



Changing **L**andscapes for **I**nfrastructure and **M**obility:  
**A**ssessing **T**ransport and **E**nvironment **S**cenarios

**Professor Glenn Lyons**

CIHT Immediate Past President and CLIMATES lead

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# Doubling down on climate action in highways and transportation



11 June 2025



<https://www.ciht.org.uk/climates>

Free to all to download



# Meet the authors (core CLIMATES team)



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# Doubling down on climate action in highways and transportation



- ← **Boost your carbon literacy**  
Go to **Section 4**
- ← **Explore future scenarios**  
Go to **Section 5**
- ← **Learn what the sector should do**  
Go to **Section 7**
- ← **Grow your network**  
Go to **Section 11**
- ← **Complete the CLIMATES survey**  
Go to **Appendix 1**
- ← **Inspire yourself with pledges**  
Go to **Appendix 3**

# Objectives and exam question

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## Objectives:

- to better equip professionals to determine their **priorities and actions in the present** in the face of **future climates change possibilities**
- to **voice opinion across the CIHT membership** that can inform how the Institution champions its climate action theme

## Exam question:

In an uncertain world, what priority actions in highways and transportation should we double-down on in the next three years to meet the unfolding challenges of climate change as we look out to 2035 and beyond?

# Engagement

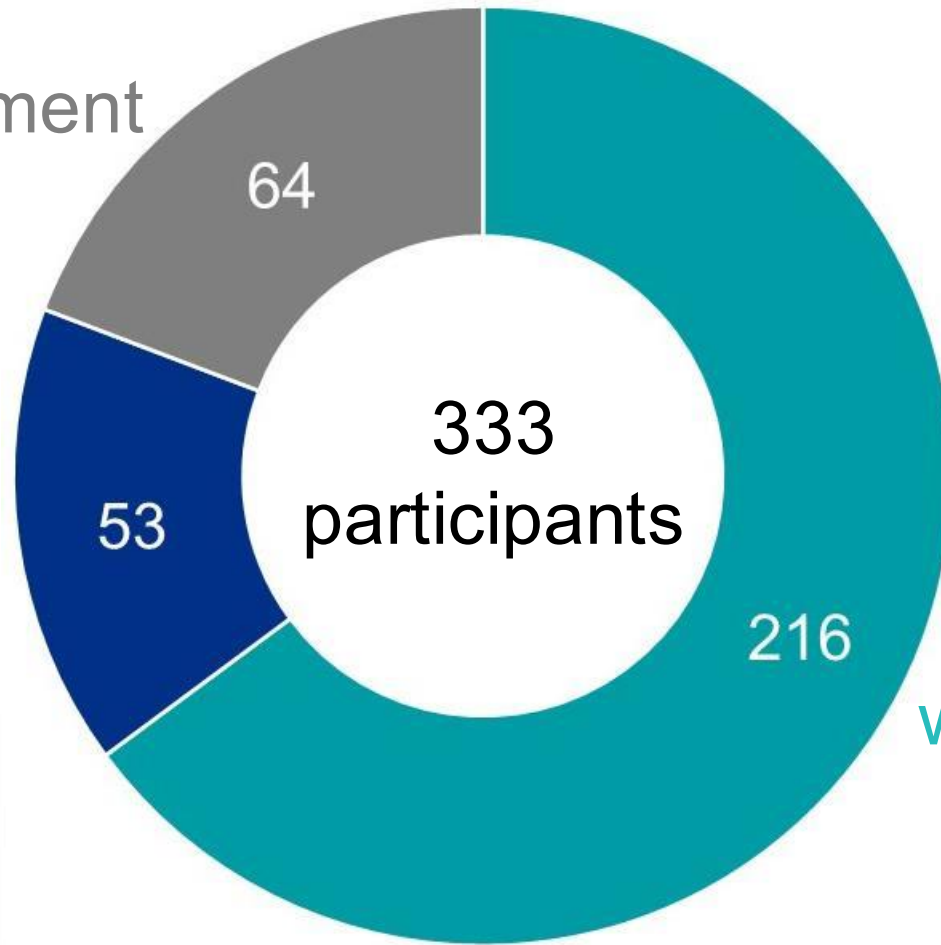
10



Online engagement survey

Online workshops

In-person workshops



 **CIHT  
CLIMATES**

 **CIHT CLIMATES**  
Changing Landscapes for Infrastructure and Mobility:  
Assessing Transport and Environment scenarios

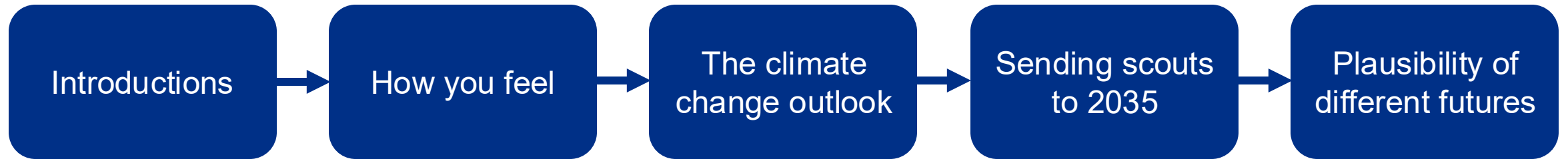
**2024-25 TOUR**

18 SEP LONDON - GOV COUNCIL  
25 SEP LONDON - GOV COUNCIL  
27 SEP LONDON - GOV COUNCIL  
7 OCT LONDON - GOV COUNCIL  
8 OCT LONDON - GOV COUNCIL  
24 OCT LONDON - GOV COUNCIL  
19 NOV LONDON - GOV COUNCIL  
28 NOV LONDON - GOV COUNCIL  
10 DEC LONDON - GOV COUNCIL  
12 DEC LONDON - GOV COUNCIL  
13 & 15 JAN BIRMINGHAM  
20 & 22 JAN UK AND WORLDWIDE  
27 & 29 JAN HONG KONG & MALAYSIA  
3 & 5 FEB UK AND WORLDWIDE

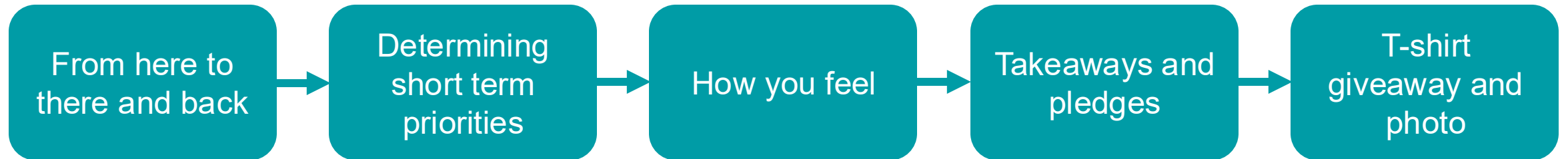
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# The CLIMATES journey

## Part 1 (2 hours 45 minutes)



## Part 2 (2 hours 45 minutes)





London – CIHT Council



Liverpool



Newcastle



London



Cambridge



Belfast



Cardiff



London



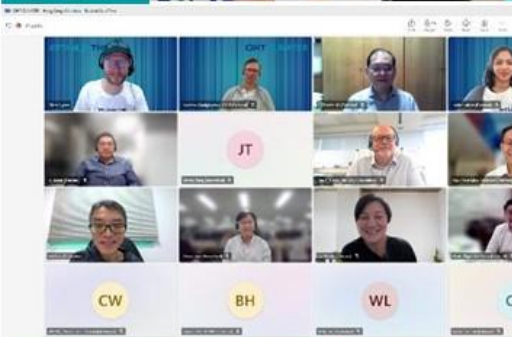
Glasgow



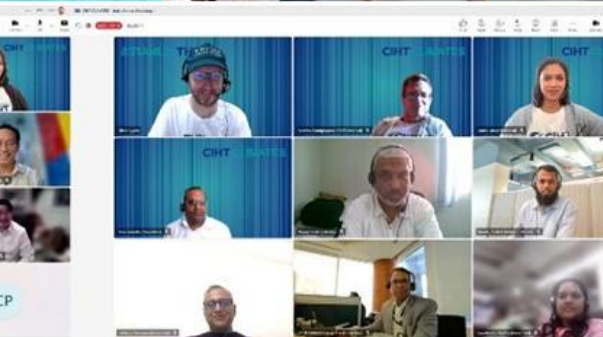
Birmingham



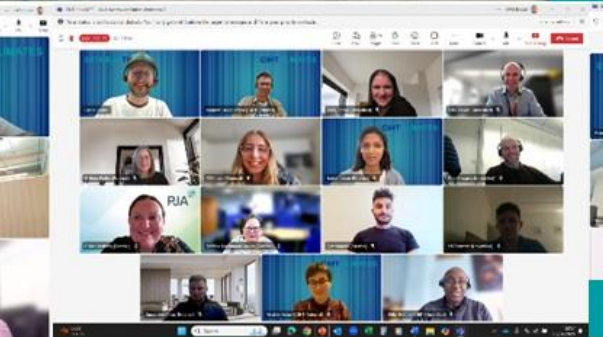
Online - UK



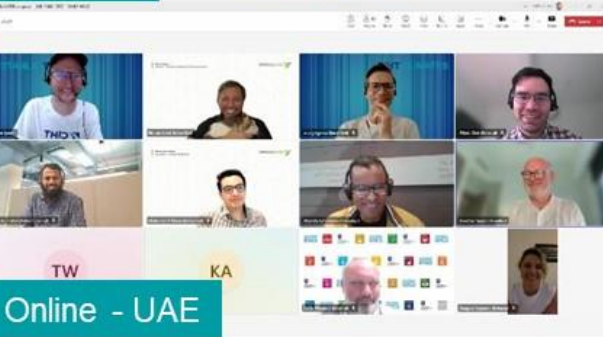
Online - Hong Kong



Online - India



Online - UK



Online - UAE

September 2024 – February 2025

# In the news

Extreme weather

Analysis

## Climate scientists troubled by damage from floods ravaging central Europe

Ajit Niranjana

Experts unsurprised at intensity of extreme weather but say damage wreaked shows how unprepared world is

- Europe floods - latest updates

Mon 16 Sep 2024 12:03 BST

Share



16 Sep 2024

Climate crisis

## Climate crisis deepens with 2024 'certain' to be hottest year on record

Average global temperature in November was 1.62C above preindustrial levels, bringing average for the year to 1.60C

Damian Carrington  
Environment editor

Mon 9 Dec 2024 03:00 GMT

Share



10 Dec

A wildfire in California this year. Fires driven by severe droughts have affected the western US, Canada, the Amazon forest and particularly the Pantanal wetlands. Photograph: David McNew/Getty Images

This year is now almost certain to be the hottest year on record, data shows. It will also be the first to have an average temperature of more than 1.5C above preindustrial levels, marking a further escalation of the climate crisis.

## Deal on climate aid hangs in balance at UN COP29 summit

Paris (AFP) - Nations remain in deadlock over a crucial pact on climate aid, with divisions over who pays, and how much, threatening chances of a deal being landed at next month's COP29 summit.

Issued on: 08/10/2024 - 05:13 Modified: 08/10/2024 - 05:11 3 min



This year's UN climate summit is being hosted in Azerbaijan, which has come under scrutiny as an oil and gas production record © TOFIK BABAYEV / AFP

8 Oct

Climate crisis

## Climate denial a unifying theme of Trump's cabinet picks, experts say

Loyalists selected for important roles have offered staunch support to fossil fuels and downplayed climate crisis

Oliver Milman

Wed 27 Nov 2024 11:00 GMT

Share



Chris Wright in 2018. Photograph: Andy Cross/The Denver Post

27 Nov

## Repression of climate and environmental protest is intensifying across the world

Published on 06/01/2025, 1:08pm

Comment: Climate protests surged in 2018-2019 and have continued, sparking a crackdown by authorities using the law to criminalise and constrain activism



6 Jan

## Global GDP Faces 50% Loss Without Climate Change Action, Study Finds

Jamie Hailstone Contributor @ Jamie Hailstone is a U.K.-based reporter, who covers sustainability.

Follow

Updated Jan 27, 2025, 08:41am EST



VALENCIA, SPAIN - OCTOBER 30: A view of the damaged cars after a deluge brought up to 200 liters of ... [+] ANADOLU VIA GETTY IMAGES

27 Jan

## Trump Ends Climate Work Inside Agency That Responds to Disasters

A memo sent to leadership at the US Department of Homeland Security orders the elimination of climate-related activities.

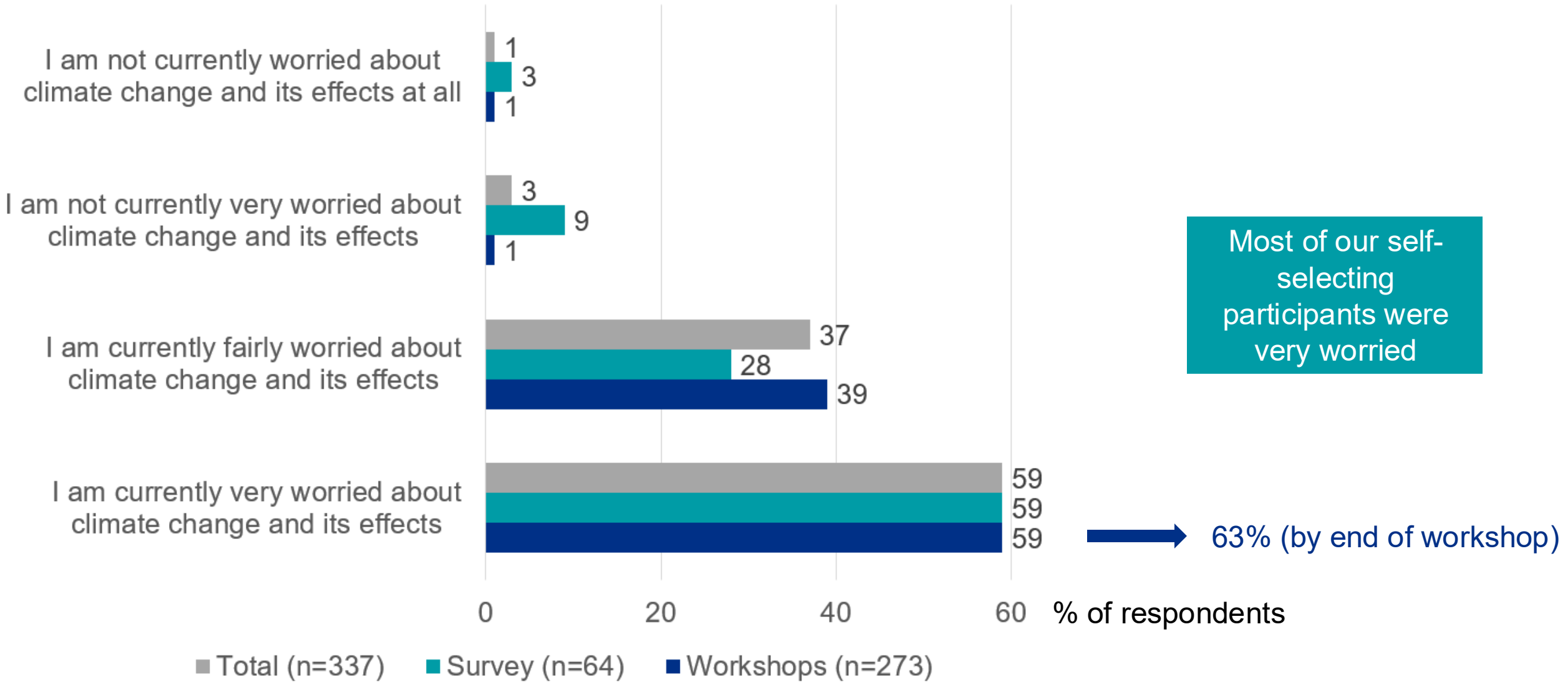


Donald Trump during an executive order signing on Feb. 14. Photograph: Samuel Corum/Sipa/Bloomberg

By Zahra Hirji and Jason Leopold  
16 February 2025 at 03:47 GMT

16 Feb

# Thinking about how you feel TODAY about climate change and its effects, which if the following comes closest to your views?



# Reasons for being very worried

Personal anxiety and helplessness

Visible changes and extreme weather

Global inaction and political challenges

Impact on natural environment and biodiversity

Economic and public health consequences

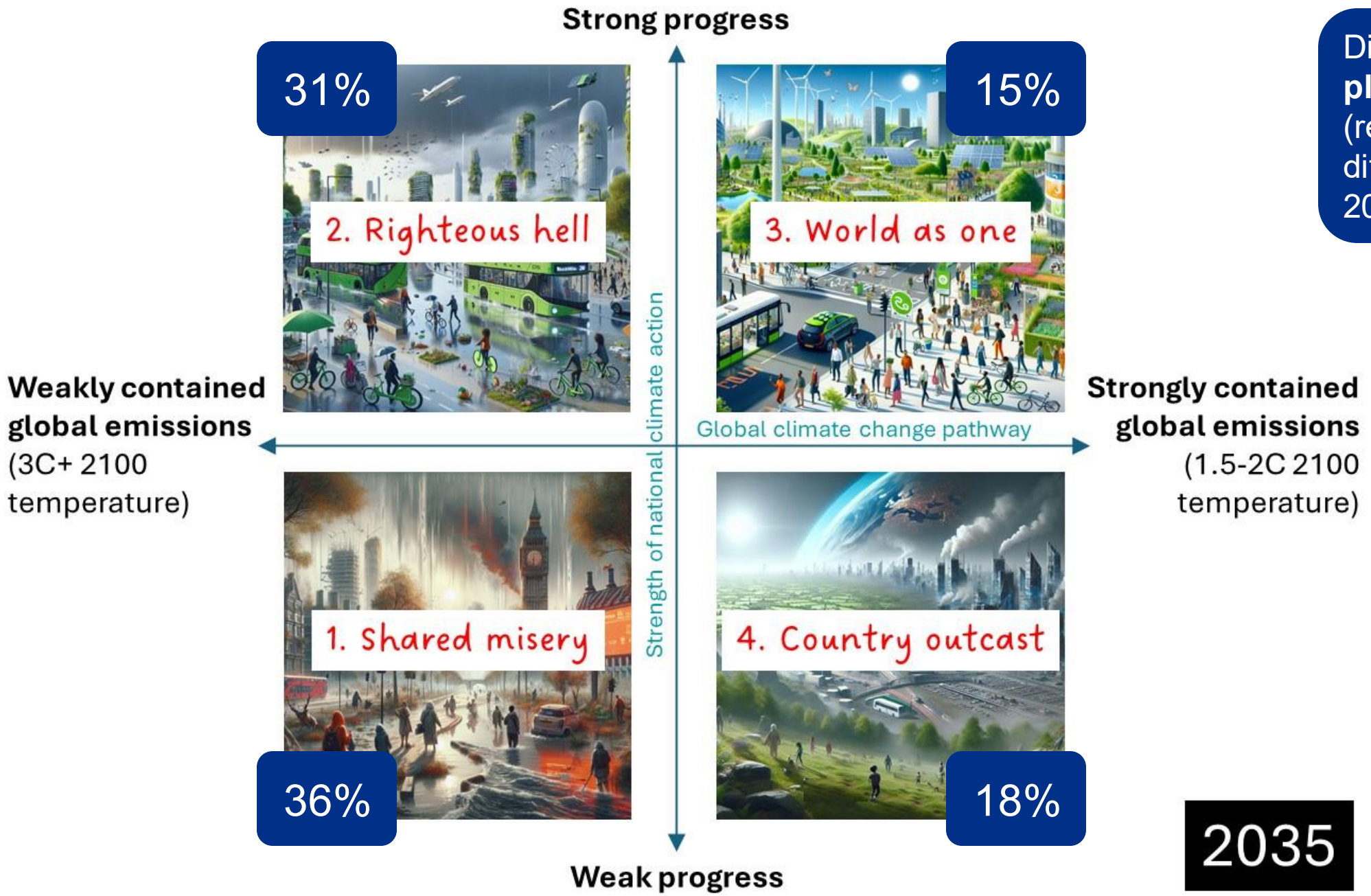
Disproportionate impact

Lack of urgency and leadership

Scientific evidence and tipping points

Legacy for future generations

Geopolitical instability

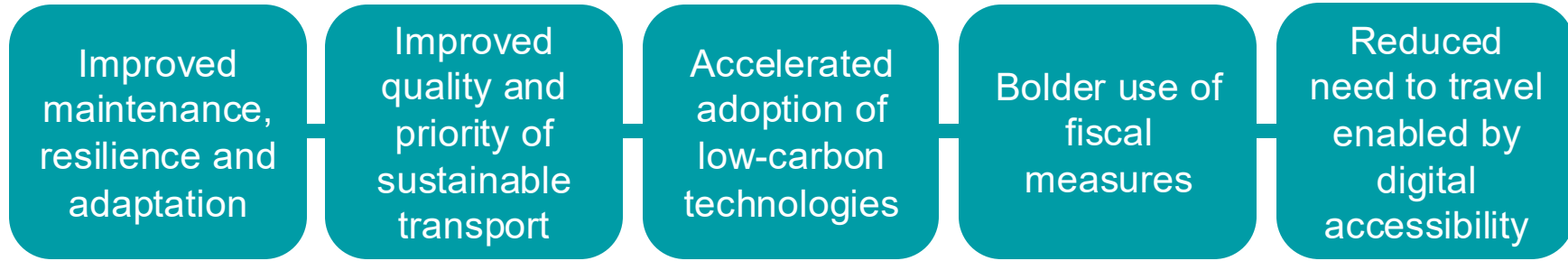


Distribution of **plausibility credits** (relative likelihood of different possible 2035 futures)

**2035**

In an uncertain world, what priority actions in highways and transportation should we double-down on in the next three years to meet the unfolding challenges of climate change as we look out to 2035 and beyond?

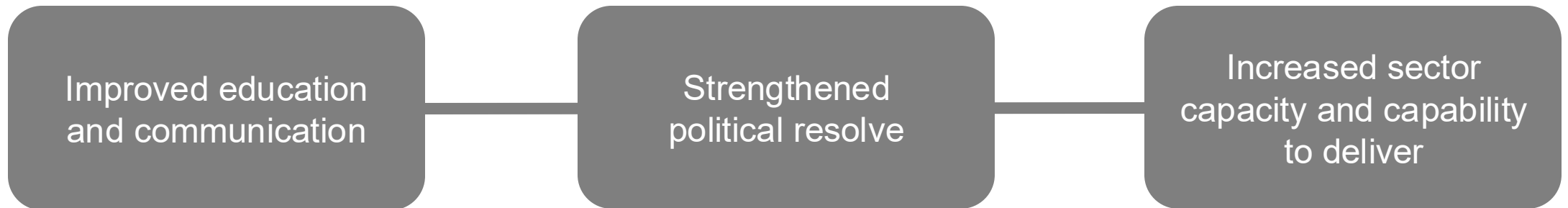
Outcomes needed from change



Processes to drive change



Conditions for change



# Personal pledges

**No flying in 2025**

I pledge to introduce some of the 'CIHT CLIMATES' content to schools when **speaking to students** as a STEM Ambassador without scaring the students of course

**Challenge more senior colleagues** who perhaps put client wishes before better outcomes that are supported in policy

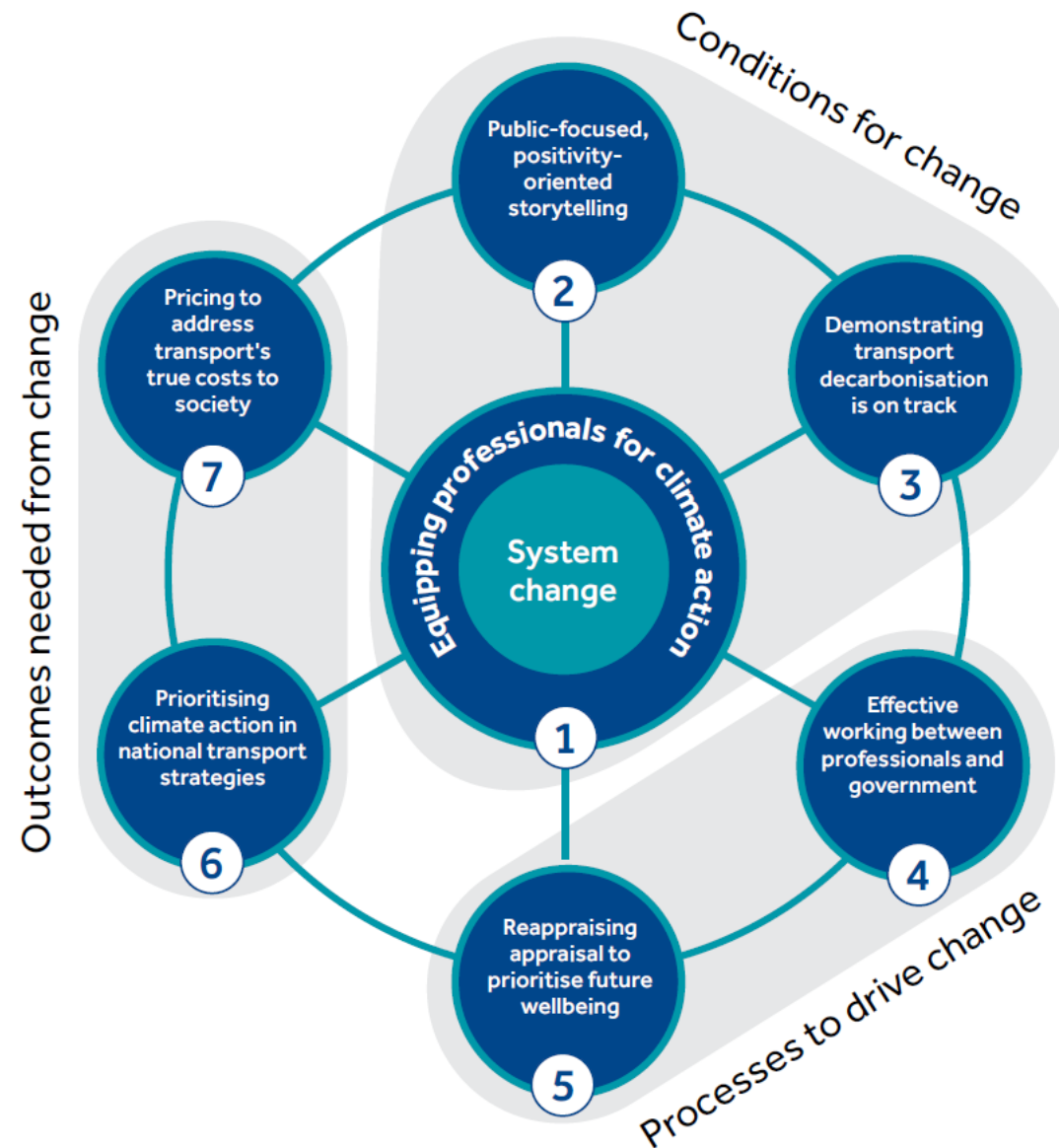
**Be brave enough to challenge the norm**  
- Individual action leads to collective action

Take responsibility to think of some **better stories**

Push for **Carbon Literacy Training** for everyone in my workplace

**Better sell the benefits** of schemes / programmes to local communities

# Recommendations – viewed as a set



Doubling down on conditions for change

## 1. Equipping professionals for climate action

### Case for change

CIHT's 2024 Manifesto<sup>46</sup> emphasised the need for a skilled workforce with the capacity and capability to deliver a transport network fit for all our futures. Climate action on the scale required to meet that goal demands a rapid upskilling of the highways and transportation profession. Professionals also need support to maintain their motivation and resilience in their career journeys in the face of changing and competing demands.

### Recommendation

**CIHT should play a central role in building the transportation profession's capacity and capability to deliver climate action. It should double down on the enabling function it provides through continuing professional development (CPD) to improve the competency of highways and transportation professionals with the knowledge, skills, mindset, and leadership required to support governments, industry, academia, and the public on climate action.**

### Possible considerations

The CLIMATES initiative has provided a professional development opportunity for those taking part. CIHT has already prioritised improvement of carbon literacy across its membership, set an expectation that all members commit some of their annual CPD effort to climate action, and invested in training provision through CIHT Learn. Professional competencies will be of increasing importance to the collective efforts to deliver climate action. Career paths are likely to be increasingly defined by climate change and related challenges. Professionals will need to progressively move from carbon literacy to fluency in their areas of responsibility. This means that it will be helpful if action to progress this recommendation focuses on the substance and reach of CPD, for example by providing further guidance on priority topics within the broad category of climate action. It may also be appropriate to consider extended content development for CIHT Learn aligned to a review of the climate-related competencies needed by professionals following different career pathways. CIHT should consider how its work can help professionals develop their engagement and communication skills as part of the wider skill set needed to deliver climate action.

Improving  
professionals'  
knowledge, skills,  
mindset and  
leadership

## 2. Public-focused, positively-oriented storytelling

### Case for change

CLIMATES participants repeatedly highlighted the importance of public support for change, not least because other more immediate pressures often crowd out concerns about climate change or can prompt resistance to climate action. We also heard that while highways and transportation professionals have excellent technical understanding, we are not always the most appropriate or effective people to lead on engagement with wider non-technical audiences.

### Recommendation

**Highways and transportation sector organisations should find new, cost-effective, and impactful ways to collaborate with bodies and individuals who have demonstrated they can build the positive and compelling case for the benefits of change that is needed to win hearts and minds for climate action.**

### Possible considerations

There are individuals and organisations who have the skills required but with whom the highways and transportation sector has not traditionally collaborated (notwithstanding some examples of such collaboration). This includes those who understand and address social exclusion, those championing carbon literacy, those in the arts, and those in journalism and science communication. If successful this recommendation holds the promise of combining those skills with professional highways and transportation insight, climate science, and excellence in communication. Central government, research councils, and other sources of funding may be appropriate, and in the first instance there may be an important convening role in bringing relevant parties together to identify realisable and impactful ways forward.

Effectively  
communicating  
the benefits of  
climate action to  
win hearts and  
minds

### 3. Demonstrating that transport decarbonisation is on track

#### Case for change

The UK and many other countries now operate within a framework of legally binding decarbonisation commitments linked to carbon budgets in which transport plays a key role. In the UK the Climate Change Committee (CCC) is an established advisory body that provides annual progress reports to Parliament.<sup>47</sup> These reports include recommendations for action, to which governments of the UK and its devolved nations are obliged to respond. The CCC's progress reporting for transport has been critical in some key areas and has pointed to where there is still much to achieve in coming years. The UK Government has also lost legal cases in 2022 and 2024, resulting in High Court rulings that its overall Net Zero Strategy does not adequately demonstrate how the UK will meet its emission reduction targets. Credibility and transparency of governments' responses are important for building public support and professional and industry confidence to invest in capacity to deliver climate action. There is a role for greater professional scrutiny of climate action plans and progress.

#### Recommendation

**Governments should openly and robustly demonstrate and justify how their detailed plans are consistent with (or at odds with) expert advice on the pathway for decarbonising transport and on transport's contribution to the manufacturing and construction pathway; and professional bodies should offer greater scrutiny and constructive challenge.**

#### Possible considerations

Foundational steps for clarity of national leadership on climate action include commitments to phase out fossil fuel vehicles, clarity on acceptable future levels of demand for road traffic and aviation, and appropriate steps to address construction carbon. In a UK context, professional institutions and other organisations across the transportation sector could usefully consider how to encourage greater professional scrutiny and debate of CCC advice and progress against the pathways in the sixth and seventh carbon budgets. An established and clear narrative on how economic prosperity and decisive climate action can work in harmony and in accord with legally binding carbon budgets would be welcome.

Constructively  
challenging the  
progress on  
decarbonisation

Doubling down on processes to drive change

## 4. Effective working between professionals and government

### Case for change

Highways and transportation is a broad sector with multiple constituencies and voices. CLIMATES participants emphasised that this can complicate governments' ability to engage with the sector, identify shared agendas, and drive coordinated action. It is not clear whether existing forms of convening between the sector and governments are sufficient, either top-down led by government or bottom-up led by industry or sector organisations. Identifying what change and improvement, if any, can be made to support climate action merits attention.

### Recommendation

**Government(s) in the UK, in conjunction with professional bodies, should consider the suitability of existing convening and collaboration arrangements – both top down driven by government and bottom up, led by industry – with the highways and transportation sector in relation to climate action, and do so in the context of specific areas or goals where progress on climate action is sought.**

### Possible considerations

Whether existing convening arrangements are fully meeting the governments' and the sector's needs in relation to climate action is not certain. Work could usefully assess if there are opportunities for more effective convening around specific shared challenges, drawing on examples such as the Future Highways Research Group bringing together a broad coalition of public and private players to establish a carbon accounting and reporting standard for local highway authorities.<sup>48</sup> Understanding governments' position on this issue, and the extent to which they view their ability to engage with the sector as a serious barrier to making progress on climate action, would be a useful starting point.

Effectively  
convening and  
collaborating on  
specific areas or  
goals

## 5. Reappraising appraisal to prioritise future wellbeing

### Case for change

Appraisal is a key tool for shaping if not dictating political decisions on investment. Appraisal guidance informs how this process is carried out and in turn has a big influence on which projects and programmes get the green light. Appraisal guidance and practice are always at risk of failing to keep pace with a changing world (or a world that needs to be changed). Many CLIMATES participants expressed strong concern about this in relation to climate action.

### Recommendation

**Transport investment priorities should be reviewed – by governments, academia, and industry – to ensure clear and appropriate priority is given in the appraisal process to low-carbon outcomes, resilience, and adaptation, all with future wellbeing in mind.**

### Possible considerations

Appraisal priorities and processes are subject to periodic reviews. Examples include the HM Treasury Green Book Review (2020),<sup>49</sup> The Wales Roads Review and the tests it developed (2023),<sup>50</sup> and recent revision (for England) of the National Networks National Policy Statement (2024).<sup>51</sup> Across the highways and transportation sector it remains unclear to what extent appraisal appropriately addresses the imperative of climate action. Recent work by the Road Investment Scrutiny Panel (2023) suggested significant scope for reflection and possible change.<sup>52</sup> The devolution agenda for England further lends weight to addressing the importance of the role of appraisal in stifling or enabling climate action. This recommendation would be bolstered if review activity is sought and funded by government(s), thereby giving a mandate for and impetus to such work. With or without such direct support, it would be helpful to consider a comparative examination of appraisal guidance across the UK and its devolved nations to help reveal strengths, weaknesses, opportunities, and threats for appraisal and investment decisions.

Appropriately  
reflecting climate  
action importance  
in appraisal

Doubling down on outcomes needed from change

## 6. Prioritising climate action in national transport strategies

### Case for change

National transport strategies can be very helpful for driving change in support of sustainable transport. If done well, they explain what governments expect from the transport system and how they would like to achieve those goals. This provides industry and the professions with a stable, strategic framework within which they can invest and innovate to deliver. Strategies have recently been produced for Scotland (2020)<sup>53</sup> and Wales (2021),<sup>54</sup> and there is a rare opportunity to guide development of the transport system in England with the forthcoming Integrated National Transport Strategy (INTS), and to continue input into its onward journey.

### Recommendation

**The UK Department for Transport should ensure that its forthcoming Integrated National Transport Strategy (with the breadth of issues it will need to address) has climate action as a core pillar, and it should convey how this can work positively to support economic and social prosperity.**

### Possible considerations

The messages in this report will be fed into the INTS development process, and they will likely come as no surprise to the Department. If strong, positive progress is to come from the INTS, it must embody bold measures for change that are clear about the imperatives for change in terms of climate action (married with 'good growth') with an authentic and inspirational message of change for the better.

Ensuring climate action is a core pillar in national transport strategy

## 7. Pricing to address transport's true costs to society

### Case for change

A 'negative externality' arises where the social costs for others (society) of a behaviour exceed the costs for those undertaking the behaviour (the direct consumers). Transport's negative externalities are considerable, not least in environmental and public health terms. To reduce negative externalities the price of transport options should better reflect their true cost to society. Whether or not this happens, there are winners and losers. The transport sector needs to tackle the challenge of socially fair and environmentally efficient pricing in support of climate action. This has important implications for the choices people make and the nature of demands placed upon the transport system.

### Recommendation

**The highways and transportation sector as a whole should clarify the fiscal measures that are available and appropriate to show the true costs of transport, including external, indirect costs to society, otherwise these negative externalities of transport will continue to act as a drag on climate action; and this work should also identify how the impact of any change will affect different socio-economic and road user groups.**

### Possible considerations

National road pricing can be seen as a holy grail or poisoned chalice. The same could be said of confronting the true costs of aviation or the supersizing of road vehicles. Fuel duty is an existing lever that has seen little use in recent years in the UK. At a local level, multiple levers can and are being used to address pricing of transport. Meanwhile, nationally and internationally, carbon pricing is being applied. There is a need for a comprehensive exercise that draws upon work in the 1990s by the European Commission on internalising the external costs of transport.<sup>55</sup> This should consider the merits of different fiscal measures and how they could or should be used to (further) shape rather than dictate behaviours by better reflecting the costs on society. Allocating responsibility for catalysing and taking forward this recommendation will be key to avoid it remaining unaddressed. Recent work by the Greener Transport Council<sup>56</sup> pointed to the extent of adverse consequences that may arise from not changing how we pay for driving. While the Parliamentary Transport Committee in 2021/22 held an inquiry into road pricing,<sup>57</sup> this was motivated by considering road pricing as a viable solution to replacing loss of revenue from fuel and vehicle duty taxes with the transition to electric vehicles. Moving forward this recommendation could be well served by a new Transport Committee inquiry focused on addressing transport's true costs to society.

Avoiding the drag  
on climate action  
of unchecked  
negative  
externalities

# Closing remarks

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- Other major issues in the news and summer sunshine may draw attention away, but the need for ongoing climate action is nothing short of existential.
- The CIHT CLIMATES report uniquely reflects what hundreds of highways and transportation professionals have to say on the matter.
- It provides clear-headed coverage of a multi-faceted ‘wicked’ problem and what needs to be done.
- The set of seven recommendations for doubling down on climate action must all be acted upon – the whole will be greater than the sum of the parts in the contribution this can make to system change.
- Included in the recommendations is the need for positive storytelling that reminds us that the changes taking place to address climate change can benefit not only our children and grandchildren in the future but offer good news for us all in the present as well.
- Now is the time for everyone to be changemakers!”



“

these have been some of the most honest workshops I have been in during my career; those participating were encouraged to be open and candid about their personal and professional views – views which I found to be freely expressed, sobering, refreshing, and inspiring

”

Neil Johnstone, Past President, CIHT



Thank you



# Which of the following do you most agree with in terms of climate action in highways and transportation:

