



Transport Committee

Oral evidence: [Future of transport data](#), HC 84

Wednesday 21 February 2024

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[Watch the meeting](#)

Members present: Iain Stewart (Chair); Jack Brereton; Paul Howell; Karl McCartney; Gavin Newlands.

Questions 92–118

Witnesses

[II](#): Davin Crowley-Sweet, Chief Data Officer, National Highways; Yogesh Patel, Quality, Improvement and Innovation Director, Ringway; and Rupert Thacker, Head of Highway Strategy and Implementation, Hertfordshire County Council, for ADEPT – Association of Directors of Environment, Economy, Planning & Transport.

Written evidence from witnesses:

– [Ringway](#)



Examination of witnesses

Witnesses: Davin Crowley-Sweet, Yogesh Patel and Rupert Thacker.

Chair: Welcome to our second panel this morning. For the purposes of our records, I invite each of you to state your name and organisation, please, starting with Mr Thacker.

Rupert Thacker: I am Rupert Thacker from Hertfordshire County Council, representing ADEPT.

Yogesh Patel: Good morning. I am Yogesh Patel. I am the quality improvement and innovation director at Ringway.

Davin Crowley-Sweet: I am Davin Crowley-Sweet. I am chief data officer at National Highways.

Q92 **Chair:** Thank you. We are grateful for your time and evidence this morning. I will start off by putting to you the same open question I gave the first panel. Would you set out how you are using data to improve the monitoring, delivery and maintenance of road infrastructure in the country?

Rupert Thacker: From a local authority point of view, we regularly carry out a number of different inspections, utilising everything from coarse visual inspections, data we gather through SCANNER and newer technology with cameras and assisted technology on the network. We adopt AI to help us to understand both the quality of the asset and the point at which intervention provides us with the best and most efficient way of maintaining and extending it, and how new technologies can help us intervene at the right point in time. It not only makes a difference to the quality of the infrastructure but is more sustainable in the way that we deliver asset improvements as we invest in it.

Yogesh Patel: From a highways contractor and service provider point of view, we manage and maintain around 50,000 kilometres of roads across the country, both strategic roads and local authority roads. We use data in a number of ways to understand the condition of the assets better and understand the basic inventory that we are working with. We work with our clients' asset management systems. We plan, programme and optimise our operational activities. For example, we use artificial intelligence to predict the deterioration of the road network so that we can plan the optimum solution in different types of treatments, as well as using robotics, drones and things like that to try to understand how we can use data to optimise our operational activities.

Davin Crowley-Sweet: We believe that better data equals better decisions, and that ultimately helps us to achieve our purpose of connecting the country safely and reliably, delivering economic improvement and environmental gain.



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We have a digital road strategy that sets out how we intend to use data, digital and technology, over the near future, and how we operate differently in three areas. They are, largely, how we operate a different customer service, using data to be able to get data into people's cars so that they can plan better journeys more safely and feel more confident and in control of their journey; how we can offer a different way of operating and maintaining our network and moving towards pre-emptive interactions on our network, so that we predict and prevent issues rather than find and fix them; and lastly, how we deliver our capital portfolio of more autonomous ways of working and more offsite and modular ways of working to improve the reliability of the construction schemes that we do.

Q93 **Chair:** To help to illustrate that, can you give a couple of specific examples of where using data has led to an earlier intervention that was less disruptive and less costly, to help us to encapsulate the potential of this?

Davin Crowley-Sweet: We have developed a tool in-house known as the operational working window. That brings together a number of datasets and uses artificial intelligence over those datasets to understand the flows of traffic and how we can maintain the network better. If we understand where the maintenance will be from the various numbers of systems, we can pull that together and overlay it with the traffic arrangement and work out the right way to set traffic extents, the right distances and the right times to optimise traffic windows, ultimately grouping maintenance together in ways that help us to achieve our goal of achieving a better maintenance rate, but making sure that we do not impact the customer in terms of the flows to the network as we do it.

Q94 **Chair:** I am trying to get a specific example on a particular bit of motorway, trunk road or wherever, where you have done something differently from what you would have done in the past because you have used data.

Davin Crowley-Sweet: We have applied that technology on a national roll-out over the last RIS2 period.

Q95 **Chair:** What I am trying to get to are the potential cost savings—that if you do the maintenance differently because of data, it will lead to a 10% saving or a 50% saving. I am just trying to get a ballpark of the potential.

Davin Crowley-Sweet: In terms of cost savings, I think it would be best if I wrote to the Committee afterwards with actual numbers that demonstrate the value.

Q96 **Chair:** I appreciate that. I don't expect you to come with every last fact in front of you. Do either of the other witnesses have an example that could serve as an illustration?

Yogesh Patel: We use computer vision, which is basically mobile phone technology mounted on our vehicles that traverse the network all the



time, to capture images of the road network, and then we overlay that with artificial intelligence to understand the condition of the network. It identifies potholes, fading white lines or signs that should be there but aren't there. The data can compare the asset management system with what the computer sees. We are able to identify potential problems earlier and work with our clients. We are doing that in Hertfordshire and a few other authorities so that we can intervene earlier before the problem becomes a major problem and we have to react in an emergency right away, which is much more difficult and inefficient. That is one example.

Another example is our PPP contracts. We have something called an asset optioneering model, which is a long-term model combining the SCANNER information with inspection information of the condition of the road network. Inbuilt in that model is a predictive model, where we are looking at a whole-life cost of the asset. That determines whether we carry out a relatively small resurfacing activity or do a major reconstruction, and considers that over a 32-year period, which is the life of the PPP contract plus the hand-back conditions. Those are two specific examples where data is absolutely crucial. We are building those tools more and more each day.

Q97 **Chair:** From a local authority perspective, what is the potential saving?

Rupert Thacker: I cannot quantify the saving, but it is certainly significant. For example, across industry there has been quite a lot of work around sensors. To use gulleys and drainage as an example, sensors have been installed in drainage systems to help to understand whether or not some parts of their work are more susceptible to silt and debris collecting than others. Rather than just going round in a cyclical routine and emptying them yearly or every 18 months, you use the sensors and the intelligence that has built up over a period of time to help you to optimise the level of intervention you take. Rather than visiting them all regularly, you visit more regularly the ones that need it most and save yourself time and cost on the others. Clearly, that technology can provide quite an extensive saving over the thousands of kilometres that local authorities maintain.

Q98 **Chair:** I have a similar question to one we put to the first panel. Looking internationally, where does the UK sit? Are we the leader of the pack in deploying this technology, or are there other countries further ahead that we can learn from?

Davin Crowley-Sweet: We are always open to learning. I think we are at the top of the pack when it comes to digital data and technologies. We work with the Conference of European Directors of Roads, pulling together internationally. We do benchmarking, where we have been abroad, specifically to ASFINAG in Austria to see how they work. We do really well in the digital twin element. That is both the connected digital twins, where we link with other digital twins across local authorities and across other bodies, and connected services, which is where we try to work with public and private sector companies to make our data available



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in real time to people's satnavs in cars and the devices that they use while they are travelling.

Yogesh Patel: If we are looking to the future in terms of how the network operates, and looking to the future of connected autonomous vehicles, there are places outside the UK that are perhaps far more advanced. We carried out a tour of China last year. Our assessment is that they are something like seven to 10 years ahead of Europe in the development of their infrastructure and their connected autonomous vehicles and how they operate. There are commercial operators in China of driverless taxis, robo-taxis. There are junctions that are fully digitalised, creating digital roads to improve safety and congestion. There are places like that which are much further ahead.

In pure assets and maintenance, we are probably on a par with other countries in the condition of our roads, but in the operation of the network and looking to the future, there are other countries that are further ahead.

Rupert Thacker: From a local authority point of view, in our digital twins, digital expertise and knowledge—I cannot say specifically compared to other countries—we are certainly not at the level of National Highways or Network Rail in ability and knowledge of the network. In many ways it is, dare I say, more complex. It has a number of different users. It is more extensive. It is possibly more historical in some instances as well. There is work to do around understanding local authority networks more, to be able to bring them up to par and connect them to some of the bigger assets that the national bodies operate.

Q99 **Paul Howell:** I want to go back to a detailed point first, and then I want to talk about data. This is a specific question to you, Davin. What is a digital road? How does it differ from an analogue one? How would my experiences as a driver differ if I was using a digital road compared to a non-digital road? Can you explain that, in a short story, for the record?

Davin Crowley-Sweet: I would describe a digital road as where we integrate digital data and technologies into the journey itself. It can be in our infrastructure; we have over 100,000 technology assets on the road at the moment. They are softer assets, such as cameras and stopped vehicle detection, that we use to collect data to inform how we regulate and set signs, speeds and signals. It is also about how we put in information and work with companies like Google or Waze to make data available to them in real time about where we might be closing a road and the signs and speed on a road, or to freight information on how high or low a bridge is, so that those datasets are available to them when they are planning their journeys and while they are in the car on their journeys. We are working towards making that data available this year so that it is available in cars in real time. I would describe the digital road as how those technologies integrate with the customer experience.

Q100 **Paul Howell:** How would I see that as a driver?



Davin Crowley-Sweet: In the future, I can say what our plans might see. We aim to make our data available if you are using a satnav. Obviously, we have no control over which datasets a satnav provides, albeit we are actively working with the companies, and we feel positive about the relationships we have with them. You would start seeing road closure information on your device so that companies could then re-route the traffic with the knowledge of where we have closed the road. That is an example.

Q101 **Paul Howell:** I think some of that is already there, to a degree, in certain packages. Do you think that will become more comprehensive? Obviously, there is more data for a motorway than for the back road between Trimdon and Fishburn in my constituency. Do you think that that sort of data pool will become more pervasive for different roads?

Davin Crowley-Sweet: I think so. The work we are doing is positive. Data is an asset in its own right and has value. The more we can use it, the more that value will be exposed. That will create the pool where more organisations and companies will be open to using it.

Q102 **Paul Howell:** I want to move to a question similar to one that you probably heard me ask earlier, in the rail session. What are the gaps in data? You talk about the pools of digital twins and things like that. Are there gaps where you would like to see people starting to create the data pools that would enhance the digital roads of the future? I will start with you again, Davin, and then come to the rest of the panel.

Davin Crowley-Sweet: Rather than talking about datasets in the first instance, I think it is worth understanding the skills and capabilities involved in making data and making sure that it is available. There is a really important skill we ought to be focusing on, which is about understanding the needs—which people need what data and for what purpose—so that we can collect it to the level of quality they need it for. Then, how do we make that data available? Ultimately, how do we build the skills so that that data can be used to generate value? If we invest in those capabilities, as we are, there is probably less missing data than people think. Generally, there is a data-confidence problem, as opposed to a data-quality problem, for a lot of the built environment.

Equally, there are older assets. A similar point was made in the Network Rail session. One area, obviously, is drainage. The assets were installed a long time ago, many of them before digital data and systems existed. We are working with the likes of NUAR, the National Underground Asset Register, as a means of collecting those datasets, especially the geographic ones, and pooling them to make sure that they are available to us, too.

Yogesh Patel: There is huge disparity in the quality of data that we have on local authority roads and on National Highways. To answer your earlier question about what a digital road is, I think we need to start from a base level of having a digital twin of all our road assets—not just the highway



but the drainage, the barriers, the lighting, the bollards and so on. Across all the authorities we work with, there is disparity in the quality and completeness of that data. The first part of a digital road is having a complete, accurate, up-to-date digital twin of the road network.

Q103 Paul Howell: Can I interrupt you to build on that point? I apologise for interrupting. Obviously, in the rail session we were talking about trains, cameras and the different things that are there. I think I read somewhere that, from a local authority point of view, or a more localised road position, there is the opportunity to put cameras on refuse collection vehicles, or things like that that go around, to collect the data. Do you see that as something that is happening, or is it just a potential for the future?

Yogesh Patel: It is happening. We are doing it on our own inspection vehicles. Many authorities are already installing those sorts of cameras on refuse vehicles. Some are doing it on buses as well. No doubt Rupert will be able to add to that.

Building on that, it is not just about the digital twin: it is the way that the road is actually operating in real time that will get us towards a digital road. That requires connectivity—full 5G connectivity and short-range connectivity. That enables the real-time information to be presented to the travelling public, whether they are in the car, walking or cycling or any other types of movement.

I will give one example of that. We work with a company called one.network, previously known as Elgin. Our tablets link directly with its systems. When we put the first cone out, we press a button and, in real time, that information goes directly to the satnav companies, because one.network has a partnership with all the major satnav companies. Those sorts of technologies and possibilities are already happening today; we need to expand them.

Rupert Thacker: In the overall ambition around transport, one of the bigger gaps is understanding who is using the network when, why and how. It goes back to the question of what the purpose of the data is and actually understanding that. Generally, we are very good at counting vehicles, but we are not necessarily so good at counting people who are walking, cycling or scooting, and understanding the interaction between how the network is operated and maintained and how people want to use it. There is a layer of information that sits between operation and maintenance and use of the network. For local authorities, certainly, it is quite a challenge to understand what that looks like across the board.

Paul Howell: You used an important word in your answer: it is not just about how people are using it now but about how they would like to use it. I have sat in the local authority space. Whether it be buses or things that have been dropped off because of this, that or the other, there is a need to understand what the public demand is. The world has changed so much post covid as to where demand patterns are. I would suggest that



demand patterns are probably one of the big conundrums in terms of the data pots.

Rupert Thacker: Yes.

Q104 **Gavin Newlands:** So far we have spoken about what is possible and what is actually being done at the moment. Can we go into the barriers that exist at this point in time? In the rail session, we mentioned that the draft Bill might open up opportunities to use data more effectively moving forward. Davin, what are the barriers to further advancing data usage in the development and maintenance of road infrastructure? We are just coming out of winter. Roads on the west coast of Scotland are not in the best state right now because of all the rain and the freeze and thaw, so it is particularly pertinent to areas like mine at this point in time. What are the barriers at the moment? In your view, what actions are necessary to overcome those barriers so that we can use the data more effectively?

Davin Crowley-Sweet: I wouldn't call them barriers, because I think that most of the things are achievable with the right focus and leadership.

Gavin Newlands: It is a glass half empty; that is why I called them barriers.

Davin Crowley-Sweet: In the Network Rail session, you spoke about skills. That is an area of focus. Our work with early talent pipelines and graduates to make sure that people recognise that the roads are an attractive place to work for a career and to bring them into a career early is important in attracting the right digital data skills. Clearly, there is then working with the talent that we have in the organisation to prepare them and to make data much more transferable, if they want to choose a career outside digital and technology, as opposed to trapping people in a single discipline. We must also work with our supply chain sector to make sure that they have forward advance of our plans and the long-term thinking of our digital aspirations, so that they can size and gear themselves to our needs in the future.

From a legislative perspective, I don't think there are actual barriers. We have seen the work around the AI policies that are coming through central Government and the work on connected autonomous vehicles, which is going to enable a lot. On the subject of naked roads—roads without infrastructure, where everything is digitally controlled—if we are serious as a country about going in that direction, we need to think about legislation that recognises the data asset. Right now the legislation is very much geared towards the physical infrastructure, a physical sign or space. If we really want to move towards having a naked road, with less physical infrastructure, we need our legislative framework to recognise the digital assets it would be replaced by.

Gavin Newlands: Mr Patel, do you have anything to add?



Yogesh Patel: I agree with many of the points that Davin made. In addition, I would say that standards and consistency of data integration between the different networks—not just road networks—are important. We must ensure that the road network, the rail network, the buses and the freight operators can use the data that is being generated and gathered in a consistent way. We probably need a standard for the interoperability of data.

We need a bold, ambitious vision from Government of where we want the transport system of the future to be, because then the datasets around that can be built and the investment in the right sorts of areas can be made. That is a missing piece. We produced a report last year, working with various authorities, TRL and the Department for Transport, on local digital roads. One of the key recommendations was the need for a central, long-term, strategic vision of where we take digital roads of the future and how we get there.

Q105 **Gavin Newlands:** Davin said that there are not necessarily legislative barriers at the moment. Mr Thacker, do you think that it still needs more direct action from Government, perhaps in leadership, or are you quite happy with the direction of travel from a governmental perspective?

Rupert Thacker: Leadership from Government is always useful to help to focus local authorities' ability to deliver on ambition. When the direction is left slightly more fluid, people tend to take different approaches, even if they are aiming broadly in the same direction. To be smarter and more efficient, providing that clarity is often really useful, with some governance that sits around it to help to share the learning and to maximise the efficiency through which it is delivered. One of the challenges is to make sure that there is sufficient opportunity for the people who are gathering data, undertaking research and developing new ideas to share that, and for that learning to spread quickly and effectively through local government, so that there is no repetition or reinventing the wheel, which is quite a risk with a rapidly changing set of technologies.

Q106 **Gavin Newlands:** Mr Patel, if you want to say anything about any necessary Government leadership or other steps that Government can take, I am more than happy to hear it. In your written evidence to the inquiry, you said that asset owners not having sufficient incentives to invest in comprehensive data collection and maintenance of their assets can result in outdated or inaccurate information. In your view, what can be done to better incentivise investment in data collection?

Yogesh Patel: It is the point that Davin made about placing value—real monetary value—on the data. At the moment, only the physical assets are valued. I think that would help.

The reason why I talk about the long-term vision is that at the moment the investments are being made on a point basis, with individual technologies and applications. They may not necessarily stack up



individually. If we look at it as a long-term vision, combining different datasets and looking not at individual modes of transport but at the full journey, the business case starts to become stronger. That is needed in a clear strategy from Government and the Department for Transport.

It should probably be a long-term strategy, because rolling out digital roads will not be a single-Parliament investment. It will take multiple Parliaments. I am old enough to remember the road-widening programme or the motorway-building programme. It almost needs that level of ambition—to say, “This is the direction we are going to go.” We talk about local authorities. It is not just one local authority: it is 155 local authorities. We need a consistent approach, as Rupert said. I hope I have answered your question.

Gavin Newlands: Yes. Thank you.

Q107 **Jack Brereton:** I am sorry that I was late. When we are thinking about investment decisions, how are we using data to prioritise what schemes have the greatest benefit or value for that investment? There has been a lot of discussion about some of the current Green Book strategy and some of the use of data in that. I am interested in what data is currently being used, particularly to identify the benefits of what should be prioritised. Would National Highways like to kick off on that?

Davin Crowley-Sweet: We follow the DfT and Treasury standards on how we collect data. They define which data you collect and how that data is used. The data covers a wide range of things, from cost to environmental and economic impacts. With the improvements that we have been able to make in how we share data, we are now working much more closely with the subnational transport bodies and arm’s length bodies on how we put our portfolios together. Ultimately, when we follow that guidance, collect the data and put those portfolios together, they go to the DfT itself to make the decision on the priorities and which investments go ahead or not.

Q108 **Jack Brereton:** You mentioned economic value and environmental factors; is greater weighting given to some of that data than to others?

Davin Crowley-Sweet: That is not something I know the answer to. If possible, I would like to write back to the Committee with the position on it.

Jack Brereton: Mr Patel, is there anything you want to add?

Yogesh Patel: We do not make investment decisions on schemes; normally, that comes from our clients. On our PPP contracts, where we have responsibility over a long-term period, we use the asset optioneering model that I mentioned earlier to predict the condition and deterioration of the road network over a long-term period. We then determine the optimum treatment to undertake from a carbon perspective, a cost perspective and a disruption perspective, while



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meeting the KPIs of the contract. That is real data being used in real time to make long-term decisions.

As we are talking about data, there is data that we are not using but could perhaps tap into.

Jack Brereton: We are quite interested in that.

Yogesh Patel: Some of it is accident data. At the moment, safety schemes are determined based on where accidents are and how many accidents have occurred, based on injury. For every accident that takes place, there are probably hundreds of near misses that nobody knows about, but the vehicle knows about it, because vehicles are probably picking up sensors—

Q109 **Jack Brereton:** Do you think that that might change where we invest? Obviously, we have only a finite amount of money.

Yogesh Patel: Perhaps. There is a whole set of data on near misses—incidents and accidents that never occurred and, therefore, were never reported—we could tap into in the future. That could help us to make better decisions about where safety schemes ought to be invested in.

Q110 **Jack Brereton:** Mr Thacker, in local authorities money is often tight and you have to prioritise. Behind that there is often quite an extensive BCR analysis you have to go through to show the best value of a scheme and to prove to national Government why they should fund it. Do you think that process is effective? Do you think it is capturing the right sort of data and priorities at the moment?

Rupert Thacker: In the first instance yes, although you could argue that investment is often focused more on journey time savings than on some of the other aspects that you might want to consider in the longer term, around sustainability and shift in mode. Some of the business case development for larger-scale projects is quite traditional in its approach. Equally, some of the asset management approaches that local authorities take around the country look to optimise value in an asset, but are they looking to be as sustainable as they can be, in the drive to zero carbon? Again, guidance around how that works and what tools authorities should be using would probably be quite welcome, to assist local authorities in that process and to make sure that it is considered evenly across the country.

Q111 **Jack Brereton:** How lengthy is the process you go through? Is it quite bureaucratic? Is there quite a lot of data you need to—

Rupert Thacker: Business case development for large-scale schemes is significant, but you are talking significant sums of money. It is probably proportionate, but it is quite intensive. It is particularly intensive in terms of revenue funding, which local authorities are particularly tight on.

Jack Brereton: They have very limited resources.



Rupert Thacker: Yes.

Jack Brereton: Mr Patel, do you want to add something?

Yogesh Patel: The way that we fund projects may need looking at, in terms of capital and revenue. Sometimes decisions are made where capital moneys are constrained within a pot but spending a bit more on a more sustainable or deeper treatment might give you better whole-life cost decisions, but that comes from a revenue pot and would be a saving on the revenue side. How the capital and revenue side is viewed in totality may need to be looked at. Our experience is that it is not always done on a whole-life cost basis.

Q112 **Jack Brereton:** In National Highways, do you think that that process is bureaucratic? Is there anything that could be done to make it more efficient and to make it easier to get some of these decisions moving down the line and the investment happening?

Davin Crowley-Sweet: We have colleagues who specialise in the actual process of writing the investment schemes. Mine is more the corporate role of making sure that we are managing the data. I would have to field a view from my colleagues about their experience of the process itself. What I can say is that we follow the guidance on what data we are supposed to collect to support transport schemes. We commit to making more of the data that we have available if that helps to support them further.

Rupert Thacker: The data that is required to support business cases is often extensive, unsurprisingly, given the scale of the investment, but it is also usually above the level of base data that local authorities have access to—things like national digital twins, national datasets and standardisation of data, and expectation around the use of data to support business cases. It would make local authorities' lives much easier if data were more freely available to support business case development. As it is, authorities have to put quite a lot of investment—usually revenue funding—into an up-front assessment of the business case, which does not necessarily result in the outcome of a successful bid. Anything that could be used to create data pools and accessible data that would be able to support that process would be very useful.

Q113 **Jack Brereton:** We are talking predominantly about public investment. Do you think that this also deters private investment in some schemes?

Rupert Thacker: Potentially. Equally, private companies probably hold an awful lot of the data we would value access to, but it can often be quite costly to build up the knowledge and depth of evidence to support business cases. We probably need a slightly different relationship between the public and private sectors to be able to unlock the value from the data at the right point and to ensure that people can get the reward from it. Again, the cost up front is often a challenge to local authorities' ability to do that.



Q114 **Chair:** I would like to build on that point and some of the other comments that have been made on the commercial value of data. The Government's transport data strategy wants an open-by-default approach, but also recognises that there is commercial value. I am interested in your thoughts on how we balance that. Mr Patel, to take your example of the potential use of data from near misses that is held by the cars, presumably the manufacturer would be able to collect and know that data. How do we balance that commercial value with the greater public good of having it open?

Yogesh Patel: We need to recognise that whoever collects the data incurs a cost in doing so, so they need to be recompensed for that basic collection cost. On sharing value, that particular example may require legislation specifying that data that is in the public interest must be made available to the relevant authorities, anonymised, of course, so that there are no privacy or security-type issues.

The other part is that value comes from making the data available and open. I wholeheartedly agree with the transport data strategy about making that data open and available, because that potentially unlocks so many other opportunities for innovators and app developers to create apps and solutions that are of value to customers and the public. The iPhone and Google Play stores are great examples. The real innovation is creating the app stores, creating the API links and opening them up. As we all know, there have been many opportunities and developments as a result.

The same can occur on the highway network and in the transport system itself. I believe we need to open it up, but we need to compensate the people who are collecting data, by whatever routes, whether through day-to-day contractual activities or carrying out a specific survey. Then the data belongs to whoever commissioned that.

Q115 **Chair:** Another point that a number of you have made is on the strategic direction for using data—that there is a missing piece. Where would that lie? In the rail sector, we have the potential for using Great British Railways as the guiding mind. What is the equivalent for road, given that you have a very complex transport landscape, with some done by National Highways, some done by individual local authorities and some done by the Metro Mayors who are being developed? We have the subnational transport bodies and the DfT; in that mix, who is the guiding mind to set the strategy?

Yogesh Patel: For me, it needs to start with the DfT. We have 150-plus local authorities. With the best will in the world, even with ADEPT and organisations like it, there will always be differences. National Highways plays a key role. I cannot speak for National Highways, of course, but it has a wealth of knowledge and understanding of these things, and may be able to help with the technical side of bringing standards together and bringing a commonality, certainly from a highways perspective. As I said, I don't think we should necessarily look at it just from a highways



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perspective. If we look at it as the transport and mobility of the future, it needs to be at DfT level. That can bring together the different elements, buses, cycling, railways, roads and so on.

Q116 **Chair:** The broad strategy should sit with DfT, but then trickle down to the appropriate body.

Yogesh Patel: Yes. The subnational transport bodies can play a real role in making sure that that has relevance at regional level, working closely with their local authorities. Of course, I can't speak for local authorities.

Rupert Thacker: I agree.

Q117 **Chair:** I am conscious of time and I would like to conclude my questions with a couple to Davin on National Highways. We have had some written evidence to the inquiry from the Office of Rail and Road making some criticisms of National Highways on the quality of data and the failure to deliver an asset data governance plan. Can you tell us what measures National Highways is putting in place to address those?

Davin Crowley-Sweet: First and foremost, offering a service to our customers that is both safe and reliable is our No. 1 priority. We have seen the letter. We are mobilising all the teams to support the ORR in its investigation at the moment. We remain committed to working with it when it releases its recommendations to us, which we suspect will happen shortly.

Q118 **Chair:** If you could share any information with us at the appropriate point, that would be helpful.

Finally, in previous inquiries that we have done on strategic roads and in our recent scrutiny session with National Highways, we explored the question of what proportion of the National Highways budget goes into the repairs and maintenance side, as opposed to enhancements to the road network. A particular concern was the ageing of quite a lot of the digital assets on the road network. Do you think that National Highways is devoting a sufficient proportion of its budget to replacing and upgrading the digital network?

Davin Crowley-Sweet: Yes. As I said earlier, we have nearly 100,000 digital assets to support the operation of our network. We have increased our investment in those over RIS2. That was an important decision for us. We are seeing much more of the investment shift towards maintenance and renewals from the enhancements, which we think supports our ageing asset, especially as technology assets have a habit of becoming obsolescent much faster than physical assets. RIS3 is under negotiation at the moment, but we have had supportive direction in making sure that we are investing proportionately in our technologies.

Chair: Thank you very much. That brings us to the conclusion of today's session. We are very grateful for your time and evidence, which will be very helpful in shaping our report and recommendations.