

## **Written evidence submitted by the Chartered Institute of Highways and Transportation (CIHT) (SRI0020)**

### **1 CIHT**

CIHT is a membership organisation representing over 10,000 people who work in the highways and transportation sector. CIHT members plan, design, build, operate and maintain best-in-class transport systems and infrastructure, whilst respecting the imperatives of improving safety, ensuring economic competitiveness and minimising environmental impact.

CIHT welcomes the opportunity to respond to the Transport Select Committee's inquiry. CIHT shares the concerns expressed in the National Audit Office (NAO) Report<sup>1</sup> about the way the Second Road Investment Strategy (RIS2) was planned and managed so far.

CIHT welcomed the importance of certainty of investment that was established originally in 2015 in Action for Roads. CIHT noted that the government needs to provide the certainty required by the supply chain side of the sector to invest in resources and capability to deliver the investment. CIHT would continue to press for longer-term funding certainty through the RIS process; but welcomes the need to learn lessons from the first two RIS periods when it comes to forward planning.

CIHT has long called for a National Transport Strategy (NTS) and is concerned that the absence of a national strategy (or strategies), may mean that the RIS investment is not utilised effectively. The NTS strategy should include the strategic and local road networks, rail, aviation and ports and set out how those networks integrate with one another.

The standard of highway expertise in the United Kingdom is very high and is recognised worldwide. Our networks are amongst the safest in the world and our professional standards are highly regarded. The United Kingdom has contributed significantly to the development of highways as an increasingly more efficient sector of industry. The evolution from the Highways Agency to Highways England and then National Highways (NH) is one of a continuing need to develop commercial capability, innovation and greater agility in decision-making.

CIHT has called for a 10-year local highways fund to extend the concept of longer-term funding certainty to all roads in England; and called for a similar RIS process to be adopted by the Devolved Administrations.

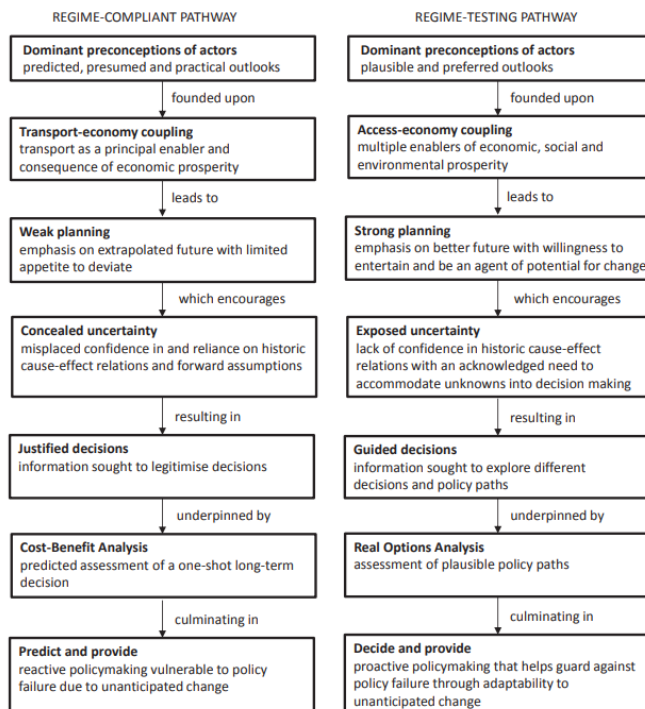
## **2 Introduction and summary**

In March 2020 the government published its current Second Road Investment Strategy<sup>2</sup>, running from April 2020 to March 2025, which outlined the plan to spend £27.4 billion on the strategic road network (SRN) through a portfolio of 69 road enhancement projects outlined by the Department of Transport (DfT). From late 2021, the strategy incurred delays, risks that were not forecasted, and deliverability problems, to which the COVID-19 pandemic added pressure. Significant changes were made to the delivery plan as it became clear that the strategy could not have been implemented as planned.

In CIHT FUTURES (2016)<sup>3</sup>, CIHT recommended that the Transport Select Committee is asked to consider the need for an inquiry into the processes that inform and influence transport policy and investment in the face of deep uncertainty about the future. CIHT would consider both the CIHT FUTURES report and this recommendation relevant to this current inquiry. During the time of the second Road Investment Strategy there was the COVID-19 pandemic, illustrating that events unforeseen at the time of devising RIS2 did occur, the lesson from this is the adaptability and responsiveness to change is vital. CIHT FUTURES proposed an alternative pathway for decision-making, figure 1 below:

## Figures 1 – Alternative Decision-making Pathways

Alternative Decision-making Pathways<sup>17</sup>



The concept of the robustness of investment decisions in a changing world was further explored in the 2023 report: ‘Key questions for road investment and spending’ by the Road Investment Scrutiny Panel<sup>4</sup>. The report noted a concern about the current decision-making process, where uncertainty is not considered thoroughly. As such there could be a lack of robustness to the possibility of changed circumstances - for example the nature, extent and severity of climate change effects, or anticipated developments failing to materialise or being delivered later than expected.

To address this the report recommended testing of investment decisions against a wide range of plausible scenarios, openness about the work (and openness to reevaluate assessments), and evidence of portfolios of smaller interventions with a lower risk profile being given serious consideration (including those aimed at reducing travel demand).

In the report it was stated:

*'We welcome the fact that this is starting to be addressed with the DfT's Uncertainty Toolkit. This includes a series of seven 'Common Analytical Scenarios' (CAS) intended - where considered proportionate to do so - to be used to assess how a proposed scheme performs in terms of value for money in the face of different possible futures. It is too early to judge whether and to what extent use of the toolkit actually shapes decision-making based on scenarios capturing a broad enough range of possible futures (Page 31).'*

### **3 How effectively the RIS2 enhancements portfolio has been managed to date**

In 2019, the Office of Rail and Road and the Infrastructure and Projects Authority reviewed NH's business plan for the Second Road Investment Strategy, recognizing that the portfolio presented a series of large and complex projects that would have been challenging to deliver.

NH has identified that the expenditure on the Strategic Road will cost £3.3 billion over budget to complete its road enhancement projects<sup>5</sup>. CIHT expresses its concern about the cost overrun and the already committed budget from RIS3 to complete the current projects. Moreover, the programmed schemes might not deliver the required objectives or reach the desired value for money. It is also pertinent to reflect on the importance of the local level. Almost all journeys begin and end on local authority roads which are nearly 98% of the road network. Increases of traffic on the SRN tend to also cause more problems on the local road network and the environment in towns, therefore delays on the SRN will spillover causing disruption to the local road network.

CIHT highlights that larger schemes or interventions while potentially providing greater benefits are also inherently riskier. A well-selected portfolio of smaller investments may offer better means of achieving goals in a way that is less vulnerable to uncertainty. We would welcome evidence that this approach is being actively considered in the process for the third Road Investment Strategy<sup>6</sup>.

### **4 Whether risks to the enhancements portfolio for the remainder of the RIS2 period are being well managed**

As the NAO report indicated, NH focused its risk assessment on affordability, identifying portfolio-risks such as changing government priorities, environmental

issues and legal challenges. However, when risks arose the lack of a risk management plan determined delays, cost overruns and poor management of the financial resources. CIHT appreciates that overruns and delays have also received additional pressures from the fact that the first two years of the strategy took place during the COVID-19 pandemic. However, impacts could have been better mitigated if a risk management plan had been in place.

CIHT recognises that risk assessment and risk management could have been undertaken more thoroughly during the design and implementation of the strategy. Specifically, NH lacked a risk management plan that led to allocating the totality of the contingency budget in 2022, only halfway through the delivery phase. This demonstrates that when unforecasted risks arose, NH was unprepared and lacked future sight that would have led to a more careful allocation of the contingency budget to ensure flexibility and availability of funds for the remaining three years of the delivery.

The NAO report also comments that the poor risk management set in place led to further delays and projects being cancelled. From evidence provided by The Local Governments Technical Advisers Group (LGTAG), in their direct experience with Trunk or Strategic Road Schemes over the past 40 years shows that easier and more straightforward projects are built first, leaving more complex implementations behind, until the situation becomes or is made intolerable.

CIHT and the Local Government Technical Advisers Group (LGTAG) is unconvinced that the details of implementation of RIS2 have been adequately thought through before construction. The M2/A249 junction is a particular example. Here M2 traffic travelling east has not been able to access the significant town of Sittingbourne with its large industrial area, the whole of Sheppey and the port of Sheerness without extensive diversion through other congested towns. Similarly, from those areas traffic has not been able to access the M2 eastbound. Also, with the same construction closure traffic coming from the south and west using the A249 has not been able to go eastwards along the M2.

NAO also reports that NH and DfT are only currently monitoring projects at risk of not providing Value for Money, to informing their decision making on the future of these projects. A more thorough Value for Money assessment should have been conducted before the start of these projects, given that there is now the

possibility of seeing them cancelled (DfT has already cancelled one), while money has already been invested.

## **5 What the impacts of delays and cost overruns are on the overall programme, and whether the revised can be delivered to schedule and on budget**

CIHT is concerned that, at the current stage of implementation and with the current financial capacity, where the contingency budget has been completely allocated, there are limited options to address future cost pressures. This situation, so early in the delivery phase (only two years in) will not only impact the rest of the strategy until 2025 but put substantial pressures on the future Road Investment Strategy, creating liabilities and limiting the projects that can be funded.

The reasons the NAO report has identified for the dramatic overspend are inflation and delays. The reasons for the latter are stated to be changing government policy and legal challenges. We are aware that government and international policy has moved on particularly on carbon and pollution. However, CIHT does not feel that the schemes that have been completed, are under construction, or are being planned, fully reflect the changes in policy already agreed (for instance in the Government's Carbon Reduction Strategy) or required to deliver the real needs of the public and businesses.

## **6 What progress is being made on planning for the next Road Investment Strategy;**

CIHT welcomes the intention expressed in "Planning ahead for the Strategic Road Network"<sup>7</sup> to include and assess impacts on communities and places alongside the SRN together with road users.

CIHT welcomes the development of the DfT's Uncertainty toolkit<sup>8</sup> that includes a Common Analytical Scenario (CAS) intended to be used to assess how a proposed scheme performs in terms of value for money in the face of different possible futures. CIHT has been supporting a shift away from predict and provide and the creation of the CAS is a welcome effort to improve the appraisal methods. However, it should be noted that the DfT's current CAS does not include a scenario in which traffic volumes fall, limiting the scope of the appraisals around uncertainty.

In CIHT FUTURES (2016) it was noted: 'New Zealand's Transport and Industrial Relations Select Committee in late 2015 initiated an inquiry into the future of New Zealand's mobility'. The UK Transport Select Committee should consider whether a similar examination is becoming timely. This could reflect upon the appropriateness of decision-making approaches and how they are informed, given the significant changes and uncertainties not only in mobility and society but also in the administrative and advisory structures for UK transport policy and delivery'.

CIHT believes that if RIS3 and the outstanding elements of the RIS2 programme are to be deliverable, NH will need to demonstrate, to a level that will withstand scrutiny in the courtesy that these projects are consistent with the legal obligation under the Climate Change Act, to be able to deliver a credible pathway to the decarbonisation of the UK economy by 2030. It is important to note that the legal obligation we face is not only to fully decarbonise the UK economy by 2050 but also to follow a pathway of decarbonisation that complies with 5-yearly interim carbon budgets, which demand very large reductions by 2030 and 2035.

It is not clear that this is the case at present. In July 2022 the High Court ruled that the Government's overall Net Zero Strategy was in breach of its own legislation and therefore unlawful. In addition, as the Committee is probably aware several major road scheme proposals are facing legal challenges in relation to concerns over related carbon emissions and their wider health and social impacts.

In our view it is likely that any schemes that add significant capacity to the network will be challenged in this way on the basis that they will result in forms of traffic growth that will increase overall emissions from petrol and diesel vehicles.

In this context we note that the Scottish Government has committed to a 20% reduction in overall car kilometres travelled by 2030 (against a 2019 baseline), whilst the Welsh Government is pursuing a 10% per head reduction by 2030. In England however the role of traffic reduction in meeting Net Zero targets remains ambiguous.

This is a complicated issue as the UK is at the beginning of a long process of electrification of its vehicle fleet, which means that policy makers will need to begin to distinguish between total car miles and carbon-emitting miles. Forecasts

of traffic growth do however play a significant part in making the case for schemes to add capacity to the network, so we believe it is reasonable that government and NH take steps to resolve this ambiguity.

A recent report by the Roads Investment Scrutiny Panel, Chaired by CIHT Fellow Professor Glenn Lyons<sup>9</sup> has proposed that to resolve this issue Government should:

- publish a projection of the change in vehicle miles by carbon-emitting vehicles necessary or prudent to stay within an acceptable carbon reduction trajectory (recognising that this will have to be carried out against a backdrop containing significant uncertainties);
- indicate with sufficient confidence how such change can be achieved in practice in the required timescale (recognising that time is getting very short for fresh measures to be developed and implemented); and
- making this analysis available as the basis for decisions on individual capacity-increasing road schemes.

The Panel also recommend that this analysis should then be applied as part of the approval process for capacity-increasing schemes still in their pre-construction development phases (i.e. before contracts have been signed for the commencement of work), including schemes in the second Road Investment Strategy, schemes being developed for possible inclusion in the third Road Investment Strategy and thereafter, and major schemes developed by local authorities.

CIHT calls for future analytical consistency between road expenditure decisions about capacity and the trajectory necessary for whole economy decarbonisation - demonstrated through greater transparency in how results, conclusions and evidence are presented. Moreover, DfT and NH should demonstrate clarity on how the trade-offs around the road network's contribution to achieving Net Zero will be managed, who will be accountable for these decisions and how their performance will be scrutinised. New projects should be appraised with a consistent and competent application of carbon evaluation.

## **7 What lessons from RIS2 need to be incorporated into RIS3 to ensure it is achievable and delivers on policy objectives**



CIHT calls for more thorough risk assessments to be conducted, for the delivery plan to be prepared before the strategy starts and for regularly updating costs and reviewing budget accounting for inflation.

NH is developing a pipeline of 31 projects that should be selected for the next road strategy, however given the already committed budget to finish overrunning projects from RIS2, CIHT suggests cautions considerations of new projects. These should be selected against citizens' needs and with evidence that they can and will improve the economic conditions of the communities they affect, aligning with other policy objectives, especially decarbonisation. RIS3 should not only focus on the expansion of the strategic network, in fact, greater value for money could be achieved by maintaining and improving the current road assets.

As highlighted in the Road Investment Scrutiny Panel Report “Key questions for Road Investment and Spending”<sup>10</sup> in January 2023, the decision-making process of road investments is *“not engaging sufficiently with uncertainty about the future and therefore lacks robustness to the possibility of changed circumstances (for example the nature, extent and severity of climate change effects, or anticipated developments failing to materialise or being delivered later than expected).”* CIHT calls for testing investment decisions against a wide range of plausible scenarios, including those that involve reductions in traffic volumes and step changes in sustainable and active travel.

## **8 Whether the Government’s current and forthcoming roads investment programme is meeting the current and future needs of consumers and business**

CIHT highlights the importance for the Government’s current and forthcoming Road Investment Strategy to meet the needs of consumers and businesses. In fact, 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.

Similarly, the Local Government Technical Advisers Group (LGTAG)’s evidence to the HCLG Select Committee, suggests the following objectives for the SRN:

- Actual delivery of ‘net zero carbon emissions by 2050’ or preferably earlier by all methods likely to have immediate effect
- Invest in infrastructure to reduce disruption and associated costs and ensure public and private enterprise can continue to provide economic gain in times of crises including the effects of global warming/heating.
- Ensure we stop the dis-investment in infrastructure by proper maintenance of all our infrastructure
- Maximise productivity by reducing overheads in unnecessary/undesirable administrative overheads

Reduce pollution of particulates and noxious gases

Transport models and ‘approved’ processes used to predict future demand usually grossly underestimate induced traffic and overpredict future traffic volumes without the scheme. There are many examples of where traffic builds up quickly after a scheme has been completed and then does not, and often cannot, increase further. CIHT has long advocated to move away from predict and provide, in CIHT FUTURES<sup>11</sup>

## **9 Whether the Government’s roads investment programme aligns with other policy priorities, such as decarbonisation, levelling up, productivity and growth;**

CIHT suggests that more evidence should be provided to show how the Road Investment Strategy aligns with either central or local governments policy priorities.

As previously stated by CIHT in its 2021 Comprehensive Spending Report Submission <sup>12</sup>, *“When it comes to climate action and levelling up CIHT sees investment in the local highway network (LHN) as the biggest priority for transport investment as, without adequate funding, it means that other government plans will not be met. This is not about road building but about transforming communities. Planning and transport together can deliver all that the government wants but it needs investment in people to change. A strategy is needed across transport to ensure that we do not waste precious resources operating in silos all doing similar things differently.”*

CIHT encourages DfT to provide supporting data on how the aim, set out in RIS2, of levelling up areas left behind, will be achieved. To achieve levelling up and economic growth academia and economic geographers have been advocating for years that road enhancement and new road schemes will not automatically deliver economic growth for disadvantaged areas. Ensuring that regions left behind have access to the SRN might, per se, not deliver a beneficial exposure to the wider economy or attract people, investments and business opportunities within the region. On the contrary, it can either result in creating infrastructure links that remain unused or that draw away resources and business opportunities, attracted by bigger regional or urban economies, now more accessible due to improved routes.

Achieving growth in the economy is dependent on many factors outside the Transport sphere. Again SACTRA 1999 identified that Strategic Road enlargement is unlikely to help significantly. Nevertheless, access to development sites (largely by local transport improvements) and allowing other areas than the south to prosper are critical.

The transport sector accounts for the majority of CO2 emissions<sup>13</sup>, with just less than one third produced by road transport. CIHT would like to stress that to achieve Net Zero by 2050, more comprehensive and courageous actions should be taken. CIHT advocates for transport to be catered for against a sustainable transport hierarchy. This means that walking, wheeling, and cycling should be prioritised first, followed by public transport, with the private motor vehicle being prioritised last in all cases. Supporting a change in how people move and how goods and services are delivered on the network can support carbon reduction. However, the transport sector is one area where emissions are not reducing. Investments should be redirected to support sustainable modal shifts and the electrification of vehicles, which requires changes in the infrastructure itself.

## **10 How RIS3 should take account of technological developments, and evidence on ways of increasing capacity on the Strategic Road Network (such as smart motorways and potential alternatives to them).**

In 2021, CIHT submitted a response to the Transport Select Committee on the Inquiry on the roll-out and safety of smart motorways (SM). CIHT position (29 Jan

2020) on SM stated: *"Recent concerns surrounding smart motorways highlight many of the complexities associated with these motorways. CIHT has always maintained that improving road safety should be based around engineering, enforcement and education. Whilst we welcome the on-going review by Highways England, we believe that several factors would give users of smart motorways greater confidence and re-assurance whilst driving on them. These include; installation and use of appropriate technology, clear and accurate communication with drivers, greater understanding of smart motorways by customers and guidance on how we should safely use them and appropriate spacing of refuges would all help."*<sup>14</sup>

The DfT stated in their Decarbonisation Plan that they will end the sale of all new non-zero emission HGVs by 2040 or earlier if a faster transition seems possible.

Electric roads (roads that supply electric power to vehicles traveling on it via catenary wires) are already being rolled-out within mainland Europe.

Some examples include:

- Sweden – National Transport Plan 2022-2034 includes planning for 2,400 km electrified motorways, a 20km pilot between a national rail hub and nearby logistics centers is being procured
- Denmark – Parliament approved 400k EUR overhead catenary (OCL) corridor to Germany
- Norway – Public Road Administration study finds dynamic charging for trucks a cost-effective solution
- Belgium – Study finds very strong business case for overhead catenary
- Austria – ‘Energy Roads’ study ongoing with involvement of neighbours Czech Republic and Slovakia
- Hungary – Transport minister keen on implementing pilot project, joint corridor study with Austria and Denmark starting
- Poland – local government project proposal for catenary route in southern Poland
- France – Three Ministry-lead working groups on electric roads study – catenary is the cheapest solution for trucks
- Italy – Ministry strategy for trucks focus on electrification including use of catenary

- Spain – Study by ECF finds TCO for overhead catenary already lower than ICE by 2025

The DfT (through Innovate UK) commissioned a £2m feasibility study (led by Costain Ltd with Siemens) on a 20 km catenary pilot near Scunthorpe with 50-150 trucks. The study found catenaries to be the ‘most energy efficient and cost-effective solution’.

We need to be interoperable with the rest of Europe and need this alignment to keep trade routes open, if we don’t there is a risk that we isolate ourselves or get left behind.

There are plans to incorporate funding for HGV decarbonisation infrastructure in RIS4, however, this will be too late to achieve the 2040 HGV decarbonisation deadline. Funding for piloting electric roads needs to be delivered sooner if we are to keep up with mainland Europe and deliver our Net Zero goals.

February 2023

## Endnotes

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<sup>1</sup> [Road enhancements: progress with the second road investment strategy \(2020 to 2025\) \(nao.org.uk\)](https://www.nao.org.uk/publications/road-investment-strategy-2-ris2-2020-to-2025)

<sup>2</sup> <https://www.gov.uk/government/publications/road-investment-strategy-2-ris2-2020-to-2025>

<sup>3</sup> [CIHT FUTURES - Final Report doc A4.indd](#)

<sup>4</sup> [Key questions for road investment and spending \(worktribe.com\)](#)

<sup>5</sup> [Road enhancements: progress with the second road investment strategy \(2020 to 2025\) \(nao.org.uk\)](https://www.nao.org.uk/publications/road-investment-strategy-2-ris2-2020-to-2025)

<sup>6</sup> *ibid*

<sup>7</sup>

[https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/1045938/planning-ahead-for-the-strategic-road-network-developing-the-third-road-investment-strategy.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1045938/planning-ahead-for-the-strategic-road-network-developing-the-third-road-investment-strategy.pdf)

<sup>8</sup> [TAG uncertainty toolkit - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/publications/tag-uncertainty-toolkit)

<sup>9</sup> <https://uwe-repository.worktribe.com/output/10295773>

<sup>10</sup> [Key questions for road investment and spending \(worktribe.com\)](#)

<sup>11</sup> [https://www.ciht.org.uk/media/4809/ciht\\_futures\\_-\\_final\\_report\\_doc\\_a4\\_final\\_linked.pdf](https://www.ciht.org.uk/media/4809/ciht_futures_-_final_report_doc_a4_final_linked.pdf)

<sup>12</sup> [september-2021-ciht-comprehensive-spending-response-submission.pdf](#)

<sup>13</sup> [Transport and environment statistics: Autumn 2021 - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/statistics/transport-and-environment-statistics-autumn-2021)

<sup>14</sup> [Urgent call to boost smart motorway safety \(ciht.org.uk\)](https://www.ciht.org.uk/news/urgent-call-to-boost-smart-motorway-safety)