



Response to:

**Shaping the future of
England's strategic roads**

Introduction

This document contains Transport Action Network's (TAN) responses to the questions set out in the consultation on *Shaping the future of England's strategic roads*.

Responses to Questions

Question 1. What importance, if any, would you give to the following strategic objectives:

- **Improving safety for all (very important)**
- **Improved environmental outcomes (very important)**
- **Network performance to meet customer needs (neither important or unimportant)**
- **Growing the economy (neither important or unimportant)**
- **Managing and planning the SRN for the future (important)**
- **A technology-enabled network (important)**

We fundamentally disagree with the suggested objectives and are disappointed the consultation does not give an opportunity for suggesting improvements. The strategic objectives require significant change, we suggest the following alternatives:

1. Improving safety and perceptions of it for all
2. Improving efficiency of and choice in network usage
3. Improving wider environmental outcomes
4. Managing the SRN for a more uncertain future
5. Integrating with other networks, technological & transport

We suggest removing the economic objective for two reasons. First, the best way to help the economy is to cut traffic and congestion through demand management and modal shift, rather than let them increase, as is currently proposed. Second, this alternative approach would help, rather than hinder, Levelling Up missions. Third, major development should be public transport rather than road-oriented: the reference to "proactively shaping spatial plans to support sustainable development" ignores this. Road safety needs to include user perceptions, to address people being too scared to travel actively or use the remaining smart motorways.

Many road users currently have no realistic alternatives to driving their own vehicle. By reframing the network objective from needs to choice, the importance of enabling modal shift and increasing occupancy is brought to the fore. Climate mitigation in terms of user

emissions is better covered by focusing on efficiency, encompassing improving the relative attractiveness of alternatives, such as active travel, buses, coaches and parallel rail routes, as well as electrification and higher car occupancy. In other words, efficiency here should cover both energy conversion (electric vehicles are far more efficient than fossil, synfuel and hydrogen powered vehicles) as well as better use of road space.

Given the breadth of environmental priorities, and how locally issues like air, noise and water pollution as well as visual impacts are perceived, a separate objective is needed. Wider environmental outcomes should include resource use and the circular economy, through using fewer raw materials, and also species connectivity, going beyond Biodiversity Net Gain.

With 40C summers already with us and the world a far more volatile place, it makes sense to combine the elements of the third and sixth objectives to focus on least regrets network management. We do not know how much temperatures will change, or traffic flows will be affected by climate and ecological collapse, which in turn have implications for how often surfaces would need to be renewed.

Finally, we suggest changing the technology objective from technology-enabled to integration of technology. This avoids technology being used for its own sake or justifying the continuation of unsustainable behaviours, while emphasising the need for cultural change and social innovation to harness the benefits. This is also relevant to enabling a more seamless network, as few users appreciate the difference between the SRN and local roads.

Question 2. What, if any, other specific roads do you think we should consider as:

- **trunking candidates?**

None: as part of modal shift and traffic reduction, fewer roads should be run by National Highways, with local and sub-national authorities taking on greater responsibilities.

- **de-trunking candidates?**

We support the proposals to downgrade roads, which will help enable greater integration with local transport plans and help deliver quantifiable carbon reductions. Over time as traffic reduces, more A roads should be de-trunked.

Question 3. Do you think National Highways has identified the right focus areas?

No. As a starting point, we fundamentally disagree with the traffic scenarios - as set out in more detail in our answers to questions 7 and 13. These ignore wider changes, such as

resource efficiency targets reducing freight and growing climate extremes disrupting travel and economies. As set out in our answer to the former question, while the build nothing approach of PAS2080 is welcome, so long as there is credible, independent scrutiny of alternatives, carbon needs to be reduced across the whole lifecycle, in particular during the use phase of infrastructure.

In terms of the nine focus areas on p71, we broadly agree with their headings and their grouping into three, though not their detail, for reasons set out elsewhere in this response. The first should be changed to “How much our customers will travel”, with “Growth and levelling up” changed to “Enabling choice - modal shift and integration”, as this aligns better with both the user focus of this group as well as the key Levelling Up Mission. Demand management and increasing occupancy should be included in the detail here for cars and freight and logistics. It would make sense to add vans to cars, as they are often used for trade rather than freight, and are the fastest growing type of traffic.

The second group “How our customers will experience travel” is generally good but the opportunity should be taken to deliver synergies between safety and decarbonisation, such as traffic and speed reduction. The final group “How we will manage our network” should be expanded to broaden customer experience to cover neighbouring councils etc., with sustainable network development changed to “making the network sustainable”, to avoid suggestions of expansion. A key issue missing here is the need to improve NH’s strategic plans, some of which are still just a couple of pages long, others, such as on good design, still do not exist yet.

Focus on Levelling Up

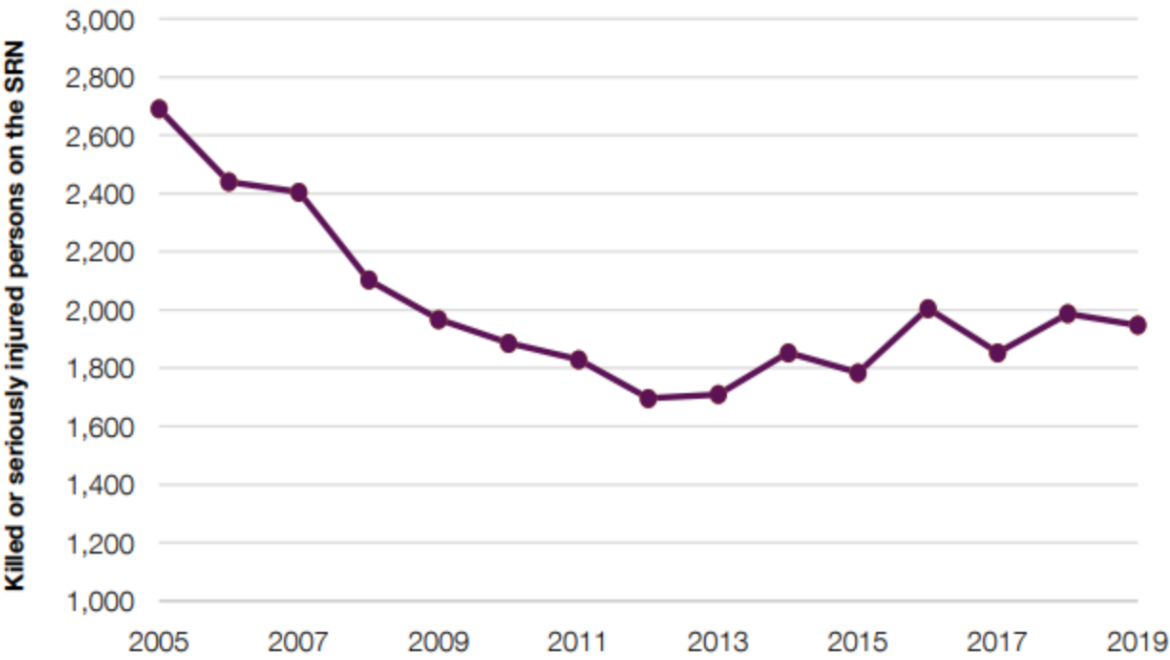
There is such a lack of congruence between the Interim Report and the Levelling Up missions and metrics¹, that this area requires further, focused engagement. Assertions in Connecting the Country reveal how much NH has got off on the wrong foot here. Suggesting that high quality roads to access employment, education and leisure will help Levelling Up are simply wrong: not only will they put key metrics on modal shift in the wrong direction, wider evidence suggests this will make congestion worse, damaging agglomeration impacts, and the case for improving modal choice. Public money was invested in London’s transport networks to deliver economies of scale and network effects: by contrast NH condemns the rest of England to “modal choice where this is commercially viable”. The contrast here with the billions spent on the SRN, despite a lack of any commercial return, is somewhat galling.

¹ [Levelling Up the United Kingdom: missions and metrics Technical Annex](#) (MHCLG 2022)

Question 4. To what extent do you agree with National Highways’ approach to improving safety on its network?

Strongly disagree

While we certainly agree with the safe systems approach and other positive principles, there is a major gap here between rhetoric and resources. As the figure below from NH’s Connecting the Country (page 29) strategy shows, the positive trend ended in 2012 with the freezing of fuel duty and went into reverse gear in 2014 when RIS1 was published. The only way we can get back on track for the 2040 zero harm target is through a major reallocation of funding from major schemes to smaller safety schemes, alongside a significant modal and culture shift. Although Connected Autonomous Vehicles may be widely on sale by 2035, they will only be a small proportion of the fleet, especially if current trends for slower vehicle turnover accelerate, and are least likely to deliver safety improvements on higher risk trunk roads. So it is not possible to sit back and hope technology will solve matters.



That said, much of the rhetoric is wrong and muddled. RIS3 should not still be referring to accidents, a term deemed inappropriate for decades by emergency services and international bodies². Although the “Improving safety for all” section namechecks the six principles in safe systems, one is missing from the Interim Report while others are muddled or miss key elements. “Safe people” includes non-motorised user facilities, when that should be in “safe roads”, while ignoring the need to educate road users to take special care around

² [World Health Day 2004: Road safety is no accident](#) (WHO 2004)

vulnerable users. The pillar of “safe speeds” is essentially ignored, with consideration to lowering speeds seemingly only as a result of prior incidents.

The proposed focus on existing major schemes, then, with what resource remains, major upgrades such as dualling single carriageway roads would make very slow progress and risk increasing traffic. There is a reference to 147 miles of upgrades but if this is all that is delivered in RP3, tackling high risk roads would take many decades. Moreover by only targeting high frequency or impact locations, and focusing on motorised rather than non-motorised users who may have been intimidated away, wider benefits of modal shift and equality will be missed.

To achieve safety benefits over wider areas, and associated co-benefits, RIS3 should focus on lowering speed limits and creating non-motorised paths to fill gaps and tackle severance, as a milestone towards the world class active travel network promised by 2040. This will require a major diversion of resources across the SRN which is currently very inhospitable and causes significant severance.

The greatest safety risks are to vulnerable road users and iRAP’s analysis of star rating by user type, of thousands of miles of roads internationally, shows that people cycling, then walking, are impacted by the greatest share of one star roads³. Investment in higher star ratings will need to be prioritised for active travel over other road users, especially as above 40 mph speed limits, separated paths are required for cycling. This will be essential to ensure RIS3 is rural-proofed⁴, given declining rural public transport, growing fear of road danger hindering active travel, and ageing populations that are at greater risk of serious harm or death from collisions. This focus would also unlock wider use of e-bikes, mobility scooters and, assuming their use is legalised, e-scooters.

Question 5. To what extent do you agree with National Highways’ priorities for making the best use of the existing Strategic Road Network?

Disagree

While clearly it is important to undertake preventative maintenance and renewals before there are safety risks, there should be a far greater focus on traffic reduction to reduce ongoing maintenance costs.

This should include rapid roll out of bus and potentially high occupancy vehicle lanes, hubs and facilities, backed up by intensive Influencing Travel Behaviour schemes⁵. The then

³ [3 star or better](#) (iRAP 2020)

⁴ [Rural proofing](#) (Defra 2022)

⁵ Paragraph 7.29 in [Creating growth, cutting carbon: making sustainable local transport happen](#) (DfT 2011)

Highways Agency reported benefit cost ratios as high as 13:1 before their travel behaviour programme was scrapped for political reasons in 2011. Changes to appraisal and improved efficiencies offered by smartphones mean their value for money would be much greater now, so they should be re-introduced before RIS3.

Question 6. To what extent do you agree that National Highways should evolve its:

- community offer - **strongly agree**
- proposals for designated funds - **strongly agree**

Community offer

We agree that both community offer (though really this seems to be about local authority offer) and designated funds should evolve but far more radically and faster than proposed. In particular, the points for further consideration regarding local transport plans (LTPs), segregated active travel routes and freight facilities require significant delivery during, and indeed, before RP3, rather than simply looking “for more extensive opportunities”. The next LTPs are supposed to be set by 2025, meaning they will be of critical importance for surface transport to close the gap in meeting 2030 carbon targets and Levelling Up missions.

We are concerned about proposals for NH to engage earlier and more intensively in local transport and spatial planning. The elephant in the room here is the major divergence in goals and resources between the SRN and local transport networks. Unless NH has its own Quantifiable Carbon Reductions (QCR), such as via the user carbon metric we suggest in our next answer, and motor traffic reduction targets, there will be substantial misalignment. This needs to be resolved urgently by DfT, publishing the long awaited guidance on LTPs and QCR, and resetting RIS3 and RIS2 to cut user carbon.

The proposals for “[m]ore effective partnership” are too vague. There needs to be much more focus on the partnerships and data required to enable significant modal shift and higher occupancy in RP3, plus achieving nature targets and Levelling Up missions.

Designated funds

The designated funds remain a disappointment and a major missed opportunity to improve NH’s capability to partner and integrate the SRN with surrounding transport and nature networks. While we very much welcome the acknowledgement that these funds should demonstrate additionality, rather than being used to address cost overruns on major schemes. Without extra focus and objective setting, the funds will continue to drift in RP3. Currently many schemes could fit in multiple funds: active travel schemes could fit, for example, in at least three of the four pots available. NH should:

- Refocus the safety and congestion fund onto safety, facilities for modal shift increasing occupancy and other needs like driver facilities at charging hubs. Purportedly tackling congestion by adding capacity would be excluded.
- Focus the environment fund on the natural environment issues in the Environment Act 2021.
- Combine wellbeing (restoring sense of pride), heritage and regeneration into a more coherent offer.
- The innovation and modernisation fund would focus on new technological *and* social innovation, such as collaborative data approaches. With PAS2080 and user carbon targets meaning minimal road-building, the materials challenge would shift away from construction to maintenance, renewals and resilience.

TAN's suggestion for a roads reset should lead to a major shift in RIS3 from enhancements to smaller schemes, which would best be delivered by a major expansion in investment in these funds. This would provide opportunities for far greater collaboration with sub-national and local partnerships to co-produce proposals, so as to maximise integration with ambitions for Local Cycling and Walking Investment Plans, Bus Service Improvement Plans, rail improvements and Local Nature Recovery Strategies. In either scenario, there should be requirements to spend at least a certain amount on key priorities like active travel during RIS3.

Question 7. To what extent do you agree with National Highways' approach for driving decarbonisation and environmental sustainability on the SRN?

Strongly disagree

There are fundamental problems with the proposed approach, including:

- No target to reduce user carbon from the SRN, despite this contributing nearly 10% of UK CO₂ and the UK being set to miss its 2030 climate target by a substantial margin as a result higher forecasts of traffic emissions.
- No consideration of Defra's Environmental Improvement Plan, in particular its targets on species and particulates, which has been set for as soon as 2028.
- A failure to engage with different temporal and spatial scales, including cumulative and distributional impacts.
- A failure to horizon scan for emerging issues, such as adapting for much higher temperatures, cascading impacts and greater pressures on land use from the combination of climate adaptation and mitigation.

Carbon

User carbon

The Interim Report's claim that NH is "just beginning on this journey" (page 29) sits uncomfortably with DfT's promise in 2013 to deliver an "aggressive policy of decarbonisation" in Action for Roads⁶ (2013) and the commitment in RIS1 published in 2014 to set a user carbon metric. A decade later, the only target adopted for user carbon emissions, which make up 98.3% of emissions from the SRN, is the net zero 2050 economy wide target.

The Interim Report states that RP3 will be "a key stage in the decarbonisation of the SRN" - yet the carbon pathway in Connecting the Country at page 37 shows the SRN contributing to an even more disproportionately large share of UK emissions in 2035. Cf UN calling for developed countries to now aim for net zero in early 2040s. Likewise claims that "we are already working hard to decarbonise" are not credible, not least as NH revealed in information requests about its Net Zero Highways plan that it did not consider modal shift nor increasing occupancy, despite these being strategic priorities in the Transport Decarbonisation Plan. The branding of the Lower Thames Crossing, the biggest road scheme in a generation, as a "low carbon pathfinder", "[i]ncreasing the achievability of the Sixth Carbon Budget" (page 126) demonstrates how NH cannot be taken seriously on climate issues and why an independent review to deliver a hard reset is urgently required.

Indeed, the claim that "some traffic growth is still possible in meeting the Sixth Carbon Budget" is being challenged by experts, now that decarbonisation in other areas of the economy is also so off track and economy wide data quantifying different proposals was published in the Carbon Budget Delivery Plan⁷.

In any event these claims simply consider tailpipe not lifecycle emissions. Due to their inherent inefficiency, cars will still be relatively high carbon when transport is decarbonised - also higher resource, energy and land requirements, which will increasingly bite from the 2030s onwards, if not before. According to the DfT's own research, lifecycle emissions of a car in a net zero 2050 will still be 14% of that in 2020⁸. While there may be scope to decarbonise production further, this is counterbalanced by risks of continued growth in weight and mileage.

Fortunately, the 2023 update to PAS 2080, which has NH's logo on its inside cover, considers these issues and now recommends:

⁶ Paragraph 3.4 in [Action for roads: a network for the 21st century](#) (DfT 2013)

⁷ Marsden, G. 2023. [Reverse gear: The reality and implications of national transport emission reduction policies](#). Centre for Research into Energy Demand Solutions. Oxford, UK

⁸ Figure 2.1 in [Lifecycle analysis of UK road vehicles](#) (DfT 2022)

“focusing on whole life carbon both within the control and influence of asset owners/managers, not just in creating assets, but also in their future operation and use... recognizing that most of the built environment expected to exist in 2050 is already built and has locked in high carbon behaviours, hence the need for retrofitting to decarbonize established built environment systems.”⁹

So NH’s position of “committed to delivering PAS 2080 across our capital programmes” is clearly inadequate as it must apply it to how the existing SRN is used too. This requires rapid radical change.

Construction, Operations, Maintenance and Renewals carbon

While it is acknowledged that the relative impact of infrastructure emissions is set to increase¹⁰, the growing requirements of adaptation have not been. The reality is that adapting infrastructure for ever more extreme weather and increased repairs will consume ever more of the carbon budget. Continuing to build roads in such a climate will seem ever more fanciful.

Rather than trying to justify road schemes by how they can trial lower carbon construction, we can already do this through public transport schemes. HS2 has already pioneered new techniques and other major rail schemes, if they had the stability of funding that roads have been privileged with, could do this.

Wider carbon impacts

The manufacture of motor vehicles causes very significant emissions and is set to increase as zero emission vehicles have much higher embodied carbon, even if they mean lower operational carbon. The role of the SRN in encouraging car ownership, vehicle and battery upsizing through longer trips cannot be ignored. These emissions should start to be accounted for. Likewise with many schemes being designed to unlock sprawling housing developments, the higher capital and operational carbon such patterns of development lead to should be accounted for and ascribed to NH. By contrast, compact developments unlocked by public transport offer lower emissions and land use.

At page 133 it is claimed that NH “could go further...offsetting remaining emissions through high-quality schemes”. Guidance for science-based targets states that because of the uncertainties of attempts to remove carbon, net zero requires at least a 90-95% reduction in emissions, so this claim is not credible. Moreover, with forests and peat bogs burning, the concept of offsetting has lost credibility.

⁹ Page vi in [Revised PAS 2080:2023](#) (BSI 2023)

¹⁰ See page 38 of Connecting the Country where it states “the relative impact of infrastructure is projected to increase in significance from 53% of total emissions in 2010 to potentially 90% in 2050”

Wider environmental impacts

The failure to integrate the Environmental Improvement Plan and its targets with any of the documents published as part of this consultation is a serious failing. While these were set in January 2023, DfT should have assessed the draft targets published in 2022 and incorporated this. By contrast NH is patting itself on the back for “good progress” on air quality, despite there being set to be many exceedances until 2027 against a NOx target supposed to be met in 2010. With the Particulate Exposure Reduction Target being set for January 2028, decisive action at pace is needed to respond adequately.

The Office for Environmental Protection (OEP) has flagged how off track we are to meet even 2018 environmental targets¹¹. Indeed in some key areas like noise exposure there is no national target, with the OEP finding a “Major gap with no appropriate data to inform progress”. It has also highlighted that “[b]etween 2013 and 2018, there was a 17% decrease in the abundance of priority species”, a rate of decline that is expected to increase with recent climate extremes.

The action proposed by NH fails to engage with these issues. On noise, for instance, it has focused on insulating homes. Not only does this fail to reduce wider exposure, such as in protected landscapes, with increasingly hot summers requiring windows to be opened to maintain air flow, it will be ever less effective. The focus on Biodiversity Net Gain (BNG) is not addressing the severance caused by bigger roads and increasing traffic, hindering species moving to avoid rising temperatures, and so is not effectively addressing the target to end species decline by 2030. Furthermore, as increasing failures of environmental mitigation schemes show¹², radical changes are needed to ensure that BNG planting survives the minimum 30 year period that is to be required by law.

Claims that the SRN “will become a backbone to nature recovery” are thus as absurd as claims that massive road schemes will help us meet carbon budgets. We make initial suggestions in response to question 10 but the approach to sustainability proposed here requires a fundamental rethink.

Question 8. To what extent, do you agree with National Highways’ approach for its future enhancements programme?

Strongly disagree

It is clear that continuing with current schemes is as incompatible with public preferences as it is untenable on climate grounds [add reverse gear]. The Interim Report asserts that “[o]ur research shows that customers still believe in the need for these [major] schemes to address

¹¹ [Progress in improving the natural environment in England, 2021/2022](#) (OEP 2023)

¹² [Trees to be replanted by A14 after mass death](#) (BBC News 2023)

existing issues” but this research has not been shared and both Transport Focus’ and DfT’s 2018 deliberative research suggest otherwise.

The suggested approach of tackling bottlenecks or pinchpoints does not make sense as evidence on induced traffic shows this will simply move congestion around the network. Paragraph 3.32 of the draft NNNPS explains how road investment will “collectively deliver strategic benefits from a programmatic approach”. Yet if PAS2080 and other environmental commitments are taken seriously, there will need to be a stop at some point, leaving bottlenecks on the road network.

TAN has major concerns about the proposals to focus on smaller schemes, even if we would like to welcome that in principle. First, the caveat “where funding allows”. Second, the focus on tackling pinchpoints, in other words simply returning to the sort of interventions seen at the start of RIS1. NH should instead reframe and leverage pinchpoints to prevent further traffic growth - instead constrictions in the network can be leveraged through priority lanes etc. to encourage higher occupancy and modal shift across wider areas to reduce traffic across the network.

The Climate Change Committee’s recommendation for a review of the roads programme needs to be urgently carried out by an independent panel. This not only provides the opportunity for a roads reset, but also to consider how funding can best be reallocated and performance outcomes reset to increase productivity, Levelling Up missions, Environmental Improvement Plan priorities and increase equality of opportunity.

More broadly, it is simply not credible for NH to continue to lead on option generation, as highlighted in recent evidence to the Transport Committee’s inquiry on the NNNPS, at scheme level either. A different approach to generation and scrutiny of alternatives, including setting relevant objectives, needs to be drawn up and it should involve local and sub-national bodies as at least equal partners with NH.

Finally, we would welcome the proposed national programme for freight facilities - but these need to be in place by 2030 to align with the EU providing e-HGV charging by that date¹³. This will require further substantial shifts in funding and staff resource from major schemes.

Question 9. To what extent do you agree with the insights in the SRNIR on the most important performance outcomes to measure?

Strongly disagree

¹³ [European Green Deal: ambitious new law agreed to deploy sufficient alternative fuels infrastructure](#) (EU 2023)

While we appreciate the desire for stability of the performance specification, changes in wider government policies require major change in both the RIS and its metrics.

The reality that important policy agendas like Levelling Up, as with natural capital before it, will be too complex and incommensurable to reduce into a simple metric. This is a similar problem to route strategies, each covering a range of roads, seeking to focus on objectives.

A fundamental challenge here is that while KPIs are useful to monitor assets where impacts are not spatial, they become less useful where they are. While KPIs are helpful in measuring network wide user carbon, for instance, a different approach is needed for the complex interactions with Levelling Up missions, the Environmental Improvement Plan or adaptation. The danger here is that something is chosen that is easy to measure rather than useful to value, such as journey time savings as a proxy for economic benefits, or homes insulated for noise impacts.

Unfortunately, there is a growing number of examples of RISs announcing worthy sounding metrics that are then quietly abandoned when the reality hits that they are too difficult to monitor. User carbon, natural capital, vulnerable road user risks are all examples of this happening. Unless a different approach is adopted this failure will simply be repeated.

Key metrics for RIS3 should include:

- User carbon KPI, with PIs covering modal shift, mileage of active travel paths meeting LTN 1/20, electrified miles driven (with heavy duty vehicles having a greater weighting), occupancy for passenger and freight separately.
- Severance for nature as well as non-motorised users, including risk rates.
- Community effects / pollution - covering noise outcomes (not homes insulated), particulate exposure, water run-off
- Land take - of roads and wider development they unlock
- Levelling Up - whether focusing on public transport or wider issues like pride of place and health.

Question 10. What, in your view, could be done differently to meet the needs of people affected by the:

- **presence of the SRN?**
- **operation of the SRN?**

Given the principles and targets of the Environment Act 2021 and wider synergies, we believe this question needs to consider impacts on nature alongside those of people. Sustainability hierarchies prioritising avoidance, in particular traffic reduction, need to be the

starting point since, just as with carbon, technology alone will not be enough to meet targets.

Noise, air and water quality

The first step has to be reducing pollution at source, through a reduction in the volume and peak speeds of motor traffic. Lower speed limits where the SRN passes through urban areas and sensitive landscapes should become the norm. As the likelihood of mandatory Intelligent Speed Adaptation being rolled out rapidly is low, coverage of average speed cameras should increase in recognition of their wider benefits beyond improving road safety. As the technology already exists, these should include monitoring and enforcement of noisy engines and dirty exhausts.

Encouraging and enabling vehicle electrification potentially has a role here. If driving EVs remains untaxed, traffic growth from cheaper motoring is likely to increase most forms of pollution. Above 30 km/h, there is no perceivable noise difference from cars with electric compared to traditional motors. Therefore, the only noise benefits might be at low-speed junctions, or gradients where engine noise from lorries and coaches can dominate. Due to stricter real-world testing for new traditional engines, by 2030 “the removal of exhaust emissions due to electrification has little overall effect”¹⁴. While there are technological and behavioural uncertainties about non-exhaust emissions, “to reduce the remaining contribution of traffic to air pollution further will require reductions in km driven, especially in cities”.

Similarly, the shift from fossil fuelled vehicles will reduce runoff from oils etc. into watercourses but heavier vehicles and increased mileage would increase tyre wear, already estimated to make up 40% of microplastic pollution in watercourses. TAN has calculated that on the current, substantially increased rate of upgrading drainage, it would take over 1,000 years to treat the whole SRN¹⁵.

Nonetheless NH should take all reasonable measures to cut pollution, including a trial e-motorway by 2026, e-HGV charging network of hubs on the motorway network by 2030 and across the SRN by the early 2030s. Likewise while nature-based solutions should be supported for their wider benefits, they are unlikely to deliver significant reductions in noise and air pollution.

¹⁴ Page 71 in [Report: Analysis of abatement options to reduce PM2.5 concentrations](#) (Defra 2022). There will be a few locations with high HGV flows or idling, where there would be localised benefits of NOx reduction from electrification

¹⁵ Based on data from paragraphs 268 to 290 in [Water quality in rivers](#) (Environmental Audit Committee 2022)

Severance

Road-building not only increases traffic on roads that have been made bigger but also on surrounding local roads, since few if any journeys stop and start on the SRN. Over time this increases, particularly where schemes unlock car-dependent development, creating a vicious cycle. This hinders walking and cycling and can lead to closure of local shops and services and a reduction in public transport. This can undermine rail and bus services due to passenger abstraction caused by faster road journeys, or increased congestion on the wider road network slowing buses down reducing their speed and reliability, making them a less attractive option.

The impacts on nature are less well known but at least as severe¹⁶. The UK has one of the densest and heavily trafficked road networks in the world, meaning there are few remaining pockets of undisturbed nature. Increasing traffic means more disturbance, habitat fragmentation, severance and mortality, where once quiet roads become barriers or graveyards for endangered species.

Despite campaigners hoping the launch of designated funds in 2015 would help the UK catch up on green bridges, providing wildlife connectivity across busy roads, these remain a rarity in England. Plans to end species loss let alone reintroduce apex predators will be increasingly unviable unless this changes. Tree planting is urgently needed at key sites where wildlife may cross major roads, to encourage species like barn owls and bats to fly above passing traffic. Area wide travel planning (covering SRN and surrounding roads - see answer to question 5), backed up by traffic management, for instance 40 or 20 mph zones on rural roads, new active travel routes and access-only restrictions are required to undo some of the wider effects of road-building in the past.

Landscape and visual effects

The 2014 Appraisal of Sustainability for the current NNNPS found that landscape would be the worst affected environmental issue from the roads programme, even more than nature. This was even before considering the impact of sprawling housing that justify road schemes. Proposals to dual single carriageway roads would be especially destructive of countryside character. The strategic design panel established in 2015 has had limited impact, perhaps why it is not mentioned in the consultation. It is clear that design thinking is needed to avoid expanding roads rather than simply trying to make them less ugly.

Nonetheless, the existing SRN has to be considered too as there will be increasing pressures for new forms of infrastructure, such as signage, safety barriers, telecommunication masts,

¹⁶ For instance, see [Traffication](#) (Donald 2023)

sensors and solar to be added, usually on an ad hoc basis. A better, more integrated approach is required as part of a step change in Operations, Maintenance and Renewals.

Question 11. Do you think the approach to digital technology set out in the SRN Initial Report puts National Highways on the right track for meeting its vision for 2050?

Although measures to digitise asset management make sense, our answer more broadly is no. Moreover, we disagree with the question as the focus should be on how digital technology can help meet wider government targets and missions that need to be met by the end of RP3. By contrast, because digital technology and human interaction with it is so hard to predict, there is minimal point in asking this question over such a long timeframe. For instance, few people had used the internet in 1996, a similar timescale from now to 2050.

The Interim Report places heavy weight on vague references to “digital technology”, such as emphasising how this is the key part of “exploring a wider range of levers than ever before to manage demand”. Yet millions of motorists have been using navigation apps for over a decade. Incremental improvements to information will at most deliver marginal change, while technologies like autonomous vehicles are as likely to increase demand and congestion as reduce it. By contrast there is next to no information about coverage of 4G on the SRN (as opposed to “population coverage” which refers to homes) or aspirations for 5G or even 6G coverage by the end of RP3 and how to leverage this to increase modal shift and occupancy.

The debacles over Stopped Vehicle Detection on smart motorways and its wider technology overspend has highlighted NH’s capability and culture challenges in this area. A bigger issue will be integrating NH data with other sources, to maximise partnership and buy-in that the Interim Report talks about as well as integration with other transport, energy and nature networks. The delays faced opening the Elizabeth Line due to challenges integrating different signalling systems provides a cautionary tale. The route strategies are potentially a key tool here but, despite DfT being requested since 2015 to provide the underlying datasets as open data, the third iteration is still shared in proprietary PDFs and now StoryMaps, a one-way communication rather than two-way collaboration tool¹⁷. RIS3 should focus technology efforts on data creation and sharing to reduce user carbon emissions and KSIs and integrate the SRN better with local objectives. In fact, this work should be started now, rather than waiting until RP3, not least since NH no longer needs to devote resource to developing additional road schemes.

¹⁷ Release of public datasets has been envisaged for over a decade, see [Protection of Freedoms Act 2012 - Section 102](#)

Question 12. What, if any, evidence or other insights can you supply towards the development of the RIS3 equality impact assessment?

According to the DfT consultation document, the research phase for RIS3 was 2021-2022, so it is deeply concerning how consideration of equalities remains so undeveloped. The analytical approach document states that the equalities duty “will be met through the *delivery* of the strategy” (emphasis added) while there is only a single mention in the Interim Report about equalities, just regarding social value in procurement.

TAN has expressed similar concerns about the draft NNNPS, which has derisory coverage of socio-economic issues and equalities. This failing is totemic of how engineers and infrastructure bodies fail to address social and environmental issues until it is too late for them to have substantive impacts on the objectives, budgets and portfolio of RIS3. But there is also a profound lack of capability within DfT policy professionals on equalities and other social requirements, like rural proofing¹⁸.

There are six well established legal principles, known as the Brown Principles¹⁹, which set out decision makers’ responsibilities to complying with what is now the Public Sector Equality Duty. These include that ‘the duty must be fulfilled both before and during consideration of a particular policy, and involves a “conscious approach and state of mind”’ and that “it is not a question of ticking boxes, the duty must be approached in substance, with rigour and with an open mind”.

It is clear that the DfT and NH are in breach of these principles for a number of reasons. First, information should have already been gathered as part of the research phase and then informed the proposals contained in the Interim Report, with sufficient information about the findings to enable consultees to provide informed comment. Second, the scope of the EqIA is on committed schemes and new RIS3 schemes, rather than the portfolio as a whole, such as designated funds, operations and maintenance. This ignores the major impacts that these can have on people with protected characteristics and the potential to prioritise increasing equality of opportunity through them.

A detailed evidence base needs to be produced followed by consultation on core objectives. The roads review recommended by the CCC provides time to do this and start again on RIS3, so that equalities are prioritised from the start of the programme. Important issues to address include:

¹⁸ Lucas, K., Philips, I. & Verlinghieri, E. [A mixed methods approach to the social assessment of transport infrastructure projects](#). *Transportation* 49, 271–291 (2022)

¹⁹ [R \(Brown\) v Secretary of State for Work and Pensions](#) [2008] EWHC 3158

- **Severance**, and also **impacts on local transport networks, including rights of ways**, a particular challenge for younger, older and disabled road users and those groups less likely to own a car.
- **Wider economic impacts**, as road schemes and their associated development often lead to closure of more local, accessible shops and services, as well as damaging the commercial viability of public transport and the attractiveness of active travel.
- **Air and noise pollution**, some minority ethnic groups, some disabilities, younger and older people
- **Access to nature**: especially for groups less likely to have access to cars, or feel confident to drive them far, such as Black, LGBTQ, younger and older people.

Question 13. What, if any, other comments do you have on the analytical approach?

The failures to use evaluation of past investment, or to consider a credible range of future scenarios, means the proposed analytical approach is not relevant, nor robust and that it cannot be trusted for RIS3.

Although NH carries out Post Opening Project Evaluations (POPEs) of its schemes, it has fallen behind in publishing the results and there is no evidence at all of any evaluation informing these current consultations. After a critical independent review of POPEs in 2017²⁰, flagging a lack of evidence of economic impact of schemes and a lack of substantive monitoring of environmental impacts, the process was taken in-house with promises to improve it. Meanwhile there has been a lack of transparency about the outcomes of Designated Funds: the mention of doing something is welcome but there is a concerning lack of detail about what sort of evaluation there will be and when the results will be published. This is a world away from the rhetoric in Connecting the Country stating how NH “strive[s] to respond and provide our evidence in a way that is even more transparent”.

Uncertainty and least regrets

The even greater issue is the treatment of future uncertainty. The analytical approach seeks to claim that it will “ensure decision making is more resilient to uncertainty” and that “analysis is based on the latest assumptions”. There is a striking contrast between the Interim Report’s claim that traffic will increase in all scenarios, and the Foresight report on Net Zero, which had two out of four scenarios that involved traffic reduction²¹. A key reason is that the National Road Traffic Projections so-called scenarios are really a set of sensitivity

²⁰ [The Impact of Road Projects in England](#) (TfQL, 2017)

²¹ [Net Zero Society: scenarios and pathways](#) (Government Office for Science 2023)

tests, varying one or two factors, whereas true scenarios are designed to test assumptions more substantively.

The central reason the DfT forecasts traffic to grow so much is an assumed 30% drop in the cost of driving as fuel duty falls away. The latest report of the Office for Budget Responsibility (OBR) heavily criticised the “serial failure to index fuel duties” and highlights that unless the Government takes decisive action, the “rising take-up of electric vehicles is expected to cost £13 billion a year in forgone fuel duty by 2030”²². This is simply not fiscally sustainable.

The OBR also highlighted greater risks to public finances, with shocks becoming “more frequent, severe, and costly. So far this century, we have experienced three major shocks, adding around 20 per cent of GDP to debt on average. This is twice the intensity and twice the fiscal cost of the shocks that the UK witnessed over the latter half of the 20th century”. The accelerating climate extremes of the summer of 2022 and now 2023 suggest the intensities and costs will further ramp up. One criticism of the Foresight report is that it has simply focused on net zero mitigation, rather than including likely economic impacts from growing climate extremes.

Besides failing to consider cascading risks from a lack of resilience, a further failing in the approach is its failure to consider how net zero targets will radically change large sections of the economy. These targets require an expansion of the circular economy, to reduce construction, clothing and food wastes, leading to changes in freight flows, for example. But because the analysis is grounded in a mindset of incremental change, these sorts of factors keep on being ignored, so there is a failure to consider what might be “least regrets” options for the future of the SRN.

Strategic fit and option generation

Another challenge is strategic fit. While the claim is made that the “approach to developing the RIS3 pipeline of schemes in development announced in RIS2 places greater emphasis on the strategic case for the scheme ensuring alignment with DfT’s strategic priorities”, there is a lack of alignment of these priorities with wider legislative commitments. The appraisal is even worse, valuing carbon in terms of the cost of “offsetting” carbon emissions (assuming this is still viable as swathes of offset forests in countries like Canada turn into smoke) or the human cost of air pollution - rather than considering that current policies mean missing legally binding targets. These flaws mean the proposed objective impact analysis tools are fundamentally flawed.

Another fundamental issue is the lack of alternative options at a programme level. There should be a do minimum option (i.e. a RIS3 without enhancements), alongside the RIS3

²² [Fiscal risks and sustainability](#) (Office for Budget Responsibility 2023)

proposals to continue major road-building, and an alternative of shifting funding to sustainable travel and implementing demand management. This seems an intrinsic failing of the “end of history” approach of roads reform and its core objective of promoting the certainty and stability of a RIS (irrespective of major scheme delays showing this has not happened).

In conclusion, a radically different approach to analysis will be as essential as change to the RIS3 itself. TAN is pleased that this is now subject of an inquiry by the Transport Committee²³.

Question 14. Are there any other issues you think the government should consider as part of this consultation?

The range of different objectives, priorities, themes etc. is confusing for stakeholders if not those inside DfT and NH too. DfT has five priorities but six strategic objectives for RIS3. Meanwhile the Initial Report has nine focus areas, dozens of themes, route strategy themes, while Connecting the Country has its own different goals. Some simplification, or at the very least, mapping in one place would provide much needed clarity.

The route strategies, in particular, would benefit from a reset. First the structure is flawed, in that they are actually collections of routes combining multiple roads, so trying to create “route based objectives” makes little sense. Indeed, even the same road may have very different characteristics and usage along its length. Conurbations like Birmingham are split between five separate strategies; so if NH is serious about improving partnership then cutting the cake differently would help. As noted in our answer to question 11, better digital collaboration should help too.

The route strategies lack integration with wider government objectives and seem behind the times even with DfT, for example being based on 2018 not 2022 traffic forecasts. There is also a major and unresolved inconsistency between assumptions of “future traffic growth from our modelling” and regional and local traffic reduction targets, which needs to be resolved. The strategies and the engagement on them have not caught up with climate and natural environment targets set nationally over the last few years. Beyond warm words, there is a failure to include credible processes to deliver modal shift or increased occupancy objectives. At most there are marginal commitments to promote active travel. Worse still the focus of unlocking development along, and next to, roads will increase car dependency and push modal shift in the wrong direction. Finally, there needs to be greater consideration of how the strategies can inform and be informed by local plans, such as for providing facilities for lorries and coaches.

²³ [Call for Evidence: Strategic transport objectives](#) (Transport Committee 2023)

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Transport Action Network provides free support to people and groups pressing for more sustainable transport in their area and opposing cuts to bus and rail services, damaging road schemes and large unsustainable developments

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