

**Transport Committee**  
**11 September 2012**  
**Transcript of Item 7: Cycling in London**

**Caroline Pidgeon (Chair):** Let us move to our next item, which is cycling in London. This is the second session in our investigation that we are doing on cycling in London about cycle safety, looking at the current issues facing cyclists and barriers to potential cyclists, looking at the Mayor's plans and TfL's plans to improve cycling safety. Today, particularly, we want to focus on looking at national and international best practice as well, so just let our guests come and take their seats.

Can I welcome our fantastic panellists. First of all, we have Roelof Wittink, who is the Director of the Dutch Cycling Embassy. Thank you, Roelof, for coming along today. Next here, we have Dr Rachel Aldred who is the director of Sustainable Mobilities Research Group at the University of East London. Thank you very much for coming along, Rachel. Next here, we have Ben Plowden, no stranger to our Committee for Transport for London, Director for Planning at Surface Transport. Very welcome, Ben. Next here, we have Stefan Rasmussen, who is the Head of Traffic Design at the City of Copenhagen. Very welcome. Thank you for coming today. And just to your right, we have Karen Dee, who is the Director of Policy at Freight Transport Association. Her colleague sat in our previous session to hear some of the issues, because obviously freight and HGVs and so on has been a particular issue.

Thank you so much for coming, particularly our international guests as well, for coming and bringing your expertise to our investigation.

I wanted to kick off the questioning not with Transport for London, but with our other guests, about perhaps whether you can give us a key example internationally or nationally of best practice in improving cycle safety and getting more people cycling. Why do I not start at this end at Roelof?

**Roelof Wittink (Director, Dutch Cycling Embassy):** Thank you very much for inviting me and maybe I can say "us". Over here, it is very interesting. It is very interesting also to follow the developments here in England and London in particular regarding cycling. In answer to your question, I would say there is a basic principle in the Netherlands that might have a strong value. It is that we take as a norm the requirements for all people to be on a bicycle. That means including the children, and the elderly. Cycling is demanding. It has a mental load. You need to have capacities for that and you need to make a traffic system also forgivable for mistakes by road users, including children and the elderly.

I think this is maybe the most important message to give to you because what I see here is the starting or developing of cycling facilities, but children and the elderly will not cope with the quality that you have at this moment.

**Caroline Pidgeon (Chair):** Can I just pick up. Did you say "making the road system forgivable for mistakes"? Do you want to expand that a little bit please?

**Roelof Wittink (Director, Dutch Cycling Embassy):** For example, a cyclist is vulnerable so you need to keep a certain balance. If you have only a minimum space for manoeuvring, as soon as you make a mistake, immediately there is a certain risk already. If you have more space, then the system is

more forgivable for these kinds of mistakes. It is an approach that we have had in the Netherlands for about 20 years; that we look for prevention of the risk that serious injuries might happen. You take a different kind of message for that, but taking into account the basic requirements for all people, for comfortable and also safe cycling, then you need to adapt your road system to these requirements.

**Caroline Pidgeon (Chair):** Lovely. Thank you. That is very helpful. Steffen, do you want to come in from Copenhagen? I think we have some materials we have just handed around that you have provided. Thank you for those.

**Steffen Rasmussen (Head of Traffic Design, Municipality of Copenhagen):** Thank you very much for inviting us. I think I will give you a keyword and a holistic approach like you said and then separation of functions.

I made a quick count of cyclists this morning at Tower Bridge. There were 1,500 cyclists during the morning peak. Almost all of them were men, so I think you have a big potential of increasing the number of cyclists to make it safer. So it is just not safe in the sense of recorded police accidents but it is also the feeling of safety. You have to provide the feeling of safety for all road users. Separation is one way. You have to choose. I think you have a very extended road network in the city of London, so you have to choose some places where you can give priorities to pedestrians and cyclists.

I would like to give one example from the city of Copenhagen. We had a six-kilometre long shopping street mixed with cars, buses, cyclists and pedestrians, so we chose a strategy of separation and said, "That street should be a street for buses and cyclists", actually like you did in Oxford Street for buses only. There were 13,000 cars before our project and after we reduced the through traffic to 6,000. There were 30,000 cyclists and we increased the number of cyclists by 6,000 to 36,000 per day. It is about 20%. We kept the number of bus passengers, which is successful in Copenhagen where we in general have a decrease in the number of bus passengers.

So a strategy of making room, space and time available in the traffic environment in cyclists is very important. Thank you.

**Caroline Pidgeon (Chair):** Thank you very much for that.

**Dr Rachel Aldred (Director, Sustainable Mobilities Research Group, University of East London):** I have to say that Steffen and Roelof have said some of the things that I was planning to say, which is good. I am here as a UK research expert, so I am going to give some individual examples of specifics from the UK later.

But I have to say, if we are talking about best practice and uptake and safety, we have to start from outside the UK, I am afraid. This is not to denigrate anyone involved in cycling in London or elsewhere. There is a lot of effort and there are some good initiatives. However, we do not have a cycling system in this country. We simply do not have the ensemble of support for cycling that you have in countries like Denmark and the Netherlands. We do have a historic problem in this country in providing effectively for cycling, which is linked to a tradition of a lack of respect for cyclists and a lack of understanding, I think, of what cyclists need, a broader cultural problem. So we need to look outside the UK and we need to learn from success.

I think, need to look at what people in London are saying that they want because obviously, if we put things in place, we need to know that people are going to use them, that people are going to appreciate them. So, just to say something about the places where there is success, obviously the Netherlands and Denmark are key examples, but potentially we can also learn from places that have started, like London, from a low base but have grown very fast, so places like Seville, Berlin, Paris and Portland.

To return to Denmark and the Netherlands, people sometimes assume that Denmark and the Netherlands have a cycling culture and have always had one, so it is easy for them, but I do not think that is the case. I think we have problems in common and that Denmark and the Netherlands are maybe better at dealing with some of these problems, for example, car dominance. So, for example, Nørrebrogade I think you were talking about, where there was a lot of motor traffic and there was a lot of opposition in terms of parking and space for motor traffic. The city of Copenhagen made quite a brave decision. Similarly, in the Netherlands I have heard that there are also conflicts over car parking, so there are commonalities. There are a lot of things that we can learn in terms of approaches.

I do think that even though London in some respects is falling far behind and we are bumping along at 2% in terms of mode share - although we do have rises in specific contexts, times and types of cycling - but we have a lot going for us. In London, there is a lot of talk about pressure on road space. But, since the mid-1990s, motor traffic volume has fallen by 20%. This is a big change. The number of cars on the road is not going up anymore, despite the rise in population, so trends in London are going the right way. We do public transport pretty well, as we have heard from Peter Hendy (Commissioner of Transport), so we need to learn from the places that do cycling really well and we need to be ambitious.

In terms of what cyclists want, do people want the kind of things that they have in Denmark and the Netherlands? I think the evidence says, yes, most people do. The evidence that you have gathered yourself in doing this investigation, the tweets, the responses that I have been reading, people do want this kind of thing. People want this approach. My own research and other research by the Department for Transport (DfT) and TfL suggests that people who are cycling and people who want to cycle want dedicated, safe, fast and pleasant infrastructure. They do not want a choice between infrastructure that is pleasant and infrastructure that is direct. They want both and I think we should be able to provide both.

We provide great public transport. I think we can provide great cycling, but we need to listen to these guys.

**Karen Dee (Director of Policy, Freight Transport Association):** I am at a slight disadvantage compared with the others. I am obviously from the Freight Transport Association (FTA) and we are not a cycling association but we are a trade body for cross-modal freight, so all modes, so I can comment from the perspective of the things within our market that have made a difference for improving safety of heavy goods vehicles (HGVs).

In the UK we have one of the best systems of goods vehicle operating licences, very stringent. It is the envy of many other European countries. It is the one area of gold-plating of regulation which FTA members are very keen on and want to retain. They are very proud of that. The focus on making sure that UK operators stick to those rules and that it is enforced properly make a huge difference to the quality of vehicles and the way that they are used in the UK, so that is one element.

In terms of vehicles themselves, obviously there have been huge technological developments and that continues and those play an enormous part in improving the types of vehicles that you see on the roads today, as with cars. I think probably HGVs have moved on and have seen more technical improvements than you have even in the car industry. That is not just for safety but safety drives that.

In terms of best practice, which is a role that we are increasingly involved in in the FTA, we are very keen on the work that we are doing with lots of other bodies, TfL and other organisations to look at how HGVs can play their role in solving this problem. We believe that we cannot solve it alone and the key thing for us is finding a way that allows our crowded infrastructure and crowded road system to be shared by all those that have demands on it and shared in a safe way. For us, education is probably a real key for our operators, our drivers, pedestrians, car users and cyclists themselves. Creating a better understanding of each other's needs and each other's habits is really the key going forward.

**Caroline Pidgeon (Chair):** Thank you for that. Ben, do you want to comment - we have heard some good examples there - on lessons that TfL is learning particularly from abroad? As Rachel has outlined, that is where we may need to look for really best practice to make cycling safer and to get more people cycling, as Stefan pointed out, particularly women and other groups?

**Ben Plowden (Director of Planning, Surface Transport, Transport for London):** Yes, of course. I think it is critical that we understand what other cities, not just in Europe but in North America, have done over the last 15, 20 and sometimes 30 years to make cycling grow from sometimes much higher bases than London and make it safer.

We have lots of work going on in that respect. In fact, we have one of Steffen's colleagues on secondment from Copenhagen in my department even as we speak. We have an international information exchange programme starting this autumn to do this in a much more systematic way. We have been talking to some of the cycle bloggers who are very well connected with experience in other cities like New York, Paris and Berlin. Of course, we are also talking to professional colleagues around the sorts of physical and other measures they put in place, so the blue cycle lanes on our Cycle Superhighways are borrowed directly from some of the cycle lanes in Copenhagen. The early-start at Bow is modelled in a UK regulatory context on some of the early-start signals in other European countries. There are constraints currently around how you can design those given the DFT's design regulations. So we need to take on board as much as we can as to what has worked in other cities.

I think it is very important to look at the context, though, in which these changes need to be made. If you look at Amsterdam - and Roelof will I am sure want to comment on this - often rightly held up as a kind of paradigm of cycling provision, cycling safety and cycling culture, at the point of the late 1970s, 35 years ago, when they began their journey back towards a cycle-friendly city, the mode share for cycling was 25% of all journeys at the lowest point in cycling in Amsterdam, 25 times greater than the point where London began its journey back towards a more cycle-friendly city. In Copenhagen more recently, more like 20 years ago, the mode share for cycling was 10%. These are vastly greater numbers of people cycling, which makes the relative task of reversing those long-term trends start from a very different point.

It is also worth saying that the growth in cycling we have seen in London, which other people have acknowledged, is at about the same rate as was the case in both Denmark and Holland at the point when they decided to turn the corner. So I think the legal context, the political context, the

geographical context and the infrastructure legacy that a city has is all part of the context in which you have to look at what you do in terms of physical measures on a highway, promotional campaigns, training for children at school and designing your hierarchy of routes to make sure you accommodate all needs.

So is cycling in London anything like as good as Copenhagen and Amsterdam? No, it is not. Are we making the broad, comprehensive approach now and certainly in the last four or five years that those cities adopted? I think we definitely are. There is plenty more to do. I am not and nor are my colleagues in any way complacent about how much further there is to go, but I think we are on a similar trajectory from a much later stance and from a much lower base than some of the other cities that we have quite rightly heard about doing really great things for cyclists.

**Caroline Pidgeon (Chair):** Investment, though, is going to be key in all of this. Do you want to outline how much TfL is investing per capita per year in cycling?

**Ben Plowden (Director of Planning, Surface Transport, Transport for London):** We are currently running at about £10 per head, which is about half. Certainly Holland is more like £20 a head.

But that is significantly up from the early days of TfL. I have been involved in cycling directly or indirectly since pretty much the organisation was established. The investment in cycling has been hugely increased. In 2010/11, which is currently the high point because of the cycle hire scheme going in, it was about 40 times the volume of cycling investment in 2003/04, so we have seen an order of magnitude increase in investment and that is just the TfL investment. Obviously the boroughs are spending quite substantial sums through the Local Implementation Plan (LIP) process as well.

I am sure there is more investment we could put in. We are currently debating the TfL business plan for the next period and one of the conversations that is going on is the relative proportion of investment we should put into cycling vis-à-vis other things like the Tube and road traffic improvements more generally. But clearly investment is much greater now than it was in the early days of TfL. It is not yet at European levels, but I think we have gone up on a curve from a very low base to being en route for those is definitely in place and I suspect will continue.

**Caroline Pidgeon (Chair):** Are you including the setting-up of the cycle hire scheme in that £10?

**Ben Plowden (Director of Planning, Surface Transport, Transport for London):** Yes.

**Caroline Pidgeon (Chair):** We have only been able to glance through the paperwork.

**Ben Plowden (Director of Planning, Surface Transport, Transport for London):** Yes, of course you have. No, 2011/12 that would have been, so that would include the later costs of the cycle hire scheme but not the original setup. A large part of that would have been the cycle highways which were in reasonably full tilt at that point.

**Caroline Pidgeon (Chair):** But we know, as you say, other cities in the figures. Copenhagen you were saying was about £20 per head but actually we have heard it could be more like £23-27 per head. That is currently, when if you look back I am sure the historic investment in places like Copenhagen and the Netherlands was way more than that per capita.

**Ben Plowden (Director of Planning, Surface Transport, Transport for London):** Yes, and has been in place for a generation. Again, without wishing to sound like I am making excuses, and to be blunt, the real serious levels of investment relatively speaking have only really been in place for the last four or five years, compared to the early days of TfL where we had relatively limited resources. I think we are on a trajectory towards levels of investment and towards levels of cycle provision that other European countries have been on in some cases for a generation or more.

**Caroline Pidgeon (Chair):** Historically, though, there was the London Cycle Network and serious investment in that.

**Ben Plowden (Director of Planning, Surface Transport, Transport for London):** The sums of money in those things were very, very small compared to --

**Caroline Pidgeon (Chair):** I do not know. It might be in the submission you sent.

**Ben Plowden (Director of Planning, Surface Transport, Transport for London):** Yes, it is in the evidence and I apologise for --

**Caroline Pidgeon (Chair):** I think we would like to understand year-on-year that investment.

**Ben Plowden (Director of Planning, Surface Transport, Transport for London):** So let me give you an example. £2.6 million in 2003/04 was the total TfL cycle budget and in 2010/11 it was just under £100 million, so it is serious. I remember the day when my then boss was threatening to actually cancel that budget because of a poorly-designed cycling facility he had seen in Docklands, so we are not at Dutch or at Danish levels, but we are in a very different environment than we were when I started at TfL.

**Caroline Pidgeon (Chair):** To get the step change that is needed, I think we had evidence from the public who came to this Committee last time, you are going to have to spend an awful lot more than that to really get the step change that is needed.

**Ben Plowden (Director of Planning, Surface Transport, Transport for London):** You are. You are going to need to commit enough money to pay for the things you need to pay for. That is partly about infrastructure, which is relatively expensive per unit of cycling encouraged. It is partly about things like training and safety education. It is partly about measures like cycling promotion and marketing campaigns. Yes, you have to invest your resources, human and financial, in this effort and make sure you are investing it in a way which buys you the best result for the money you are investing.

As I say, the TfL business plan is currently in development and one of the questions on the table in that is the level of cycling investment going forward. Obviously, the Committee may have a view on that in terms of its final report.

**Caroline Pidgeon (Chair):** When might you know that sort of sum for future years?

**Ben Plowden (Director of Planning, Surface Transport, Transport for London):** My understanding is the business plan goes to the TfL board at the back end of this calendar year or just after Christmas, so it is quite imminent.

**Caroline Pidgeon (Chair):** All right, so our report may well be concluded by then?

**Ben Plowden (Director of Planning, Surface Transport, Transport for London):** Yes.

**Caroline Pidgeon (Chair):** Thank you for that. We will want to really get into those figures offline because obviously the members may have different views on that and we will want to see what is being counted.

Richard, had you indicated to come in on this?

**Richard Tracey (AM):** We have talked about percentages and the amount of money invested. Can I just ask particularly our two guests from Copenhagen and from Holland: what is the size of population of the largest city in Holland, first, Mr Wittink? Amsterdam is presumably the largest city?

**Roelof Wittink (Director, Dutch Cycling Embassy):** Yes.

**Richard Tracey (AM):** What is the size? I think we do need to have some kind of comparison against the population of London.

**Roelof Wittink (Director, Dutch Cycling Embassy):** Yes. Amsterdam has [a population of] 800,000.

**Richard Tracey (AM):** That in fact is smaller than Birmingham by quite a bit. Mr Rasmussen, what about Copenhagen?

**Steffen Rasmussen (Head of Traffic Design, Municipality of Copenhagen):** The Municipality of Copenhagen is 550,000. But, when we belong to greater Copenhagen, it is a number of 20 municipalities and around 1.6 million.

**Richard Tracey (AM):** London is what, 6½ or 7 million?

**Caroline Pidgeon (Chair):** Eight million.

**Richard Tracey (AM):** Eight million, so it is vast. As I said, Amsterdam is less than Birmingham, which is our second-largest city. I think I am right. I think Birmingham claims to be, rather than Manchester. The same really applies to Copenhagen. Ben Plowden I am sure will agree with me. There is an enormously different contrast in the size.

Is cycling viewed as the main method of transport of the population rather than using underground or buses or mainline trains as we see in London?

**Roelof Wittink (Director, Dutch Cycling Embassy):** In Amsterdam it certainly is, especially the people who live in the inner city. Almost half of them take a bike and we have of course a lot of measures in the long term taken to control, if I may say, car use. So, in fact to make it attractive to use a bike, public transport is not at that high a level. But there of course you are completely right. Amsterdam is a completely different level to London. Maybe you have to compare a little bit what we call the Randstad where Amsterdam is connected to other cities in the western part of our country

because a lot of people, of course, do not stay in Amsterdam but they go also to other cities. There of course we need our good public transport system and there we also have the combined trips, take the bike, go to the station, take the train, have another bike and go to your final destination, so that system is also well advanced at the moment. Cycling is definitely the main mode in the cities in the Netherlands, yes.

**Richard Tracey (AM):** Similarly in Copenhagen?

**Steffen Rasmussen (Head of Traffic Design, Municipality of Copenhagen):** If you look at the broader perspective, I think we aim at one third for public transport, one third for car and one third for cycling. If you look at the short trips, cycling is very competitive. Within the city borders of Copenhagen, 55% of all trips to education or work are done by cycling, so over half of the short trips are done by cycling in Copenhagen.

**Richard Tracey (AM):** Clearly, it is therefore quicker, cheaper and easier to use a bike in your cities than it is in London. I am very pleased to see we have a fast-growing population of cyclists, but we are really looking at rather different cities, are we not?

**Roelof Wittink (Director, Dutch Cycling Embassy):** Maybe it is a little bit relative. I am always surprised to know what the share of short trips within a cycling distance is in cities. In India, the majority of all the trips in these metropolitan cities are within a cycling distance. I do not know exactly how it is in London. It might be a little bit different. However, you have to weigh the amount of short trips. So, if you make it attractive for cycling with your rental bikes or with your own bikes, I think you can make a lot of progress in that.

**Ben Plowden (Director of Planning, Surface Transport, Transport for London):** It is worth saying, Chair, that we have a very good understanding now, to pick up the point which has been made, of what the potentially cyclable trips not currently cycled are in London and where they are geographically and who they might be made by. Our investments in terms of infrastructure, cycle training and all the other activities we are undertaking are very much designed to look at those areas and those trips and those people which have the greatest potential.

The next part of the next phase that we will be doing, particularly with the boroughs, is looking at outer London where the largest part of the non-cyclable trips currently exist. The reason that is very encouraging is because quite a lot of those trips are actually short car trips made, for example, to go to Croydon town centre or Ealing town centre to shop or to visit the doctor or to go to the borough offices. I think there is a lot of potential there for the sorts of trips that are made typically and commonly in Amsterdam and Copenhagen for daily travel to be made in those sorts of outer London town centres.

It is worth saying also that, in the case of Amsterdam, the growth they have managed to achieve very impressively since the 1970s has been pretty much entirely from public transport and walking trips moving to bike trips. It has not actually been a car/bike shift, which I think is quite important. We do want to try where it suits people to get people to make the shift from short car to cycle, certainly for local trips in outer London.

**Caroline Pidgeon (Chair):** Just a figure I have managed to read in the submission that came through late yesterday and of your potential cyclable trips in outer London: more than a million of those would

take less than ten minutes to cycle every day, so TfL is obviously doing a lot of number-crunching in that area. Thank you for that.

**Darren Johnson (AM):** If we can look specifically at cycling safety, I will bring in Ben first and then we can hear from others.

But, Ben, we have seen a disproportionate increase in cycling casualties in recent years, notwithstanding the big growth in cycling numbers. Can you give us TfL's assessment as to what the causes behind this are?

**Ben Plowden (Director of Planning, Surface Transport, Transport for London):** Yes, thank you, Darren. First of all, it is quite specifically the distance between the dates of 2010 and 2011 that has seen a very concerning increase, particularly in killed and seriously injured (KSI), but also a large number of slights which is driving some of the overall headlines. I have a couple of things to say in that context and then I will come on to causes in a second.

The first is that I think we have made very clear, the Mayor has made very clear and Peter [Hendy] has made very clear that we are taking that jump from 2010 to 2011 very seriously and we need to understand what has gone on. It is important to say also that one should not draw too many conclusions from a single year's data and it is also quite important to look at relative rates of casualties as well as the absolute numbers, although the absolute numbers are very important as well.

If you look at what has happened where we have the base data for rates, the rates of KSI collisions on the busy roads and on the main roads of Transport for London Road Network (TLRN) has dropped by about 55% in the period between 2001 and 2010. That is the latest year we have done the analysis for in terms of the relative rates. That obviously combines the absolute numbers of cycle casualties with the growth in cycling over that period, so the long-term trajectory of the rate of cycling risk or cycle safety is downwards. We have to take account of the 2011 figures in looking at what has happened to that rate and when we do the analysis currently.

What we know from the analysis we did particularly around cycle fatalities, which was a very detailed piece of work done by the Transport Research Laboratory (TRL), was that -- and the numbers are relatively small obviously, but they went back to the police reports and looked in detail at what the causes were. There is clearly an issue, as Karen [Dee] has mentioned, around HGVs and particularly construction lorries. There seems to be a particular issue around both the design and possibly the operation of those vehicles in terms of the way the construction industry operates or seems to operate. There is a lot of evidence around the interaction between cyclists and HGVs, particularly at junctions where we are doing a lot of work in terms of the driving, vehicles, design of the junctions, information for cyclists and so on.

The other issue seems to be what we call close-proximity collisions, which essentially are road users, cyclists and drivers not giving each other enough space on the carriageway. It is partly about the amount of space they have and also about how they relate to each other when they are actually moving along the highway, so that includes things like drivers making manoeuvres that strike cyclists, people opening car doors, where you actually have just too much close proximity. There is a very important issue for us there about, as well as looking at the physical infrastructure of the highway, how we ensure that people are made as aware as they can be in the presence of other road users on the

network and behave accordingly in terms of, as Karen [Dee] said, having a lot of people trying to use the network at a given time, particularly in the morning and evening peaks.

**Darren Johnson (AM):** When we look at the 2005-2009 figures and compare it certainly with 2011, you are not sure yet whether that increase is a more general trend or whether it is an unfortunate blip for one year?

**Ben Plowden (Director of Planning, Surface Transport, Transport for London):** You would not normally draw a conclusion from less than about three years' data and you would need to compare that with a prior average, which as you say is the 2005-2009 average.

Clearly, we are not in any way complacent about the figures for 2011, which were a source of significant concern. We need to make sure, as you suggested, that we understand what was going on. If we take fatalities particularly, 2010, at 10 fatalities was the second-lowest number of fatalities there had ever been in London since we have had the data in the late 1970s or early 1980s, so the jump up to 16 was a very significant jump in statistical terms but from a relatively very low base. Again, we need to understand the difference between what happened with the fatal ones and the serious ones and the difference between both of those and the slights. There is quite a large analytical piece of work to be done around that, so we first of all have to understand what has happened to the relative rate of safety or risk and then understand what was going underneath the data insofar as it suggests a change of direction.

So my sense is that the long-term trajectory in terms of the relative rate of safety, taking account of the growth in cycling, will continue to be downwards but obviously the 2011 figures will have an effect on the slope of that curve.

**Darren Johnson (AM):** If we turn to the Netherlands, we have had increases in cycling but that has not been a comparative growth in collisions and injuries. Can you say why you think the Netherlands has been different from London in that way?

**Roelof Wittink (Director, Dutch Cycling Embassy):** In fact, at the moment we are also not very satisfied with the current trend that we have in the Netherlands. It is not so much about the trend of fatal accidents but overall accidents are also growing in the Netherlands and we are also seriously looking into that.

However, if you look at the history - and of course, as Ben [Plowden] is saying, you have to go back to the 1970s - that was a period where in fact we had the highest level of road safety in the Netherlands but also all around in Europe and also here. Then there was in many of these countries when we had had some decades of motorisation already, then we had a decrease in risk overall. If you look at the Dutch data, then you see that cycling was growing in the 1970s and in the 1980s because of our policies. At the same time, overall fatal accidents were decreasing. It has to do with the overall trend but also with the measures, of course, that we take.

If you go more in-depth and you look at other countries, you see the same kind of trend. The more cycling, the fewer fatal accidents with cyclists. It has partly to do with --

**Darren Johnson (AM):** So you would put that down to a critical mass of cyclists on the road encouraging confidence and a general attitude change?

**Roelof Wittink (Director, Dutch Cycling Embassy):** That is indeed a very important explanation. Another is that cyclists are vulnerable, so you can say the victim risk is higher than when you are in a car. If people move from a car to a bicycle, you have also less people who are in fact causing the troubles for cyclists and that is more or less compensated to each other. So that is one thing.

The second thing has to do with experience. People get more experience with cyclists and with cycling. A third of course very important factor is the message that you take. It is education, as was already mentioned. Segregation of traffic is very important, at least when you have a speed of more than 30 kilometres per hour and you have here a 20 kilometres per hour campaign. That is very important.

What we also disconnect is the main route for cyclists with the main route for cars, so that you have fewer crossings where you have high volumes of cyclists and high volumes of cars. This is of course a long-term policy that you have to undertake. Then of course you have to add measures for better interaction and the same kind of problems that you have with your heavy vehicles we have also in the Netherlands, so we are also looking into different measures for that education supports that what you were saying is completely also valuable for our situation. You cannot solve everything, so you have to educate the different road users what to do. Sometimes cyclists have to give in and other times other kinds of road users have to give in.

**Darren Johnson (AM):** In terms of the physical engineering aspect, you are saying that segregation and design of junctions is key to this?

**Roelof Wittink (Director, Dutch Cycling Embassy):** Yes, it is very important and yesterday I had a look at some of your roundabouts here. Well, it is some kilometres from here. However, we are planning now to do a workshop with the London Cycling Campaign (LCC) and also TfL will be pretty much involved in that. So this is an opportunity to have a workshop for one day and to look at these kinds of roundabouts. My impression is that the roundabouts we have in the Netherlands are a tremendously huge success but they are mini-roundabouts. They slow down the speed much more than your roundabouts. Your roundabouts in effect allow still car drivers to have a speed of 40-50 kilometres per hour and to cross that. That is impossible in the Netherlands, so these questions are also very important, I feel.

**Darren Johnson (AM):** That is a really useful point. Can I just quickly turn to Copenhagen as well, if you can just comment on the general trends in Copenhagen and whether you saw an increase or a reduction in casualties as cycling numbers increased overall?

**Steffen Rasmussen (Head of Traffic Design, Municipality of Copenhagen):** I support strongly Ben's [Plowden] view that you have to look at many years before making conclusions on the trends in fatalities and injuries. In the city of Copenhagen over the last 15 years since 1995, the amount of cycling increased by 50%. At the same time, the number of injuries in traffic decreased from a level of 100 down to between 25 and 30. So, all in all, the risk of being involved in an accident with serious injuries for a cyclist is much lower today than 15 years ago. In fact, you can ride four times as long a distance today before you are involved in an accident with serious injuries as a cyclist in Copenhagen, so it is actually a very positive trend.

I agree that there might be something about a critical mass of cyclists. You are used as a motorist to navigate in a complex traffic environment with many pedestrians, many cyclists, so you are trained over the years. I think also the cyclists are becoming more competent road users year-by-year. Really, we need more research on the issue of critical mass. I do not know any specific research for European cities that is very clear on that point.

**Darren Johnson (AM):** Would you also say that in the Netherlands engineering solutions were an important part of reducing casualty figures as well, segregation and junction design and roundabouts and so on?

**Roelof Wittink (Director, Dutch Cycling Embassy):** Extremely important. We have a lot of work to do still in the city of Copenhagen I think in particular in the junctions, looking at accidents with left turns, right turns, between cars and cyclists, between cars and pedestrians. We can do targeted work and very often we see reductions in the number of injuries by 40%, 50% or 60% after intersection modification.

**Darren Johnson (AM):** I have cycled in both Copenhagen and Amsterdam. Notwithstanding they are much smaller than London, I certainly felt a lot safer. I am not sure if either of our other two guests have anything additional to add before we move on about the trends with the figures.

**Dr Rachel Aldred (Director, Sustainable Mobilities Research Group, University of East London):** Yes. I wanted to say something on the figures for London but also something on safety in numbers as well.

So, just to start off with the figures from London, when Ben [Plowden] talks about the risks going down year on year, that is true. You would expect that. You would expect that for one reason in terms of deaths because healthcare gets better and people are less likely to die from injuries that may be very bad injuries, but no longer kill them, so you do expect trends to improve year on year in the developed motorised country context.

What worries me personally is when you compare modes and see how much the risk has reduced for different modes. The risk for cyclists has gone down a lot less than for other modes except for motorcyclists, so somehow it is becoming safer for car drivers and car passengers and pedestrians but for cyclists that improvement in the risk is much less, so that I find worrying. I also think it is important to look at the relative rate in terms of the rate for people cycling versus the rate for people in cars because that is something that people think about. If I am going to cycle ten miles or five miles or whatever it is to work, what is my risk compared to if I were driving or if I were a passenger in a car?

TfL in April this year released the comparative casualty rates by vehicular mode of travel. These are the figures from 2010, the good year, not 2011 when as we know the figures may be a statistical blip. What concerns me about those figures is that the KSI rate per passenger kilometre is 30 times greater for cyclists than for car drivers or passengers and that seems like a very big disparity. I calculated yesterday what I thought were reasonably comparable figures using the SWOV<sup>1</sup> data from the Netherlands and using KSI and I got roughly 4 to 1 for the Netherlands, so 30 to 1 in London and 4 to 1 in the Netherlands. It is around 25 to 1 in the UK as a whole, so clearly there is an issue there, particularly as we are trying to encourage people to switch from cars to cycling.

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<sup>1</sup> Stichting Wetenschappelijk Onderzoek Verkeersveiligheid – traffic safety research establishment in the Netherlands

I believe in the Netherlands, incidentally, in 2010 that there were four right-hook HGV deaths in the whole of the Netherlands, maybe Roelof [Wittink] can confirm that. However, for the whole of the country where cycling is very high, that shows that the Netherlands seems to be doing something better with that issue - and obviously it is the left-hook issue here - than we are.

The other point I wanted to make was on safety in numbers and I think this has been much discussed in the academic literature and I wanted to say something about a paper by [public health consultant Peter] Jacobsen in 2003 which is the original use of "safety in numbers". Jacobsen used five datasets. Three of them were cross-sectional, so there is a methodological issue with that. You cannot tell if there is safer cycling because there is more cycling or if there is more cycling because there is safer cycling because it is at the same time. He used two other datasets that were longitudinal and give a better insight into that. One of them was the Netherlands where he concluded that cycling was becoming safer as more people cycled if you look at the time series. The other case, interestingly, was the UK and he found that something very different was happening. It was all over the place. It was not showing a consistent improvement in safety related to the numbers of cyclists.

That to me poses the question that with safety in numbers I do think there are a number of mechanisms that I could talk about, probably at greater length than you would like, but there are a number of mechanisms that may be going on. But I do not think you can say more cyclists always leads to safer cycling because I think there are different mechanisms going on and I think it depends on the country, the infrastructure, the culture and the legal context.

**Darren Johnson (AM):** Could it also be that the numbers in terms of cycling of overall modes is comparatively small still in London so it is not making a significant difference yet? It is still comparatively small compared to the overall population.

**Dr Rachel Aldred (Director, Sustainable Mobilities Research Group, University of East London):** Yes, that is a question because it is decided socially what level of risk is acceptable, so do we say that at 1%, 2% or 5% it would become acceptably safe? But it is also confounded because as you get more cycling you get more pressure for better cycling conditions, so that will then feed into safety, so there are a lot of things going on.

**Ben Plowden (Director of Planning, Surface Transport, Transport for London):** It also must be true, must it not, that in a city like Amsterdam or Copenhagen where you have very high mode shares for cycling from a relatively high base in the beginning that you have the physical presence of cyclists on the highway a lot and infrastructure that has for a generation been designed with that in a mind and a lot of the people in the cars driving might also cycle the other days of the week. So you have a virtuous circle where both the physical presence of the cyclists and the state of mind of the drivers must be - this is pure speculation - helping the situation where people behave in a way that puts cycling very much in the frame as part of what people are thinking about. Again, I do not know whether you can even begin to say at what point in the population of road users that tipping point starts to happen. It is certainly a long way above 1%, I think. It might be 5% to 10%. It might be more than 10%. I do not think you can do it scientifically. There must be some critical point where there are enough people who cycle some of the time and are in the car the rest of the time and actually you reach a point where things do change quite significantly. I do not know where that point is.

**Darren Johnson (AM):** So it could well be that we are some way off reaching tipping point yet.

**Ben Plowden (Director of Planning, Surface Transport, Transport for London):** I would be surprised, yes. I have been riding a bike in London to work for, I am ashamed to say, 30 years and you now get to the point at certain junctions on certain busy routes where you get 40 or 50 cyclists for each cycle of lights. That must be having an effect on people's perceptions of who is on the road on those particularly busy commuter corridors. The question is at what point that starts to feed through into people's behaviour to wait at junctions and so on.

**Dr Rachel Aldred (Director, Sustainable Mobilities Research Group, University of East London):** Just to point out, Jacobsen's original idea of safety in numbers was in terms of presence on the road, not a long-term cultural shift. So what concerns me about reliance on safety in numbers is also that say on Gray's Inn Road where you have 40 or 50 cyclists, it may be relatively pleasant when it is rush-hour and you have all those cyclists. But when you are cycling back late at night because you have had a late meeting and you are the only cyclist on the road and the motor traffic is flowing freely at 30-35 miles an hour, that experience is quite different. So that to me is also about continuity and having consistency.

**Darren Johnson (AM):** That is really helpful. Karen, did you want to add anything on this particular section?

**Karen Dee (Director of Policy, Freight Transport Association):** Not particularly on trends because it is not an area that I am an expert on. I do think for HGVs obviously, although your chances of having an accident with an HGV are lower than they are for cars and other vehicles, of course because of the nature of the vehicle the chances are that it will be more serious. If you have an accident with a car, you are likely to get off better than you do if you have an accident with an HGV.

**Darren Johnson (AM):** Is the FTA particularly keen on segregation as a means of --

**Karen Dee (Director of Policy, Freight Transport Association):** It is not something we take a firm view on. I think what we want is for the right kinds of infrastructure to be put in the right kinds of places. In some places segregation may be the answer and in other places it would not be cost-effective or it just would be wrong. I think our view is you have to look at what is going on in the areas. Where are most of the cyclists going to be? What sort of times of day? Do the HGVs need to be there or not?

It is not going to be the same in every part of London. It is such a big city that you cannot get one solution to fit every part of London. I think that is my main message. You have to use all of the tools that you have available to you in the most appropriate places.

**Caroline Pidgeon (Chair):** Thank you very much for that.

**Joanne McCartney (AM):** Yes, I wanted to ask about the enforcement of road traffic laws and road traffic rules and good manners, really. Can I ask firstly our international visitors: what enforcement do you have, firstly, of motorists? Is an infraction of road traffic laws taken very seriously? Some of the cyclists that came to give evidence to us last time said that in England they felt that actually minor infractions were waived by police officers if they were noticed at all. I was just wondering if you have a strict enforcement regime at all.

**Roelof Wittink (Director, Dutch Cycling Embassy):** One important thing is that in our laws and regulations motorists always have a certain responsibility and accountability when an accident happens with a pedestrian or a cyclist. They never can say, "It is 100% the blame of the pedestrian or the cyclist because they did something that was completely against the rules and I could not expect that". So we make them at least 50% accountable for every serious accident with a cyclist or a pedestrian. That might have an influence. I think it has, but it is very difficult to prove what kind of influence it has on the behaviour.

If you look at the regulations, in fact we have a lot of regulations and a lot of informal rules. Traffic behaviour when it becomes busy is of course also very informal and people react very flexibly to that. People coming from other countries to the Netherlands always say, "It is very well organised" - Dutch people feel it is completely not organised - but what they feel is that in fact they do not feel so much threatened by traffic because we have slowed down the speed. So it still remains a difficult situation to handle but it is so important. If you have low speeds, then you have so many opportunities to deal with this in a fair way. If you ask for police enforcement on speeding and of course also drinking and driving, those are very important points for the police to enforce the behaviour of people.

**Joanne McCartney (AM):** Do you have specific traffic police to patrol the streets?

**Roelof Wittink (Director, Dutch Cycling Embassy):** Yes.

**Joanne McCartney (AM):** What about Mr Rasmussen in Copenhagen?

**Steffen Rasmussen (Head of Traffic Design, Municipality of Copenhagen):** We have no specific traffic police in Denmark. It is the national police in charge of enforcing traffic. I completely agree with you, Roelof. If we look at injuries and fatalities, then you have to focus on speeding, alcohol and driving and to some extent also reckless driving by young males 18 to 24 years old.

We have also a discussion of course in Denmark when many cyclists are doing shortcuts on the sidewalks, etc. We have not a lot of injuries but it is an irritating aspect for many people, so there is a public debate and the police have annual campaigns also to enforce that aspect of cycling in Copenhagen.

**Joanne McCartney (AM):** Just looking at page 9 of this little booklet you gave us about Copenhagen city cyclists<sup>2</sup>, I was interested that in the survey you did about what would make Copenhageners feel safe and persuade them to cycle more, non-cyclists and cyclists both have a higher percentage wanting better cyclist road manners than wanting better motorist road manners.

**Steffen Rasmussen (Head of Traffic Design, Municipality of Copenhagen):** That is correct.

**Joanne McCartney (AM):** Was that a surprising finding or not?

**Steffen Rasmussen (Head of Traffic Design, Municipality of Copenhagen):** For me it is a well-known figure at the moment. I think it is an interesting aspect. When you asked the cyclists themselves why they feel unsafe in traffic, 45% of them say it is because of the other cyclists. It may

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<sup>2</sup> Copenhagen City of Cyclists – Bicycle Account 2010 -  
[http://www.sfbike.org/download/copenhagen/bicycle\\_account\\_2010.pdf](http://www.sfbike.org/download/copenhagen/bicycle_account_2010.pdf)

be because of congestion on the cycle paths. However, 55% of them expressed that it is because of car traffic.

**Joanne McCartney (AM):** TfL funds a Cycle Task Force. I think there are 50 Metropolitan Police Service officers. Is that correct? Do you have any evidence that they have made a discernible difference? What data do you look at when deciding the effectiveness of them?

**Ben Plowden (Director of Planning, Surface Transport, Transport for London):** Yes, thank you. They have been in place for a couple of years, so they are still relatively new to London streets. I think there are two aspects as to why the Task Force is very important and obviously enforcement is part of the wider effort to encourage safer travel particularly for cyclists but for other road users as well.

One is, a bit like the debate we were just having about a visible presence, they are visible on the street. Police officers on bicycles was quite a novel thing for London. It is more common in other cities, for example, in North America. I think it is quite an important part of what the police are seen to be doing as part of their enforcement activities, actually being on bicycles in amongst the rest of the traffic.

The second part is obviously what they have been doing in terms of undertaking enforcement action. So, since the team was set up a couple of years ago, they have issued around 7,000 fixed penalty notices. About a quarter of those were for cyclists, for example, jumping red lights and things like that, about a quarter were commercial vehicle drivers and about a half were regular motorists and things like drivers not wearing a seatbelt, using a mobile phone and jumping red lights.

So there has been quite an extensive amount of police activity around cycling specifically using those officers alongside what the rest of the Metropolitan Police Service would do as part of their wider traffic enforcement activities. I think, again, it is relatively early days for the deployment of that team. We think they have been a very important part of the toolkit, if you like, that London has. Actually that applies to things like cycle security in terms of theft and loss of bikes as well as the safety issue and it also goes along with things like the use of safety cameras, speed cameras and red light cameras and the general enforcement activities of the Metropolitan Police Service, so it is part of the package but by no means the whole of it.

**Joanne McCartney (AM):** Can I come to Dr Aldred? Do you have any comments?

**Dr Rachel Aldred (Director, Sustainable Mobilities Research Group, University of East London):** Rachel, please. Yes, I think it is a big issue in the UK. Possibly things are changing to some extent in London but we have a tradition of not really taking traffic offences seriously. There is a phrase, "no previous convictions except traffic offences", as if the traffic offences do not really count and are just something that might happen to anyone, so I think it is important that this is seen to be taken more seriously.

It is also to do with the stigmatisation of cyclists, which is something that I have written about. Cyclists are seen as being incompetent; they are seen as being to blame for being injured. When I did some research on this, I found some very upsetting comments that were posted online and on news sites after a cyclist had died that basically blame the cyclist for having been killed. This was quite an upsetting piece of research to do but it really highlighted to me the fact that often cyclists are held responsible and often motoring offences are not taken seriously enough.

So I am very pleased that they do seem to be taken a bit more seriously in London because I think that is very important. It is part of making cycling more legitimate. For example, 50% of cars in free-flowing traffic on 30 mile-an-hour roads are speeding, 50%, and that figure has improved so it used to be worse than that, so there is clearly an acceptance of speeding, for example, that I think needs to be challenged. As the international guests have said, that is really important in terms of safety and perceptions of safety.

**Joanne McCartney (AM):** Thank you. Chair, I am not going to ask Karen because I know there is a set of questions for her now on a similar theme.

**Caroline Pidgeon (Chair):** Thank you for that. Val, did you have questions?

**Valerie Shawcross (Deputy Chair):** Yes, thank you very much. The issue of HGVs has been raised already. It is clear that HGVs while not being the whole problem are massively disproportionately represented in cycling deaths in London and HGVs are killing half of the cyclists who die in London every year, so I think it is important that we do have some focus on that.

Karen, what do you think about the effectiveness of HGV safety initiatives such as the training schemes like Exchanging Places and having HGVs which are properly equipped with things like the lenses and the side guards which seem to be hugely important? How much difference can be made by those measures?

**Karen Dee (Director of Policy, Freight Transport Association):** I think that would be a whole TRL research project to look at each of the individual elements, but all of those elements are important. Side guards, for example, are standard on motor vehicles now. There are only exemptions for a small number and that is principally what you see in the construction sector. All of those are governed by European Union (EU) regulations, so side guards are standard on most HGVs these days unless it is a special vehicle.

We welcome all of the technological developments. We have seen the mirrors. There was a retrofit programme a few years back anyway, but most HGVs these days have around six mirrors that the driver needs to consult before he moves. That has done wonderful things for reducing the blind spot problems that you have with HGVs and there are further proposals, so that is continuing to develop. Again, that is something that we welcome.

On things like Fresnel lenses, a lot of members fit them in their vehicles. Some of them have had good --

**Valerie Shawcross (Deputy Chair):** Karen, why would you not make all of your members have them in their vehicles?

**Karen Dee (Director of Policy, Freight Transport Association):** Some drivers do not like them because they say it distorts their view of what is going on around them and it depends where you put all of this kit. You have six mirrors around the cab of the vehicle and you have to make sure that the driver can actually see. Fresnel lenses can work and lots of operators like them and lots of drivers have positive feedback. Other drivers prefer other types of technology and different types of mirrors or some vehicles have sensors on them, although again you need to bear in mind that there is a certain

amount of information a driver can take in before he is moving along. What you do not want to do is make those different types of technologies interfere with each other.

**Valerie Shawcross (Deputy Chair):** It is interesting you say some vehicles have these technologies, but not all of them, and I gather that there has been a move to try and have some kind of blind spot eliminating equipment compulsory on all HGVs. Would you support that?

**Karen Dee (Director of Policy, Freight Transport Association):** Certainly we would support the development through the construction and use and improving those blind spot mirrors and that is principally what the mirrors and the continuing work in the EU is doing. DfT has another proposal in with the EU even as we speak, which we expect to come forward, so we support all of that.

Retrofit is a different matter because it depends. You are trying sometimes to fit bits of kit to vehicles that were not designed to have them. That can make it either less effective or more difficult to fit. You also have to look at the vehicles that you are trying to fit them to. You cannot have all of those mirrors on all vehicles because the vehicle is not high enough and so you would create a problem for pedestrians. You have to look at what is appropriate for the vehicle design. That is why retrofit is a different issue that needs much more careful study before you suddenly say that all vehicles should have this extra mirror.

**Valerie Shawcross (Deputy Chair):** I accept that retrofitting is always going to be a problem. Do you think there is much more that could be done to impose standards of design that are by definition going to be safer and facilitate having this blind spot type technology?

**Karen Dee (Director of Policy, Freight Transport Association):** For the future?

**Valerie Shawcross (Deputy Chair):** For the future.

**Karen Dee (Director of Policy, Freight Transport Association):** I am not an engineer, so I could not give you a technical answer to that. I know that engineers across Europe are looking at minimising that still further.

I suppose my instinct suggests to me - and I may be wrong - that with a vehicle of a certain size you can minimise it right down as far as you can. I do not suppose you will ever be able to completely eliminate it and that is why we have all the other sorts of things going on. Even in a car, there are places where it is more difficult to see than other places, so the sizes of the vehicles that we have and the designs of the vehicles can be made better, I am sure.

**Valerie Shawcross (Deputy Chair):** Has anybody done any research or assessment of existing vehicle fleets in the UK to see how far we have met our potential for making those vehicles as safe as possible?

**Karen Dee (Director of Policy, Freight Transport Association):** I do not know. Because of the retrofit, there probably is information out there about what mirrors they have. I think everything since 2007 now has the 'class IV' or 'class V' mirrors because that was the retrofit, so they are all fairly modern standard in terms of mirrors. But I do not think we have a particularly old fleet certainly in mainstream vehicles. Specialised vehicles will tend to have a longer lifespan, but I do not think the UK would be out of kilter with other areas there.

**Valerie Shawcross (Deputy Chair):** So it would be useful for us to know, really, whether or not we have hit our potential in terms of making those vehicles as safe as possible.

On the training side, you have talked about the training initiatives and those are good. Do you think there is a case for actually making all HGV drivers have specialist training about dealing with interactions with cyclists and tackling their blind spots? Do you think the bottom line training provision and testing provision for heavy goods vehicle drivers could be improved?

**Karen Dee (Director of Policy, Freight Transport Association):** I think there is already a lot underway with HGV drivers. We are halfway through the first introduction of the new driver Certificate of Professional Competence (CPC). So, in addition to having HGV licences, every single heavy goods vehicle driver is now, through European Union (EU) directive, required to go through a period of a number of hours over a five-year period in order to keep his training up to date. So that is mandatory; that is required, and we are halfway through now. Evidence suggests that it is going well, the industry is responding in the right way and is training its drivers.

The particular elements of what is included in the driver CPC are not mandatory; there are lots of different areas that companies can train their drivers in. Often it is in drivers hours regulations, making sure that the drivers are fully competent in knowing what the rules are, when they must take their breaks, how long they are allowed to drive for and all the other regulations that apply. However, there are urban driving courses that qualify as part of driver CPC. But at the moment no one particular element of training is a mandatory element. The training as a whole is mandatory but the companies will be able to say, "Because of my operations, what are the things that I should be training my drivers in?" and clearly, for people, operators in London, they will be more likely to undertake urban driving training courses for example.

**Valerie Shawcross (Deputy Chair):** Do you think there is a case for making it mandatory; that particular element?

**Karen Dee (Director of Policy, Freight Transport Association):** I think traditionally members have not wanted, at the EU level, for people to specify what is mandatory in terms of the driving, because of for some people their drivers never come across a cyclist; they are on different types of routes. It depends on the operation. Freight is a huge industry and it is not all in London, it is not all urban-based. So we have not in the past supported making any one particular element mandatory. Certainly we seek to encourage that and that is something that TfL is doing through its Fleet Operator Recognition Scheme (FORS) programme and FTA is doing as well through our membership to say urban driving courses and cyclist-aware courses are a useful thing, particularly if you are in urban areas, and lots of companies do that.

**Valerie Shawcross (Deputy Chair):** The problem with that is obviously going to be that, if you are a cyclist and a lorry is coming up behind you, you do not know whether that lorry has the right equipment, you do not know what techniques the driver is using to see you, you do not know actually if he has had the training or not. So there is going to be variance in their ability to interact with you on the road.

**Karen Dee (Director of Policy, Freight Transport Association):** What you do know, or what you should know, and we are back to enforcement I think, is that vehicle does have the right equipment, because if it does not have the right equipment then it would be illegal.

**Valerie Shawcross (Deputy Chair):** It may not necessarily have blind-spot technology.

**Karen Dee (Director of Policy, Freight Transport Association):** All vehicles have blind-spot mirrors. What it might not necessarily have is a Fresnel lens, but certainly the six mirrors; that is standard equipment these days, so the blind spots are much, much smaller, since 2007 with the retrofit programme, that is all of those vehicles, or anything since 2007, that is a legal requirement.

**Valerie Shawcross (Deputy Chair):** You do not know what the driver's experience or training has been, and certainly drivers change jobs, some of them are solo operators, they will be in different parts of the country. Do you not think there is a case for a more universal approach to improving drivers' skills in this area.

**Karen Dee (Director of Policy, Freight Transport Association):** We do, and we promote that with our members. I think what I was answering previously was just saying I am not convinced of the case for making it mandatory across the industry because --

**Valerie Shawcross (Deputy Chair):** If it was mandatory, would it really cause a problem? Would it make anybody go out of business?

**Karen Dee (Director of Policy, Freight Transport Association):** It depends.

**Valerie Shawcross (Deputy Chair):** I understand your desire not to offend your members by supporting legislative approaches, but in truth would it not solve more problems than it would cause to have better mandation of driver training?

**Karen Dee (Director of Policy, Freight Transport Association):** I think what we would certainly welcome is better clarity on the training that is available to members; that it is included. The issue of mandation is, which bits do you mandate? Do you mandate that they are trained with cyclists, with pedestrians; there is always then other elements that you could argue, and I think you have to take a view on what is the appropriate level of training, and we support that, and we think that a part of Driver Certificate of Professional Competence (DCPC) is that more training is required and we welcome that.

**Valerie Shawcross (Deputy Chair):** Does anybody else want to comment on heavy goods vehicles?

**Steffen Rasmussen (Head of Traffic Design, Municipality of Copenhagen):** Definitely the awareness is an issue. We did an in-depth study a few years ago in Denmark with 25 fatalities between heavy goods vehicles and cyclists and distraction is an issue still. So education is important.

I would like to raise another important issue, which is where the driver is actually placed in the vehicle. In most lorries, the driver is sitting in his cab, 3 or 4 metres up in the air, and that means that there is more blind angles than for example when you have the driver placed, as in the buses, lower to the surface. So one opportunity, for a city or a public authority, would be to include in your public tenders a demand of which type of vehicles you should actually use for public transportation. We did that in

Copenhagen for our waste removal tender and all the lorries the private entrepreneur is using for waste removal has now low driver cabs, so it makes it possible to have eye contact between the driver and the pedestrian and the cyclist and it is definitely a way we would like to proceed in Copenhagen.

**Valerie Shawcross (Deputy Chair):** We have certainly seen Crossrail seek to achieve the best practice standards in training and vehicles for their construction vehicles, but presumably, Ben, there would be ways of making sure that any contracts TfL was anyway associated with pursued this best-practice model.

**Ben Plowden (Director of Planning, Surface Transport, Transport for London):** Absolutely. I mean Peter [Hendy] hinted when he was here that he takes this particular issue very seriously indeed, partly because he is one of London's most famous bus drivers, but his knowledge of the operation of those sort of large commercial vehicles I think is very important. He has made sure that all TfL contracts from the end of this year, anything to do with the Tube, anything to do with any of our construction projects, will require all the relevant safety equipment to be fitted, including the things that are not necessarily mandated by law, and certainly any new contract made in the last few months or so have had those, so all our term contractors, for example on the highway network, have had those contracts in place each time they have come up for renewal. Our view, Peter's view, strongly is that, to pick up Steffen's [Rasmussen] point, public procurement, which often buys an awful lot of the freight traffic on the road network, is a very important part of that process.

The other thing I think it is worth saying is that I do think the training of drivers is important and Karen [Dee] has made the point about where the CPC process has come from, because however safe your vehicle is in terms of its intrinsic design, if the driver is not necessarily aware of the conditions that they might experience on London's roads they may not be able to take advantage of those features.

We do have a piece of work underway looking specifically at construction vehicle operation, which is in terms of, for example, do the way that owner-drivers get remunerated through the contracts, if they are several tiers down from the primary contract, if you are paid by the tonne or paid by the load, does that encourage you to drive in a way that might make you less safe than if you were paid on a fixed rate, for example. So we are looking right across the set of issues in the construction sector with colleagues from the freight industry and the construction industry to say, "What is it about construction vehicles and the operation of their contracting and their driver standards that may contribute to them being disproportionately represented even within the disproportionate role of HGVs in fatalities?" I have to say, it has been a very good example this of really positive working right across the freight industry, the police, ourselves, the road safety organisations, we do think we have a problem that we need to work out how best to solve right across the board.

**Dr Rachel Aldred (Director, Sustainable Mobilities Research Group, University of East London):** Just following on from what Steffen [Rasmussen] said, that if you look at the risk posed by buses to cyclists and compare it to the risk posed by HGVs to cyclists you will see it is very different and I think the design issue that you are talking about is important. I also think we should maybe be more thinking about using cargo bikes, as they are in some parts of Copenhagen, for small deliveries, this could help reduce the risk further. Cargo bikes are not a dangerous mode of transport. I would also like to point out that several research papers that have been published in medical journals over the past 10, 15 years have called for consideration of restricting or banning HGVs in urban areas as a result of the high risk they pose to cyclists; that is health research.

**Valerie Shawcross (Deputy Chair):** That is very interesting. Personally, I think my view is we are at a point now where there is zero public tolerance of HGV operators who do not comply with the best standards of training and I think we want to see all our public organisations, including the councils, enforcing that as best possible practice.

**Ben Plowden (Director of Planning, Surface Transport, Transport for London):** One other point I would make --

**Valerie Shawcross (Deputy Chair):** I need to move on, Ben, I am sorry, but we would really like to hear more from you I think on this particular topic; it is a very focused topic but it is one where --

**Ben Plowden (Director of Planning, Surface Transport, Transport for London):** Just to put down a marker for your November hearing about the Olympics, I think the other issue, which we discovered through the Games, is you can move the time of deliveries to a much greater extent than people probably thought before. So I think the question about when deliveries take place and how many vehicles you have in the fleet, and the morning peak in particular.

**Valerie Shawcross (Deputy Chair):** The point, Ben, is whenever a driver is on the road we want them to be as safe as possible.

**Caroline Pidgeon (Chair):** We are expecting a review, there is an independent review TfL have commissioned on the design and operation of construction vehicles, we are expecting in the autumn, so that will be useful as well in this matter.

**Valerie Shawcross (Deputy Chair):** Can I just move on to talk about the better junctions review. Ben, earlier on you were talking about special funding streams, expenditure streams, on cycling. But of course I think we are aware that TfL's and councils' main stream expenditure on the road network has a huge impact on cycling safety; things like 20-mile an hour zones, things like bus lanes, things like the congestion charge, have all been very significant and should not be overlooked. Of course one of them is what are our mainstream approaches to road layout, road design, and junctioning issues. I hope we are using this review to go through revolution in our thinking about how the mainstream urban environment should be designed and laid out, rather than continuing to think of cyclists simply as needing separate cycle lanes, although that is obviously an important component. What are we going to get out of this better junctions review? How is the world in London going to really change? I feel this strongly, Ben, because I have ten of the most dangerous junctions in London in my patch.

**Ben Plowden (Director of Planning, Surface Transport, Transport for London):** Let me say first of all that the fact that we will be putting forward proposals for funding for cycle safety in the business plan does not mean that is somehow off to one side of how we think about --

**Valerie Shawcross (Deputy Chair):** Exactly the point I am making.

**Ben Plowden (Director of Planning, Surface Transport, Transport for London):** I could not agree with that more. I think, if you talk to colleagues in other cities where these priorities have been in place for longer, you will find that the entire organisation, the designers, the planners, the traffic engineers, think about these issues as sort of part of their bread-and-butter activities, and I think part of this is about the changes within the organisation as well as the external environment.

If you talk about the junction review in particular, it is worth going back to the point that in quite a lot of the cases, and I am sure this includes some of the junctions in your constituency, Val, are essentially the physical legacy of a different set of priorities of, in some cases, a generation ago. So, if you cycle across Bow Roundabout, even with the improvement put at one side of the junction, that was designed for a particular purpose, which was to move large volumes of motorised traffic through the middle of the inner city a generation ago; it was not designed really with any consideration that there might be large numbers of cyclists going through it. So in lots of cases, what you might end up doing in the short term is modifying or mitigating large bits of infrastructure, Elephant and Castle; Waterloo IMAX roundabout, Bow roundabout, where the design principles that underlay those bits of infrastructure were not really informed by thinking about cyclists at the time they were delivered.

So the way the junction review is now working is we started with 500 junctions, which is a very large number we discovered, which includes all the junctions on the cycle superhighways. It also includes the ones that have already gone in and the ones that are in the plan, and the key junctions on the TLRN where, through a combination of cycle flow data, casualty data, comments from the public, cyclists and Assembly Members alike, we were aware that there were issues around the safety or the perceived safety and the convenience of these junctions.

Where we have come to, having discussed it with colleagues from the cycling organisations and other people, is to try and slim that number down to 100 priority junctions, which we publicised just before the Olympics. We are aiming to get about a third of those delivered, the improvements that were discussed and agreed with colleagues, by the end of next year, 2013, with 10 of those done by the end of this calendar year and a further 15 by the summer of next year. So what we have done is started with a very long list of junctions, narrowed it down to the 100 that we think have the most significant issues at them, and then prioritised within that about 35 where we are going to be on-stream and actually doing physical improvements.

Precisely what will happen at those junctions will depend, as I think other colleagues have said, in terms of the current design of the junction, how much it would cost to modify or in some cases substantially change a junction. The sorts of things that you would hope to see would be other locations where the early-start signals, like those we put in at Bow might be appropriate. We are working with DfT to see if we can get the regulations around the design of those improved, because at the moment you cannot have cycle-height signals on the signal columns, just because of the way the DfT regulations work, you have to have them at a fixed level, which is not obviously very useful if you are looking at them at the cyclists' height. Looking at segregation where that is appropriate and where we can achieve that. Looking at whether you could extend the depth of advanced stop lines (ASL) to give cyclists more of an early start even if you do not change the signals. Looking at where the ASLs actually are on the junction, where the traffic lights are. So it really will depend on the location and we are discussing each of the locations and the options at the locations in some detail with the LCC, with Sustrans, with RoadPeace, with the police, as we go through the options to do with the process. So what we are hoping, now the Olympics are out of the way, is that you will see some early evidence of improvements at the first 10 junctions by the end of this year and the remaining 25, or the top 35 of the top 100 by --

**Valerie Shawcross (Deputy Chair):** There are plenty of locations where, because of development or it has just been scheduled to be done, there is Vauxhall Cross has been talked about for ages, Elephant and Castle, elsewhere in London, thinking about all the changes that are going to happen around the new Crossrail stations, Hayes or whatever. How have you changed the methodology for designing and

tackling the design of future road infrastructure? So how are you going to avoid doing it like we did it in the 1970s, especially because we have the smoothing the traffic priority at the moment?

**Ben Plowden (Director of Planning, Surface Transport, Transport for London):** I think the answer to that question is in two parts there; one is that on the cycle design standards, which are currently being reviewed, and those are part of how you would look at any highways scheme, particularly junctions, which is typically where the problems and collisions tend to arise. I also think that the lessons that we have been learning from the early stages of the cycle superhighway process, the comments we have had from cycling organisations as part of the junction review, are all feeding into a different way of thinking about and looking at the design, the physical layout of junctions, how you manage them to accommodate the various people who need to get through the junctions. I think there is quite a lot of potential benefit from what we have learned, and again we will tell you more about this I am sure in November from the management of traffic during the Games, because I think signals technology has quite an important part to play in this in terms of managing traffic flows. But I think it is a combination of inputs from a variety of sources that will start to change how we do these things and not do in the future what we did in the past.

**Valerie Shawcross (Deputy Chair):** Do you have any concerns about the conduct of the review? Are there any constraints on you that are causing you any concerns; resources or regulations?

**Ben Plowden (Director of Planning, Surface Transport, Transport for London):** There are issues in all of those areas. I think we have sufficient resources; we certainly have sufficient resources to deliver the schemes I have just mentioned by the end of next year. There will be a debate about, not just for cycling, but for the highway network in general, in the context of the TfL business plan. I think the Mayor's Roads Taskforce, which I am sure you are aware of, is a very important part of the broader context of thinking about what kind of road network does London need in the 21st Century and how should its different functions be best fulfilled. There are issues around the fact that quite a lot of the design regulations are set at national level; it is interesting to hear the experience from other countries whereby things you would like to put in, Trixi mirrors being a case in point, you have to go to DfT and say, "Could you please let us trial this?" and then if they view that it has not proved dangerous then you can implement it. I think I am reasonably comfortable that we can make the improvements we need to make, certainly for the next 18 months to 2 years, while we look at the outcome of the Roads Taskforce and look at what funds are available for the business plan. So I think by the time we get to the end of that period we will be in a good position.

**Valerie Shawcross (Deputy Chair):** Richard, you were going to pick up the end of this and the next question.

**Richard Tracey (AM):** Yes. I wanted to ask you about the extent to which you do work together with the local authorities because you may well be aware, Ben, I have one specific case in Wandsworth, it is called Queenstown Circus Roundabout, where there was a most extraordinary layout of contra-flow lanes for the cyclists put on the pavement and so there was an enormous conflict between the cyclists and the pedestrians, and the pedestrians of course, and young mothers with buggies claimed that the cyclists were going much too fast and very nearly cutting them up, and it just seemed to me that there was not sufficient working with the local authority who obviously know that bit of road very well. Has that been organised, sorted out, now?

**Ben Plowden (Director of Planning, Surface Transport, Transport for London):** I hope so. Certainly I can check when I get back to the office on that particular case. I think, yes, we do have a very good working relationship with the boroughs and of course the point is that the vast majority of the roads in London are obviously under their control as the local highway authorities. I think we are adopting what I hope is a genuinely open process, not just with the boroughs, but with the cycling organisations, with the road safety organisations, with local communities, in thinking about how you optimise the use of the road network in particular locations, which Queenstown Circus Road roundabout is a classic example, which I cycle over quite often. There will be cases I think where there are differences of view about what the best solution is and in general, certainly in my experience of going through the Junctions Review Group, is that you reach something approaching a consensus, even if it is not the point that any one individual organisation would have started from at the beginning. But we can certainly go back and look at Queenstown Circus Road to make sure we are getting that right, but I think in general our relationship with the boroughs, both as sort of providing the LIP funding, but also in terms of individual schemes, is reasonably good.

**Valerie Shawcross (Deputy Chair):** That is the end of the section. Roelof wants to come in.

**Richard Tracey (AM):** That is fine. If you could comment on the arrangements that you have for co-ordination. I mean that is presumably the point we are trying to explore with you. Mine was really a point of exploring the relationship between Transport for London and our London boroughs, which is pretty complicated, but do you have any comment to make?

**Roelof Wittink (Director, Dutch Cycling Embassy):** I was more or less also thinking about adding to the debate before, if you do not mind, and it was Ben who was explaining also about the process that is going on now here and of course I have heard about this campaign, Love London Go Dutch, and I am very proud of course that that kind of campaign is going on here. I think we can learn from each other, I think so, immediately thinking that the main difference is, not only that you still ride and drive on the left side of the road, but maybe also some other issues on that. I think we can learn a lot from each other. Also we, from experience over here.

One thing that I would like to mention in that respect is that in the 1990s we had a national masterplan on cycling and we put a lot of extra effort in cycling and we appointed a lot of bicycle co-ordinators so you can also compare this with here in the boroughs, one person who is in fact co-ordinating all the work for cycling. We learned a lot from them. Those people also learned a lot from them. All these bicycle co-ordinators are only working now for half a day a week or so on cycling because their colleagues operate cycling inclusive, which they did not do in the past. Together they learned also very much about how to improve your overall system, your road safety, your traffic flow, etc, and if you take the needs of cyclists and pedestrians central in your approach the result is that you improve your whole system, the road safety, the traffic flow, etc.

This is a long-term process, because the way that planners and engineers are educated has all to do with cars and with motorised vehicles and not with cyclists and not with pedestrians. So they have to learn a lot about that and that is the message that I would like to also give to you in that respect. Do not underestimate that we have to come from far and that the whole learning process, if you can accelerate that, mainstream, do it.

**Caroline Pidgeon (Chair):** Steffen, did you want to comment on any issues around modifying road junctions that we might be able to learn from in London from your experience?

**Steffen Rasmussen (Head of Traffic Design, Municipality of Copenhagen):** About the junctions, I think traditionally we have done modification of our junctions, it is a very normal engineering way, with black spots and calculating cost-effectiveness of the various engineering activities. It is very interesting actually that also in Copenhagen the city council has been very concerned about our methodology, as you mentioned, Valerie [Shawcross]. It is very important for the city council that we include all aspects of cycling when we appoint black spots in the traffic and we were actually urged to include all junctions in the city where there were more than three injuries with cyclists in our analysis. So the city council is aware of making sure that we have all aspects of the cycling safety into our methodology.

I would like to also touch another very important aspect, which is the under-reporting of cycling accidents by the police. We know that, if you compare police recording with hospital recordings, there is a great number of accidents with pedestrians and cyclists, which are not reported. So we want to go into a process of co-operation with the hospitals to take information, to take data and analyse whether another pattern is from the hospital data in comparison to police recorded accident data. So it is an important aspect as well.

**Valerie Shawcross (Deputy Chair):** Very good.

**Steffen Rasmussen (Head of Traffic Design, Municipality of Copenhagen):** As to the engineering methods, I think, Ben, you mentioned the most typical one, it is the same actually in Copenhagen, we are using advanced stop lines for cyclists, we are using pre-green in the signalised junctions, very important to make fixed turning, what we call faces in the signal, so accidents with left-turning cars, in your case right-turning cars, and opposite right-turning cars, left-turning cars, are dealt with. So it is actually a separation in time and it is very effective.

**Richard Tracey (AM):** Can we talk about cycle superhighways and particular infrastructure to improve the experience of cycling. I would like to ask our guests particularly about the trade-offs that are required to create cycle superhighways or to create provision so that cyclists and pedestrians are not in perpetual conflict. Can you give us some idea of how you approach this in Denmark and in Holland, and also I know that the university have done some research into segregation of cyclists and pedestrians. Could you tell us about the trade-offs?

**Steffen Rasmussen (Head of Traffic Design, Municipality of Copenhagen):** Again, when you are looking at cycle superhighways, you are looking at another market share, another modal split, I think the cyclists already have a great part of the market in the share of transport in the short trips. When we are talking about cycle superhighways, there is more competition, there is a greater share of transport to the public transport and to the individual car transport. So we are actually looking to attract potential cyclists for trips like more than 5 kilometres, 5 to 10, 15, or even 20 to 25 kilometres. To that end, we have to co-operate with the neighbouring municipalities in the city of Copenhagen because in Copenhagen the city border from one end to another is just 10 to 12 kilometres. So we have established a consortium, a co-operation, with 20 municipalities and we made a plan for cycle superhighways. We all actually jointly invested in the first two, one that opened this year, but we have a physical plan for all the cycle superhighways in greater Copenhagen at the moment.

**Roelof Wittink (Director, Dutch Cycling Embassy):** It is rather a phenomenon in the Netherlands to do this and it is of course between cities, so on the scale like London between different cities we

create these kind of super cycling highways. Maybe in another way that you do it over here, because for us a highway is without having to stop for traffic lights, so it is in fact you can go very smoothly, and it is very wide. In fact you should be able to ride side by side and then still be passed by someone who is faster than you.

There has been some studies being done how it works out and of course it depends always what kind of benefits you take into account but of course benefits ratio of one study I know is 1 to 2, so the benefits have an economic value twice as high as the cost of creating these kind of highways and it really attracts more people who have to go to another city for their work, 20-25 kilometres or so, and there are also people who use it only for 5 or 10 kilometres.

**Richard Tracey (AM):** Rachel, you have told us that perhaps some high-quality segregated infrastructure would make cycling safer and would encourage cycling. Can you enlarge on that a bit?

**Dr Rachel Aldred (Director, Sustainable Mobilities Research Group, University of East London):** Yes, sure. I think one problem that we have had here in the UK is the belief that cyclists are either like pedestrians or like cars, so we tend to get sort of slow circuitous off-road routes where cyclists often have to give way to pedestrians, or cyclists are expected to be on main roads behaving like cars. I do not think either of those is really satisfactory. I think one of the positive things we can learn from Denmark and the Netherlands is that they treat cyclists as a mode in themselves and not exactly the same as pedestrians and not exactly the same as car travellers either. So one thing that stems from that is in some contexts high-quality segregated infrastructure is very desirable because it means that cyclists do not have to behave as motor vehicles on main roads, but they do not have to be tootling along on the pavement getting in the way of people with buggies either. So it hopefully helps to reduce conflict.

In the Netherlands and Denmark, cyclists are not expected to be slow. You can be slow; there is a space to be slow, but the green wave in Copenhagen, which prioritises cyclists, the assumption is that cyclists will be travelling at 20 kilometres per hour because the infrastructure there is so fast and high quality, which many cyclists would probably like to manage in London. I think there are a lot of benefits and I think in the Netherlands as well the comment that high-quality segregated infrastructure, it is not just about safety, it is also about pleasantness, and it is also about not having to wait in traffic, so you do not get slowed down, you do not get stuck behind heavy goods vehicles, you are prioritised.

I think we also need to remember that there are often predictions, when you remove lanes of motor traffic, as has happened, I could give examples in Cambridge and Hull and so on, this has happened, and what is predicted often does not happen. During the Olympics we did not have chaos when we reduced some road capacity. People adapt; people change; people decide to travel at different times; people decide maybe not to travel, to use different modes. People are very adaptable. I think we need to have faith in that; we need not to say, "Look, if you reduce a lane of motor traffic then there will be chaos". We need to think, "Actually, this will make people's journeys more pleasant, more direct, quicker, people will switch to cycling and there will be many benefits". Obviously it is not the solution for everywhere; the Netherlands does not segregate every little residential street, but I think it needs to be the backbone of a network that is friendly to people of all abilities and at all times of the day. I think people made it clear in feedback about their experience of cycling in London; that is the kind of thing that they want.

**Richard Tracey (AM):** Then we heard from some of our guests at the last session that cycle superhighways are not universally popular and are actually, they feel, rather dangerous. These were cyclists I am talking about. How do you feel about that? Do you think that in part you have the cycle superhighway structure wrong?

**Ben Plowden (Director of Planning, Surface Transport, Transport for London):** I think it is quite interesting that London, Copenhagen and Amsterdam, or Holland, are now all exploring, in our case delivering, routes designed to attract the slightly longer-distance predominantly commuter trips, and to that extent the cycle superhighways that have gone in thus far in the last two or three years, 4 of the planned 12 routes, have been a big success. I think that we have seen growth in cycling along those corridors, some of that has been people moving from other routes, but there has also been some new cyclists appearing on those routes. The bulk of those people, about 85%, are commuters. In a sense we have done the job or we are doing the job that we set out to do, which is to encourage people to travel reasonably fast, it has to be said as somebody who uses them regularly myself directly and safely from outer and inner London, into the central part of London for commuting purposes.

I think we are learning as we go, it is important to remember that these have only been delivered for the last four or five years, so they are still quite a new thing. We are having to introduce them into an existing road network. I think that the routes will modify and improve and develop as they go and we will go back and look again at the ones we have already put in to make sure that we have learned the lessons in retrospect as well as looking forward. I think certainly the data that I have seen suggests that they are safer, certainly the evidence from the market research of people using these that they feel safer on them, 70-80% of users generally say they feel safer than they did before. They do include in some cases quite significant safety improvements. At junctions they include the 1.5 metre wide blue marked route.

They are also supported I think crucially by measures around the cyclists' experience, so we are working with employers at the destination end to put in showers and cycle parking and cycle training through the workplace, and at the home end we are putting in through the boroughs again cycle parking in residential areas and making sure that we have cycle training on offer through the boroughs. So it is a mixture of the physical infrastructure improvements and obviously we are learning as we go, and the other supporting measures, which make the experience of using those highways as safe and as convenient as it can be.

I think there is a question around how you then start to draw in people who are not in the demographic of people between 25 and 45 commuting into Central London, and that I think is partly where we will discover some interesting potential in Outer London, but it is also about thinking what other parallel routes you might want. I take Rachel's [Aldred] point there should not be kind of, you have to go 15 miles rather than 3 miles around the back streets, what are the potential options for parallel routes that are quieter, would be more suitable for less-confident slower cyclists, the people who do not want to go at 20 miles an hour the whole way. I think that is what we now have to look at with the boroughs at what else might be available to complement the cycle superhighways and to deliver those.

**Dr Rachel Aldred (Director, Sustainable Mobilities Research Group, University of East London):** Could I just say, my question to that is, so cycle superhighway 2, which I do not know if people have experience of, but for most of it, it goes along the Mile End Road, for most of it, it is a 1.5 metre painted cycle lane, which is not specifically for cyclists for much of that. It is a dual carriageway at least for its length, and there are often wide pavements. My feeling is, if you had put in a high-

quality segregated route with plenty of space to overtake, as you might have in the Netherlands or Denmark, I feel that many cyclists would use that route; you would not have to be worrying about parallel routes that people who are scared of the superhighway would use. I think there would be the scope there. Obviously there are challenges like a street market along the way, but really that does not seem to me something that would not have been possible. That would have stopped you then having to think, "Well what about the people who are nervous of using the superhighway?", which, to be honest, includes me personally.

**Richard Tracey (AM):** One question I think I must ask, as we are talking about cyclists going fast and obviously the cycle superhighway, as you said, Ben [Plowden], encouraged that. Are we coming to the point when we really will have to consider number plates for cycles, because it has been suggested by some, and there is the controversy in the papers in the last few days, the journalist Petronella Wyatt talking about a fast-moving cyclist knocked her mother over and broke her ribs or something, or broke her arm. That kind of thing, I think many members of the public would seriously believe that we do need to have means of identifying a cyclist without any question.

**Ben Plowden (Director of Planning, Surface Transport, Transport for London):** Colleagues may want to comment from Denmark and Holland; I think the general sense is that, given the number of barriers that exist to people taking up cycling anyway, including particularly as people have suggested the concern about road safety, we need to not put any additional sort of perceived barriers in the way, and there is a lively debate about helmets in that context as well. I think the crucial thing in a way, and this is a personal view rather than a TfL view, rather than things like number plates, is making sure that the efforts of us as a highway authority, and the Metropolitan Police Service, and of the cycle regulations, to make sure that cyclists behave appropriately and that, as with any population, you will have a minority of people who decide that they do not want to do that. Generally, and a colleague may want to comment, most people will behave appropriately and we need to make sure that is the norm, if you like, for the cycling community. So TfL does not have a particular position on number plates. I think that would require national legislation, but I do not think that is where we would start probably to make sure that people -- because drivers commit offences all the time and they have number plates, so in a sense that is not necessarily the thing that is going to change their behaviour I do not think.

**Richard Tracey (AM):** No, I would not have thought it would have been a disincentive; it is simply that, if somebody is involved in an incident, then there ought to be easy recognition.

**Karen Dee (Director of Policy, Freight Transport Association):** Can I just add to that, and it is certainly not something that the FTA calls for at all, I think what it highlights though is that, as you get increasing numbers of people cycling, the challenge is about how you educate them and make sure that they are competent road users. So for FTA what we have really welcomed is things like the exchanging places events that are run through the Metropolitan Police Service with the cyclists where cyclists who are pulled up by those police, because they have infringed some sort of road traffic rule, are then taken and put in a HGV and shown around and educated, and I think those sorts of things are important, just as educating everybody else is, so I think for us making sure that all road users are educated about the needs of others and how you can expect other vehicles or other people to behave on the roads is important.

**Valerie Shawcross (Deputy Chair):** Exchanging places is also about HGV drivers actually experiencing both ways and I have been along to one, a very useful session. Roger wanted to come in, and then Tom.

**Roger Evans (AM):** Just on the subject of the Mile End Road cycle superhighway, which we discussed. Obviously it has its shortcomings but a problem of course with it is that it does not go as far as it was supposed to go originally because Newham Council blocked it at Stratford and I believe the decision to do that was related to the Olympic Games and the fact they did not want it at that time. Does that mean that Transport for London will now be renewing efforts to get that cycle lane through Newham so that my residents in Ilford can have the benefit of the cycling revolution, which appears to have passed us by?

**Ben Plowden (Director of Planning, Surface Transport, Transport for London):** Could I say that the next two elements of the cycle superhighway programme are the extension of cycle superhighway 2 to the benefit hopefully of your residents, and I think we will seek to do as much as we can in the light of the Go Dutch principles and what we have learned from the programme so far to really continue innovating along that extension; and cycle superhighway 5, which again will be hopefully in place by next year. So those are the next two bits of the programme.

**Roger Evans (AM):** So you are planning to do that by next year?

**Ben Plowden (Director of Planning, Surface Transport, Transport for London):** Yes.

**Roger Evans (AM):** That is excellent news.

**Valerie Shawcross (Deputy Chair):** Good news there. Tom.

**Tom Copley (AM):** Ben, I wanted to ask about the Mayor's proposal for a raised cycle network, which would run alongside the railway lines. Could you tell us what progress has been made on these proposals?

**Ben Plowden (Director of Planning, Surface Transport, Transport for London):** So we are looking into this, obviously it involves quite close discussion with Network Rail, whose infrastructure we would be, or somebody if it went ahead, would be attaching the pipes, if you like, to. The Mayor has made clear, as you suggested, he is keen for us to explore this. I think his experience of the Emirates Airline cable car shows that if you can think inevitably about raising things up and moving them in a different dimension that may help to improve transport provision. I think the issue will really be about the practicalities of it. I have seen the visualisation on the website of the architects who I think have originally proposed this and there would be questions, very practical questions, about, for example, how you get on and off these elevated cycle-ways because, thinking out loud, you would either I think need some pretty high-capacity lifts at your junctions or your stations, or quite extended gently inclined access ramps to get on and off that would have to take account of cyclists coming off at the down end and getting up at the up end. I think all those things are to be thought about, it would require questions around land ownership at the point where you are access things would come down on to the ground, but I think we are now looking at that just to see what the options are, how much it would cost, what the practicalities would be with Network Rail, and what the potential might be to get somebody to contribute to the cost of that, as we have done both with the Emirates Airline and also obviously with the Barclays Cycle Hire. I think all those issues are very much in the mix.

**Tom Copley (AM):** What has Network Rail's response been so far?

**Ben Plowden (Director of Planning, Surface Transport, Transport for London):** To be honest, I am not absolutely sure. They are looking at their own assets in terms of things like its maintenance, but also things like the potential commercial value of some of their remaining under viaduct and spaces, so they obviously need to take into account that. The discussions are at an early stage at the moment, but obviously we can report back during the autumn as to how that is going.

**Tom Copley (AM):** What about cycling groups in London, how have they reacted?

**Ben Plowden (Director of Planning, Surface Transport, Transport for London):** To be honest, I am not absolutely sure what the cycling organisations' views of it are. I have not asked the question. I think --

**Tom Copley (AM):** Surely you would want to consult --

**Valerie Shawcross (Deputy Chair):** Raised eyebrows I think is the response I am getting.

**Ben Plowden (Director of Planning, Surface Transport, Transport for London):** I think you would want to know, and I think the other issue of course is that the resources and the investigation around that would be resource you might not be putting in something else, and I think you would have to look at that compared to other things we might otherwise be doing in terms of what would be spend on safe cycling. I do think that we need to be as creative as we can be in the context in which we find ourselves, in terms of how we make safe space and time on the network for cyclists and pedestrians and all the other people who need to get around the city.

**Tom Copley (AM):** I think there would be concern; I think there has been concern from some cycling groups, that perhaps there might be a danger that resources would be diverted away from improving existing road safety for cyclists. Can you assure us that will not happen and can you tell us more about where the funding might come from?

**Ben Plowden (Director of Planning, Surface Transport, Transport for London):** Again, I think we would need to know a lot more. What you need to do is work out what you would practically need to do to make the proposal happen, and that would include what it would cost to actually develop it from an idea to being a reality, so the design and engineering costs. Then you would have to look at how much it would cost to implement and obviously you would do that in phases if you were going to do it, and then you find out if anybody was interested in contributing to some or all of the costs of that. I do think the opportunity costs, as you have suggested, of doing that would be part of the consideration as to how far you take that work. So I think we need to look into it. The Mayor is keen for us to investigate the potential for it and we will need to take a view in the next few months as to what the practicalities are and how much it would cost and what else it might mean that you were not doing as well. I think it is important to say that, particularly if you could find a third party to fund it, the Emirates Airline was delivered essentially without any net cost to anything else we might have been doing, so I think that there is the potential, particularly if we get someone to pay for it, for that not necessarily to be a problem.

**Caroline Pidgeon (Chair):** The Emirates Airline is the perfect example, it did cost public money; it was not completely sponsored.

**Tom Copley (AM):** Exactly, exactly, I mean it was meant to cover it all and then in the end public money did have to be spent on it, so that is a very important point. What is the sort of timescale going forward on this?

**Ben Plowden (Director of Planning, Surface Transport, Transport for London):** To be honest, because this sort of came up, and I do not actually know the answer to that question, but we can certainly write to the Chair and tell you what the sort of planning process would be around that.

**Tom Copley (AM):** All right. I do not know if any of the rest of the panel would like to contribute on this one, perhaps Rachel?

**Dr Rachel Aldred (Director, Sustainable Mobilities Research Group, University of East London):** As I understand it, it is just something that has sort of been mentioned, but I do not think there are that concrete plans for it, but what I would say is that, if anyone is going to be able to say that, "We fitted in as much cycling as we can", it is probably these Roelof and Steffen rather than us. I think we need to look at reallocating existing road-space before we start thinking about building something like that, in my view.

**Tom Copley (AM):** All right, unless there are any other comments, I will finish there.

**Caroline Pidgeon (Chair):** Thank you, Tom. I will move on to the final question, which we sort of talked around a bit this morning, is around cycling potential. Steffen, you observed the number of men cycling and the sort of demographics of cycling, and the Mayor has an aim to increase the number of trips in London from 2% to 5%, but actually trying to analyse the data we had through yesterday, TfL thinks there are 4.3 million potentially cyclable trips, which actually would be the equivalent to 23% of all trips, so that could be a far more challenging and far more impressive number of trips taken on bicycles in London and that might be a better target, a more ambitious target for the Mayor to be aiming for. TfL has tried lots of things like promoting the cycle training we have touched on today, catch-up with the bicycle, all sorts of other marketing measures. We are now going to have a big cycling festival starting next year. Rachel, and then perhaps everyone else on the panel, what impact do you think some of these measures will have on really broadening the appeal of cycling across all groups and are there things in other countries that have been done that really have helped to make sure cycling really has a far broader appeal?

**Dr Rachel Aldred (Director, Sustainable Mobilities Research Group, University of East London):** Yes, I was just thinking about the report you mentioned, the analysis of cycling potential, which is a really good report. I think TfL did some excellent research, some excellent reports, and one quote from that is that, "For all groups, including frequent cyclists, safety was the most significant barrier to cycling in general and on specific trips." So it shows that this issue, whether it is perception or objective safety measures, is really important to all groups of cyclists.

Looking at some of TfL's cycling marketing, and there are similar marketing techniques being used in other cities in the UK, clearly there is an attempt to move away from the image of sporty Lycra-clad cyclists, the kind of cyclists that you might have seen cycling over Tower Bridge in many cases, and to try and create a more diverse image. There is one particular campaign that I liked, is the one that

highlighted that bicycles are not invisible, drivers need to look at the cyclists. So the diversity of images, and recently there has been a focus on the Freedom Campaign and Catch up with the Bicycle, which shows five youngish people, some of them celebrities, some not, who are all enjoying cycling and all cycling through parks and quiet streets.

So, clearly there is an attempt to provide this more diverse image, but my concern is that, does the reality of cycling in London have much of a correspondence with that image? Is that the cycling environment that people are likely to experience? I worry that you might encourage people to try cycling, but the cycling environment has to be pleasant, safe, reliable, direct, and so on, for them to carry on doing so. One example is cycle training. So people I know who are cycle trainers have said that one group that is particularly noticeable in taking up cycle training is ethnic minority women. The question is are those people actually going out and cycling on the streets after they do their cycle training?

In terms of the Ride London Festival, I think again it is an acknowledgement that people love cycling on roads that are closed to motor traffic; this two-day festival, it will attract many people, which is great. I think such events, if we are going to have them, should maybe be a lot more regular, like in Paris, Bogota, and so on, where they can be weekly, where people get more of an experience of this. I think we need to provide cycling conditions where more people cycle every day, so in the UK around 30% of children say they would like to cycle to school, but I think 2 or 3% do, very few anyway. So we need to meet people's demands.

I think popular things do not need so much advertising, the tube and the buses, we do not have adverts saying, "Use the bus system, use the tube, it is great", and actually the promotional campaigns that I am sure have been well researched by TfL do show what people want, it shows that people would like to cycle in pleasant conditions, away from lots of motor traffic where possible, so we need to produce those kinds of conditions that will be suitable for all cyclists as well as representing them, I think.

**Caroline Pidgeon (Chair):** Thank you for that. Roelof?

**Roelof Wittink (Director, Dutch Cycling Embassy):** I think that marketing can contribute to your policies in order to promote cycling, but the way that I like it the most is that you can use marketing also as an instrument to get to know better your customers, the people themselves, and of course that is the main part of marketing that you come forward to their needs.

I can give you an example of a European project; it is called 'Karma' and your borough of Kensington and Chelsea is involved in there together with Gothenburg, Eindhoven and Parma and some other cities, and what they are looking for is to organise cycling challenges. You challenge people to use a bicycle where they are not used to doing that. That is interesting to see in fact what the kind of potential is because some people might be challenged to do it once and then you have to learn if they will do it also for a second time and, if not, why not. So it is also a way to learn better about what in fact the people like or dislike, what their barriers are, and as Ben [Plowden] said there are a lot of barriers for people to start cycling, and the more, when it is not only the very brave, smart people who are aged 25 to 45 years, who can maybe make it to ride on a bicycle, I came this morning across the Tower Bridge and I had the impression, this is the most smallest cycle lane that I ever saw in the world, two red strips and most of the cyclists can make it even to balance over there, but you would not ask a child or an elderly person to do that.

**Caroline Pidgeon (Chair):** It is, as you said at the beginning, not forgivable for mistakes, those cycle lanes, I think that is part of the issue.

**Steffen Rasmussen (Head of Traffic Design, Municipality of Copenhagen):** I believe that we still have a challenge in the technical administration as to provide the right physical environment to attract more cyclists. If we ask the cyclists, 88% of them will say, "We will choose cycling if it is easy, quick and direct", and then we have this area of the feeling of safety. We know from some areas of Copenhagen that cyclists chooses other ways because there are points where the feeling of safety is not good enough, not that there is a lot of police-recorded accidents on the place, it might be a place where there are high speeds or many lorries, etc, so then they will choose other routes for cycling. So the challenge to create a physical environment for the cyclists where the feeling is of safety there, where it is direct, easy and quick, it is very important.

Then I think in the dialogue with cyclists, perhaps in the future, the health perspective is very important. I know this story from the University of Copenhagen where, if you compare a behaviour for a 30-year-old man, which is not having any physical exercise, and then choosing to start cycling as a 30-year-old man, he will add six years to his life at the end, and six healthy years. So in the debate of choose transport modes, I think we, in our marketing of cycling, also could include the health perspective for our citizens.

**Caroline Pidgeon (Chair):** A powerful message there for all of us sitting around here who do not cycle. Karen, is there anything you want to add before I go to Ben?

**Karen Dee (Director of Policy, Freight Transport Association):** I guess it would be more of a personal view rather than an FTA one, because that is not our area, but clearly safety is important and I think one of the things, when I was a girl, we all did cycle training at school and we did road safety with cycle training, it was all part of what we did. As a parent, I know one of my children has had the opportunity to do that in school; the other has not. So I think you have to encourage people for it to be a normal way of travelling and that they grow up with that and it becomes the norm.

**Caroline Pidgeon (Chair):** Thank you, Karen. Ben, did you have anything you wanted to add?

**Ben Plowden (Director of Planning, Surface Transport, Transport for London):** Yes. I think there are two parts to this really important question, one is the analysis that Rachel has referred to in terms of what we think the cycling potential is, and then how that is translated into what we are actually doing on the ground. So, Karen, you referred to the 4.3 million figure; that is essentially the nature of the trips that people make by motorised means that could be potentially cycled, the distance, whether they are carrying heavy shopping, whether there is any disability in the person travelling, their age and so on and so forth. We then took that basic data and then said, if you look at what we know about people's likelihood to cycle in terms of their demographic, so what kind of household are they in, in terms of their demographic profile, you find that about just under 3 million of those cyclable trips are made not currently cycled, are made by people in the demographic who have a more than average likelihood to take up cycling. So you have added the trip type to the household type, then you have about 3 million trips of people who we know from the market research are more likely than average to take up cycling of those trips.

So, in order to meet the Mayor's target, about a million of those trips by those households would need to convert to cycling from how they are currently made. We can debate whether that is an ambitious target or not; that is still quite a substantial change in behaviour of quite a large part of London's travelling public. What we have done is tried to look at the kind of three main programmes that we think are likely to bring about that shift in travel behaviour. One is the short hops in Central London, which is obviously what cycle hire is designed to accommodate, either to replace longer walks or shorter public transport journeys particularly when the network gets crowded.

The second is the slightly longer radial commutes, which we have discussed in the context of the cycle superhighways, but as we discussed earlier this morning, the largest pool of potential trips that could be cycled that currently are not is in Outer London, and about a half, give or take, of that pool. I think the really interesting potential, alongside hire and highways, is to develop the biking boroughs programme, which currently has 13 Outer London boroughs in it, boroughs like Ealing, like Croydon, are looking very closely, for very similar reasons to colleagues in the Netherlands and Denmark, at what role cycling might play as part of ordinary travel, to pick up Rachel's point, in an Outer London town. So the trip to the town centre to the shops, to the doctor's surgery, to take the children to school, and I think we need to carry on with the work we are doing around hire and highways and I think we now need to turn our attention with equal vigour and commitment, which we have started very successfully, to saying, "What is the potential in Outer London for those day-to-day trips being made, not by young men in Lycra, by ordinary people riding Danish style bicycles in their ordinary clothes to do daily things that they would otherwise probably be doing in a car. Again, you are not going to be able to compel people to do that, you need to make it feel like a meaningful alternative and actually the best alternative, at least for some of the time.

So I think that, again, our sort of sophistication, for want of a better term, in terms of understanding what people might do is significantly greater than it was eight, nine years ago when we first started at TfL. I am sure it can get better but I think we know where we need to do these things and what we need to do. The question is how quickly we can do them and how quickly we can reassure people that what they experience will be what they would like to experience, and that is just a question of time I think.

**Dr Rachel Aldred (Director, Sustainable Mobilities Research Group, University of East London):** Could I just ask Ben to clarify something he said to the committee, because I do not know how much people know about the biking boroughs project, could you explain what the spending is and what it has been used for?

**Ben Plowden (Director of Planning, Surface Transport, Transport for London):** It is relatively low at the moment and it is done through the LIPs process, so it is allocated through that process. But what we have started doing is looking at, for example, the potential for what we are calling cycle hubs in town centres, so I went to launch a new cycle parking provision in Ealing just before the Olympic Games, so to make the destination seem like a place that you want to go and leave your bike. It is about looking at the routes to and from residential areas around a town centre; it is about working with things like employers and schools to make sure that they are part of the process of making that area feel like a safe and convenient place to cycle. It would typically involve I think sort of more use of more local roads rather than some of the arterial roads to get in and out of the town centre.

**Dr Rachel Aldred (Director, Sustainable Mobilities Research Group, University of East London):** So what kind of level of spending?

**Ben Plowden (Director of Planning, Surface Transport, Transport for London):** Sorry, I do not have the number here.

**Caroline Pidgeon (Chair):** We will pick that up, Rachel, thank you, we will pick that up, because I think the issue is about selling it, but also how you are really engaging the boroughs, because I am sure that actually a dedicated programme, more than just that, with some of the boroughs, asking them to be creative and come up with ways we can get more people cycling in their boroughs, could well work alongside what you are doing.

So thank you very much indeed for your time. So, Roelof, Rachel, Ben, Steffen and Karen, thank you so much, it has been a really informative session, our second session, we have had a big audience really as well, people here as well as those online, writing down lots of things you have been saying. So thank you very much for that, and all the evidence we have had in from cyclists, cycling groups, we have had a huge amount of evidence, which will then help us formulate our report. So thank you so much for your time this morning.