

**Development of  
cycle highways**

**08208**

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Research conducted by Synovate

# Executive Summary

## Background and objectives

In an effort to increase the modal share for bicycles by 5% by 2025, TfL is exploring the implementation of 'Cycle Highways' which will take cyclists on easily identifiable routes into central London. Qualitative research was conducted to explore reactions to the proposed 'Cycle Highways' scheme and guide the decision-making regarding which specific measures to include in the scheme.

## Methodology

Twelve focus groups were conducted amongst 5 target audiences – commuter cyclists, commuters who cycle in their leisure time, non-cyclist commuters, non-cyclist non-commuters and motorists. Attendees were presented the basic 'Cycle Highways' concept to comment on followed by a series of potential measures.

## Key Findings

- The 'Cycle Highways' concept was generally received very positively. The idea of a fast, easy and continuous route into the centre of London by bicycle was seen as a refreshing and ambitious scheme. The scheme was thought to elevate the profile of cycling and cyclists in the capital. It was also thought to address some of the existing barriers to cycling, or cycling into central London.
- All attendees preferred the option of a 1.5m advisory cycle lane which aims to keep cyclists and motorists apart over a full lane width 'shared space' option which encourages awareness and consideration. Most people were sceptical about a kerb-to-kerb painted road. They felt that it would cause confusion. However, some felt that it would be the only viable way to maintain a continuous 'Cycle Highway' in certain locations (i.e. where the road is very narrow).
- Preferences regarding how to approach the question of road treatment continuity were slightly less consistent. However, on balance people were more likely to favour keeping bus lanes their existing colour in order to avoid potentially dangerous confusion rather than changing them to match the colour of the highway.
- Overall, people did not express a strong preference for either blue or green colouring for the 'Cycle Highways'. Advantages and drawbacks were cited regarding both options. Blue would have greatest impact and help differentiate the 'Cycle Highways', while green would be more familiar and fit more logically with a sustainable transport strategy. Neither option was strongly rejected by anyone.

- The most popular measures were those which focus on improving safety, such as studs and reflectors, a mandatory cycle lane on the near side of the bus lane and trixy mirrors. It is also these which are most likely to bring about a change in behaviour (i.e. starting cycling, cycling more frequently). However, some people (particularly commuting cyclists) also appreciate the benefit of a faster and more comfortable route into central London. Therefore, measures such as on-going road surface maintenance were considered important by this group.
- Disappointment was often expressed that the scheme did not include a fully segregated lane along the whole length of the 'Cycle Highways'. However, after seeing the range of measures included, reactions were still broadly positive towards the scheme as a whole.
- Some people who currently do not commute by bicycle were interested in, and motivated by measures designed to help them find their way around more easily such as maps along the route and a clearly marked road surface indicating the route of the highway. Some said that concerns about getting lost prevented them from cycling in to central London. Others said that providing secure places to leave their bicycles in central London would encourage them to consider cycling there (more).
- In addition to the physical measures relating to changes to the road layout, surface or environment, some people stress the importance of assistance and support getting started as a cyclist. They would welcome information about training and guidance on how to be safe cycling in the city.
- Many people say that a lack of a secure place to leave their bicycle is a barrier to cycling (or cycling to certain destinations). Therefore, they say that providing Sheffield stands or bicycle lockers at key locations on the route would motivate them to change their behaviour.
- Many people felt that the scheme serves to promote the principle of cycling and represents a commitment to cyclists on the part of TfL and the Mayor. They suggested that this was appropriate and to some extent overdue.
- However, it is important to note that a scheme which is considered to be comprehensive and far reaching can also be considered expensive. Some people, particularly (but not exclusively) motorists, stressed the importance of ensuring that that money is not 'wasted' on expensive measures aimed at a small number of people.
- It is also essential to understand that motorists and cyclists are not two distinct groups. Many cyclists are also motorists and think as motorists in reacting badly to suggested elements such as 20mph speed limits. Key to the success of the scheme is that it is seen

as encouraging cycling and being pro cycling, but is not seen as being anti driving and punishing drivers.

# 1. Introduction

## 1.1 Background

The encouragement of people to cycle to work is a key element of the 'Way to Go' programme from the Mayor's office. While the number of people cycling to work / cycling on main roads is on the increase, the target of increasing modal share for bicycles by 5% by 2025 is still some way off. It is thought that the number of people cycling to work / cycling on main roads could be greatly increased if certain barriers were to be removed. One such barrier is the lack of provision of clearly marked cycle routes. TfL is exploring the implementation of 'Cycle Highways' which will take cyclists on easily identifiable routes. How these routes are marked is still under debate and this research was used to explore preferences from a variety of offerings. As well as this, supportive measures will also be explored such as cycle training, 'cycle hubs' and employee 'encouragement' schemes.

Research was required to explore the perceptions of not only current commuting cyclists / cyclists who cycle on main roads in London who would benefit from the scheme but also the potential 'near market' audience of non-cyclists or cyclists who don't currently commute / cycle on main roads. An understanding of the perceptions of motorists was also required to gauge their reactions and the potential benefits or disadvantages they see for themselves and for cyclists.

The research was conducted by Synovate, and this document summarises the findings from it.

## 1.2 Objectives

The objectives of the research were as follows:

- Explore the general perceptions of 'cycle commuting' / cycling on main roads in London
- Unprompted, explore barriers to 'cycle commuting' / cycling on main roads in London
- Understand unprompted preferences to aid cycle commuting / cycling on main roads
- Investigate overall impressions of the 'Cycle Highways' concept
- Explore 'Cycle Highways' measures in detail
  - Understand the degree of importance of each measure
  - Understand the degree to which the measure truly delivers the perceived benefits
  - Understand how the measures might be improved
- To explore the various ideas around road surface treatment for the 'Cycle Highways' i.e. the proportion of road to be painted, colour of the treatment etc.

## 1.3 Methodology

A qualitative methodology was employed to gain a detailed and in-depth response to the scheme and to understand if and how potential customers would envisage using this service.

We conducted a total of 12 focus groups among a range of group attendees. The groups lasted 2 hours and consisted of approximately 6 attendees. The attendees were initially introduced to the 'Cycle Highways' concept and the basic package that would be included in the concept. Once reactions to the idea were gathered, people were then introduced to the two options of lane width for the 'Cycle Highways' followed by continuity options and then colour options. Finally, they were randomly shown the 16 proposed interventions along with supporting mocked up photographic stimulus.

A range of measures was tested in the research, including both physical changes to the road environment and others aimed more at providing information or encouraging cycling in other ways. However, the full range of marketing activity which could surround the launch and on-going implementation of 'Cycle Highways' was not explored in detail in the research.

While this research gave us some directional indication of preference between the various elements of the 'Cycle Highways' concept, it did not provide precise degrees of preference. A quantitative follow up would be necessary to achieve this.

The sample profile was as follows:

	<b>Group 1</b>	<b>Group 2</b>
<b>Target 1</b>	'Radial Commuter' from outer London to outer London - Female	Commuting to and living in inner London - Male
<b>Target 2</b>	Living in inner London - Male	Living in outer London - Female
<b>Target 3</b>	Commuting to and living in inner London - Male	Commuting to and living in inner London - Female
<b>Target 4</b>	Commuting to and living in inner London - Female	'Radial Commuter' from outer London to outer London - Male
<b>Target 5</b>	Live in inner London - Female	Live in outer London - Male

The different targets are defined as follows:

- Target 1: Cyclists who live in and currently commute to inner or central London on their cycles or cyclists who commute radially in outer London on their cycles
- Target 2: Motorists who live in either inner/central London or outer London and regularly drive in London
- Target 3: Cyclists who live in inner/central London and commute to inner/central London but don't currently commute to work on their cycles
- Target 4: Non cyclists who live in and would consider commuting to inner London by bicycle, or non cyclists commuting radially in outer London who would also consider commuting by bicycle
- Target 5: Non cyclists who would consider starting cycling on the roads, but not necessarily commuting to work by cycle (living in either inner or outer London)

**General Recruitment Criteria:**

- All attendees lived in inner or outer London
- All aged 18 – 44
- All B, C1 and C2 social class
- All attendees commute along/near to the proposed 'Cycle Highways'

- Those with recent past participation in similarly themed focus group / depth interview were excluded

## 2. Summary of key issues

A number of key issues or themes emerged from across the research:

1. **People are people, not cyclists or motorists** – Responses to the concept and potential measures were not split simply along the lines of most commonly used mode of transport. Our cyclists also thought instinctively about the impact of the measures on motorists (which often, they also are). Similarly, motorists were often able to see the potential benefit of the scheme to cyclists, and did not simply consider the inconvenience to them. That said, motorists who didn't cycle were more likely to consider the cost of implementing measures, and more sensitive to the potential impact of them on their ability to drive freely along the highways.
2. **Safety is paramount** – Most consider the concept to be primarily about providing improved safety for cyclists. They respond positively to benefits which seem to overcome their fears and concerns about cycling in London, including changes to the road environment or information about how to cycle safely. They respond altogether less well to what they see as gimmicky and needlessly costly elements such as cyclist counters, the purpose of which are not always immediately clear to them.
3. **And so is standing up for the cyclist** – people across the sample groups see some benefit in the 'principle' of standing up for the cyclists. Many think that putting the needs of cyclists higher on the agenda within London is sensible and fair. Some also say that it is overdue.
4. **But it is important to consider the costs of implementation** – people often suspect that the cost of launching a high profile scheme of this nature will be very expensive. This is of particular relevance at the current time, given the economic climate. There is a delicate balance to be struck between standing up for cyclists in a high profile manner, and being seen to spend too much money on measures aimed at a very small number of road users who, some pointed out, do not even pay road tax! However, some do recognise that the relatively low proportion of cyclists on the road is due partly to the lack of suitable provision for them. Therefore, they can see an advantage in making an investment to encourage more cycling.

5. **This is a good first step, but behaviour change takes time** – While some of the measures discussed go some way to potentially driving a change in

behaviour, the attendees note that a broader cultural shift in attitude is required to achieve change on a large scale. They suggest that change is likely to take place quite gradually, and schemes such as the 'Cycle Highways' should be considered a great foundation for further work in this area, either aimed at further improving infrastructure or encouraging modal switch.

## 3. Main findings

### 3.1 Responses to the 'Cycle Highways' concept

Attendees were shown a broad overview of the overall 'Cycle Highways' concept and were told that:

*“Cycle Highways’ will be a set of twelve routes that will provide a safe, fast, direct, continuous, and comfortable way of getting from Outer London into Central London along recognised commuter routes by bicycle”*

#### Key elements of the 'Cycle Highways' concept

- *All the 'Cycle Highways' will be clearly marked from beginning to end*
- *Each 'Cycle Highway' will have a clear identity– e.g. 'Docklands 'Cycle Highway' or 'Northern Line 'Cycle Highway', with consistent and easy to follow road markings, and signs*
- *Each route will have clear information on available routes (and how to access them) and cycling time to destination*
- *'Cycle Highways' will also aim to maintain a high quality road surface for cyclists as well as removing other obstructions to the routes*
- *Engineering measures will be undertaken to endeavour to improve the safety, comfort and ease of cycling along the Highways*
- *There will be measures to give greater priority to cyclists in certain situations*
- *There will also be a package of information and other measures undertaken to encourage people to cycle (both at the work end and the home end) e.g. cycle training*

#### **Overall response**

Overall, attendees were very positive about the 'Cycle Highways' concept. Most thought it a refreshing and ambitious idea. They saw it as a welcome move to encourage more people to cycle by offering them a safe and direct route into central London. Even those who said they were unlikely to change their behaviour agreed that the introduction of a scheme to encourage cycling was generally a good idea.

*“I would think the good thing is it would be a lot more stress free if it is that many people cycling then it would be just a calmer environment to cycle in and you wouldn't have the worry someone is going to knock you off you would be next to your fellow cyclist so that's good.” [Female, commuter, leisure cyclist]*

*"I am definitely up for it it is just I really don't have facilities at work so I can't, I would love to."* [Female, commuter, leisure cyclist]

*"It's a designated safe route and you know that goes to there, there's a lot of places I'd like to go to but I think I don't really know how to get from there to there, I'll just drive because it's easier."* [Male, commuting cyclist]

### **The main benefits**

People generally felt that the main benefit of the concept was to make cycling safer. Most tended to focus on measures which they felt prevented cars from posing as much of a risk as they do currently. For example, engineering measures, improved road surface quality and the assumption that the Highways would involve a segregated lane for cyclists were all cited as key benefits. Some also suggest that an element of assistance with getting started as a cyclist (through cycle training and measures such as Dr Bike) can add to a sense of reassurance about cycling.

*"I like the Doctor Bike idea, it sounds like they are caring about people on bikes. Its all very well sticking cycle lanes in, but then it's just a free for all ..... it's what this stands for, which is an element of care."* [Male, commuters, non cyclists]

Some people (particularly non-cyclists or those who currently do not commute by bicycle) also felt that the clearly marked routes, improved signage, information and other way finding measures would serve to enhance their experience of cycling in the capital. Difficulty navigating the capital was cited by some as an important barrier to cycling (more). Some pointed to the clear and individual identities of the 'Cycle Highways' as a further advantage in relation to way finding. They often compared this idea with that of a Tube map, which they feel is characterised by simplicity. They also suggested that routes which broadly follow common Underground lines would clearly communicate that the Highways provide an alternative commuting option.

In addition to the more 'practical' benefits outlined above, many felt that the scheme delivered a welcome boost to the profile of cycling in London. They felt that the measures outlined in the scheme constitute a significant level of investment and commitment to cycling. This in itself seems to suggest that TfL and the GLA are willing to 'stand up' for cyclists. People said that elements of the scheme clearly empower cyclists and elevate them

both in the eyes of other road users and cyclists themselves. This has the potential to start moving them from marginalised to mainstream and gives them more of an equal footing on London's roads. This clear effort to improve the 'lot' of cyclists was seen by some as a step towards the cultural change that is necessary for a critical mass of people to start cycling in London.

Some attendees say that the scheme should be well publicised in order to deliver the boost to the profile of cyclists outlined above. They say that the launch of the scheme should be supported by press coverage, events or other supporting measures.

However, it is important to note that some (particularly motorists, but not exclusively) were concerned about what they suspected would be large sums of money being invested in measures for (non-road tax paying) cyclists. As a result some were reluctant about contributing towards 'Cycle Highways' through *their* tax £'s. They would want to ensure that motorists are not adversely affected by the scheme in terms of either greater road congestion or obstructions to their already narrow roads.

*"What would stop anyone from driving the way they drive anyway, whether there is a blue line or not? The fact is people who drive in cars pay to use the roads and cyclists don't, so what would stop them saying "I pay to use the road so I'll use the lane if I want to." [Male, commuters, non cyclists]*

Attendees generally agreed that 'Cycle Highways' would be an ethically and morally correct scheme to implement. They said that they would promote healthier living and a more environmentally friendly society as well as offering a cost effective form of transport.

*"It's better for the environment if we do all get on our bikes." [Female, commuter, leisure cyclist]*

### **Assumptions about the 'Cycle Highway'**

It is important to note that when discussing the overall concept (before being exposed to the details) people generally assumed that 'Cycle Highways' would be a dedicated, fully segregated lane. This led to the further assumption that the Highways would be safe, easy and quick to cycle along.

*“I like the fact that it was a designated cycle route you don’t cycle on the road where the cars are driving you have got your own separate cycle route.”* [Female, commuter, leisure cyclist]

*“It sounds like some super fast way of getting in on a bike that has a dedicated lane you use.”* [Male, commuting, non cyclist]

People were often quite disappointed to learn that the ‘Cycle Highways’ would not constitute a continuous segregated cycle lane. They felt that this measure would be the most effective means of ensuring safety and increased speed. Some felt that without it, the scheme was less differentiating from the existing provisions for cyclists.

*“It sounds good, but don’t we already have a cycle network?”* [Male, commuting cyclist]

However, after further discussion about the practicalities of implementing fully segregated lanes universally, most accepted that this would not be possible. Consequently, many agreed that the advisory nature of the ‘Cycle Highways’ was at least a step in the right direction. After seeing the further range of potential measures (discussed in section 3.3.3 below) most attendees were broadly positive about the scheme overall.

### **The potential impact on behaviour**

It is not straightforward to predict exactly the extent to which the concept would encourage behavioural change. However, a number of people said that they would certainly consider cycling (more) if the Highways were introduced. Many (including some current commuting cyclists and non-commuting cyclists) said that they would at least ‘try’ the Highway.

### **Differences by segments**

While containing elements that are appealing to current cyclists, the scheme seems to be more encouraging to the ‘near market’ (i.e. non-commuting cyclists and non-cyclists). The issues of safety and way finding are aspects that less frequent cyclists were more concerned about than ‘hardened’ cycle commuters. That is not to say that the latter did not also find elements that were appealing. The maintenance of the road surface in the cycle lanes was key for this target as they frequently suffer from punctures or have to dangerously swerve into the road to avoid potholes.

*“I think for experienced cyclists...they’re going to know their way around it anyway but I think what you’re saying is a good idea for people who are occasional cyclists, leisure cyclists who perhaps have a look at the map and think ‘oh look where I can cycle’.”* [Male, cycling commuter]

*“The first thing that stood out to me was the higher quality road surfaces, because that’s what I have a lot of problems with when I’m cycling around*

*London...I’ve almost fallen off my bike because of damaged roads.”* [Male, cycling commuter]

*“Rather than building a whole new cycle network why don’t they just maintain the ones that are already there?”* [Male, cycling commuter]

While some motorists were concerned that the potential investment in ‘Cycle Highways’ would be unfairly large, the majority were supportive of the idea. As a rule, motorists like competing for road space with cyclists as little as cyclists do and welcome any move that could segregate the two modes of transport

## 3.2 Responses to road treatment options

After discussing the concept at a general level, attendees were shown a number of different surfacing options. They were asked to describe their overall perceptions of each, and decide which they preferred.

### 3.2.1 Width options

Two potential approaches to marking the ‘Cycle Highways’ were explored:

1. **A half lane option.** The road would be painted with a 1.5m advisory cycle lane. The intention of this option would be to encourage motorists to stay out of the lane.
2. **Full lane option.** The road would be painted with a cycle lane the width of an entire lane. The intention would for the lane to be a shared space, and the road marking intended to raise awareness among road users of the presence of cyclists.

People overwhelmingly preferred the half lane option. They said that it is important to at least attempt to keep motor vehicles and cyclists separate. Responses to the two options are summarised in more detail below:

### **Half lane option**

Many initially saw the half lane option as something of a let down. They were hoping for a fully segregated lane and for many this was not very different from what already exists. However, most preferred this to the full lane option as it at least promotes segregation even if it does not legally enforce it.

*“If it is not a mandatory lane the motorists aren’t going to give a damn, are they?”*  
[Male, commuting cyclist]

The half lane option becomes more appealing when the attendees are reminded that it will be 1.5m wide for the whole of the highway. They said that this distinguishes it from current cycle lanes that vary in width. Some more experienced cyclists and even some motorists were fully aware that this space will still be used by motorists on narrower roads. They acknowledged that a critical mass of cyclists is needed to deter motorists from entering the lane on a more consistent basis.

*“It seems a lot wider than what we have at the moment. It is good because you do get very fast cyclists, so that means they can overtake as well.”* [Female, commuter, leisure cyclist]

### **Full lane option**

In terms of empowering cyclists, people felt that the full lane option completely fails. They said that it offers no ‘cyclist only’ space and that simply making motorists aware of the presence of cyclists will not make the roads safer. They also said that this approach does not make the ‘statement’ the ‘Cycle Highway’ should be making. Some suggested that a shared space could be distracting and confusing for other vehicles using the lane. Only a few could see the potential for this approach as a means of educating motorists, encouraging them to be aware of cyclists.

*“It will not mean that motorists are going to give you any space just because the lanes are coloured differently.”* [Female, commuter, leisure cyclist]

*“It would make me confused as a driver as well. Am I supposed to be in this lane or not, am I meant to be with the bikes?”* [Female, commuter, leisure cyclist]

*“London traffic will learn after 6 months to a year that the lane makes no difference and you’ve just wasted loads of paint...everyone will ignore the cyclists and you are back to square one.”* [Male, commuting cyclist]

### **Kerb-to-kerb alternative**

Many people felt that the kerb to kerb option was potentially very confusing. They say that it is difficult to see which types of road users are permitted to be in the space. However, a minority appreciated that in some locations this approach will be the only viable option. They felt that attempting to use a half lane treatment in places with only two relatively narrow lanes would be even more confusing.

*“That would completely confuse me as a driver.”* [Female, commuter, leisure cyclist]

*“I think if it is going to happen as long as they advertise it correctly so it would be in the Metro and on TV so everyone is aware that it is coming in to place so all drivers are educated about what it means, then it could work.”* [Female, commuter, leisure cyclist]

### 3.2.2 Continuity options

Two potential approaches to road marking continuity were explored:

1. **Broken lane.** Bus lanes and stops remain their existing colour, and the 'Cycle Highways' markings start at the end of the lanes / stops.
2. **Continuous lane.** Bus lanes and stops are re-painted the same colour as the 'Cycle Highways'.

Opinions on these options were somewhat divided. However, overall a broken lane was considered safer. People felt that highlighting bus stops in a different colour to the 'Cycle Highway' would be the safest option. They said that cyclists (and motorists) need to know where buses are likely to be pulling in so that they could avoid collisions. However, most said that they would like to see the 'Cycle Highway' continued through the bus stop in some form though e.g. single blue line to avoid them having to swerve into the traffic.

*"I think the bus stop should remain red and then return to green again because then you know you can see there is a bus stop there so you know you need to be aware that someone might be pulling in."* [Female, commuter, leisure cyclist]

However, some attendees felt that the continuity offered by painting the bus lanes to match the 'Cycle Highway' was imperative to the success of the scheme. They said that the highway would cease to be what it claimed to be if a non-stop coloured lane were not present.

### 3.2.3 Colour options

Attendees were shown examples of 'Cycle Highways' road markings in both blue and green. Both versions were shown via 'mocked up' examples, rather than photographs of painted roads (in the case of the green option) in order to minimise the impact of executional differences.

As long as the paint was quite vivid and well maintained, there was no clear favourite for the colour of the Highways. Both colours appear to have strengths and weaknesses and neither were completely rejected by the attendees. There was also no clear difference in response by segment.

## **Blue**

Some people preferred blue as they felt that it was more vivid than green and more likely to stand out in the twilight. Others noted that blue is most likely to have an impact overall, and be taken notice of because it is different from existing cycle lanes. For many people, the high profile of the scheme was important, and opting for a new and differentiating colour served to deliver this.

## **Green**

Other people prefer green. Some liked the idea of retaining the colour of current cycle routes as this avoids any potential confusion about their purpose. Others noted that green has associations with sustainability and environmental issues. They said that this is appropriate for 'Cycle Highways' as they encourage sustainable transport behaviour.

*"Blue works, although to be honest anything that is visible to everyone in all weather conditions would be the best."* [Male, cycling commuter]

*"I think green works, the whole eco thing with the bicycles. If its green you're going to think its got something to do with cycling."* [Male, cycling commuter]

### 3.3 Responses to potential additional measures

#### 3.3.1 Overview of potential measures

Following the discussion about the 'baseline' package of measures described in the previous section, attendees were shown a range of additional measures which could potentially be part of the 'Cycle Highways' scheme.

There was some consistency in response to the potential additional measures. Broadly, it is possible to group measures into three tiers in terms of level of appeal and likelihood to change behaviour. However, it is important to note that these groupings are derived from qualitative insight and not quantitative measurement. They are designed to be indicative.

Measure	Overall appeal	Likelihood to change behaviour
<b>Tier 1</b>		
Studs and reflectors	✓✓✓	✓
1.5m mandatory lane on near side of bus lane	✓✓✓	✓
Free Sheffield stands and lockers	✓✓✓	✓✓
Trixy mirrors	✓✓✓	✓✓
Maps	✓✓✓	✓✓
<b>Tier 2</b>		
'Spurs' to popular destinations	✓✓	✓
Alternative quiet routes	✓✓	✓
Targeted maintenance	✓✓	✓
Cycle hubs	✓✓	✓
Re-organising loading bays and parking	✓	✓
Advanced signals	✓	✓
Large vehicle driver training	✓	—
Closing side roads	✓	—
Daily led rides	✓	—
<b>Tier 3</b>		
Allowing left turns at red signal	—	✗
20mph zone in specific areas/along whole route	—	✗
Expert cyclist comes to your home and cycles your route to work/school with you	—	✗
Visible counter display	✗✗✗	✗✗✗

### 3.3.2 Ideal packages

We have analysed responses to the additional measures and the outcome of ranking and sorting exercises completed in the groups. This has allowed us to identify groups of measures (over and above those described in the overall concept description or baseline) which would be most appealing, and most likely to impact on behaviour.

The table below summarises which measures should be included in an ideal package to encourage (more) cycling along the ‘Cycle Highways’ routes.

Ideal overall	Commuting Cyclists	Non-commuting cyclists and non-cyclists	Motorists
Studs and reflectors	Studs and reflectors	Studs and reflectors	1.5m mandatory lane on near side of bus lane
1.5m mandatory lane on near side of bus lane	1.5m mandatory lane on near side of bus lane	1.5m mandatory lane on near side of bus lane	Studs and reflectors
Free Sheffield stands and lockers	Free Sheffield stands and lockers	Free Sheffield stands and lockers	Trixy mirrors
Trixy mirrors	Targeted maintenance	Trixy mirrors	
Maps	Cycle hubs	Maps	
‘Spurs’ to popular destinations	Re-organising loading bays and parking	‘Spurs’ to popular destinations	
Alternative quiet routes	Advanced signals	Alternative quiet routes	
Targeted maintenance	Allowing left turns at red signal	Targeted maintenance	
Daily-led rides for first month	Trixy mirrors	Daily-led rides for first month	

#### Ideal package for the sample overall

The measures which are most likely to appeal and be motivating vary by target group to some extent. However, for all cyclists and potential cyclists the ideal package needs to deliver two things. Firstly, and most importantly it must offer ways of **overcoming barriers** to cycling. Secondly, it should **promote cycling and empower cyclists** so that they feel they have a right to be on the roads on an equal footing to other road users.

Safety is the key issue for all non-motorist segments. Segregation would give the greatest sense of safety to most. People felt that the both **1.5m cycle lane contained within a bus**

**lane** and the **studs and reflectors** offered some level of segregation and therefore should be included in the scheme. However, neither measure would be implemented along an entire highway route. Therefore, impact on behaviour is unlikely to be significant. The primary value of including these measures is in their impact on perceptions. They send a message that safety is at least being taken seriously. Many people note the importance of **trixy mirrors**. Again, this measure offers a tangible solution to a recognised safety issue. If combined with other measures, trixy mirrors do have the potential to encourage people to cycle more on busy roads where large vehicles are commonplace.

An ideal package should contain measures to tackle the barrier of bicycle security or availability of cycle parking. The lack of safe places to leave bicycles was often spontaneously mentioned as a reason for not commuting into central London. Therefore, the ideal package should at least include **Sheffield stands** at 'work end' locations. Additional parking facilities at the 'home end' of the Highways would also have an impact on people with bicycles who do not have anywhere safe and convenient to leave them. This measure would be very likely to motivate certain groups of people to cycle to different destinations.

Other measures which should be included in the ideal overall package are:

- **Maps at key locations** which provide both a practical benefit in terms of way finding and can be seen as symbolic 'beacons' for the Highways. A number of people said that they would be more confident cycling in central London if they were aware that useful maps were available along the route. Therefore, this measure does have some potential to affect behaviour.
- **Spurs to popular destinations** serve to widen the 'Cycle Highways' concept to include leisure as well as commuting cyclists. Many people said that this would be a strong incentive to start using the Highways.
- **Alternative quiet routes** were also considered vital by many. They said that they expected a scheme of this nature to steer cyclists away from busy roads. This would encourage those less confident cycling in the city to try.
- **Targeted maintenance** is widely considered to be integral to the scheme if it is to be successful in the long term.
- **Daily led rides** were often not often described as vital. However, they would serve as a useful promotional tool and were identified as a potential benefit for 'other people' for whom lack of confidence is a deterrent to cycling. Therefore they have potential to encourage people to 'try' using the Highways and we would recommend they are included.

### **Ideal package for commuting cyclists**

Commuting cyclists require a package which addresses the problems they regularly encounter on the roads. They said that that speed and smoothness of journey were paramount to them. Therefore, certain measures such as **targeted maintenance**, allowing left **turns at red signals** and **advanced signals for cyclists** would be more relevant and motivating to them. Many commuting cyclists had also experienced bicycle theft. They therefore placed particular importance on security measures such as **bike lockers**.

Conversely, measures designed to help people overcome fear, or encourage them to try something new were slightly less important and would not be critical in a package aimed at this audience. These include alternative quiet routes and way finding measures such as maps and the 'spurs'.

### **Non-commuting cyclists and non-cyclists**

These people often find the idea of cycling in central London quite daunting. Safety measures would therefore be most likely to motivate them. It is important to note that the package of measures most relevant to this segment strongly reflects that which would be most relevant overall. This is important as these people represent a key target for the 'Cycle Highways'. Were the 'overall' package to be implemented, this segment would be well catered for overall.

In contrast to commuting cyclists, this segment would not only consider cycling as a way of commuting to work, but also saw this scheme as a way of encouraging leisure cycling. As such, the way finding measures described above would be potentially very beneficial to them.

### **Motorists**

Motorists appear as concerned about hitting cyclists as cyclists are about being hit by them. Consequently segregation was a high priority for them. They placed importance on measures such as the **1.5m mandatory cycle lane in a bus lane**, **trixy mirrors** and the **studs/reflectors**. Measures designed to allow cyclists to 'get out of the way' (i.e. advanced signals) would also be seen as worthwhile by motorists.

Motorists said that they would be most supportive of measures that will cause the least disruption to their journey. Therefore 20mph speed limits, targeted maintenance (potentially causing road works) and closing side roads were particularly unpopular. Motorists were also concerned about the potential impact of daily led rides. They felt that large numbers of

'novice' cyclists on the road during peak times would cause considerable disruption to them. There is some evidence to suggest that some of these measures may discourage motorists from driving along 'Cycle Highways' during their daily commute.

Other measures (e.g. alternative quiet routes, spurs, cycle training, bicycle parking and security) would have little impact on motorists. Therefore, there is no rationale for excluding them. Indeed, motorists are broadly supportive of them, provided they can be seen to deliver value for money.

### 3.3.3 Detailed responses to potential measures

#### 20 mph zone in areas where vehicles frequently exceed the speed limit / 20mph limit along the whole route

Overall people tended not to fully engage with the concept of reducing the speed limit. Some cyclists/potential cyclists said that speed of traffic was not a particular concern. Most drivers were concerned about the enforcement of such a slow speed limit along a main road. They thought that this could increase tensions between cyclists and motorists.

#### Likes

- Some do understand that slowing traffic down will reduce serious injuries and as such this is seen to have a positive effect, especially on relatively unprotected cyclists.
- Some cyclists thought that a 20mph limit along the whole 'Cycle Highway' may deter enough motorists to mean that the route would become quite a quiet and pleasant cycle.

*"If a car hits you at 20mph it's completely different to being hit at a higher speed."*

[Male, commuting cyclists]

#### Dislikes

- 20mph is seen by many motorists and even some cyclists as an unnecessarily slow speed to ask traffic to move, even over only small stretches of the 'Cycle Highway'. Even those who can see the benefit to cyclists feel that this would be a very difficult measure to 'sell' to motorists, and in fact not be fair to them.
- Some people felt that reducing speed limits in certain areas only would cause confusion to all road users.
- Some are concerned about cyclists having their speed restricted to 20mph.

*"You're going to get drivers avoiding that route entirely which would be excellent but can you do that, that's going to be a lot of networks?"* [Male, cycling commuter]

*"Well obviously it's just going to really cheese off a load of people if they've got to drive 20mph."* [Male, cycling commuter]

*"We would basically be crawling to work, God that would add so much time to the commuting time, that's ridiculous."* [Female, commuting motorist]

#### Optimisation

- 20mph signs would need to be clearly visible for motorists.

- The speed limits should only be imposed in certain areas, potentially in conjunction with the kerb-to-kerb surface treatment.

#### **Barrier Overcome and likelihood to change behaviour**

- Theoretically this addresses some safety issues around cycling in London. However, speed seems to be less of a concern than motorists making sudden changes in direction or moving off when they shouldn't.
- This potential measure is not a strong driver for behaviour change. Enforcing such a speed limit is not seen as credible to many.

#### **Target Specifics**

- Motorists were most opposed to this measure although many cyclists and near market cyclists also felt it was unfair on motorists and a likely source of increasing the antipathy towards cyclists.

## Maps at key locations

Maps were seen as a key part in what people hoped was going to ultimately be a whole cycle network, not just a 'Cycle Highway'. They are seen as potentially symbolic for the 'Cycle Highways' and could become key markers along the routes.

### Likes

- People believe that maps would be particularly useful when leaving the 'Cycle Highway' and finding your way to your final destination.
- They would also provide a further way of demarcating the route.
- Some see them as tube stop equivalents or pit stops and as such could be used as navigational markers when using the highway.

### Dislikes

There were some practical concerns about the maps:

- Some saw them as impractical if a number of cyclists decided to stop and study the map at the same time.
- There were also concerns about cyclists having to stop to look at the maps, as people feel this is something that cyclists probably don't want to have to do if they are already moving – some preferred a portable map that could be read while still riding.

### Optimisation

- People would like the maps to include information and directions to useful locations and places of interest.
- They would also like the maps to show links to other cycle lanes so that they become the main navigation tool for the whole cycle network.
- People want to see as many maps as possible along the highway – at least as frequent as tube stops.
- Some feel that the maps could be larger so that they are truly symbolic of the 'Cycle Highways' concept.

*"This would make the concept more about something than just cycling to and from work, it might be that cycling becomes fun. If the maps draw you to places of interest like a river or museum that is something that might make you cycle in the first place and then you could get into the habit."* [Male, non cycling commuter]

### Barrier Overcome and likelihood to change behaviour

- This measure does help to overcome concerns and barriers around wayfinding.

- As well as overcoming this barrier, the maps also have the potential to become beacons which informs cyclists about the wider network and empowers them to find their way around the city.
- Alone, the maps do not address some of the important safety issues that cyclists/potential cyclists encounter. However, as a compliment to the 'Cycle Highways' concept it has significant potential.

*"I think it's key and it's lacking at the moment, I think there is definitely a need there, especially for new cyclists so it's very good, it's a must."* [Male, non commuting, non cyclist]

### **Target Specifics**

- All targets thought this was a good idea although the near market cyclists were perhaps keener than most. Unlike current cyclists who are quite aware of their routes around the city, for potential cyclists, this was quite an empowering measure and one of a group of measures that would make them feel more catered for if they were to cycle.

### **Bus lanes with additional 1.5m mandatory lane on the near side where width permits**

This potential measure is one of the most well received ideas. It deals with the segregation issues in a way that the advisory lane does not by giving cyclists a mandatory lane to cycle in. The perception of safety is increased by having the bus lane as a further buffer between cyclists and cars.

#### **Likes**

This measure was popular with the majority of people:

- People like the distinct segregation between cyclists and other vehicles.
- Using a bus lane to separate cyclists from motorists was also appreciated – buses are seen as more predictable than cars so cycling next to them was not seen as an issue.

*“Obviously having the bus lane you know it’s going to be the odd bus, taxi and motor bike now, so you’ve generally got that extra space.”* [Male, commuting cyclists]

#### **Dislikes**

- Some see an issue around buses pulling into bus stops and are concerned that cyclists could get ‘cut up’ or buses delayed if waiting for cyclists.
- There are some concerns about the viability of adding another lane onto already narrow streets.

*“The only issue is for bus drivers who have to wait for cyclists to come past before pulling into bus stops.”* [Male, commuter, non cyclist]

#### **Optimisation**

- The issue of integrating bus stops within this potential measure needs to be resolve. Some suggested that the cycle lane would need to stop when merging with a bus stop so that cyclists are aware there could be a bus pulling in and are not under the impression that they have a right of way through the stop.

#### **Barrier Overcome and likelihood to change behaviour**

- This measure addresses safety issues to a large extent for cyclists and near market cyclists. By segregating them entirely from cars there is a significant increase in their impressions of safety.

- Although popular, this potential measure is not a strong driver for change in behaviour because the segregation would not operate along the whole highway. However, it is certainly a popular measure and could work well in combination with others.

### **Target Specifics**

- Cyclists and potential cyclists are most positive about this measure. The near market targets are more positive than current cyclists, who are more used to the 'battle' with the traffic. Motorists are also pleased to see this measure. Although it doesn't directly help them, there is a general view that moving cyclists away from cars is good for both parties.

### **Alternative quiet routes through back streets**

This potential measure is an appealing and well conceived idea. In particular, potential cyclists like the idea of being able to take a slightly longer but quieter route to their destination. Some envisage the whole 'Cycle Highways' operating in this way.

#### **Likes**

- This measure is seen as positive because it diverts cyclists away from traffic, and many felt that they were likely to take this route even if their journey takes slightly longer.
- It was also seen as another way to help you explore London through the cycling network.
- The idea of being taken through green areas is particularly popular e.g. parks. However, people understand and accept that the routes may just be through quiet streets.
- For some, this is how they initially assumed that the 'Cycle Highways' concept would operate i.e. directing cycling traffic away from congested roads on a marked route.

*"We're all probably quite competent cyclists but a lot of people who aren't wouldn't go that route because they know there's loads of cars."* [Male, commuting cyclist]

#### **Dislikes**

- Overall, there is little objection to this idea. The only exception is some cycle commuters who prioritise getting to their destinations as quickly as possible even if it means having to 'battle' along congested roads.

#### **Optimisation**

- People would like these 'quiet routes' options to be as frequent as possible along the route.

*"This could potentially link up the different routes so you could have that linking up to – you've got the 12 routes coming in, potentially that could link you up to another part of, or another route."* [Female, commuter, leisure cyclist]

#### **Barrier Overcome and likelihood to change behaviour**

- This measure has the potential to make at least part of the route a pleasurable, relaxing experience – a key motivator for those considering taking up cycling in the city.

#### **Target Specifics**

- For commuting cyclists this was perhaps a less appealing idea as they prioritise getting to where they were going as soon as possible. However, the near market found the possibility of a more tranquil cycle to work more appealing.

### **Specially designed mirrors**

This is a very popular measure which some people see as necessary rather than 'nice to have'. It addresses an important issue for both cyclists and near market cyclists in terms of safety.

#### **Likes**

- For many, this measure overcomes a real concern about HGV drivers 'cutting up' cyclists on their near side.
- Moreover, it is seen as something that is a tangible aid to safety and easy to implement – to the extent where some feel that it should be introduced immediately as a basic safety requirement.
- Motorists also see it as a positive move and feel "the more it helps me see, the better".

*"I think again it would make me feel safer if I know that a bus driver or a lorry driver can look, presuming they do look."* [Female, commuter, leisure cyclist]

#### **Dislikes**

- There are some concerns that the mirrors could be vandalised if placed too close to the kerb.

#### **Optimisation**

- The mirrors were seen as vital for helping to ensure the safety of cyclists and so they were expected to be at all junctions along the route.

#### **Barrier Overcome and likelihood to change behaviour**

- This measure clearly partly overcomes barriers around safety. Although this particular aspect of safety is not specifically mentioned when talking about cycling in London, introducing this measure is clearly seen as one of the more practical ways of improving safety.
- As one part of an overall safety package offered by the 'Cycle Highways' concept, it is key to making people feel more secure beside large vehicles at junctions. As such, it could make a contribution towards changing behaviour.

*"Lorries just frighten the life out of me, you must feel so vulnerable on a bike."* [Male, non commuter, non cyclist]

#### **Target Specifics**

- This idea was generally liked across all targets. The near market targets were more enthusiastic about the idea as safety is more of a concern for them than the 'hardened' current cyclists. Motorists too saw it as a good unobtrusive (to their own on-road experience) way of increasing cyclist safety.

*"That is my biggest fear though, if I'm turning and there's a cyclist coming up, although I would be aware that there is a cyclist lane."* [Female, commuting motorist]

## **Studs / Reflectors**

This idea was one of the most popular measures. Nearly all people call for as much segregation as possible for the cycle lane and introducing studs was seen as a powerful additional way of demarcating the lane. The reflectors were seen as a secondary benefit, but nevertheless a very positive one.

### **Likes**

- The most positive element was that studs on the cycle lane boundary would alert drivers when they were encroaching into the cycle lane.
- The reflectors are also seen as important but more in terms of safety at night and wayfinding than segregation.

*“Again it’s a safety thing for all. They’ve obviously got safety with those [studs] or potential conflict areas so they’ve really thought about it and thought about the cyclists safety, so it’s really good”.* [Female, commuters, leisure cyclists]

*“You can feel them when you’re driving across them, can’t you, so you know you’re intruding.”* [Male, commuting cyclists]

### **Dislikes**

- There were very few concerns about this intervention. The only issue was the discomfort for cyclists if they have to ride over the studs.

### **Optimisation**

- Many people wanted to see studs along the whole route as well as at the entrance to some side roads as a means of segregation.

### **Barrier Overcome and likelihood to change behaviour**

- By offering additional segregation between the cycle lane and motorised traffic, this potential measure helps to address barriers around safety. The reflectors also help to address barriers around wayfinding and safety.
- As this intervention successfully addresses the high priority issue of segregation, it has potential to alter people’s travelling behaviour.

### **Target Specifics**

- This potential measure was appealing to all targets but especially the near market cyclists who are not confident on the road and so are wary of having to ‘battle’ with the other traffic on the road. Current cyclists are more ‘battle hardened’ and therefore more blasé about the segregation issue in general.

## Cycle counter display

This potential intervention was the least popular measure. People struggle to identify benefits and therefore view it simply as a non-essential way of promoting or justifying the scheme.

### Likes

- Some understand the concept that seeing the numbers of cyclists using the route may help to make cyclists feel less isolated.
- Motorists may also realise the extent to which the cycle lane is being used and therefore be less inclined to encroach into it.

*“If you’re cycling and you think there are loads of cyclists, you might think, ‘I’m not in the minority’.”* [Male, non commuter, non cyclist]

### Dislikes

- On balance, people do not believe that the display will deliver any practical benefit.
- Many see this as purely a promotional scheme to advertise the concept and potentially a way of justifying expenditure on the scheme by demonstrating that there is a critical mass of cyclists using the highway.
- There is some cynicism and concern that it would not be an effective use of public money.

*“It’s gimmicky isn’t it, a waste of money.”* [Male, commuting cyclist]

### Optimisation

- People felt that the example images shown were unnecessarily expensive looking and some would prefer it to be more basic.
- The lack of clear practical benefit was an issue for most people, so including a bicycle maintenance kit or a map as part of the counter structure would make it a more justifiable intervention.

### Barrier overcome and likelihood to change behaviour

- In its current form, this measure does not overcome any of the key barriers. While some understand that it is designed to empower cyclists, it is primarily seen as a way of ‘justifying expenditure’ or a promotional gimmick.
- This intervention has the least potential to alter behaviour. While lifting the profile of cyclists is clearly important, it does not address the practical barriers that are key to changing peoples’ behaviour in the near future.

### **Target specifics**

- This measure is not popular with any target but is a particular issue for who see it as a waste of money, particularly because it is designed for non-road tax paying cyclists.

## Targeted resurfacing programme

This measure is well received as it tackles a real problem for cyclists both in terms of safety e.g. hitting potholes, swerving into traffic to avoid potholes as well as bike maintenance e.g. potholes, glass causing punctures. However, there are some concerns around how it will work in practice.

### Likes

- The state of road surfaces is an important issue, especially for cyclists who frequently encounter poor cycle lane conditions and often suffer from punctures or accidents because of the state of the lane. Potholes are also especially dangerous at night. Potholes in the cycle lane also lead to safety issues when cyclists have to swerve into the traffic to avoid them.
- Many mention that the accumulation of 'detritus' e.g. glass etc. can also cause safety and maintenance issues and expect that the cleanliness of the cycle lanes will also be maintained.
- People also hope that this programme will help to maintain a smooth surface that will increase the physical ease of cycling and make the cycling experience generally more appealing.

*"[It's] very important. Let's say over time the paint wore off and there was an accident. What are the definitions between the cycle lane and the main road? what happens if there's a pothole in the road and someone has an accident from the pothole?"* [Male, commuter, leisure cyclist]

*"My friend fell in to a pothole last month and broke his jaw because it was dark. He is a really good cyclist, so for me that would be quite a good thing because if there is a pothole there and it is dark how is a cyclist going to see it?"* [Female, commuter, leisure cyclist]

### Dislikes

- There are some credibility issues with this idea. Many doubt the extent to which this service will be truly reactive given experience with normal road works.
- In particular, people are cynical about the hotline and doubt the speed and usability of this service.
- There are some concerns that additional work on the surfaces will cause even further traffic disruptions in London.
- For some motorists, this measure is seen as prioritising (non-road tax paying) cyclists above motorists.

### Optimisation

- As mentioned above, the cleanliness of the road surface is a concern, as well as the 'holes and bumps' maintenance, so people would expect it to be swept on a regular basis.

*"I think that would be good to have every other day to get rid of broken glass and bits and bobs because all the people who clean the streets are pushing it in to the cycle lane."* [Female, commuter, leisure cyclist]

### Barriers overcome and likelihood to change behaviour

- This measure tackles several barriers. Safety is addressed by removing the potholes that can cause crashes, both through cyclists hitting the potholes and also because they may have to swerve into oncoming traffic to avoid them.
- It could also help to make cycling in London a more pleasurable experience by supplying a smooth surface to cycle along.
- Smoother routes would also help to reduce maintenance costs e.g. punctures, buckled wheels etc, enhancing the economic benefit of cycling.
- The issues addressed by this measure are primarily a concern for current cyclists. As a result, whilst it has potential to encourage occasional cyclists to increase their cycling activity, it is not a trigger for the near market cyclists to start cycling.

### Target specifics

- This measure is generally popular – although more of a priority for current cyclists and a potential trigger for occasional cyclists, all targets appreciate the benefits of having a well maintained cycle lane.

## **Re-organising parking and loading along the highway**

Overall, this measure is a popular idea, but more of 'nice to have' than effective in terms of influencing people's desire to cycle.

### **Likes**

- People appreciate that clearing the route would allow for a steady and uninterrupted journey.
- This measure is also seen as addressing some safety issues as it reduces the need for cyclists to swerve out around parked lorries or cars.

*"I think that's good because at the moment there's a lot of parking bays that overlap the cycle lane, it just blocks things."* [Male, commuting cyclist]

### **Dislikes**

- There is some concern about lorries parked in the inset loading bays pulling out into cyclists on the highway.
- There are also some concerns about the amount of pavement space that could be taken up by the inset bays, but these concerns are addressed by assurances that this measure would only be introduced where pavements are wide enough.

### **Optimisation**

- People would like to see this measure introduced wherever possible along the route, as long as there is some form of preventing vehicles in the inset parking bays pulling out into cyclists.

### **Barrier overcome and likelihood to change behaviour**

- This measure addresses barriers around the ease and comfort of cycling in London by enabling a smoother flow to the journey.
- Whilst popular, it is unlikely to cause a modal change. It is very much a 'nice to have' option rather than essential because it does not address the more significant barriers to cycling in London.

### **Target specifics**

- This measure is more appealing to current cyclists who do have problems navigating around parked vans or vehicles. Motorists, surprisingly, did not seem particularly concerned about having some parking bays removed.

### **Closure of some side roads**

This potential measure provoked some heated reactions from both car owners and non car owners. Overall, the benefits for cyclists is seen as limited, and is outweighed by the inconvenience for motorists.

#### **Likes**

- Some people see this measure as a way to give cyclists a greater sense of freedom and concern-free cycling by removing the possibility of cars pulling out into their 'Cycle Highway' or cutting across them when pulling into side roads.

*"A bit too extreme. If I was a driver and that used to be a regular road I could drive down and it's blocked off cause of the cycle lane... You're just moving traffic from this point to somewhere else."* [Male, non commuter, non cyclist]

#### **Dislikes**

- There is concern that this measure will cause significant annoyance for motorists living on the closed off streets, as they would have to travel a longer way round to get to their destinations. People are concerned that it could lead to motorists driving faster, as well as increasing congestion on other roads.
- It is seen as generating confrontation between cyclists and motorists by removing some of the motorist space on London's roads.
- For many, closing of side roads is seen as both impractical and unnecessary, as many believe that traffic calming at the entrance to side roads and the coloured 'Cycle Highway' route running across the entrance is sufficient.

*"The speed hump works very well because they've got to slow down before they actually approach the junction."* [Male, non commuter, non cyclist]

#### **Optimisation**

- Overall, there is little opportunity to optimise this measure because it is not a popular concept. However, there may be some justification for introducing it at side roads which are already accident black spots.

#### **Barrier overcome and likelihood to change behaviour**

- The issue of side roads is not seen as a major safety concern overall, and not significant enough to justify closing side roads. Overall, it seems to cause additional problems for motorists rather than overcoming barriers.

- Overall, this measure does not overcome any major safety issues and so is unlikely to change behaviour.

**Target specifics**

- This measure was generally not popular, and it was a particular concern for motorists.

## **Painted 'spurs' to other popular destinations**

People feel that painted 'spurs' would help to make cycling a more viable way of travelling around the city and provide useful help and direction to cyclists.

### **Likes**

- People think that this measure would enable cyclists to navigate around town on a non-commuting basis and encourage people to explore.
- It is also seen as a way of empowering cyclists and making them feel like they are being catered for.
- It is seen by many as something that could be useful either for tourists or any cyclists who are new to the city.

*"I think it would encourage them also to cycle in leisure time, so this way to Hampton Court Palace or something, or this way to the O2, things to do. And it's your point isn't it of being a bit scared as a cyclist and knowing where to go, you would know where to go."* [Female, commuter, motorist]

*"A road sign that says – Bikes, Clapham Junction this way – when it's on the road...it just ends up with too many so you don't pay any attention to any of them and if it's written on the road its really clear and I think it's much better for it on the road than it is to be on the silly sign."* [Female, commuter, motorist]

### **Dislikes**

- Some commuting cyclists feel that many people cycling on these routes would be well aware of how to get around London and may therefore find these 'spurs' superfluous.
- There is some concern that the road markings may be confusing for motorists looking to get to the same destination.

### **Optimisation**

- Retaining the painted road colour following the 'spur' is essential for wayfinding and would be more effective than just a sign on the side of the road.
- Due to the potential confusion for motorists, these 'spurs' need to be clearly marked as cycling routes.

### **Barrier overcome and likelihood to change behaviour**

- This idea clearly operates by empowering cyclists to feel able to easily navigate around London by bicycle.

- Although popular, this measure does not offer enough of a practical benefit on its own to encourage a change in behaviour.

### **Target specifics**

- This measure is more attractive to the near market target as they are less comfortable about navigating around the city and would appreciate additional help to travel around London by bicycle.

## **Cyclists allowed to turn left at a red signal**

This proposal is seen by many as a potentially dangerous idea that would require significant re-education for all road users. Some also question whether it is required as many cyclists already do this at the moment.

### **Likes**

- Some cyclists like the idea as it would (legally) allow them to keep going when there is no traffic coming from their right. Having to stop and start is an issue for some cyclists and this measure could help to reduce the need to stop.

### **Dislikes**

- For many, this is seen as a somewhat superfluous measure as the perception is that many cyclists currently do this anyway.
- Many see this idea as potentially dangerous and confusing for motorists, cyclists and pedestrians. Essentially they see it as an entirely new traffic regulation, which would mean that all parties would need to be educated to prevent accidents.
- There is also some concern that pedestrians may be in danger from the cyclists turning left.

*“I think a lot of cyclists jump the lights anyway so they would be doing it anyway whether they are allowed to or not.”* [Female, commuter, leisure cyclist]

*“Some people might know about this thing and some people might not and you’d all go at different times.”* [Female, commuter, leisure cyclist]

### **Optimisation**

- If this measure were to be introduced, people would want to see education for all road users to prevent confusion and potential accidents.
- As a minimum, there should be an indication on traffic lights that cyclists have the right to turn left on a red signal.

### **Barrier overcome and likelihood to change behaviour**

- Overall, this measure is unlikely to change behaviour, as it does not address any of the specific barriers and current cyclists often turn left on red signals already.

### **Target specifics**

- Motorists and near market targets were most concerned about this potential measure and its potential to create confusion.

## **Expert cyclist comes to your home and cycles your route to work/school with you**

This is seen as a good idea for those who lack confidence on a bicycle but can be seen as patronising for those who are not. In order to work effectively, it needs to offer more than simply accompanying someone to work (e.g. advanced cycling training) to make it appealing for more experienced cyclists.

### **Likes**

- It is seen as a positive idea for cyclists who are not confident on the roads or for children.
- Some motorists felt reassured that cyclists would have better training for being on the roads.

*“I think that’s a good idea, especially if your problem is feeling safe and confident about where you are going, I think if you need that extra push.”* [Female, non commuter, non cyclist]

### **Dislikes**

- A lot of the cyclists or people who were seriously thinking about cycling found the idea somewhat patronising, as they believe that many people already know how to cycle.
- Some feel that it would be an expensive initiative.
- There are some concerns about the one on one format - “it would make you feel like you were on a blind date”.
- Some also see it as unnecessary if the ‘Cycle Highway’ routes are clearly marked.

*“I don’t think we are the right group that that would appeal to. I think it might work for other people but you know maybe like older generation who want to keep fit but are a bit nervous on the roads or kids.”* [Female, commuter, leisure cyclist]

### **Optimisation**

- As described above, the key to optimising this initiative is to offer more than cycle proficiency training, and emphasise that it is more about an expert cyclist giving you advanced cycling tips for cycling on busy roads.

### **Barrier overcome and likelihood to change behaviour**

- Overall, being supported by an expert cyclist for a couple of journeys is not enough to tackle the everyday problems that cyclists encounter on the roads and so is not a key motivator to start cycling.

### **Target specifics**

- This idea did not appeal strongly to any target, even those were genuinely thinking about cycling and had little experience cycling on the road. Some women were deterred by the idea of the one on one format.

## Free Sheffield stands and lockers

Many people we spoke to had had bikes stolen so this is clearly a very important issue for cyclists and anyone considering cycling. Having a critical mass of either the stands or the lockers would help to make cycling around London a more viable form of transport.

### Likes

- People like the fact that it would provide some much needed security for expensive pieces of equipment.
- The lack of secure places for bikes is seen as a real barrier to cycling to certain places in London so these measures have the potential to make London more accessible by bicycle.
- Lockers are seen as more secure than the Sheffield stands, although the stands are still popular.

*"I think the stands are great as well, stick them up everywhere."* [Male, commuter, cyclist]

*"I pity anyone that has to park their bike on the street just because the only reason why I bought my bike ... is because I knew I could park it in the garage. I would just never park it on the street because I know I'd get something stolen off it, even if I bought a few good locks for it I'd just be paranoid."* [Male, commuter, cyclist]

### Dislikes

- Some dislike the appearance of the lockers.
- The Sheffield stands are not seen as particularly secure - "they're no better than chaining your bike to a railing".
- There is some concern at having to pay for the cycle lockers – for many, the economic benefits of cycling are key, so it would be important not to add expense.

### Optimisation

- People would like to see the stands/lockers located in well lit or busy areas to further increase security.
- People also say that there would need to be a significant number of either the stands or the lockers for this measure to make a difference to perceptions of bike security.

### **Barrier overcome and likelihood to change behaviour**

- The issue of bike security is significant and addressing it could help to persuade those on the cusp of cycling more regularly to take it up. This is certainly one of the big infrastructure issues that would help to make cycling more viable.

### **Target specifics**

- Current cyclists, many of whom have experienced bike theft or know others who have, are the most enthusiastic about this idea. However, it is also appealing to those who are seriously considering cycling and lack the resources to store their bicycle securely.

## Secure cycling hub

This measure is seen as a secure way to store your bicycle because it is stored out of sight and in a populated enclosure. However, there are some concerns over effective security as a cycle hub would be an obvious target for thieves.

### Likes

- The secure cycling hub is a level up from Sheffield stands and lockers.
- As an enclosed facility and one where there are likely to be people around all the time, it is seen as a very secure place to keep your bike.

*“It’s a good idea although would it be that safe? If you actually had someone who was there like there was a security guard who was walking by keeping an eye on them.”* [Male, commuter, cyclist]

*“This would be better because I think that is the problem with a lot of people when they go out cycling, where to leave the bike and get the Sheffield cycle stands, the majority in our borough they’re cut off the chains.”* [Male, commuter, cyclist]

### Dislikes

- The cost of using this facility is key as cycling needs to retain an economic advantage over paid for public transport.
- Some women are concerned that they might feel unsafe if using the hub late at night.
- Some feel the bikes may be less secure than leaving them on the street - “all you need is to get a key or break in and you have access to all these nice bikes”.

*“I think people will still leave their bikes on the streets if they have to pay more than £1 for the hub, or the cost of a bus fare.”* [Female, non commuter, non cyclist]

### Optimisation

- For this to be a worthwhile measure, the hubs would need to be located as strategic places along the route.
- People are also concerned about the security of the facility and would want stringent security measures to make them truly secure.

### Barrier overcome and likelihood to change behaviour

- This measure addresses a significant barrier for some people. However, it is less likely to change behaviour than the Sheffield stands or lockers as the perception is

that the hubs will be less widespread and so less of a solution to the London-wide security problem.

**Target specifics**

- As with the measure above, this is understandably most appealing to current cyclists. There was concern, however, from some of the female groups about the enclosed nature of the facility, especially if they had to access them late at night, although this could be addressed through good security at the facilities.

### **Daily led rides/Community led rides on-going**

This measure was not particularly appealing for most; it tended to be seen as a bit patronising and 'anoraky' (for the overly keen or obsessive) by many people. Running this on weekends when there is less traffic on the roads sounds less dangerous to many and something that would be more pleasurable as a result of the cyclist having more time (and therefore less immediate time-pressure) to enjoy their cycling and less pressure from other traffic.

#### **Likes**

- This will give people confidence to cycle on the roads, offering a sense of safety in numbers because motorists are more likely to see them.
- This feeling that you are not alone is encouragement to some people.
- The notion of cycling in groups was seen as a positive thing for children as well, as a safe 'environment' to build their confidence in being on the road.

#### **Dislikes**

- For many people, having a large number of cyclists on the road together is seen as potentially quite dangerous and a cause of increased traffic congestion (this impression was possibly exacerbated by the image shown to the group of cyclist riding shoulder to shoulder).
- Like the expert cycle training, this is seen as a rather patronising thing to be offering people.
- Seen by some as a bit 'anoraky' or like naively forced socialising, especially the community led on-going rides.
- Some also questioned exactly how something like this might work given that people would be going at different speeds.

#### **Optimisation**

- Running this on weekends when there is less traffic sounds less dangerous to many and something that would be more pleasurable.

#### **Barrier overcome and likelihood to change behaviour**

- The measure is not something that is very appealing and in fact appears possibly counter intuitive for the whole cycling idea of having independence and being able to go where you want, when you want and at your own speed.

## Target specifics

- This was not a very appealing idea to any of the targets. Both current cyclists and the near market targets found the idea quite patronising while the motorists only saw the potential effect of increasing congestion on the roads.

*"I think it would appeal to older people. You'd just feel a bit of an idiot!*

*Right. Okay.. A bit sort of geeky and...It's a bit sort of follow the leader isn't it?*

*A bit anoraky"* [Male, non commuter, non cyclist]

*"I don't think it would hurt and I think if you want to do it on your own and you're a bit nervous about it I think it's quite a good promotion thing. I don't think they should do it all the way through just in the launch".* [Female, commuters, leisure cyclist]

*"I think that would be better for me, sometimes it would be quite awkward riding with someone I don't know"* [Female, non commuter, non cyclist]

*"No, I just think that it would be more of a social, fun thing to do, so just having it for a month isn't going to get everyone interested in it, and as everyone knows, people are always coming and going in London, so to have that option they should have it ongoing"* [Female, non commuter, non cyclist]

*"Yes, people are busy as well, if you have it ongoing at least you can go at certain times, you can book yourself in, not just for a month, but you can spread it out more"* [Female, non commuter, non cyclist]

*"I don't like relying on other people to do what I want to do*

*I think if you've got to rely on other people you're probably not going to be good on a bike out on a major road*

*It's like a cycling proficiency test"* [Male, commuter, leisure cyclist]

*"anyway I think, it's a crazy idea in the city of London to be encouraging people to be travelling in large groups on busy main roads, even with a designated cycle lane"*

[Male, commuter, leisure cyclist]

## **Training for large vehicle drivers**

This was generally seen as a good idea, but many see it as something that should be compulsory anyway. Some people are cynical regarding the take up of this idea by haulage companies and are sceptical with regards how it will be funded.

### **Likes**

- Lorry drivers are recognised to be a cause of many accidents for cyclists so in principle this was thought to be a good idea.
- Anything to increase peoples' awareness of cyclists on the road is seen as a good thing – it is believed that for the 'Cycle Highways' concept to work the other road users also need to be educated about it as well.
- Some believe that heavy goods vehicle drivers would also feel the benefit as they imagine it is also a traumatising event for them when they have a collision with a cyclist.

### **Dislikes**

- Many people doubt whether companies would take up the offer of training unless it was made compulsory.
- If it *is* made compulsory, the funding of the training becomes an issue for some who are not happy about it coming out of their taxes.
- Many suggest that many freight drivers in London actually come from outside of London (and potentially from abroad) and so would not be subject to this measure anyway

### **Optimisation**

- Many feel that this should be compulsory for HGV drivers anyway and that companies should be compelled to train drivers in this way.

### **Barrier overcome and likelihood to change behaviour**

- This measure does tackle perceptions of safety whilst cycling to a certain extent, but it is not a sufficiently tangible measure for people to feel it will change their behaviour and also not a measure that is dependent on their own actions.

### **Target specifics**

- The majority of the sample thought this was a good idea. Lorry drivers are seen by most people (even non cyclists) as somewhat unpredictable on the road hence the universal approval of the idea.

*“Yeah that would be a good idea because they kind of seem to be one of the biggest threats for the cyclists”. [Female, commuter, leisure cyclist]*

*“I think it needs to be something more mandatory because if you give a pamphlet to a driver he’ll just say oh thank you” [Male, commuting, cyclist]*

*“It is a nice idea but they should be aware of it already and bus drivers and they have got loads of mirrors they should use them*

*I don’t know how many companies are going to want their drivers to take time out of their working schedule to go and do this” [Female, commuter, leisure cyclist]*