Adapting the UK’s transport system to the impacts of climate change

Introduction

Thank you for responding to our consultation on the transport adaptation strategy.

Closing date is 31 May 2024.

Accessibility statement

Read our accessibility statement for SmartSurvey forms [opens in a new window].

Confidentiality and data protection

The Department for Transport (DfT) is carrying out this consultation on the policies and actions within the transport adaptation strategy.

View our DfT online form and survey privacy notice [opens in a new window] for more information on how your personal data is processed in relation to this survey.

In addition to the information outlined in the privacy notices, we are asking organisations:

- for the job title of the individual responding, to ascertain their position in the organisation
- for the name of the organisation and the best description of the activities of the organisation, for identification
- if the organisation:
    - assesses climate risks and how, and whether climate risk assessments are used to inform planning and decision-making
    - reports to government on adaptation as part of the Adaptation Reporting Power
    - measures the impact of extreme weather and and how that information is used

  to enable us to understand the context of your response

Personal details

1. What is your name?

Hannah Bartram

2. What is your email?

Hannah.bartram@eastsussex.gov.uk

3. Are you responding on behalf of an organisation? *

- [x] Yes
- [ ] No (Go to 'Transport adaption strategy')

Organisation details

4. What is your job title?

Chief Executive Officer

5. What is your organisation's name?

Association of Directors of Environment, Economy, Planning and Transport (ADEPT)

6. What best describes your organisation?

- [ ] Transport infrastructure operator
- [ ] Transport industry group
- [ ] Transport regulator
- [ ] Transport arms length body
- [ ] Non-transport arms length body
- [ ] Local transport authority

- [ ] Non-government organisation (Go to ‘Transport adaption strategy’)
- [ ] Academia (Go to ‘Transport adaption strategy’)
- [ ] Consultancy (Go to ‘Transport adaption strategy’)
- [x] Another type of organisation: (Go to ‘Transport adaption strategy’)

ADEPT is a membership body that represents directors of environment, economy, planning and transport from county and unitary councils (i.e. local highways authorities).

This consultation response was informed by responses received from ADEPT members and information provided within consultation responses prepared by individual Local Authorities.

Organisational details - assessing climate risks

7. Does your organisation currently assess climate risks?

- [x] Yes
- [x] No (Go to ‘Assessing climate risks: disagreement’)
- [ ] Don't know (Go to ‘Organisation details: measuring progress’)

Assessing climate risks: agreement

8. Explain how climate risks are assessed in your organisation.

Most Local Authorities (LAs) in the UK have prepared Climate Emergency Action Plans. This sets out a clear statement of intent and invest in climate change. Many LAs report this annually and have established governance in place to monitor performance.

Organisations that ADEPT represents assess climate risks in the following ways:

Impact on highway assets:

- Review drainage infrastructure to ensure it is not overloaded.

- Consider the impact of rising sea levels on highway assets.
- Consider of the impacts of increased summer temperatures on highway assets.
- Monitor ongoing patterns of severe weather (snow / freezing / flood / wind) on highway assets.
- Consider the emergency response to severe weather events and whether there are any changes the Local Authority (LA) can make to lessen the causes of effect on the highway network.
- Create a resilient road network which receives more attention compared to the rest of the highway assets.

Development of plans and documents that assess climate risk:

- A number of LAs have developed Climate Change Action Plans and produce Annual Carbon Reports. These cover a wide range of climate related areas and adaptation is considered.
- One LA requires every activity in the council to consider the climate implications that exist or actions will impact. It also has a Carbon Management Team to provide advice and coordination where required.
- One LA uses Business Continuity Plans and the Local Government Association (LGA) tool for assessing climate change risks. This is used to identify key risks, flood risk mapping and lessons learnt.
- One LA uses their own Impact Assessment tool and undertakes Climate Impact Assessment.

[After answering go to 'Organisational details – assessing climate risks']

Assessing climate risks: disagreement

9. Explain why climate risks are not assessed within your organisation.

A number of organisations that ADEPT represents do not assess climate risks, or cannot assess climate risks as much as they would like to, for the following reasons:

- Resource availability
- Budgetary constraints
- It is not a priority consideration of the LA (i.e. other matters are more urgent based on resource and budgetary constraints).

[After answering go to 'Organisational details – measuring progress']

Organisational details - assessing climate risks

10. Do climate risk assessments currently inform your organisation's:

	Yes	No	Don't know
operational plans	☑	☐	☐
long-term planning	☑	☐	☐
investment decisions	☑	☐	☐

If you answered ‘yes’, explain how climate risk assessments inform planning and decision-making, if you answered ‘no’, explain why they do not inform planning and decision-making?

Climate risk assessments inform planning and decision making for the organisations that ADEPT represents in the following ways:

Led to changes in the maintenance of highway assets:

- It effects cleaning requirements of drainage assets by cleaning contractors.
- Enables contractors to bring future long term maintenance issues to the attention of the LA.

Resulted in consideration of climate risks within plans and policies:

- A number of LAs have a requirement for carbon and climate change to be considered in all of their reports, with one LA requiring a Climate Impact Assessment for all schemes during the early stages of a project (i.e. when developing the Project Mandate). This ensures mitigation measures are considered within proposed actions, policies and strategies. This will often extend beyond what was stated in its Climate Change Action Plan.
- For one LA, climate risk assessments inform long term transport planning via the Local Transport and Connectivity Plan (LTCP). An Integrated Sustainability Appraisal was conducted to inform development of the LTCP and included assessment of options related to the climate emergency. Similarly, an internal Climate Impact Assessment was conducted, and climate data analysis conducted to inform the options included in the LTCP.
- One LA requires operational plans and annual programmes to consider climate change. However, this only has a slight impact on decision making. For example, this has resulted in slightly more emphasis on drainage.
- The climate projections for flood risk have informed one LAs Strategic Flood Risk assessment. This feeds in to planning decisions and long-term programme decisions.

Resulted in an awareness of the need to consider climate risk:

- For one LA, it has led to an awareness of the need to consider climate risk in long term plans, but the full impacts have not been analysed or plans put in place to address this.

Led to a reactive, rather than proactive response to addressing climate risks:

- For one LA, budget and resource constraints, have meant that climate risks assessment have led to a reactive response rather than a proactive response to addressing climate risks (i.e. they do not have the capacity to tackle long term climate risks).

Organisational details - reporting

The Adaptation Reporting Power [open in a new window] gives Department for Environment, Food & Rural Affairs' (DEFRA) [opens in a new window] Secretary of State the power to require infrastructure providers and bodies with functions 'of a public nature' to submit a report every 5 years on how they are addressing the impacts of climate change on their business.

11. Does your organisation currently submit reports to government as part of the Defra-led process known as the Adaptation Reporting Power?

- [ ] Yes
- [x] No
- [ ] Don't know

Organisational details - measuring progress

12. Does your organisation currently measure the impact of extreme weather on operations?

- [x] Yes
- [x] No (Go to 'Measuring progress: disagreement')
- [ ] Don't know (Go to 'Transport adaption strategy')

Measuring progress: agreement

13. What does your organisation measure?

The organisations that ADEPT represents measure the following:

Impact of climate events on highway assets:

- Number of additional call outs for flooding.
- Increase in the areas affected by flooding.
- Increase in the areas affected by rising sea levels.
- Individual teams within one LA collect some data on weather impacts, such as flood incidence data, however this is generally not well coordinated and due to sensitivity of data is often not shared between teams. There is minimal assessment of the impacts of extreme weather events on council operations due to the lack of resources and difficulty to accurately calculate direct/ indirect costs of weather events on council operations.

Number of spaces that have adapted to climate change risks:

- One LA has developed a Heatwave Joint Strategic Needs Assessment and is now tracking issues such as the growth in the number of 'cool spaces' across the borough, tree canopy coverage per ward, and annual vulnerability analysis (prior to summer).

14. How is that information used?

The organisations that ADEPT represent use this information in the following ways:

- Generate scheme proposals for client consideration.
- Help steer activities such as tree planting rates (on and off-street) and where such planting should be targeted.
- Develop the case for change in business cases and to support strategic planning.
- Inform better operational practices and risk assessments.
- Flood incidence data can be used to understand vulnerabilities of the highway network to future flooding.

[After answering go to ‘Transport adaption strategy’]

Measuring progress: disagreement

15. What are the barriers to your organisation measuring the impact of extreme weather?

For organisations that ADEPT represents, the barriers to measuring the impact of extreme weather are:

- Resource availability (people and funding).

- Having the right skillsets in the work force.
- The issue not being a strategic organisational priority based on local and national policies.
- Information is captured by a wide range of different organisations and much of the data collected is sensitive, preventing quick sharing with other organisations without a data sharing agreement. This makes it difficult to have all the required data in one place to develop a holistic view of climate impacts for a particular area.
- Buy in from all relevant parties / stakeholders.

Transport adaptation strategy

The government has a vision for a well-adapted transport network that is flexible, reliable, operates safely and is responsive to a changing climate.

The transport adaptation strategy [opens in a new window] aims to enhance adaptation planning across the sector, ensure these plans are delivered and lead to improved climate resilience in the transport system.

The policies and actions in the transport adaption strategy have been grouped into 3 themes - culture, economics and regulation.

These themes overlap and support each other, with collaboration underpinning everything. Some policies are relevant to all transport modes, whilst others target mode-specific challenges.

We are seeking your views on:

1. Whether you support the policies included in the strategy.
2. How effective you consider the polices will be at enhancing the adaptation action taken by organisations responsible for transport infrastructure.
3. What more you think government could do to adapt transport infrastructure to the impacts of climate change.

Full details of our consultation information is available [opens in a new window].

Culture: embedding climate risk

To effectively adapt to climate change, a culture shift is required in how climate risks are considered in the transport sector.

This section of the strategy looks to build on the positive progress made by many transport infrastructure operators by identifying further actions to embed climate risk in planning and operations across the sector.

Main policies include:

- by 2024, Transport Infrastructure Operators identify senior ownership of climate risks and, by 2026, include adaptation in their organisational objectives

- between 2024 and 2026, improve risk assessment across the sector through the DEFRA-led adaptation reporting process and inviting voluntary risk assessments

- regularly reviewing and assessing climate risks to the transport sector as part of Department for Transport's role in the 'Lead Government Department' model [opens in a new window] of preparing for and responding to significant and complex emergencies.

Read 'Culture: embedding climate risk' to view all of the policies in this section.

16. Overall, in your view, will the actions in 'Culture: embedding climate risk' make organisations responsible for transport infrastructure more or less likely to report on climate risks?

- [x] More likely
- [ ] No change
- [ ] Less likely
- [ ] Don't know (Go to 'Culture: embedding climate risk')

Culture: embedding climate risk reasoning

17. Explain your response.

Establishes reporting requirements for LAs

At present climate adaptation reporting is largely voluntary and LAs are not currently required to report on their climate adaptation. The actions will for the first time, place a requirement on LAs to report on climate adaptation. This will make LAs more responsible for reporting on climate risks – although it is not fully clear whether for LAs whether this will be a voluntary or mandatory requirement. If mandatory, it will require appropriate resourcing.

For example, the actions will require a named local highway authority (as a part of a pilot scheme) to produce a Climate Adaptation Risk Assessment by January 2025. They will also require all Transport Infrastructure Operators (TIOs) (which is assumed to cover all LAs) to complete a climate change risk assessment by 2026.

It is not clear what level of scrutiny, feedback and support (including financial) that LAs will receive from this process to enable them to improve their understanding of climate risk and the required actions to mitigate these risks. However, it is hoped that the work associated with the pilot study will give other LAs a starting point and help them understand the additional work required for them to undertake their own assessment.

Requires LAs to identify a Senior Responsible Officer and incorporate climate adaptation in organisational objectives

The assignment of a Senior Responsible Officer (SRO) and incorporating climate adaptation in organisational objectives are logical steps, but this must also be accompanied a clear appreciation by the Transport Infrastructure Organisation (TIO) on the need to address climate risks (i.e. there must be buy-in from the top). To support this, the government must set expectations for TIOs on the level of climate resilience expected within TIOs networks.

The stated actions are likely to be of limited benefit if the TIO is not equipped with the capacity and expertise to undertake a detailed assessment of the vulnerability of their respective transport networks and establish the required risk mitigation measures along with resource requirements to implement the identified measures.

Review of existing monitoring and reporting arrangements by LAs

Most LA's have prepared Climate Emergency Action Plans. It is not clear whether the existing position of monitoring and reporting by LAs has been evaluated by DfT. It is important that requirements through the transport adaptation strategy do not duplicate monitoring and reporting efforts already undertaken by LAs.

Culture: embedding climate risk

18. In your view, what more, if anything, could government do to further encourage reporting on climate risks?

Additional funding and resources
There is already a significant cultural awareness about the impacts of climate change and need to adapt within LA's. However, the challenge is less about culture and more about the reality that on average a significant proportion of the LAs resources are spent on social care. As such the resources available for activities such as adapting to climate change, does not match the ambition that many LAs have.

LAs have significant budgetary and resourcing constraints and current DfT highways maintenance funding is insufficient to enable TIOs to upgrade, adapt and maintain their transport infrastructure to ensure climate resilience. As such, additional funding will be required to enable local highways authorities to implement risk mitigation measures. This must include revenue for management and capital investment.

For resource and budgetary constrained LAs there is a risk that any mandated assessment could end up lacking any detailed consideration of climate risks. This could result in LAs infrastructure and assets being vulnerable to the short term impacts of climate change.

Set clear expectations
The government should establish clear expectations and minimum requirements for TIOs on improving the resilience of their transport infrastructure to extreme weather events alongside capacity building amongst TIO senior management on the importance and urgency of climate adaptation in the transport sector.

To accompany this, there must be set defined budgets, policies, regulations and detailed sector plans and targets to underpin pledges. Without this, it will be hard to encourage reporting and, in turn, evaluate progress.

Expansion of the Adaptation Reporting Power to include all TIOs
The actions require all TIOs by 2026 to undertake and publish climate risk assessments. However, consideration should be given to requiring all TIOs, including local authorities, to report regularly through the Adaptation Reporting Process (ARP). This will ensure they and the government have an accurate understanding of both current and future climate risks affecting TIOs / local authorities.

Retention of the Task-force on Climate Related Financial Disclosures
It is not clear why the Taskforce on Climate-Related Financial Disclosures (TCFD) has been disbanded rather than expanded to include additional organisations such as LAs if it was deemed to be an important and beneficial mechanism that complemented the ARP reporting (as stated in the report). It should be ensured the TCFD function continues and is expanded to include additional organisations.

Ensuring efficiency and linking climate adaptability to other initiatives
It is important that monitoring of adaptability to climate change is linked to other government initiatives. For example, there is a requirement on LAs to produce Productivity Plans to help improve services and reduce wasteful expenditure. It is important that any initiatives around monitoring is undertaken as efficiently as possible and does not happen in isolation.

Economics: making the case for adaptation

Effective adaptation across the transport sector will require a systemic change in how we understand climate risks and take them into account in investment decisions. The 'Economics: making the case for adaptation' section of the strategy will equip the transport sector with the tools, guidance and evidence to take account of climate risks in decision-making and monitor progress.

Main policies include:

- by 2025, enhance climate risk assessment guidance, in line with HMT's Green Book [opens in a new window], and develop tools to identify best-practice adaptation measures
- research and development (R&D) programme including £10 million research hub, launched in September 2023 in partnership with UK Research and Innovation [opens in a new window]
- by 2025, embed consideration of climate risks in DfT business case process [opens in a new window] and decision-making, supported by associated guidance, including transport analysis guidance
- by 2025, incentivise adaptation measures through funding agreements, such as the Road Investment Strategy [opens in a new window] and Network Rail Control Periods [opens in a new window]
- by 2027, collate the data that transport stakeholders capture on weather and climate related disruption and costs
- by 2028, progress the development of indicators to measure adaptation outcomes

Read 'Economics: making the case for adaptation' to view all of the policies in this section.

We are asking about:

1. Providing the tools required.
2. Building the evidence base on climate change and adaptation in the transport sector.
3. Incentivising adaptation actions.
4. Measuring progress.

19. Overall, in your view, will the commitments in 'Providing the tools required' support organisations responsible for transport infrastructure in taking adaptation action?

- [x] Yes
- [ ] No (Go to ‘Providing the tools required: disagreement’)
- [ ] Don't know (Go to ‘Building the evidence base’)

Providing the tools required: agreement

20. Explain how the commitments will support adaptation action.

ADEPT broadly support the actions listed within “*Providing the tools required*”. However further detail on these commitments is needed to fully understand whether the measures will actually support adaptation action amongst LAs. It is unclear what capability improvements they would support due to the high-level nature of the actions.

The tools will also need to be accompanied with measures to improve the resources and wider capacity and capability of LAs and other TIOs to effectively utilise the tools and guidance provided. This includes providing LAs with sufficient funding and resources to make use of the tools (e.g. training to make sure people can use the tools, or allocation of staff with right skillset).

Online Database of Adaptation Measures

The identification of best-practice adaptation measures has the potential to provide LAs with examples of adaptation measures that can be implemented locally. This has the potential to save time as well as cost for LAs as they can readily identify off the shelf solutions.

It is however important that the database includes a range of measures applicable to LAs across a range of geographies and across a range of scales. If all the measures relevant to LAs are high cost adaptation measures relevant to infrastructure in urban areas, the database is likely to be to be of little value to LAs in rural areas with limited financial resources. This in turn would result in low levels of adaptation action.

Additional Climate Information for the Transport Sector

This information, particularly if it was not previously freely available to LAs, has the potential to significant enhance climate assessment work undertaken by LAs. However, for this tool to be successful and support adaptation action, it is important that the information is freely available to LAs and consultants working on their behalf.

Updated Climate Assessment Guidance

New guidance will support consistency in the assessment of climate risks by LAs. However, it is important the new guidance does not place any additional financial or resource burden upon LAs.

[After answering go to ‘Building the evidence base’]

Providing the tools required: disagreement

21. Explain why the commitments will not support adaptation action.

N/A

Building the evidence base

22. Overall, in your view, will the research commitments in 'Building the evidence base' support organisations responsible for transport infrastructure to make evidence-based investment decisions on climate change adaptation?

- [x] Yes
- [x] No (Go to 'Building the evidence base: disagreement')
- [ ] Don't know (Go to 'Incentivise action')

Building the evidence base: agreement

23. Explain how the commitments in this section will support evidence-based investment decisions.

ADEPT support the commitments associated with building the evidence base. However it is important that the outputs are communicated back to TIOs, including LAs.

A comprehensive and robust evidence base will help LAs develop the case for investment in interventions that address climate risks.

A new evidence base should also result in reduced costs when developing a case for investment in interventions that address climate risks. It should also reduce duplication of work that may otherwise have been undertaken. However, due to a lack of detail in the strategy, it is not clear what the final output from these actions will be and when the outputs will be available for TIOs to utilise.

[After answering go to 'Incentivise action']

Building the evidence base: disagreement

24. Explain why the commitments in this section will not support evidence-based investment decisions.

Does not support the collection of more accurate data

The actions do not appear to support the collection of more accurate data on climate risk. Improving the availability of accurate data on the costs of climate impacts on the transport sector is an important element in enabling justification for and the development of business cases for more climate resilient transport infrastructure. This would also be an important aspect of building the case to incorporate climate adaptation in the organisational objectives of TIOs.

Incentivise action

25. Overall, in your view, will the actions in 'Incentivise action' support organisations responsible for transport infrastructure to embed adaptation into:

	Yes	No	Don't know
projects	☑	☐	☐
policies	☑	☐	☐

If you answered 'yes', explain how the actions in this section will support organisations to embed adaptation, if you answered 'no', explain why the actions will not support organisations?

ADEPT agrees that the actions in "*incentivise actions*" will support organisations responsible or transport infrastructure to embed adaptation into policies and projects. However, there is little detail on how the additional costs of upgrading transport infrastructure to be climate adapted will be funded. Furthermore, incentives may only marginally improve the climate adaptive qualities of new infrastructure and may not delivery the scale of change required to address climate risk.

Consider adaptation actions necessary in relevant policy documents

This action will help ensure adaptation is embedded into transport planning policy. However, this action only requires consideration. This may result in new infrastructure schemes considering adaptation, but not actually implementing measures that embed measures to mitigate climate change impacts.

Rural Innovation Fund for Transport

This action has the potential to deliver projects for LAs that adapt to climate change. The fund could also serve as a test bed for project that embed adaptation, making it easier and more cost effective for LAs to deliver similar schemes in the future.

Embed consideration of climate risks in the DfT business case process and decision making process

Government should be working proactively and at speed to review business case and funding processes to ensure that the costs and benefits of building in climate change resilience to a scheme are fully understood.

This action will help ensure adaptation is considered within all new projects being developed and progressed by LAs. It will also ensure a consistent approach.

Incentivise adaptation measures through funding agreements

LAs face significant budgetary and resource constraints. ADEPT supports funding agreements that incentivise adaptation. However, it is important that the funding sources are available to LAs.

Promote greater adaptation action across the DfT estate

This is unlikely to help support LAs in delivering adaptation across their policies or projects.

Measuring progress

26. Overall, in your view, will the commitments in 'Measuring progress' help organisations responsible for transport infrastructure in measuring progress on adaptation?

- [x] Yes
- [x] No (Go to 'Measuring progress: disagreement')
- [ ] Don't know (Go to 'Regulatory: setting the long term direction')

Measuring progress: agreement

27. Explain how the commitments will assist in measuring progress.

Most LAs are already collecting data on weather and climate related disruption costs. As such the commitments are unlikely to provide any further benefit to LAs. However, at regional and national scale, the collation of this data will provide useful information on adaptation progress

amongst LAs. This will enable future interventions to target areas where lower levels of adaptation are observed.

LAs currently face significant financial and resource constraints. Regular collection, processing and analysing of the right data requires sufficient resources (time and people). It is important that any future monitoring requirements do not result in any additional costs or resource requirements for LAs.

To maximise efficiencies, the government should engage with academia and industry to ensure deployment and use of new technologies. Opportunities to undertake monitoring at regional scales to reduce costs for individual LAs should also be explored.

[After answering go to ‘Regulatory: setting the long term direction’]

Measuring progress: disagreement

28. Explain why the commitments will not assist in measuring progress.

The collation of data on weather and climate related disruption and costs needs to take place urgently ahead of 2027 to make the case for climate adaptation, to ensure buy-in from senior TIO management in incorporating climate adaptation as part of organisational objectives and KPI’s.

Regulatory: setting the long-term direction

The 'Regulatory: setting the long-term direction' section of the strategy considers how Department for Transport can use its unique position in the transport sector to explore untapped or under-utilised policy levers to identify new opportunities and reduce uncertainty for the sector by setting a clear direction for adaptation ambition.

29. Overall, do you support or oppose the actions in the strategy aimed at standardising the approach to climate adaptation?

- [x] Support (Go to ‘Adaption standards’)
- [ ] Oppose
- [ ] Don't know (Go to ‘Adaption standards’)

Standardising the approach: opposition

30. Which aspects, if any, do you support or oppose?

	Support	Oppose	Don't know
Consistent approach to climate scenarios and climate risk assessments	☑	☐	☐
Implementation of UK Government Resilience Framework commitment	☑	☐	☐
Adaptation standards	☑	☐	☐

Explain why you support or oppose the actions.

A consistent approach based on best practice also has the potential to streamline the business case process, enabling quicker uptake of high-quality climate risk assessments. A consistent process will also be fundamental to ensuring successful outcomes. This is only likely to be achieved if such standards are set at a national level by government.

Adaption standards

31. What role, if any, would you like government to take in setting adaptation standards, including why?

A standardised approach to setting adaptation is important to ensure consistency across LAs. ADEPT considers that this can only be achieved if such standards are set at a national level by government. However, it is important that the introduction of any new adaption standards minimise any additional costs and resource requirements for LAs. To minimise the impact of change, any new standards should be brought in gradually over time. It is also important that all TIOs and LAs are consulted with in relation to setting and updating adaptation standards, taking full account of the constraints under which they operate.

Reviewing the role of regulators

Transport regulators have an important role in ensuring safety standards are upheld across the transport system. Currently transport regulators do not have a specific mandate for ensuring climate resilience however this does not prevent them from taking steps to promote adaptation action within their sectors.

The Climate Change Committee recommends designating transport sector regulators with consistent remits for climate resilience [opens in a new window] as this could ensure long-term investment decisions incorporate, and are resilient to, the future impacts of climate change.

32. Do you support or oppose a review of transport regulators' remits regarding climate change adaptation?

- [x] Support (Go to 'Reviewing the role of regulators: supporting')
- [ ] Oppose
- [ ] Don't know (Go to 'Collaboration: sharing knowledge')

Reviewing the role of regulators: opposition

33. Why do you oppose a review of transport regulators' remits regarding climate change adaptation?

N/A

[After answering go to 'Collaboration: sharing knowledge']

Reviewing the role of regulators: supporting

34. Provide your suggestions, if any, as to how this review should occur.

ADEPT broadly supports a review of transport regulators remit regarding climate change adaptation. This will ensure improved climate resilience across the transport network. ADEPT does not have any specific views on how this review should occur. However, it is important that any regulator review does not hinder existing climate adaptability efforts (i.e. putting extra requirements in place that may not be achievable for all LAs in turn limiting/ stopping the climate adaptability work currently being undertaken).

Collaboration: sharing knowledge

Understanding of the impacts of climate change, and preparedness for them, varies across the transport sector. The 'Collaboration: sharing knowledge' section of the strategy identifies actions that will bring transport operators together to collaborate, address their interdependencies within

transport and wider infrastructure, share best practice and expand their knowledge on managing climate risks.

35. Overall, in your view, will the actions in 'Working in partnership' support organisations responsible for transport infrastructure to expand their capability on climate change adaptation?

- [x] Yes
- [ ] No (Go to 'Working in partnership: disagreement')
- [ ] Don't know (Go to 'Interdependencies')

Working in partnership: agreement

36. Explain how the actions in this section will support organisations to expand their capability on adaptation.

Industry Forums

Industry collaboration, particularly amongst LAs, has the potential to help LAs expand their adaptation knowledge and capability. It will enable LAs to share best practice amongst one-another and potentially enable schemes to be delivered more efficiently and at a lower cost. However, resource constraints amongst LAs may make this challenging for some to participate.

The government could consider a regional / consortium-based approach in order to incentivise collective/joined-up action by LAs.

Some work has previously been undertaken in considering the impact of climate change through work undertaken by the Three Counties Alliance Partnership – a collaboration between the county councils of Derbyshire, Leicestershire and Nottinghamshire, a precursor to the Midlands Highways Alliance. It will be key to use existing outputs from such collaborations rather than reinventing the wheel.

Training on Climate Adaptation

ADEPT recognises the benefits of ensuring relevant staff are trained on climate adaptation. This will help ensure staff working on projects are aware of the need to consider adaptability to climate change as a part of their day-to-day role – ensuing that this is considered at all stages of design. However, a requirement for all TIOs, including LAs, to provide training on climate adaptation is likely to be challenging without the provision of additional resources or funding.

Working with international counterparts

ADEPT recognises the benefits of working with international counterparts and the benefits that this can provide, particularly from locations that experience extreme weather events more

frequently. However, it is important that this considers adaptability at all scales and geographics. It is important that lessons learned are communicated to LAs.

Build capabilities and skills for adaptation in government

To date, the government has not necessarily provided the required leadership on adaptation and not engaged effectively with LAs. As such ADEPT agrees that capability and skills on adaptation should be enhanced. However, it is important that this knowledge is disseminated to LAs and that the government engage with LA's on climate adaptability.

[After answering go to 'Interdependencies']

Working in partnership: disagreement

37. Explain why the actions in this section will not support organisations to expand their capability on adaptation.

The actions identified are very high level and not specific. They also place an emphasis on TIOs (including LAs) to undertake the work to enhance their capability (e.g. training of staff). For LAs that are resource constrained this is likely to be challenging.

Interdependencies

Interdependency refers to the dependence of the transport network on other infrastructure networks such as energy and telecommunications networks, and vice versa. If one network is impacted by extreme weather, then effects may cascade across dependent networks.

38. Overall, in your view, will the actions in the strategy help organisations to understand their interdependencies across different infrastructure?

- [x] Yes
- [ ] No (Go to 'Interdependencies: disagreement')
- [ ] Don't know (Go to 'Final comments')

Interdependencies: agreement

39. Explain how the actions will help understanding of interdependencies.

Industry Forums

It is important that LAs are included within industry forums. This will enable best practice and experiences to be shared more easily amongst TIOs, including other LAs.

Mapping of interdependencies

Adopting a 'whole systems approach' that facilitates and supports cross-boundary and cross-sector coordination is critical to both understanding and maximising interdependencies across different infrastructure. A 'whole systems approach' needs to be underpinned by appropriate practices, systems, information sharing methods and funding.

However, for all TIOs, including LAs, to identify and map out their interdependencies across the transport sector and with relevant infrastructure operators may not be feasible for many LAs. This is associated with the additional financial and resource requirements associated with this request.

[After answering go to 'Final comments']

Interdependencies: disagreement

40. Explain why the actions will not help understanding of interdependencies.

N/A

Final comments

41. What, if any, further comments do you have on the transport adaptation strategy?

ADEPT is supportive of the publication of the transport adaptation strategy and the actions outlined within the document. It sets out a starting point for the implementation of actions and measures that will support the adaptation of the transport network. As noted in ADEPT's *Climate Change & Green Growth policy position* paper, ADEPT support new duties on councils to provide leadership in climate mitigation and adaptation locally, and to report on their progress in tackling climate change across all of their services and responsibilities, providing that councils are given the powers and funding that they need to do this.

However, the transport adaptation strategy is very high level and lacks specifics. It is important that the government provides further clarity on how the actions identified within the document will be implemented so that LAs can more fully consider their impact. This includes more detailed consideration of engineering changes that could be made to make highway assets more resilient to extreme climatic events.

The actions are likely to result in some improvement. However, compared to the scale of challenges from increasingly severe and frequent extreme weather events they do not demonstrate the necessary level of ambition for realising a transport network that's resilient to current and future extreme weather events.

To deliver a climate resilient transport network, the actions must go further. There is a need for TIOs to identify the level of change needed to create a resilient transport network and for government funding to cover the resources to deliver this.

Local authorities currently have limited expertise and resources to effectively understand the current and future climate risks on local highways networks or the trajectory of climate risks.

To successfully deliver the aims of the strategy it is important that LAs are provided within the necessary funding and resources to implement relevant measures and action. This must include capital and revenue funding.

ADEPT would welcome further detailed information on the likely changes that are expected to result from climate change with timescales and further training and learning for highways practitioners.

42. Any other comments?

Inconsistencies across actions

There are some inconsistencies in how actions will be implemented. For example on data collection the strategy is 'minded to require' National Highways to monitor, but Ports 'will trial' monitoring, and Network Rail 'will improve'.

One-size does not fit all

A one size fits all approach to climate adaptability is unlikely to work. The strategy must recognise that different communities and localities may have specific challenges, and unique needs and requirements which need to be recognised.

Coordination across government departments

It is important that there is collaboration and a holistic approach is taken across Government Departments. For example, it is important that the 'Green Book' is updated, as presently climate risk mitigation is seen as a cost that undermines the Benefit Cost Ratio of schemes.

Live Labs 2

ADEPT has developed Live Labs 2 programme to support the transition to net zero carbon local roads. Over the next three years we will be collaborating with ambitious, local highways authority-led partnerships from across the UK to develop and implement zero carbon and climate change focused local roads plans. As a part of this, consideration is being given to how future roads can be made resilient to the effects of changing climate. ADEPT would be happy to provide further information on the Live Labs 2 programme of works to help support the development and implementation of actions within the transport adaptation strategy.

Local Partnership's climate adaptation toolkit and new risk matrix

ADEPT already promotes the use of Local Partnership's climate adaptation toolkit and new risk matrix and ADEPT is currently working with them to develop other adaptation resources. It is important that actions implemented through the transport adaptation strategy complement existing efforts rather than duplicate existing tools. This will also help encourage consistency in the consideration of climate risks. Adaption training within LAs could be funded by the government and provided via Local Partnerships (an in-house public sector consultancy jointly owned by the LGA, HM Treasury and Welsh Government).

New impacts assessed as a part of the design of new infrastructure must be used as motivation to update existing infrastructure.

Whilst new transport infrastructure should use the latest climate projections for key climate risks, those same impacts should be considered as motivation for change to existing infrastructure. They should not just be used for the calculation of transportation benefits of new schemes.

Interdependency with non-transport stakeholders

There is a need to consider interdependency with non-transport stakeholders. For example, run off from agricultural land is a significant issue for LAs. Adaptation should not rest solely with LAs. Instead, measures should also be introduced on agricultural land to ensure it is more resilient to extreme climatic events. This has the potential to reduce the cost burden on LAs.

The need for increased Government investment to upgrade existing infrastructure.

Increased intensity of rainfall is a key risk for existing highway drainage, as many roads do not have the capacity to cope with such events resulting in flash flooding. To address this significant investment is needed from the government to enable LAs to deliver the necessary infrastructure improvements. This includes greater investment in sustainable drainage system schemes and flood alleviation/prevention.

Update of design principles

It is important that design principles are updated to recognise the frequency of extreme climatic events. For example, it is important that highway pavement material design takes account on higher temperature range that is occurring/predicted. It is also important that existing capacity constraints of the existing network are taken into consideration when considering the surface water run off of new infrastructure.

Consultation on Schedule 3 of the Flood Water Management Act 2010

At present, new developments have an automatic right to connect to the existing sewer system. Consultation on Schedule 3 of the Flood Water Management Act 2010 and the need to make sustainable drainage systems mandatory to new developments would help reduce the risk of surface water flooding and alleviate the pressures on the drainage and sewerage system. Whilst this alone, is unlikely to be sufficient to accommodate an increased frequency of extreme weather events, it will help preserve and maintain existing capacity within the network.

Transport infrastructure adaptability is only one strand of tacking climate change

Alongside transport infrastructure adaptability the Government needs to continue to promote the use of sustainable and active travel modes that have a less harmful impact on the atmosphere. The Government should consider the permit of e-scooters outside of trial areas to help facilitate more short and medium distance journeys to be undertaken by non-car modes, invest more in electric vehicle charge points to accelerate the movement away from Internal Combustion Engine (ICE) vehicles.

Adaptability does not necessitate infrastructure changes.

Adaptability to climate change does not necessitate the need for infrastructure improvements. Changes to the planning of operational activities could provide adaptability to climate change. For example, winter gritting activities could become less frequent, but summer sanding and surface water management could be become more frequent and essential activities.

Closer working across sectors

Adaptability to climate change must be across sectors. For example, there may be opportunities transport schemes developed through the business case process could potentially be combined with schemes being progressed by DEFRA, e.g. those which address flooding.

Historic funding and maintenance mean highway assets are unlikely to be resilient to climate risk

Managed decline has led to many LAs highway assets not being resilient to climate risk. There is a need to consider current asset condition needs as urgent and introduce materials and environments fit to meet the climate change challenge. This is likely to require significant investment.

Regional Approach

To improve climate adaptability, the government could consider a regional / consortium-based approach in order to incentivise collective/joined-up action by LAs.

Updated Local Transport Plan Guidance

It is important that new guidance for Local Transport Plans considers adaptation to climate change. To make sure climate risk is considered from the outset, it is important that this forms a key component of the document and is not considered as an afterthought.

Scheme Viability

Whist the actions help embed adaptation into projects and projects, the government must also provide clear guidance on how climate risks can affect the viability of the scheme.

Applicability of any adaption standards

Any adaption standards that apply to LA’s should also apply to developers constructing new transport infrastructure (e.g. roads for new development).

Devolved and split responsibilities

It is ambiguous as to whether the strategy is intended to address the issues of devolved and split responsibilities across geographies/administrations, sectors and professions.