



Environment and Climate Change Committee

Corrected oral evidence: Mobilising action on climate change and environment: Behaviour change

Wednesday 16 March 2022

10 am

[Watch the meeting](#)

Members present: Baroness Parminter (The Chair); Baroness Boycott; Lord Browne of Ladyton; Lord Colgrain; Lord Grantchester; Lord Lilley; Lord Lucas; Baroness Northover; The Lord Bishop of Oxford; The Duke of Wellington.

Evidence Session No. 10

Heard in Public

Questions 85 - 97

Witnesses

I: Professor Jillian Anable, Institute for Transport Studies, University of Leeds; Chris Boardman, Interim National Cycling and Walking Commissioner, Active Travel England; Stephen Edwards, Interim CEO, Living Streets.

Examination of witnesses

Professor Jillian Anable, Chris Boardman and Stephen Edwards.

Q85 **The Chair:** Good morning and welcome to our meeting of the Select Committee on Environment and Climate Change. Today we will look in our inquiry on behaviour change for climate and environmental goals at the specific issue of transport, where we know we have to crack some big issues to deliver the change that is needed.

We are delighted that we have three witnesses, one in the room and two by Zoom. In the room with us we have Stephen Edwards from Living Streets, where he is the interim CEO. Good morning. On Zoom we have Professor Jill Anable from the University of Leeds, and the Institute for Transport Studies. We have Chris Boardman from Active Travel England, where he is the interim national cycling and walking commissioner. Welcome to all three of you. We have about an hour and a half and a number of questions that we would like to put to you this morning.

In each of your views, what are the most important travel behaviours that need to be tackled and what drives those travel choices? If you want to say a few words about the benefits of changing transport modes in terms of the wider benefits of green travel, please do.

Professor Jillian Anable: Thanks very much and good morning, everyone. I am pleased to be here. I am pleased that you have framed the first question in the way that you have. One of the concerns I have with an inquiry on behaviour change in travel is that we think quite narrowly about behaviours. We often think about behaviour change in terms of modal shift from the car to alternatives to the car.

Of course, that is absolutely essential. We know in the context of net zero that we cannot achieve our targets and particularly in the short term without doing that substantially, achieving at least a 20% reduction in car miles. Modal shift is absolutely a key part of this, and I am sure we will talk about it a lot, but I want to take the opportunity to mention a couple of other things.

First and foremost, part of reducing mileage is reducing the distances that people travel. Again, often when we talk about that, we are thinking about long-term land-use planning measures to allow people to live closer to where they work, but destination shifting in the short term is as important as modal shifting. That means ways and means of encouraging people to use their local areas more. We have seen this happen during Covid, but it can be locked in. It can be encouraged by thinking much more about short-term planning of putting services back into local areas and reducing some of the average distance lengths for some of the trips that are undertaken. There is a whole suite of policies and measures around destination shifting.

The other area I am not sure of is a central focus of your remit of this inquiry, but I will mention it and you can follow up on it. We often think

about the route to net zero in terms of the technological shift towards electrification, which is important and essential, and this reduction in the motorised travel component, which is also essential.

We are not talking about—we have taken our eye off the ball—how, in addition to switching to electrification, we can get much further, much more quickly by reducing the size of cars that people own in the short term, because the uptake in large vehicles and petrol and diesel vehicles in the next few years will negate the uptake in electric vehicles.

We are also not talking about reducing car ownership and the total number of cars on the road. The forecasts for the increase in the size of the car fleet, as in the number of vehicles, combined with their size and the weight of those vehicles, puts such an enormous strain on the electricity grid even if they are all electric that it would take us longer to get to a renewable electricity system to fuel those cars. This is all part of the mix.

Those behaviour changes, which are about how many cars are owned and how they are owned even, and the type and size of cars, is also important as part of the behaviour change strategy for travel and climate change.

Stephen Edwards: I agree with the points Jill made. The big issue we need to address here is private car use, the increasing distances we have been travelling in private cars and the fact that, as Jill said, our cars have been getting bigger and heavier. The distances we have been driving have been increasing as well.

The figure that we are looking at is a reduction of between 10% and 20% in private car mileage even with a move to electric vehicles, which is a key point and re-emphasises some of the things Jill said. The move to EVs will not be sufficient to get us to net zero. We need to at the same time look at that absolute shift away from car use. Electric vehicles, while being an important part of the answer, still cause air pollution from particulate matter and still add to the congestion on our roads.

Living Streets is the charity for everyday walking. As you would expect, we are looking for a shift towards more walking and towards more active travel, especially for our shorter journeys. If I think about the journey types we are looking at, Jill's point on having the places we visit close to us is an important one. A lot of the work we do at Living Streets is with schools, for example. Looking at that walk to school and ensuring that more people walk to school can have a massive impact especially when you think that one in four cars in the morning peak is on the school run.

The second point is around the wider transport mix outside of active travel. An important point there is the integration between walking and public transport, particularly bus use. There are significant opportunities to increase bus patronage. While the Government should be applauded for investing in active travel, that needs to sit alongside a significant

investment in bus use as well. One double-decker bus can take 75 cars off the road and lead to a significant carbon saving at the same time.

Chair, the other point you mentioned was around the wider benefits of that shift to sustainable travel. The main points we emphasise are around air pollution and climate change, but we should not forget the significant health benefits of moving towards walking and cycling in particular. Not only are we experiencing a climate crisis in the country at the moment, but we also have a public health crisis with increasing numbers of obese children in our schools. We are also experiencing a retail and economic crisis. Evidence from Living Streets' *The Pedestrian Pound* study is that a move towards better places for walking will increase the number of trips people make to local shops. There are multiple benefits of shifting to walking and cycling, to wider active travel and to sustainable transport in the longer term.

Chris Boardman: As ever, my colleagues have stated the case clearly. I might be able to add a couple of details that would be useful for the record.

Road transport contributes about a quarter of all carbon dioxide emissions at 115 million tonnes a year. I state that and a couple of other facts momentarily because I always start with "Why change?". Change is hard and painful, so we need to be clear whether it is essential or if we can manage as we are now? Clearly, that is a huge amount of carbon dioxide. The provisional work that I have seen is robust and basically says that we have to drive less, a lot less, about 30%. That includes electrification of our car fleet, which is essential but on its own will not get there.

I am a big fan of, rather than telling people what they cannot do and taking things away, giving people alternatives, a lot of which have been mentioned. Active travel is a huge part of that. Also, as has been mentioned, there are huge spin-off benefits. It does not just help with climate change, but the health benefits are enormous. It is sustainable. It is robust. As we were talking about before we started this session, there is not a crisis that more active travel does not help with. In fact, the Government's own figures show that that investment pays back at a ratio of six to one.

Turning back to emissions, consider that nearly 7% of traffic every day is the school run. Where I work, in Greater Manchester, 250 million car journeys every year are less than a kilometre. That is indicative of the rest of the country, give or take 1% here or there, every day. It shows the potential. It is embarrassing but the potential for change is huge. We do not have to do an awful lot to give people easier options for change.

That is key here. All in this room probably know the benefits and the reasons for change. But human beings will do the easiest thing. We are built that way. Easier might be cheaper and it might be more reliable. It might be quicker. There have to be benefits for the individual. Our focus should lie in creating easy alternatives.

Public transport integration is absolutely huge but, if you want people to stay local and reduce the length of journeys, making the environment to do so and making moving around under your own steam attractive is a huge part of that.

Q86 **Baroness Boycott:** This is a reasonably quick question. You gave that statistic about how 250 million journeys are less than a kilometre, which I agree is shameful. Will there be a cultural swing or does that need much more infrastructure change? How do you bring that about? So many journeys are so small that none of us should take them anyway.

Chris Boardman: It might sound a little bit glib, but it should not take bravery to cross the street or ride to school. While it does, we will jump in the car. The key word—an engineer used it last week and I latched on to it—is that we need to create an “enticing” alternative that you see out of the car window and think, “I quite fancy that.” What would enable you to let the kids walk to school? It might be crossings at every side street, which we are looking into clearly now. It is the environment. About 80% of people say that they would like to travel actively more, but they do not feel safe. The environment is everything. We need to slowly start to shift that.

We cannot afford not to. To come back to Greater Manchester, it is a great example as a significant regional conurbation. It costs £3.75 billion a year to travel as they do now, once you look at all the different things like collisions and health and roll it all together. We cannot afford not to. It makes economic sense as well as sense for tackling climate change.

But the environment is the base. That is the core of it. We need to create safe spaces. The car is a wonderful thing. It has utility, ease and it is comfortable in all weather. We have overused it, but now we need to invest in creating an alternative. I am delighted to say that we are actually on track to do that.

Stephen Edwards: To back up Chris’s point, a lot of the research we have done shows that parents are put off walking their children to school by quite simple things in the environment: lack of decent pedestrian crossings, fear of cars moving at too high speeds in their local streets, fear of too much traffic outside the school gates and cars parked on the pavement. These are all quite simple things in many ways, and it is within the gift of government at a local and central level to solve quite straightforwardly.

Q87 **Lord Lilley:** We are interested in the environmental and particularly the climate change impact of car use. All three of you said electrification alone will not achieve net zero. Surely it will. It will not achieve it as fast as if we give up using petrol cars beforehand but, once we are all electric, it is done, is it not?

Stephen Edwards: There are wider factors—

Lord Lilley: Yes, but what about the environmental and carbon emissions point of view?

Stephen Edwards: We need to look at where the electricity comes from to fuel those cars in the first place. Our electricity mix at the moment is not entirely renewable. We need to think about that.

We also need to think, as I said before, about the wider air pollution impacts of electric vehicles. Particulate matter from tyres and brakes also contributes to air pollution.

Q88 **Lord Lilley:** I take that point. I gave up cycling because I hated the fumes coming out of the cars in front of me. If they stopped driving those cars I would resume cycling, but that is a different issue from what we are considering.

As a general point, you said you want to reduce car use at present by 20%, as against a projected increase. When you give recommendations of things we should do, could you quantify how much they will contribute to that 20% reduction? Do you have a game plan that achieves that 20% reduction?

Professor Jillian Anable: Thanks very much for that. First, I want to comment on the 20%. It is an absolute reduction from today's level, so it is not against an increasing baseline. That is the minimum that a whole variety of models, done in a variety of different ways, at different geographical scales across the country, have come up against. As much as a 50% reduction is found in some models at some geographical scales.

This is about net zero. The net-zero target is about a pathway; it is not about reaching a target in 2050. Electrification will not get us to net zero because it simply cannot physically happen quickly enough to transition the fleet to reach the interim targets that we need to reach economy-wide—a 67% reduction by 2035—and the transport sector, we know, is still on zero. It has it all to do in the next 15 years and that cannot be done by electrification. Cars and vans are our best bet. They have to compensate for the fact that heavy-goods vehicles cannot do as much as quickly.

This is about what we need to do in the next 10 to 15 years. When those models have been undertaken, not all but many have had to pull every single lever, using the best evidence of where something has taken place and has been successful globally, and we have seen a level of modal switch and assumed that we can do it here. If it has happened in a western developed economy somewhere and we did it here, we can achieve that. Only on that basis are we pulling those levers as hard as we can.

The other point about the 20% is that it is an average across the country. Some places will have to do way more than 20% because some locations will find that much more difficult. Every time we talk about a policy, we can find somewhere in a world where it has happened, but nowhere has achieved this level of reduction at scale and at the speed we are talking about. We are talking about radical change in the way that we make policy.

If I put any counterarguments, they are not “buts” but are “ands”; we need that and we need what I am about to say. For all the talk about the short journeys that we have had, we have to recognise two things.

First, even though two-thirds of the trips that are made by car are less than five miles and that gives potential, those trips make up less than a fifth or 20% of distance and therefore of carbon emissions from car journeys. Just the top 3% of trips are responsible for a third of all the miles that we do. The longer-distance trips disproportionately impact us here. In particular, those medium trips of between five and 35 miles eat up the vast majority of car travel. We do not target those. They are mainly leisure and personal business, not commutes. They are difficult to target by active travel and are often difficult to target even by public transport. We have to start to talk about those, as well as the short trips.

Secondly, if you want to know about the drivers of behaviour, individuals do not plan their days so much on the basis of discrete trips. When someone makes a journey, say, to drop the kids off at school or to work in the morning, that individual trip might be less than a mile or five miles but later on, after work, they are going to the gym and shopping and doing a caring journey. The whole sequence of events over a day and being able to fit in all the things that people need to do generate the decisions that people make.

We have to stop focusing on these short individual trips because they are not as important to the carbon agenda as the time we spend talking about them. They are also not necessarily a helpful way to think about how people make their decisions.

Lord Lilley: That is helpful. All I ask is, in future when you give us a proposal, be it to deal with long-distance trips or short-distance trips, could you quantify how much you expect that proposal to reduce carbon emissions?

The Chair: Chris wants to come in quickly and I have three colleagues who want to come in on this. I have Lord Browne, the Duke of Wellington and Lord Colgrain. Chris, if you could be brief, it would be appreciated.

Chris Boardman: Thank you. That was fascinating. I am not sure I entirely agree. I have two points and I will give some statistics and numbers as well, which I hope will be helpful.

While we focus on short trips, a wider impact of shorter trips is encouraging people to stay local. We need to be sure that we count the impact. People who stay local and who are comfortable staying more local are less likely to make the longer trips that cause the wider damage.

There is also a real danger of focusing on the single biggest issue that faces us as a species—it is not hyperbole to say that—but it is not the only crisis that we face. If you can take action that tackles more than one, it is beneficial.

To go to those short trips for a moment, active travel represents about 42% of all short distances around towns and cities pre-Covid. Active Travel England's goal is, by 2030, to get that to 50%. That means that every individual would have to go from about 280 trips a year to 330, which would mean 300 million miles of reduced car and taxi use, which is not insignificant.

The side benefit, which is not directly for this committee, is 40,000 lost life years that could be saved. The impact on things like the NHS, which is absolutely at its limit now, is enormous. We need to be careful to address these issues, absolutely, and carbon is the single biggest one that we face, but measures can have wider and greater benefits than the single cause.

Q89 Lord Browne of Ladyton: I want to approach this proper observation that it should not take bravery to cross the road. From the point of view of behaviour change, personal experiences are a dangerous basis for policy, but I will share a couple with you because they are pretty general.

To come here today, four of us crossed Millbank, which is a road that some of you may know in London. It runs in front of this building and along the river. We crossed on a zebra crossing and all our body language revealed that we were wary crossing there because it is a competitive environment. Drivers, cyclists and pedestrians all vie with each other to see who the chicken is crossing the road. It is a competitive environment and if you do not assert yourself, quite often people can ignore you.

How do we get people to change their behaviours on the road in a way that is respectful for the other users? What experience do any of you have in that? It is important.

Secondly, I now live on an A-road in Scotland that runs through a small coastal village. Probably about 2,000 people live in it and they want access to cross the road because it gives access to a 100-mile coastal path that extends 30 miles one way and 70 the other, but people are terrified of it. I attended a public meeting where the relevant authorities came and were utterly disrespectful of the desire of these people to cross this road safely and were passing the buck among themselves and waiting for all sorts of reviews. On this road are 10,000 journeys a day, apparently, by vehicles of all sorts and all they want is a safe place to cross. For five years they have been trying to get a safe place to cross this road.

How do you change these behaviours? How do we get these environments in which the bureaucracy or the behaviour of people does not mean that it takes bravery to cross the road?

Finally, why is it that, contrary to everything everybody knows, we are increasingly buying bigger cars? Is the industry to blame for this or is it our desire to have bigger cars because we feel safer in them? I suspect it is a combination of both, but how do we change these behaviours? If we do not change these behaviours, we will not have any effect at all. Do any of you have any experience in any of that?

Professor Jillian Anable: I will come in on the SUV, point because I suspect the others have other things to say on the safety of the road. I will come in on the SUV point because it tells us a lot about how to change behaviour. The question was: why do people buy these cars? There is a lot in this agenda, generally speaking, of finger-wagging and telling the consumer off because they have not behaved the way we think they should. That is entirely counterproductive across all behaviour change agendas. This illustrates it well.

SUVs have been most profitable for motor manufacturers. Those higher-end cars have been at the most profitable end of the market. That is where motor manufacturers have spent their marketing money. When consumers go into a showroom, the finance deals are set to be more beneficial for those cars than for other cars. The advertising and social norm is for luxury. Manufacturers have made those cars and have gadgeted them up to make them highly desirable. They have changed tastes so that, as people go for lower-carbon cars or electric cars, they also want larger cars. It entirely feeds off and perpetuates itself, so that the demand is stoked up by the financial mechanisms and the supply mechanisms. That then creates a narrative of, "I need a larger car because everybody else has a larger car and I will be safer in a larger car." That in turn means that pedestrians and cyclists feel even less safe and now they want more cars. Which cars do they want? They want larger cars.

Behaviour change is not rocket science. The large car phenomenon is a complete failure of regulation. We are not talking about conventional behavioural policy, unless you include regulation as part of behaviour change policy, which I argue it is. All policy is behaviour change policy. It is a regulatory failure, full stop. We cannot do this through softly-softly types of consumer encouragement.

Chris Boardman: I have been studying this for a couple of decades, because it is a massive social behaviour exercise more than anything else. If we asked anybody about the destination and we stood them on a street—an obvious one is Copenhagen—and asked which they preferred, outside the Houses of Parliament with the busy road there or somewhere with pedestrians prioritised, people on bikes and a different balance, we would get a majority saying, "Yes, this is pretty good." The journey is the problem as opposed to the destination.

There are two points to that. The first is prioritisation. Which modes will we prioritise and where? In towns and cities, we can start to drop the speeds—and I will come back to dropping speeds in a moment—and start to make space for the modes that we want the most of and for public transport to have priority, so it becomes more consistent in terms of journey times and reliability.

The second is consequences. I will go back to my earlier point, which might have sounded slightly flippant when I said that we will do the easiest thing, but we will. We are designed that way. You can see beautiful pavements around our towns and cities, and you can see a

muddy path cutting a corner to save a single metre. That is what we do. If we recognise and embrace that, we can start to take the right action.

There are consequences and prioritisation. If there are no consequences for me for driving a little bit over the speed limit or for driving close to another human being when passing them—it is criminal that we allow such a scant disregard for human life—or parking on pavements and so on, we will do them, and they will become normal.

I mentioned time a moment ago. We now drive 20 billion more miles around homes than we did a decade ago with no outcry and no demand for this outrage to be reversed. But that is quite exciting because look how much change we have had in 10 years. We can do that the other way: we can start to do the hard things that we see to change our travel habits, to decarbonise and to live more locally, and we can do that over 10 years, which is quite small in transport terms. It does not mean doing it in 10 years. It means in year 1, we do something significant; in year 2, we do something significant. Use time properly, proportionately and seriously to start to take steps to make the changes politically palatable and publicly and financially palatable. It is doable. All the issues that have been mentioned are blockers to behaviour change.

Outside, I know Millbank well. I spend at least two days a week walking along there and I know what it is like. We can reduce the speeds there, prioritise the timings on crossings and make more crossings in the next one to three years. That is the way to start to get behaviour change, along with consequences for what we do not want—the occupation of space by large vehicles, for example. We might want to consider making that less acceptable or charging people and using that money to reverse some of the damage they cause.

Stephen Edwards: The Government have introduced some important changes to the *Highway Code* recently, which puts the idea of a hierarchy of responsibility at its heart. The most vulnerable road users, pedestrians, should be at the top of that hierarchy followed by cyclists and motorists. That needs to sit alongside some of the important measures that Chris talked about looking at speed, safety, space and consequences. All this package needs to sit and work together properly.

Q90 **The Duke of Wellington:** I find this a most interesting discussion, but we seem to ignore that a small part of the population lives in country areas, not even in a village, town or city. They live out in the countryside. For children to get to school, they have to be collected by a taxi on a school run. For somebody to go shopping, they have to use a car. There is no alternative.

We receive this interesting advice about behaviour change, but I wonder if our panellists could address this small section of the population, who has no alternative but the use of a form of private car, motorcycle or some such vehicle literally to live their daily life. Most of these interesting pieces of work concentrate on people who live in towns and cities. There is another part of the population.

Professor Jillian Anable: It is an important issue. First, we cannot let the fact that some parts of the population and places cannot do the stuff mean that we do not do it at all. I am sure that that is not what you are inferring, but I want to make that point.

Secondly, wherever we talk about, there are changes in behaviour needed if we take a broad view of the behaviours we target. The idea of what size car people own, and the power train is applicable everywhere. The ability for people to share trips and journeys is applicable everywhere.

In our study we tracked behaviour from the beginning of pandemic. The same people were followed throughout and we started with almost 10,000 people across the country. We are going out into the field for our fourth wave. We have seen a reduction in car ownership, as is reflected in car sales figures of new and second cars. The biggest shift that has happened is from two-car to one-car households. That, again, can happen in a variety of locations and can have a big effect. Once a car is owned, it is used. Once a second car is owned, again, it is developing or locking in a certain amount of car dependence.

I will say two other things. One goes back to the point about destination shifting and putting services back into places where they have been stripped out. This is a transport policy, even though we do not talk about it as such, and it could be a near-term policy.

The other thing I will mention, which will sound a bit left-field, is e-bikes. I have a bee in my bonnet about them. Again, going back to the discussion earlier when I was trying to paint a picture of the distribution of journey lengths by car, e-bikes can hit the types of trip that conventional bikes and some other forms of transport cannot. Your question was maybe thinking about deep rural areas, but the studies we have done took data about car trips as they are done now, the health of the population, the demographics, the characteristics of the drivers and some of the characteristics of the trips in terms of the cargo being carried. We ran that through our modelling and e-bikes have huge potential in semi-rural areas and market town areas, which currently do the highest miles per capita. The highest car mileage is in those types of places, not the deep rural areas, because they do long-distance trips infrequently. The market towns do medium-distance trips all the time. In those locations, e-bikes could revolutionise travel.

Doing that also requires infrastructure and, when we talk about cycling infrastructure, again, we often talk about central urban areas, patching up the network here and there. We need a radical shift in the way we talk about cycling networks to think about long-distance cycling networks, putting cycle paths alongside trunk routes.

In countries like Denmark and the Netherlands, where you might think they have squeezed out all the cycling among the population that they can, e-bikes are seeing an abstraction from car use for these medium-length journeys. They have efforts now and infrastructure plans for

medium-length and long-distance cycle networks between market towns and between outer towns and urban areas. That is seeing a shift in a short amount of time.

There is a whole range of things, and we need to get off the idea of modal shift. You are right: we probably have to give up on conventional, fixed-route public transport and bus services into rural areas, frankly, and think about these other solutions.

Q91 **Lord Colgrain:** Chris, I am going to ask this question of you, because I am fascinated by the information you have from Manchester. I am moving away from cars and back to cycling.

With deference to the bishop sitting on my right, the Jesuits say, "Give us a child to the age of four and we will have them for life." We need to get to young people as early as possible to engage in this debate. As a committee, we hear evidence that young people are alert to everything to do with climate change. In your analysis, have you seen that your work gets young people to think harder about this? These, after all, are people who are so young that they will not be buying cars, so we want to get them on bikes now and keep them on bikes. How does that square with what we also hear, which is that children have high levels of obesity? How can we get obese children on to bikes taking the necessary exercise that we know is so good for them and for society as a whole?

Chris Boardman: There are several points there. I have quite a few children, so I had my own straw poll. The majority of them do not want to drive a car because it is expensive. Only one, my eldest daughter, owns a car. The other children do not because it is £2,000 to £3,000. The coming generations do not necessarily have the same rights of passage as I and probably most of the people in this room did, when we got our first old car and that was our freedom. It is different now; it seems a burden a lot of the time, so they want alternatives.

Going down lower and talking to the previous point, I believe nine out of 10 primary school children live within a 15-minute walk of school, but often they do not walk for all the reasons that we have heard: it is difficult, it is not safe, so they pop them in the car. We have a huge latent demand here and the option to do something.

Schools are an excellent place to start. Across the country I meet regularly with my fellow commissioners—in the UK, in fact, not just England, but Scotland and Wales—and we have found uniformly that action around schools, school streets in particular, and closing those streets and often the surrounding streets off at drop-off and pick-up times gets high support and creates little noise, because everybody relates to children and schools and they will bend to accommodate this. Several areas, notably London, which is the forerunner for a lot of this stuff and is very much at the vanguard in our country, have gone on to make those closures permanent or make those streets open to everybody but cars. That is a key language point that we might double back to later

in discussing how we do these things. We are not taking something away; we are providing it. We are providing choice and opportunities.

Active Travel England intends to focus on schools. They tend to be at the centre of communities and focal points. People do not want lots of cars and pollution around their children, so this becomes a catalyst for action. This is a point well made.

Q92 **Baroness Northover:** To set this in context, our inquiry is looking at behaviour change generally, and it has come through that there is public awareness that we will need to do that in transport. We are particularly interested in how you seek behaviour change in this area and are, therefore, looking at some levers. You have been addressing that in your answers to the first question but, if I can probe further, in your experience, who brings awareness of green travel alternatives to the public? How do they do so and to what extent can this influence behaviour change?

Professor Jillian Anable: I have thought about answering this question. It is an incredibly complex question because the information environment that people are exposed to and drawing on to make their decisions is from a variety of different places. One of the biggest issues that we have is the inconsistency of the signals and messages that people get. On the one hand, green groups and some employers implore and do a good job in trying to get employees to be healthier, because they know it benefits them in terms of less absenteeism. They put in place incentives, messages and competitions. We have national campaigns that tend to focus on doing your bit.

Among all that, we then have signals in the environment; when you walk outside your front door, nothing has actually changed. Everything is largely permitted and the biggest row going on is whether the local council will expand the airport or build a bypass. Quite a lot of discussion now is around this well-documented fact that these conflicting signals cause cognitive dissonance and discourses of delay among people. While we see concern in general terms about environmental impacts going up, we see the belief that individuals can make a difference going down. The efficacy belief is the idea that if I do it, even though I know it is a concern and a crisis and I do have some responsibility, it will not make any difference, so why should I?

Awareness campaigns can tell people what the problem is, tell people what some of the solutions are and try to implore some sense of personal responsibility on people. But if that final thing is not there, which is that people believe that everybody will be treated fairly, everybody will have to do their bit and no one will be able to get away with it, all the first three can be right and still not actually make a difference.

I encourage some attention to the consistency, the messaging and how we build conversations, which by the way we have seen happen in the last couple of years in deliberative forums. Whether it is the national climate assembly or local climate assemblies, you can deliberate with the

public and put a whole suite of solutions on the table and allow them to express their frustrations in terms of, "What about them over there?" You can get a good conversation going about, first, this frustration and why they feel not inclined to act and, secondly, how they see quite constraining policies being much fairer given that they want to see that everybody has to do their bit. You get to a point where you can have some constructive conversations about some policies that are often taboo, things like frequent-flyer levies, road pricing or road closures, which affect everybody. You can start to have that conversation.

The information environment at the moment is dangerous because it creates this dissonance, frustration and lack of trust. It is difficult to coordinate and some conversation has to come in over the top of it to say, "This is what we are doing."

I will say a couple of things to reflect on what happened in the information environment during Covid. We had scientists flanking policymakers and policymakers referring to the science to justify what they did. We had clear messages and restrictions that applied to everybody. That is not to say everybody followed them but, nevertheless, the ethos was that it does not matter who you are; they are meant to apply. We have to replicate that kind of thing to get the sorts of changes that we are talking about.

Chris Boardman: This has preoccupied me for a long time. I mentioned earlier that I thought we would double back to this because this is everything. It is both in our systems and on the media. I thought it was a brilliant question, actually. What is embedded in our soap operas and in our evening programmes that people watch? What is perceived as being desirable and what is not? Do you see a main character jumping on a bus? Never—that is the kind of influence to making things desirable. The things that we do not want people to do, or that we need to do less of, need to be more desirable. That is key.

That is wider and harder to influence but it is exactly where all the major players are, particularly the car industry, which I hasten to add is not wrong. It has identified what changes behaviour and there are the lessons for us. The data and everything are the foundations we need. We are here to discuss that. Nobody buys a house because it has great foundations. We do not talk about the foundations. We look at what we get, what it will give us and how it will make us feel. That is the focus.

In terms of what we can control, language is incredibly important. Using the pandemic over the last two years as an example, when we created space for people to travel without cars, which we did, we were legally obliged to put up signs that said, "Road closed". We had to do that. We could not say, "This road is reserved", or "This road is protected space for people." We had to put, "Road closed". Our system tells people that we are taking something away from them and we need to change that massively.

We worked on it hard in Greater Manchester for the emergency measures. We identified from asking key workers that 30% of households in Greater Manchester do not have access to a car. A lot of those people worked in hospitals and had important jobs that they could not do from home. They needed to travel at the same time as we were saying, "Do not get on a bus." All our temporary lanes had on them, "Thank you. This is space for key workers for travel in safely." We completely changed the message. When somebody was in a single lane of traffic when they normally had two lanes, the sign said, "Thank you. This space is for key workers who do not have a car." That kind of messaging is so important, and we need to embed it in our systems.

We have started already. We have stopped referring to incidents on the road as "accidents". They are not accidents. They are crashes and they are incidents, not accidents. All our language is important. A lot of it is within our gift. We can get to and educate people who report on everything they see on our roads and quite quickly change the kind of language that they use. That is the job of people like me.

Stephen Edwards: Chris's point about language and how it flows through the media debate and everything else we see is incredibly important. We worked with local authorities to introduce, instead of the "road closed" signs we saw during the pandemic, signs saying "road open to pedestrians and cyclists", which sends a different and positive message about the use of that space.

I would add two additional points to the points that colleagues have already made. We have already discussed the important role of the Government as an enabler. When I think about the barriers that we see to walking in the work that we undertake—whether it is speed or wheelchair users blocked from walking by cars parked on the pavement—the Government have an absolute role to play in removing those barriers and enabling green travel as a result.

A lot of this change happens at a community level as well. Consulting communities and engaging with communities properly and positively is absolutely important to delivering these kinds of changes and delivering behaviour change in the longer term.

Q93 **Lord Grantchester:** Could I come in to help to put, for me anyway, in context the pace of change regarding bikes? Could you give quick statistics around the ownership of bikes and your views of more cities having bike schemes? I do not know, Chris, whether a bike scheme in Manchester is proposed or where you are with it. I have not seen one in Liverpool.

Chris Boardman: One has been introduced in the last few months in Manchester. Andy Burnham pushed hard for it. I was not quite sure. I wanted them to make the safer space first and then give people the tools to use it. A secondary benefit to providing hire bikes for people is that it creates an audience and more pressure to create the safe space. It is

quite useful as a catalyst to behaviour change. It is doing extremely well in its first few months, I am happy to say.

It is part of the wider system that is required and links into all this. Active travel is the foundation of any sustainable transport system because, after the first step outside the front door, if there is not an easy cycle route or a hire bike within a couple of hundred metres that is nice and cheap to get me to the train station or it is not an easy walk, the first few steps will just take me to the car. We need active travel as part of any sustainable solution because, if we do not, we will just jump in the car.

It is important as an ingredient, but I am conscious that we need to be careful to stay focused on the core, which is safe space. That is steady and relentless—

The Chair: You have frozen, Chris.

Chris Boardman: —choice to leave the car at home or, as Jillian said, to go from three cars or two cars to one-car families, which I have done and it works. That is probably our biggest way and, again, it is politically palatable. Do not tell people they have to stop driving cars; give them a way to have fewer cars and drive less often and we will get where we need to be in an effective way.

The Lord Bishop of Oxford: This will be brief. I want to go back to Jillian's point about the dissonance you identified with concern going up and belief that "I can make a difference" coming down. Could you let us have some evidence for that? I am not saying there is not any, but it would be helpful to access it. It seems to be a critical point across a number of different issues that we are dealing with.

The Chair: That is a yes and she can send it to us. That is excellent; thank you for that.

Q94 **Baroness Boycott:** This is quite a long question about the barriers to green travel choices including how we avoid flights, choose electric vehicles and use public or active travel modes. Also, I was interested when Jillian said that the whole large-car phenomenon is a regulation failure. I would love for someone to pick that up a bit more.

There are three big things. To what extent is cost a barrier to greener travel choices even when it is cheaper? What are the infrastructure barriers to green travel, and do they vary among different groups? The point was made by the Duke of Wellington about people in rural areas. Where I live in Somerset, the bus comes only three times a day, so it is extraordinarily difficult to make it part of your work life or indeed your education life. To what extent are the social norms and expectations barriers to green travel? Are they choices or can we legislate for them?

Stephen Edwards: On the barriers to green choices, as I said before, we have done a lot of research on what stops people from walking their everyday journeys around our streets. The same factors come up again from parents and others that we talk to. Fear of speeding vehicles and

concerns about air pollution come up a lot, and concerns about the poor quality of the pavement and the impact of vehicles parked on the pavement and the like. Many of these are particular barriers for children, but there are some significant barriers for older adults as well. The research we have conducted shows that many older adults feel unable to leave their homes because of concerns about the quality of the pavement or something as simple as the lack of a bench on the street.

The other point is about the importance of fairness and inclusion in introducing the changes we have spoken about. Disabled and visually impaired people experience our streets very differently from the way we do, and we need to ensure that we do not exclude people when we are introducing changes. It may be that we need to ensure that vehicle use is allowed in certain spaces at certain times and, when we are consulting on changes in communities, we need to be brave enough to look at that and involve the whole community in discussing them properly.

Baroness Boycott: What about the cost of it to, say, the local council? On your point about a bench where someone could have a rest, these things all cost. That could be thousands of benches around the country.

Stephen Edwards: They do cost but, if you look at the kind of investment that it would take in measures to increase walking and cycling, it is a fraction of the cost of introducing new roads and new roads infrastructure. The relative cost is far less in the grand scheme of things. If you also look at the savings it would yield in the cost to the NHS of inactivity and air pollution, these are big figures and big savings that the Government could make if we think long term about how these changes could impact positively on our streets.

Chris Boardman: I will be very specific on this one and give you an example that people who know me will tell you I have been on for two years now. I am very keen to utilise side-road zebras as a tool in our arsenal, which perhaps seems very specific. I started from the position—and I will explain to you what they are in a moment—of a parent who runs their kids to school, even though it is a short distance: what would make that parent feel comfortable enough to let their kids walk? Imagine if there was a side-road zebra going across the mouth of a side road, which is the normal desire line, on the quieter roads all the way from home to school, would you let your kids walk to school now? “Okay, but just make sure you wait until the cars stop.” That is a subtle but huge difference that we could make very quickly. That is a tool, but zebra markings are not allowed to be used that way in the UK. They are in most other places in the world, certainly in Europe. Most private land in the UK, every supermarket you go into, there are no zig-zags, no Belisha beacons, just your normal stripes.

We conducted a £250,000, two-year study in Greater Manchester using the Transport Research Laboratory, the most trusted agency in the country, to look at the impact of this. We finished with on-street trials; we did off-road, on-road, everything that we needed to do. It showed a 65% increase in drivers giving way. It is in line with the new *Highway*

Code rules that were mentioned earlier and there was no increase in incidents between cars and pedestrians. It is about £30,000 to £40,000 per junction to do a raised pavement. These cost in the region of £500 and we could do an entire estate in a week.

That is a very practical tool that we are actively exploring—in fact, I am discussing it at the Department for Transport this afternoon—and we could do it quickly. I suggest that could change local transport habits quite dramatically when over 80% of parents said that they would be more likely to let their children walk to school if there was a crossing at side roads. That is the kind of intervention that we need to make to think what are the roads that we want and how we prioritise them. We have had a change in the *Highway Code*: what supports that and would genuinely make me feel able to walk, if I was a bit frail or with my kids or disabled? What would make me feel more able to leave the car at home? We have practical things to support the very welcome changes that we have seen in legislation in the last few weeks that I think we can get on and do.

Professor Jillian Anable: The biggest barrier to people not making the choices that we would ideally like them make is the lack of choice. The biggest barrier to choice is the lack of choice—right? It is about the choice environment and when I say that I am not harking back to nudge theory that talks about subliminal signals in the environment to subtly get people to make choices. I am talking about big visible things that are available to people and mean that the default behaviour is a natural thing to do. At the moment, the lower-carbon choices are actually the least convenient, the least available and the most costly, and we clearly have to reverse that.

We talk about price signals being a barrier. Of course price and cost play a role. I expect we will see that in the next weeks and months, but it is so complicated. If we take public transport, the price signals have been all wrong. The cost of bus and train fares has gone up many more times than the cost of motoring over the last decade, but the price of public transport—let us talk buses here—is not the main thing that puts people off using the bus. The main thing that puts people off using the bus is that the services are not adequate for them.

Also, when we come to price, it is not just the absolute cost or the comparative cost between one mode and another. It is the way in which those prices are signalled to people and how visible they are. We know with the car that there is a sunk cost. There is not a pay-as-you-go mentality and it is easy not to calculate the full cost of any given journey. As a slight tangent, when we talk about the move to larger vehicles, if price mattered people would not be driving the larger cars, because it is clearly more expensive to drive those cars. We know that these things are really complex.

The other real complexity about this, from the point of view of trying to get the magnitude of behaviour change that we are talking about, is the inequality that exists right now in our transport system. When we are

talking, if we get on to talking about changing these price signals, we often get caught up in, "It is not going to be fair; it is going to hit the poorest the hardest", but the poorest are hit the hardest now. We are not talking about making the transport system unfair. It is unfair now, because the wealthiest 10% of the population are responsible for a quarter of all the miles that are travelled and are responsible for almost half of the flights that are travelled. This is just the top 10% income decile. Again, in talking about changing the price signals, the people that can afford it are doing the most and are not going to change. This is about giving people the choice and having the price signals relative from one mode of transport to another made very clear and transparent at the point of use.

Finally, just off choice and related to some of the conversation that we have had to make the point, one of the biggest barriers to the uptake of active travel, as we have discussed, is perceptions of safety. Safety is not in the abstract; the perception of things not being safe is because there is too much traffic on the road. It is about levels of traffic. During the pandemic we made a lot of the increases in cycling and walking, which has been the main winner. One of the main reasons that those modes increased was not because we built temporary cycling infrastructure; it was because traffic levels went down. It was not about infrastructure; it was about the reduction in traffic levels. Let us also put that in there as part of what is stopping people from doing some of these things. The actual level of traffic is putting people off. They sit on a bus in traffic, or they feel that the roads are polluted and uncomfortable and that there is not enough space on the pavements. This is ultimately about needing to reduce traffic to be able to get people on to the roads.

Q95 Lord Lucas: I think this is probably for Jill. What should we do to make it easier for people to find evidence, not only individuals but local authorities too? When it costs me four times as much and takes four times as long to go by train compared with air, why is it believable that air is using more resources? If it is so much cheaper, it must be using fewer. My local authority, along with a lot of others, does not have time to work out the best way to deal with cycle routes crossing a roundabout, for instance. Where do they go to find the best sets of information that might be available?

Professor Jillian Anable: There are two things there. There is the information that the local authorities need to make their case. I will preface this by saying that, compared to other areas of energy behaviour that I look at, particularly domestic energy use, we are really blessed in travel with the amount of data that we have. We have traffic counts, national travel surveys, mobile phone data, registration data of cars and their keepers and where they are kept. That data is not all as accessible as they need to be, but we do have it, it is there and, when people come together and bring those data sources together, it is incredibly enlightening for local authorities.

A lot of the work that I have been doing in the past five years is with local authorities, zooming into neighbourhoods to look at who has got

what cars, how they are using them, what the other infrastructure is and pinpointing areas with the greatest potential. I think that the data is there. A lot of it is about the skills and the resources within local authorities to be able to analyse and spend the time looking at that data.

It is a little bit more difficult than that for the ordinary person in the street because too much data and information is counterproductive, particularly if it is not consistent, as I am saying. When we give people carbon footprint data, it is often so unbelievably meaningless. People do not know what 1 tonne, 2 tonnes, whatever are in the abstract. They need to understand that an air trip to New York is the equivalent of the average person's car travel for two years, for instance. Things need to be put in that kind of perspective.

I said earlier about the increased scepticism and discontent among members of the public because they believe it is all a little hopeless. Why is it so cheap if it is so bad, as you have said? People are getting very savvy as a result of some mistakes that have been made at the policy level in the past, such as "dieseltgate", about being told that something is an environmentally sound solution and then being told, maybe down the line, that there are loads of problems with it. With electric vehicles, there is a lot of scepticism from people that they are environmentally friendly, and quite right because they are not fully. It is the same with all kinds of other solutions like buses: our new diesel bus, is that really friendly? Well, in actual fact, yes, the new diesel buses are much more environmentally friendly.

There is so much scepticism around that and this is about the whole information environment of trusted sources. It might sound like "I would say this, wouldn't I?" but I think there have to be more trusted scientific voices in there alongside the policymakers, giving information about what is good and what is bad.

The Chair: This is fascinating and we are very grateful, but we have three questions outstanding in 15 minutes and it would be really appreciated if the witnesses could be a bit more succinct. Thank you.

Q96 **Lord Colgrain:** I will ask my question at speed and include the three supplementaries at the same time, if I may. Are there policy measures to which you think the Government should be giving greater consideration when seeking behaviour change in travel behaviours to meet climate and environmental goals? How should the Government approach the sequencing and co-ordination of these policy measures? How successful have financial incentives and disincentives been in promoting green travel alternatives? To what extent should government focus on behaviour change for aviation, as well as land-based travel?

Stephen Edwards: I will be very quick. I think that we have talked about a lot of these things already. Number one is infrastructure change. Chris has talked about side-road zebras, but also look at how cycle lanes and pavements can work better together and ensure there is enough investment in infrastructure that supports active travel. At the time,

secondly, we should not neglect investment in specific behaviour change programmes. We do some great work with the Department for Transport, for example, on getting more children walking to school, which yields fantastic benefits in reducing cars at the school gates. Government should continue to invest in behaviour change at the same time as infrastructure funding.

The third thing that we have not talked about a huge amount is planning reform. If we design places around cars, we will get places that are dependent on cars. It is critical to ensure that we are designing walking and cycling into places and public transport into places. We have done some work in new housing developments in Scotland, and we did not find a single example of one that you could live in without at least one car, and I can share the research with the committee if that would be useful. It would also be instructive to look at some of the research that Transport for New Homes has produced, which has found examples of new housing developments that have been built with no access to public transport and in some places no pavements even. If we are building places like that, we will not be able to encourage active and sustainable transport.

The final thing I will mention is some of the harder measures. We have talked a bit about road charging, which is important to consider in the future, especially as we increase the number of electric vehicles in our car fleet because, as a result, fuel duty take reduces significantly. The second thing, which we have seen in one place so far but is worth looking at in more detail, is workplace parking levies. It is a very difficult political message and a very difficult thing to introduce but, in Nottingham, workplace parking has resulted in falls in congestion and significant additional investment in public transport. If you are going to introduce schemes like that, local authorities need to show some bravery but you also need to think about how to handle the inevitable community backlash around it and look at how it works with the public transport system. There is no point in charging for workplace parking if you do not have alternative means to get to the workplaces in the first place.

Chris Boardman: I hope that I can introduce nice practical, tangible things to this and the previous question. The answer is Active Travel England. I think that is exactly why it exists. The government policy is there at the moment. We have the Gear Change strategy, which is about a huge change in how we move about. We have Active Travel England, which is being born as I speak as the new active travel arm of the Department for Transport, an arm's-length body, which we hope will be up and running in a matter of weeks. That is where you can go for your training if you want designs for how to get across that roundabout. We can help with that.

I think that this is a real departure from the past, in that it will not just be an inspectorate that enforces higher standards for cycling and walking infrastructure. It will actually help. It will be able to train local authorities. We have already started in a pilot form, and we will be able to offer direct

design advice. We have already been doing that over the last few months, but we will also be the inspectorate to make sure it is up to spec.

We have a £2 billion budget that is already largely allocated but we have made sure it is allocated to good things. We will also be, as just mentioned by Stephen, a statutory consultee on major developments going forward. That will take slightly longer to come on stream, probably next year, to make sure that active travel—the choice to be able to travel actively and to link up with public transport and other amenities—must be built into our future developments, which is all pretty exciting.

Rather than saying what else we should do, I suggest that we now have the tools, the legislation and the body to help deliver a lot of this. It is the prioritisation of it across health, education, housing and all the other agendas to make sure that we have a loud voice. I am already speaking to those departments now. I hope that Lord Lucas will be able to come to us or send his local council to us in a matter of a few weeks. In fact, they are probably already in touch with our fledgling engineering team. These are exciting times.

Lord Colgrain: Jillian, could you mention aviation, which you touched on before, in your answer?

Professor Jillian Anable: I will. I do not fully agree with what Chris has just said: we do not have the tools. Active Travel England will be nowhere near enough. Let me just say why in answer to this question.

First, the sequence in which we put policy in place is absolutely vital. We have to put the alternatives in place for whatever mode we are trying to reduce travel on. We can think of alternatives for domestic aviation. It is not so much a matter of alternatives for longer-distance travel. Sequencing is vital; we have to put the alternatives in place. But if we put them in place and leave it at that, we will not succeed.

I will concentrate your minds by talking about the Netherlands. We know that in the Netherlands 29% of trips are by bike, compared to only about 2% at the most in the UK; and 8% of distance over there and about 1% of distance travelled over here is by bike. The per capita carbon emissions from surface travel of Dutch people is exactly the same as ours in Britain, because they like their cars, they like their large cars and they drive them a lot. Although for them the default mode when they leave their front door is walking and cycling, the car has essentially not been constrained in the Netherlands. Cost-wise it is not a great disadvantage and longer distances can be travelled. So we can put the alternatives in place and not necessarily see a switch from car use.

My first absolute recommendation is that everything—and hopefully we will have a reiterated decarbonisation plan with some teeth, whether or not it is Active Travel England's strategy—needs to be done within the context of an agreed car-use reduction target, such as they have introduced in Scotland. That is the ultimate goal. If you do not have that

as the goal you can do some lovely shiny things but not be touching on the thing that you really need to happen. That is the first thing.

In terms of the things you need to put in place in addition to viable alternatives, there are some fiscal instruments and some physical constraints like switching space from car to other modes. To put the alternatives in place first needs some revenue-raising measures, of which there are examples on the continent. For instance, in France, there are local levies on businesses that are put back into local services. There is a movement to commit 10% of local parking charges straight back into non-car investment alternatives. So there are eco-levies and parking charges and such like. Local councils themselves need much more revenue funding than capital funding to put in place and run some of the things that they need to do.

We need a campaign for buses right now, given where we are post-Covid. We are in a worse place than we were going into Covid. We need much more emphasis, as I said earlier, on the number of cars that people own and being able to share them. We need to give car sharing, car clubs, the same priority of investment at the local and national level as we have for these other modes of transport. I have talked about e-bikes and they get dropped off the edge, but I truly believe that they could make faster progress than we have seen a lot of other measures do.

Finally on surface travel, we need some demonstration projects. We need some places we can point to and say, "Look how good it could be" and we need to do that quickly. Certain pots of funding are trying to do that, but they are very piecemeal, very competitive and are not necessarily about traffic reduction. They are about putting in the shiny stuff, but are not at the strategic area-wide level of this is what it could be like if you built a city that is designed around not owning a car, so that you do not have to own a car. That is what we need.

On aviation, we have an incredibly inequitable distribution of flying: 15% of the population is responsible for 75% of the flights. It is also not long-distance travel by air that is going up; it is over to the continent. It is also not everybody where the increase is happening; it is younger people. And it is not business travel; it is leisure travel. In particular with aviation, we have to think about the price structure. The cost of flying is obscenely low and the constructive discussions that we have been having in climate assemblies mainly, and local and national fora, are around a frequent-flyer levy.

When you talk to people about this, you explain that what a frequent-flyer levy involves is everyone effectively having their first flight at a reasonable cost, but for every subsequent flight the per-unit cost of flying gets more and more expensive. It is seen as an incredibly fair and just policy. Certainly, looking at who pays for flying right now, it would not be a regressive policy. We have something that is being talked about that, when you put it out to public participation, gets good feedback. It is a very tangible thing that we could be working on right now.

Lord Colgrain: Thank you very much. That is a very comprehensive list.

The Chair: Given the time, I am afraid we will have to lose one of our questions, so I am taking Chair's prerogative and I am sorry, Baroness Young, but I think that we will have to miss out on that question. We invite the witnesses to be extremely brief, perhaps just with bullet points, in response to Lord Browne's question.

Q97 **Lord Browne of Ladyton:** I think that this question can be answered briefly. The question is whether it will be asked briefly. What recommendations would you make to the UK Government about how they approach travel and behaviour change to meet climate and environmental goals? That is the way the question was drafted. I will allow each of you two recommendations.

Professor Jillian Anable: I have just given you my list. To pick out two, one is a car traffic reduction target, based on the evidence and the modelling, which is how Scotland has formulated its 20% reduction target by 2030. Then develop a delivery plan against that. That is number one and it does not take away from all the things we need to do underneath that. The second thing is the idea of demonstration projects, which are themselves particularly in alignment with the traffic reduction vision that we have. They are not formulated by having the best place for electric buses or the best place for mobility of service. They are formulated as a place that demonstrates how you can live with fewer cars.

Chris Boardman: I think that most of my evidence has also already been given. There are two elements. I would seriously look at the benefit-cost ratio calculations that are done for transport at the moment. I think there have been several articles and learned papers pointing out that our transport strategy is not always lining up with the policy outcomes that we want. I think some review could be done there to reweight the impact of some of the decisions we are making, in particular a carbon sift. We looked at that in Greater Manchester or it was discussed just before my departure from there to make sure that, to meet the carbon aspirations of the leaders of the region, we carbon sift every transport project from the word go. I think that that could be pushed up the priority list.

On creating alternatives, active travel is my specific area of expertise. I note Jillian's point: it is not all of the answer, but it is a big part of the answer on several fronts. I add consistent funding to a lot of the tools that we have now, consistent funding so that councils and local authorities can plan for the alternative and build it in. Local authorities should be pressed to have an active travel cycling and walking infrastructure plan that integrates with the local transport plan from the start.

Stephen Edwards: I agree with all those points and will make two in addition. One is not to neglect the importance of revenue funding. That absolutely needs to sit alongside capital funding as an essential part of the mix. Secondly, ensure active and sustainable transport works for

everyone regardless of age, income and ability. That principle of inclusion is critical for the future.

The Chair: I thank all the witnesses for some fascinating insights you have given us this morning. There will be a transcript provided, which you can have the option to review before it is made public. I now formally close this meeting with sincere thanks.