we will continue to work with national stakeholder groups and analytical experts through the decision-making phase to ensure that RIS2 is informed by analysis which strikes the right balance between ambition, robustness, and proportionality.
- 2.12 We are therefore confident that the analysis that we are carrying out will meet our core aims for the analysis for RIS2. The next section talks in more detail about how our analysis informs different parts of RIS2.

3. Analysis to inform the key elements of RIS2

3.1 We aim to inform each element of RIS2:

- The Strategic Vision – we need to refresh our vision of the future understanding new challenges like technology;
- The Investment Plan – to understand where to invest we want to improve our understanding compared to RIS1 of:
 - How the network performs, as a result of individual improvements and the overall programme;
 - The impacts of interventions on road users and the quality of their journeys;
 - The opportunities and impacts on the economy of road interventions.
- The Performance Specification – we want to use the new outcome models to inform target setting for RIS2;
- The SOFA – working with ORR we want to improve our understanding of the efficiency of Highways England’s operations so that budgets can represent best VfM for the taxpayer.

The Strategic Vision

3.2 For the Strategic Vision we have worked hard to improve our understanding of the future requirements the SRN will need to meet.

3.3 Key to this is understanding the areas of greatest uncertainty and impact on road user behaviour. We have built on RIS1 analysis set out in Road Traffic Forecasts 15 (RTF15) by moving to a scenario based approach. We are developing scenarios around key user themes including:

- Trip making behaviour of users;
- Demographic change;
- Economic and geographic change; and
- Technology

3.4 The new scenarios aim to consider a wide variety of uncertainty and combine multiple issues to create plausible future states of the world.

- 3.5 We have built our scenarios on the basis of the most up-to-date robust evidence about the drivers of travel demand and updated forecasts of demographics, population levels and distribution and the economy⁶⁷.

Technology

- 3.6 Technology is a major theme of our work. Given the significant changes that are occurring it is important to examine key trends. In our work we have distinguished between demand and supply side impacts.
- Demand Side Impacts – arise when technology causes the user to either increase or decrease the amount of road journeys that they make.
 - Supply Side Impacts – arise when technology affects the capacity of the road network or causes a change to how the existing network is used (positively or negatively).
- 3.7 We have examined the impact of connected autonomous vehicles (CAVs) and of vehicle to vehicle and vehicle to infrastructure innovations. We are developing different scenarios for CAVs given the uncertainties about the impact they will have on the road network.

The Investment Plan and Performance Specification

- 3.8 A new Analytical Platform has been developed by Highways England to assess the impacts of different investment packages and support target setting. More detail of the platform can be found in Highways England's Analytical Methods paper. The analytical platform is made up of four key elements:

i. New Regional Traffic Models

- 3.9 For the first time these provide a consistent approach to traffic modelling of the SRN across England. These will be used to forecast how traffic flows and speeds will change following infrastructure investment.
- 3.10 As part of the RIS2 analysis Highways England aim to use the newly developed Regional Traffic Models (RTMs) to examine how packages of roads interventions perform against each other. This analysis will give us the chance to see where interventions complement or compete against each other.

ii. Comprehensive outcome models

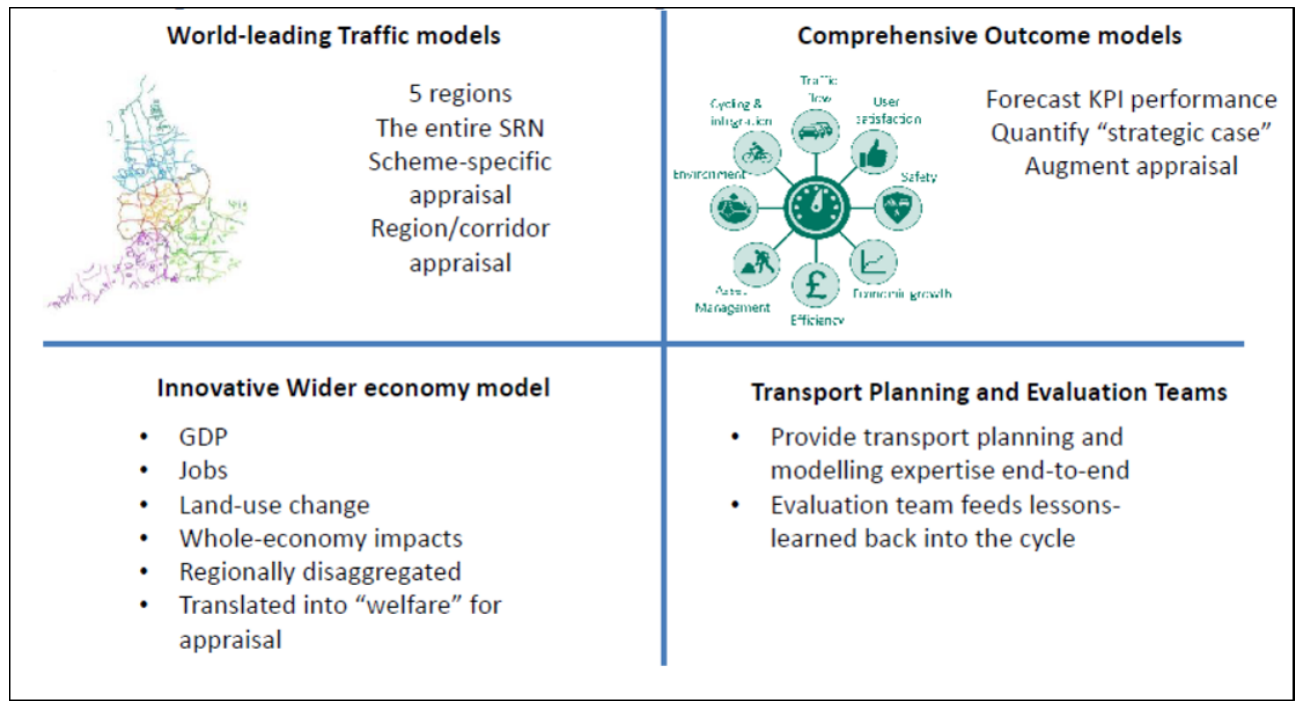
- 3.11 Highways England aim to use outputs from the RTMs to assess the impacts of RIS2 interventions on outcomes and inform target setting. Specific examples of outcome models include:
- An environmental outcome model;

⁶ <https://www.gov.uk/government/publications/understanding-the-drivers-of-road-travel-current-trends-in-and-factors-behind-roads-use>

⁷ <https://www.gov.uk/government/collections/national-travel-survey-statistics>

- A national safety model which predicts the number of people killed and seriously injured in road accidents per year; and
- A customer satisfaction outcome model that identifies the core factors that influence customer satisfaction.

Figure 3: Highways England's Analytical Platform



iii. A new economy model

3.12 This aims to build on the considerable work to understand the impact of roads on the economy through "The Road to Growth"⁸. This new economy model will allow assessment of key economy impacts including how transport impacts on GDP, jobs, land use change, and economic welfare and will provide regional disaggregated impacts.

iv. Transport Planning and Evaluation

3.13 Capacity building is key to delivering the analytical platform. Highways England has significantly improved this so that it can deliver the increased volume of transport modelling, ensure development and application of the new performance outcome models and deliver improved wider economy modelling.

The SOFA - Understanding Financial Needs

3.14 Work is underway to improve the assessment of Highways England's financial needs and develop the approach to efficiency:

- Highways England are using evidence from RIS1 to improve estimates of costs for RIS2;

⁸ www.gov.uk/guidance/highways-england-supporting-growth

- ORR are reviewing efficiency measures to see how well they work and looking at where there are gaps;
- ORR is carrying out capability reviews of Highways England's asset management, portfolio and project management, procurement and contract management functions; and
- ORR is developing ways to better benchmark efficiency.

4. Developing our appraisal

- 4.1 Alongside improving our knowledge of areas important to users (see section 2), we are looking to develop our understanding of methods and models in a number of areas, in particular:
- Wider Economy Impacts – making sure we have robust models to take account of their impact;
 - Continuing to update and improve how we take account of air quality, greenhouse gas emissions and noise in our analysis.
 - Ensuring we understand the implications of RIS2 for heritage assets, landscape and biodiversity; and
 - Induced Traffic – understanding to what degree increased road provision generates more traffic.
- 4.2 In the spring and summer we held a number of engagement sessions with stakeholders to outline how we aim to address each. The approach we have taken builds on our analytical strategy set out in 'Understanding and Valuing the Impacts of Transport Investment' (UVITI) which aims to ensure our approach to appraisal is world class, by maintaining and developing our methods to keep pace with an ever-changing world⁹.

Wider Economic Impacts

- 4.3 Stakeholders were keen that we take into account not just direct travel time savings from the RIS2 package but also the impact on the wider economy. Although the channels through which wider economic impacts operate is complex, considerable work has been done to develop our understanding.
- 4.4 In December 2014 we published the Transport Investment and Economic Performance report¹⁰. This study of the mechanisms by which transport impacts on the wider economy noted that whilst DfT's WebTAG appraisal framework was world class further work needed to be done on making the appraisal of wider economic impacts more context-specific and giving more consideration to changes in the level and location of economic activity;

⁹ <https://www.gov.uk/government/publications/transport-appraisal-in-investment-decisions-understanding-and-valuing-the-impacts-of-transport-investment#history>

¹⁰ https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/386126/TIEP_Report.pdf

- 4.5 Since then we have revised the appraisal framework to emphasise that analysis of economic impacts should be context specific and allow scheme promoters to supplement existing WebTAG methods with innovative economic modelling to capture more impacts. The new Wider Economic Impacts guidance is now being finalised.
- 4.6 Highways England has also looked at how SRN investments can impact on economic growth in The Road to Growth publication¹¹.
- 4.7 Work is also ongoing to develop better ways of modelling wider economic impacts. Highways England has commissioned a new wider economy model with the aim of examining the impact of transport interventions on growth across regions for the RIS2 Investment Plan. A separate piece of work has been commissioned by DfT to look at how GDP impacts can be used in the economic case.
- 4.8 Taken together these mean that we are better able to assess the impact of transport on the wider economy in RIS2.

Air Quality, Greenhouse Gases and Noise

- 4.9 Air quality and greenhouse gas emissions are key areas of analysis for RIS2. We are continuing to update and improve how we take into account the impact of RIS2 on air quality, greenhouse gases and noise.
- 4.10 Highways England's and our ultimate intention as RIS2 schemes progress through appraisal and development stages is to link changes in speed and traffic flow estimated from the RTMs to changes in greenhouse gases and air quality. These could then be valued using WebTAG recommended estimates of damage costs to society (or abatement costs where levels exceed target levels). Highways England is developing these outcome models as part of its Analytical Platform.
- 4.11 DfT and Highways England have been working with other departments, including the Department for Environment, Food and Rural Affairs (Defra) and the Department for Business, Energy and Industrial Strategy (BEIS), to ensure that emissions factors are consistent with the latest scientific findings. This has led to work on specific areas of appraisal including
 - Real world carbon emissions – recent evidence suggests that the gap between car and van emissions on the road and those measured in laboratory tests has been growing over time¹²¹³;

¹¹ <https://www.gov.uk/guidance/highways-england-supporting-growth#the-road-to-growth-our-strategic-economic-growth-plan>

¹² Real world CO2: appendix B of https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/605678/tag-data-book-forthcoming-change-may-2017.pdf

¹³ Nox damage costs: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/598784/forthcoming-changes-workbook.pdf/

- Real world NOx emissions – evidence has also emerged of a gap between the levels of real world emissions of NOx and standard vehicle test results; and
- NOx damage costs – recent scientific research has shown that NOx emissions are likely to be more damaging to human health than was previously thought.

4.12 For the RIS2 Investment Plan Highways England is developing an environmental outcome tool to qualitatively assess noise impacts. For later stages of scheme appraisal and development Highways England are working to develop an outcome model that can link changes in traffic flow from a scheme - using the RTMs - to changes in noise levels.

4.13 The approach to how we take into account the impact of noise has also been improved. In particular, WebTAG has been recently updated to incorporate an Impact Pathway approach to noise, covering annoyance, sleep disturbance and health impacts, with refinements to reflect the different impacts from road, rail and aviation noise

Natural, Built and Historic Environments

4.14 Understanding how different investments impact on natural, built and historic environments is important. These areas of valuation are difficult. The approach in the past has been based on a qualitative assessment of the impact of each road investment on natural capital¹⁴. Qualitative assessments are then used to adjust the VfM assessment based on monetised costs and benefits. We will continue to use this approach for the initial scheme assessment on which the RIS2 Investment Plan is based. To support this for RIS2 Highways England have developed a qualitative assessment tool that can identify the likelihood of an investment affecting a designated or environmentally sensitive area.

4.15 New supplementary guidance issued by DfT shows how to monetise landscape impacts. As schemes move through Highways England's Project Control Framework (PCF) stages, Highways England will attempt as far as possible to develop its assessment of the impact of schemes on the environment. For schemes with significant adverse impacts this may involve quantitative estimation of environmental impacts.

4.16 Finally, we are continuing to develop alternative improved ways of measuring changes in the ecosystems services (ESS) that the environment provides as a result of road investments. We have commissioned research to update and develop the methodology that we use to value landscape impacts of road and rail transport interventions within the natural capital framework, by using the ecosystem services approach. We will examine the findings and the recommendations of the research to consider what changes could be made to the existing methodology.

¹⁴ Natural capital is the stock of renewable and non-renewable natural resources, (eg plants, animals, air, water, soils and minerals) that combine to yield a flow of benefits to people.

Induced Traffic

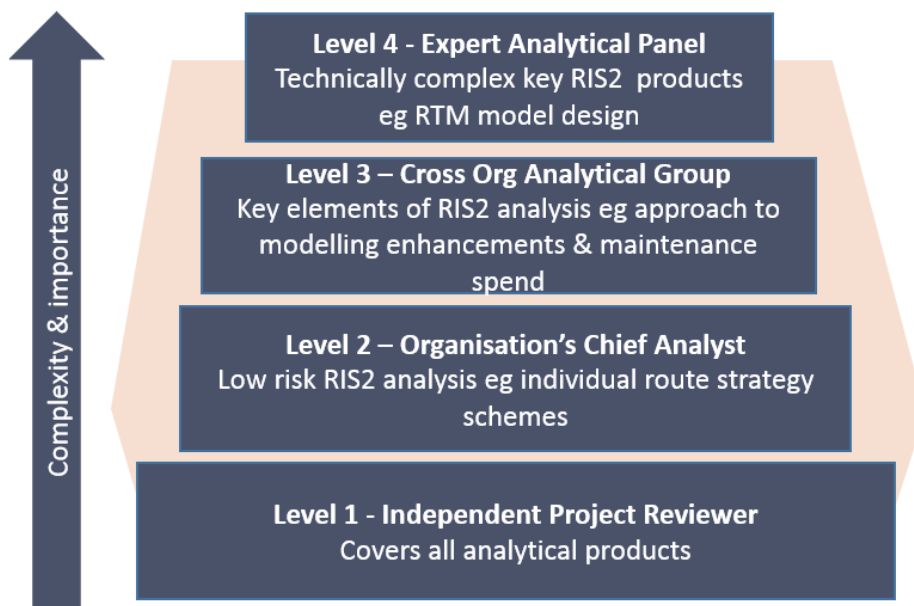
- 4.17 An issue raised by stakeholders is that additional road capacity might not relieve congestion but could instead result in additional traffic which merely fills the roads up again (see SACTRA, 1994¹⁵). DfT and Highways England are very conscious of the need to account for induced traffic. WebTAG guidance has addressed this issue and provides guidance on how to model and appraise induced traffic
- 4.18 Our evaluation of individual schemes from Highways England's POPE meta report (2015)¹⁶ shows that induced demand occurs in only a minority of road schemes. Of the major schemes considered only 12% were shown to have caused additional traffic over and beyond general background growth that would have occurred without the scheme.
- 4.19 However it is important that we understand induced demand and take that into account when schemes are assessed. Significantly there have been a number of improvements in the modelling of roads schemes over the last 20 years. For RIS2, Highways England's new Regional Transport Models allow for traffic demand to vary as a response to changes in network conditions. The impact of any increased traffic on congestion can then be taken account of in the calculation of benefits and disbenefits from scheme interventions as a standard part of the process.

¹⁵http://webarchive.nationalarchives.gov.uk/20050304041634/http://www.dft.gov.uk/stellent/groups/dft_econappr/documents/pdf/dft_eco_nappr_pdf_022512.pdf

¹⁶ https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/497241/POPE_Meta_2015_Final_210116_-_FINAL.pdf

5. Analysis robust enough to inform decisions

- 5.1 We have sought to adopt a balanced approach, targeting our analysis to those areas where it is most important to have it.
- 5.2 Alongside this we have put in place a carefully considered approach to assuring the analysis, tailoring the level of assurance based on the complexity of the analysis and the decision it will inform. Our approach covers all RIS2 analysis including by Highways England, Transport Focus and ORR.
- 5.3 Our analytical assurance processes are in line with DfT Strength in Numbers guidance¹⁷. This involves tiered assurance:
- Tier 1 - at the level of the analysis, within organisations;
 - Tier 2 – within organisations;
 - Tier 3 – across organisations;
 - Tier 4 - Expert panel of internationally recognised researchers for ground-breaking areas of important analysis.



- 5.4 We have presented our modelling to external expert groups, for example DfT's Joint Analytical Development Panel.

¹⁷ <https://www.gov.uk/government/publications/dft-analytical-assurance-framework-strength-in-numbers>

6. Progressing the analysis in an efficient and effective manner

- 6.1 This report has outlined our strategy to using analysis to inform RIS2. The accompanying report by Highways England talks more about the analytical methods, whilst the SRN Initial Report sets out the challenges being faced by the SRN and early investment priorities.
- 6.2 Following the consultation on Highways England's Initial Report, we aim to:
- Continue to refine and update our analysis so that it is current and robust through to the publication of RIS2 in 2019. The results from the consultation will help inform this;
 - Further develop the performance framework for RIS2 informed by the performance outcome models;
 - Forecast future traffic volumes under different scenarios;
 - Alongside this we will continue to develop our understanding of technology; and
 - Respond to feedback on analysis received through the consultation.
- 6.3 Once we have published RIS2 in 2019, we move into the mobilisation and delivery phases. This will involve projects going through each of Highways England's PCF stages. To meet the requirements of the PCF process, the analysis around the costs and benefits of schemes will be updated. Consequently the analysis for RIS2 should not be seen as final but as a point on a trajectory of improving evidence.
- 6.4 We will continue to work in partnership with Highways England, ORR, and Transport Focus to deliver the analysis, and engage with stakeholders to ensure it is robust and that users are at the heart of RIS2.

7. The Consultation

7.1 In conclusion our aim is to produce analysis that is

- Relevant to the decisions that need to be made in all the key RIS2 areas;
- Robust enough to be relied upon for the decisions at hand; and
- Trusted by stakeholders.

7.2 We are building on the analysis carried out for RIS1 by:

- Refreshing the Strategic Vision to take account of the most recent forecasts and new challenges like developing technology;
- Aiming to improve our modelling of:
 - How the network performs using Highways England's new RTMs;
 - The impact of transport interventions on the economy; and
 - Attempting to better assess the impacts of transport interventions on environmental impacts.
- Developing a Performance Specification based on improved outcome measures and targets, informed by new outcome models;
- Working with ORR to improve our understanding of efficiency and what targets Highways England should be set; and
- Working with Transport Focus to better understand road users' needs.

7.3 We believe the approach we have developed represents a significant step forward from that used in RIS1. It advances analysis for RIS2 in line with the DfT's appraisal development strategy and we are confident it addresses themes identified in our engagement with stakeholders.

Consultation Question on Analysis

7.4 In the consultation on the Initial Report we have asked you the question:

Does the analytical approach taken have the right balance between ambition, robustness, and proportionality?

If not, what do you suggest we do differently?

7.5 Full details of how to respond are included in the main consultation document. We will use your responses to inform the development of our analysis, both for RIS2 and beyond.

