

---

# THE MAYOR'S VISION FOR CYCLING IN LONDON

An Olympic Legacy for all Londoners



**MAYOR OF LONDON**

Transport for London



## COPYRIGHT

**Greater London Authority**  
**March 2013**

Published by  
Greater London Authority  
City Hall  
The Queen's Walk  
More London  
London SE1 2AA

**[www.london.gov.uk](http://www.london.gov.uk)**

enquiries 020 7983 4100

minicom 020 7983 4458

ISBN

Photographs © Transport for London

Copies of this report are available

from [www.london.gov.uk](http://www.london.gov.uk)

---

## CONTENTS

<b>FOREWORD BY THE MAYOR OF LONDON</b>	<b>4</b>
<b>FOREWORD BY THE COMMISSIONER</b>	<b>7</b>
<b>KEY OUTCOMES</b>	<b>9</b>
<b>A TUBE NETWORK FOR THE BIKE</b>	<b>10</b>
<b>SAFER STREETS</b>	<b>18</b>
<b>MORE PEOPLE TRAVELLING BY BIKE</b>	<b>24</b>
<b>BETTER PLACES FOR EVERYONE</b>	<b>30</b>

---

# FOREWORD BY THE MAYOR OF LONDON

Imagine if we could invent something that cut road and rail crowding, cut noise, cut pollution and ill-health – something that improved life for everyone, quite quickly, without the cost and disruption of new roads and railways. Well, we invented it 200 years ago: the bicycle.

Like so many of the best things, the bike owes a lot to London. In 1818, at his Covent Garden coachworks, one Denis Johnson – not necessarily a relation – helped create the first bicycle in something like its modern form, with a curved metal frame and metal spokes for the wheels.



After that early inventorial spurt, I confess, London rather forgot the Johnson 'velocipede'. Gyrotories and flyovers carved up the city. Humbler roads sprouted railings, roundabouts and fast-moving traffic. Ownership of a car became how an ambitious young man showed off to an upwardly-mobile young woman.

But in the past decade, cycling on the Transport for London (TfL) road network has almost trebled. The Thames bridges throng with commuter cyclists, wearing colours not found in nature. In the cooler parts of east London, a bike is the fifth limb for everyone under 30. Hundreds of thousands of people have discovered that their transport future is lying in their garage under a pile of disused barbecue equipment.

The success of our policies to increase cycling means we must now greatly increase our provision for cyclists – and, above all, for the huge numbers of Londoners who would like to cycle, but presently feel unable to.

In this document, I set out my plans for substantial – eventually transformative – change. Cycling will be treated not as niche, marginal, or an afterthought, but as what it is: an integral part of the transport network, with the capital spending, road space and traffic planners' attention befitting that role.

Among the greatest joys of London's Olympics were our triumphs in cycling. I today announce that the main cross-London physical legacy of the 2012 Olympic Games will be a proper network of cycle routes throughout the city, a substantial increase in cycling, and all the benefits – fitness, enjoyment and easy travel for millions, cleaner air and less traffic for all – that will follow.

My flagship route – a true Crossrail for the bicycle – will run for at least 15 miles, very substantially segregated, from the western suburbs, through the heart of the Capital, to the City, Canary Wharf and Barking in the east. It will, we believe, be the longest substantially-segregated continuous cycle route of any city in Europe. It will use a new segregated cycle track along, among other places, the Victoria Embankment and the Westway flyover. The Westway, the ultimate symbol of how the urban motorway tore up our cities, will become the ultimate symbol of how we are claiming central London for the bike.

I want cycling to be normal, a part of everyday life. I want it to be something you feel comfortable doing in your ordinary clothes, something you hardly think about. I want more women cycling, more older people cycling, more black and minority ethnic Londoners cycling, more cyclists of all social backgrounds – without which truly mass participation can never come.

As well as the admirable Lycra-wearers, and the enviable east Londoners on their fixed-gear bikes, I want more of the kind of cyclists you see in Holland, going at a leisurely pace on often clunky steeds. I will do all this by creating a variety of routes for the variety of cyclists I seek.

There will be greatly-improved fast routes on busy roads for cyclists in a hurry. And there will be direct, continuous, quieter routes on side streets for new cyclists, cautious cyclists and all sorts of other people who would rather take it more slowly. But nothing I do will affect cyclists' freedom to use any road they choose.

I will more than double London's cycling budget – to a total of almost £400m over the next three years, two-and-a-half times more than previously planned. In 2015, we will be spending £145m a year on cycling, or roughly £18 a head, up with the best in Germany and almost on a par with the Netherlands.

Over the next 10 years, cycle spending will total £913m, more than treble the previously-planned levels. There will be particularly dramatic increases in spending earmarked for Outer London. I will change how I spend our money to focus far more heavily on serious, meaningful improvements to routes and junctions. I have appointed a Cycling Commissioner, who has helped draw up these policies, to drive them forward and win support for them from the other bodies whose backing we need.

In addition to our record funding towards delivering this vision, I will be looking to the boroughs to also deliver extra funding and resources, in parallel, because of the benefits this vision will deliver for all.

I am, as you may know, a passionate cyclist. In my first term, very little gave me more pride than what we achieved for the bicycle: the world's best hire scheme, and more cyclists in London than at any time since the arrival of mass motoring. At the last mayoral election, cycling policy united the political right, who applaud the freedom and individualism it embodies, and the left. In my second term, changing London to make it friendlier to cyclists is one of my most important goals.

But at the very heart of this strategy is my belief that helping cycling will not just help cyclists. It will create better places for everyone. It means less traffic, more trees, more places to sit and eat a sandwich. It means new life, new vitality and lower crime on underused streets. It means more seats on the Tube, less competition for a parking place and fewer cars in front of yours at the lights.

I do not control the vast majority of London's roads, so many of the improvements I seek will take time. They will depend on the cooperation of others, such as the boroughs, Royal Parks, Network Rail and central government. I do not promise perfection; I do not promise that London, a very different city from Amsterdam or Copenhagen, will quickly come to resemble those places.

But what I do say is that this document marks a profound shift in my ambitions and intentions for the bicycle in London.

A handwritten signature in black ink, appearing to read 'Boris Johnson', with a long horizontal flourish extending to the right.

**Boris Johnson**  
Mayor of London

# FOREWORD BY THE COMMISSIONER

Exactly 150 years ago, with the first underground railway, London established itself as a world leader in city transport. Since then, TfL and its predecessors have been at the forefront of every major development in the field.

In the early years of the last century, the Metropolitan Railway and the Underground Group created the commuter suburb. In the early years of this one, TfL showed how a city could turn around a public transport system in long-term decline, transform its centre with a congestion charge, and establish one of the world's most successful bike hire schemes.

In urban transport, cycling is now at the cutting edge. Across the western world, from Paris to New York, from Edinburgh to Dublin, forward-thinking cities are investing hundreds of millions of pounds in the bicycle, knowing that well-designed schemes can deliver benefits far greater than their relatively modest costs. Because transport is not just how you get around. It is part of what shapes a city, for good and for ill. Cycling shapes a city – for all its people, cyclists or not – in ways that are almost always good.

This document promises ambitious new cycle routes and infrastructure. They are a step-change in cycling provision. They will accelerate the huge progress London has already made in this area, and I commit TfL to funding and delivering them as one of its highest priorities. But I am committed, too, because I believe this is about so much more than routes for cyclists. It is about the huge health and economic benefits that greater cycling can bring. It is about improving London's streets and places for everyone, including those with no intention of getting on a bike. And it is about helping the whole transport system meet the enormous demands that will be placed on it.

Before the end of this decade, London's population will reach nine million. The city's economy continues to grow. Even with our unprecedented investment in the Tube and rail network, parts of it will still be under pressure. Most journeys, by both public transport and car, are short and eminently cyclable. If they can be made more easily by bike, significant amounts of that pressure could be eased.

Nor do our policies for cyclists end with routes and junctions. Just as important is our range of other measures to make cycling safer and more normal. We support employers to get their staff cycling. We fund schools to train children. We will encourage people to construct routes of their own through new suites of smartphone apps. And we are doing an enormous amount to pinpoint and reduce the dangers from large vehicles. Cycling in London is about 25 per cent safer than it was 10 years ago. But safety remains at the heart of what we do, and is fundamental to this plan.



TfL's record of delivery is strong, and we have agreed demanding targets. But we cannot do it on our own, and this document also asks others to act. We will work in partnership with the boroughs and other stakeholders, such as Network Rail, the Royal Parks and the Canal and River Trust. But we also need central government to help unblock innovations for cyclists held up by regulation. We want them to implement minimum safety standards and improve road user behaviour.

Over the lifetime of this plan, we want to see cycling in London transformed, and we will do all we can to make it happen.

A handwritten signature in black ink, appearing to read 'Sir Peter Hendy'.

**Sir Peter Hendy**

Commissioner, Transport for London



# KEY OUTCOMES

1. **A Tube network for the bike.** London will have a network of direct, high-capacity, joined-up cycle routes. Many will run in parallel with key Underground, rail and bus routes, radial and orbital, signed and branded accordingly: the 'Bakerloo Superhighway'; the 'Circle Quietway', and so on. A 'bike Crossrail' will run, substantially segregated, from west London to Barking. Local routes will link with them. There will be more Dutch-style, fully-segregated lanes and junctions; more mandatory cycle lanes, semi-segregated from general traffic; and a network of direct back-street Quietways, with segregation and junction improvements over the hard parts.
2. **Safer streets for the bike.** London's streets and spaces will become places where cyclists feel they belong and are safe. Spending on the junction review will be significantly increased, and it will be completely recast to prioritise major and substantial improvements to the worst junctions, though other junctions will still be tackled. With government help, a range of radical measures will improve the safety of cyclists around large vehicles.
3. **More people travelling by bike.** Cycling across London will double in the next 10 years. We will 'normalise' cycling, making it something anyone feels comfortable doing. Hundreds of thousands more people, of all ages, races and backgrounds, and in all parts of London, will discover that the bike has changed their lives.
4. **Better places for everyone.** Our policies will help all Londoners, whether or not they have any intention of getting on a bicycle. Our new bike routes are a step towards the Mayor's vision of a 'village in the city', creating green corridors, even linear parks, with more tree-planting, more space for pedestrians and less traffic. Cycling will promote community safety, bringing new life and vitality to underused streets. Our routes will specifically target parts of the Tube and bus network which are over capacity, promoting transfers to the bike and relieving crowding for everyone. Cycling will transform more of our city into a place dominated by people, not motor traffic.



# A TUBE NETWORK FOR THE BIKE

Cycling on London's main roads has risen by 173 per cent since 2001. We intend to double cycling over the next 10 years. To support this growth, major investments are needed. Analysis shows that more than half of the potentially cyclable trips in the Capital are in Outer London. These total around 2.4 million a day, most of which are made by car.

By 2020 the London cycle network will be easily understood and heavily used. We want to change the nature of cycling, attracting thousands of people who do not cycle now. We will offer two clear kinds of branded route: high capacity Superhighways, mostly on main roads, for fast commuters, and slightly slower but still direct Quietways on pleasant, low-traffic side streets for those wanting a more relaxed journey. Some Quietways will also be attractive green routes through open space, suitable for recreation and family enjoyment. In the City and West End, a mixture of Quietways and new Superhighways will make up the 'Central London Grid', joining all the others together. Outside the centre, local links complete the picture.

Where there is conflict between modes (which there often isn't) we will try to make a clear choice, not an unsatisfactory compromise. We will segregate where possible, though elsewhere we will seek other ways to deliver safe and attractive cycle routes. Timid, half-hearted improvements are out – we will do things at least adequately, or not at all.



*Visualisation of Royal College Street, Camden, an example of semi-segregation in London*

Routes will be wide enough to cope with higher volumes of cyclists, and designed to reduce conflict between pedestrians and bikes. Confusing shared pavements will be avoided. We are revising the London Cycle Design Standards to ensure that everything we build or fund in the future is consistent with this Vision document. In discussions with the boroughs, we will commit to develop specific standards of service and maintenance for each of London's new routes.

The total budget for routes, junctions and suburban cycling improvements (shown in sections I-VI below) will rise about five-fold, from just under £120m to between £550m and £600m.

## **I. A new network of cycle routes in central London**

- In partnership with the central boroughs, we will create a central London 'Bike Grid' of high-quality, high-volume cycle routes, using a combination of segregation and quiet shared streets, along with some innovative use of existing infrastructure. The 'Crossrail' East-West Superhighway will form part of this.
- With the boroughs' agreement, we will seek to open up a number of central one-way streets for two-way cycling, creating direct, easy, lower-traffic routes through the City and West End. Experience from the City and Kensington and Chelsea, who have brilliantly led this process, shows that it can be accomplished without traffic or safety impacts.
- We will not be asking boroughs to remove traffic or, in the vast majority of cases, change parking on the two-way cycle streets, unless they want to.
- The east-west segregated Superhighway will be delivered by 2016. Subject to the agreement of the boroughs, so will the majority of the Grid. Route planning has already started; a planning conference with the central London boroughs will take place next week. Routes for the Grid will be announced as they are agreed with the boroughs.

## **II. A Crossrail for the bike**

- Across the centre of the Tube network, by later this decade, will run an express line, Crossrail. I am determined to create something similar for the bicycle as quickly as possible.
- We will open a fast, segregated cycle superhighway – a true 'Crossrail for the bike' – stretching at least 15 miles west-east through the heart of London, from the western suburbs to Canary Wharf and Barking. We believe that it will be the longest continuous largely-segregated urban cycle route in Europe.
- The route will follow existing, but improved, segregated tracks alongside part of the surface stretch of the A40. At Wood Lane, White City, I have asked TfL to work on a new bike and pedestrian bridge over the West Cross Route and railway line, long-desired by local people. My plan is that it will then join a bi-directional cycle track created by removing one of the six traffic lanes from the Westway flyover.
- Motor traffic on this stretch of the Westway has dropped by 22 per cent in the past decade, giving us ample scope for this change. There will be no reduction in motor vehicle access onto or off the flyover, which will continue as now. Cyclists will be safely separated from other vehicles.
- Cyclists will descend from the flyover near Paddington, cross Hyde Park on existing traffic-free cycle routes and pass right through the heart of London, with new segregated tracks along the Victoria Embankment and through the City.

- The new route will then link to the existing, largely-segregated Cycle Superhighway 3 (CS3) from Tower Gateway to Canary Wharf and Barking.
- Extensive connecting routes will be opened to link the new route to nearby town centres, such as Acton, Ealing, Wembley, Westfield Shepherd's Bush and Canning Town.
- Peak-hour cycle journey times along the route will often be comparable to, or quicker than, their rail or car equivalents.
- In the 1970s, the Westway came to symbolise the dominance of the inner city by the car. It will now become a symbol of our claiming central London for the bike.

### III. Better Barclays Cycle Superhighways

- All future Barclays Cycle Superhighways will be delivered to much higher standards, closer to international best practice.
- We will substantially improve the existing Barclays Cycle Superhighways.
- We will reroute several existing and proposed Superhighways onto roads more easily convertible into genuinely high-quality cycle routes.
- With the proviso that nothing must reduce cyclists' right to use any road, we favour segregation. Most main roads in London are, however, also bus routes, with frequent bus stops and a far denser service than in, say, Amsterdam. The cycle lane would have to go between the bus and the pavement. Everybody getting off or on a bus would step straight into the lane, risking being hit by a cyclist.



*Proposals for the Cycle Superhighway extension to Stratford*

- We will install Dutch-style full segregation on several streets without bus routes, such as the Victoria Embankment. We will install it on several streets which are wide enough to put bus stops on 'islands' in the carriageway, including Stratford High Street, with the bike lane going between the bus stop and the pavement. We will put Dutch-style segregated lanes on several one-way streets where the bus stops are only on one side of the road, such as part of Harleyford Road in Vauxhall. We may also be able to fit segregated lanes into some narrower

roads by narrowing median strips, bi-directional cycle tracks, bus priority measures, and other such means.

- Where it is not possible to segregate without substantially interfering with buses, we will install semi-segregation: shared bus and bike lanes, better separated from the rest of the traffic with means such as French-style ridges, cats' eyes, rumble strips or traffic wands in the road. The lanes will also be wider, where space allows.



*Example of semi-segregation using cats eyes in Barcelona*

- We will also install long stretches of wide mandatory cycle lanes, which cannot be entered by motor vehicles, again semi-segregated from the rest of the traffic with means such as cats' eyes and rumble strips.
- There may need to be some removal of parking along Barclays Superhighways as part of all these changes, but it will often be possible to avoid it. We will always act in close partnership with local councils. We will ensure that business needs for deliveries are accommodated in our plans and make better use of the space available.
- We will segregate approaches to cyclist advanced stop lines (ASLs) at selected busy and difficult junctions so cyclists can get through stationary traffic to reach the ASL box at the front.
- We will tackle key junctions on the Barclays Superhighways as a much higher priority, with segregated or safer treatments for cyclists (see below).
- There is no rule that superhighways need be on the busiest main roads. Indeed, one of the most successful stretches, the CS3 from Tower Gateway to Poplar, is not. We will make more use of secondary roads, where they are sufficiently direct, in our Superhighway programme. We will also mix the two, with stretches on back streets joined to segregated stretches on the main road and across junctions where there is no sufficiently direct side street.

- The next stretch of Barclays Superhighway, the extension to the currently-named CS2 from Bow to Stratford, due in 2013, will incorporate Dutch-style fully-segregated cycle lanes.
- The next all-new Barclays Superhighway, the route currently named CS5 from Victoria to New Cross, is being further improved from the already-announced plans. Details of this and other improvements and reroutings will be announced soon.
- The remaining Barclays Superhighways will be complete by 2016.

#### IV. New Quietways

- London is not the same as Paris, New York or Berlin – all of which were largely built, or rebuilt, in the 19<sup>th</sup> and 20<sup>th</sup> centuries to centrally imposed plans with wide, often one-way streets. Nothing of the sort ever happened in London. We have something better than grand boulevards, however – a matchless network of side streets, greenways and parks.
- A cross-London network of high-quality guided Quietways will be created on low-traffic back streets and other routes so different kinds of cyclists can choose the routes which suit them. Unlike the old London Cycle Network, Quietways will be direct. They will be better-surfaced. They will be clearly signed, mostly on the road itself, making it impossible to lose your way. Each route will be delivered as a whole, not piecemeal. And they will not give up at the difficult places.
- Barriers and 'Cyclists Dismount' signs will be removed as far as possible. Quietways will be particularly suited to new cyclists. They will stretch far into the suburbs, with both radial and orbital routes.
- Where directness demands the Quietway briefly join a main road, full segregation and direct crossing points will be provided, wherever possible, on that stretch.
- We will use judicious capital investment to overcome barriers (such as railway lines) which are often currently only crossed by extremely busy main roads. Subject to funding, land and planning issues, we will build new cycling and pedestrian bridges across such barriers to link up Quietway side-street routes.



- The Thames bridges are some of the few main roads that are completely unavoidable for cyclists. We will improve provision for cyclists across them, including segregation on some bridges.
- Segregation is not always necessary or appropriate. In some places we will prefer filtered cycle permeability, a method used to great effect in the London Borough of Hackney, where the number of cycling trips is the highest in London and more people commute by bike than by car.
- Permeability means not completely separating bikes and cars – there is very little full segregation in Hackney – but making the existing streets join up better for cyclists (and pedestrians) than they do for cars. It means blocking rat run-type streets as through-routes for motor traffic, while still allowing through journeys by bike. It means making bike journeys easier and more direct by removing one-way streets, gyratories and complicated crossings of big roads.
- The Quietway network will also include new off-road greenway routes through parks and along waterways to be used for recreation and family enjoyment, building on and expanding the existing network.
- Using borough police resources, local community safety budgets and TfL-funded Safer Transport Command officers, lighting, CCTV coverage and patrols of these places will ensure people feel safe using them at night.



*An example of filtered cycle permeability in London*

- Through the Mayor's tree-planting and other funds, Quietways will become sites for new trees and greening, making many of them verdant corridors, even linear parks, part of the Mayor's vision of a 'village in the city' where the streets are designed for people. They will be pleasant and interesting to cycle on, showing you corners of London you never knew existed.
- We hope to open the first Quietways in 2014. Details of the routes will be announced as soon as they have been agreed with the relevant boroughs.

## V. 'Mini-Hollands' in the suburbs

- Cycling in Outer London is mostly low, with great potential for improvement. We will increase cycle spending specifically dedicated to Outer London from £3m to more than £100m.
- We will choose between one and three willing Outer London boroughs to make into mini-Hollands, with very high spending concentrated on these relatively small areas for the greatest possible impact. In many ways, this will be the most transformative of all our policies.
- This is a fantastic opportunity for these boroughs to achieve dramatic change – not just for cyclists, but for everyone who lives and works there.
- The idea, over time, is that these places will become every bit as cycle-friendly as their Dutch equivalents; places that suburbs and towns all over Britain will want to copy.
- A good route will be provided for commuter journeys to central London, but the main focus will be on replacing short car trips within the target borough(s).
- There will be substantial redesigns of the main town centre, to show what is possible when roads and spaces are built around cyclists.
- A network of routes will radiate out from it, predominantly Quietways through back streets and parks, paralleling all the main local travel routes.
- Cycle superhubs will be created at local railway stations.
- There will be a big marketing push to specifically target non-cyclists doing short car trips.
- All Outer London boroughs are invited to apply for this scheme. We will announce our choice(s) later in 2013 and start work in 2014.
- All suburban boroughs will benefit from the increased investment in our Quietway and Superhighway programmes, both of which will extend far into Outer London.

## VI. A Tube network for the bike

Our routes will be a real network, easier for people to understand. They will join up with each other – and align with the maps Londoners carry in their heads, the most common of which is the Tube map.

- We will create cycle routes, where possible, in rough parallel with Tube lines, bus routes, and major roads, and brand them accordingly (eg the 'Jubilee Quietway', 'South Circular Quietway' or 'Cycle Superhighway 25', the current CS2 which runs along the 25 bus route) so people know where they go.
- Routes must link together, as they do not at the moment; the Central London Grid is designed to achieve this, among other things.
- We will enable the development of free smartphone apps that people can use on their bikes to follow the route that most suits them, or create their own. The vast majority of streets are suitable for cycling, far more than simply those our routes will use.
- As well as the existing maps, we will produce easy-to-follow diagrammatic Tube-style cycle maps showing the major routes and the 'interchange points' between them.
- We will provide far better, more frequent signage using consistent typology across London.
- We will grade routes so people know what to expect.



## Working with others

TfL only owns five per cent of the roads in London, the Transport for London Road Network (TLRN). Ours are the busiest main roads – but many other busy roads, and all the back streets, are owned by the 33 borough councils. A key part of our job will be to work with all the different borough leaders and officials, encouraging them to make cycling improvements on their roads.

We are excited by the measures coming forward from London's councils, and have unashamedly copied some of our ideas from them. To cite just two examples, the City and Kensington and Chelsea have led the way in converting one-way streets to two-way for cycling. Camden is doing pioneer work on 'light segregation'. Westminster recently announced a new focus on cycling. Hackney has reaped huge benefits from its 'permeability' approach. Several Outer London boroughs are also doing good things in cycling.

We will need to work closely in partnership with councils – which is one reason why we are not yet announcing any details of specific routes proposed, apart from those on TfL roads, because we want to liaise closely with the boroughs about them first.

We also need a number of things from Whitehall. We are working closely with Government to press for changes to Department for Transport (DfT) regulations which prevent us from trying new and innovative approaches to cyclist safety, such as eye-level traffic lights and various forms of segregation.

We will ask for new powers to carry out camera enforcement of mandatory cycle lanes, to stop cars driving in them, as we already do for bus lanes. We will lobby for the general and HGV driving tests to include more cycle awareness, and for higher standards for HGV operators. We will ask that the Government follows our successful approach to HGV safety, with courses for lorry drivers and regulations to install cyclist safety devices.



# SAFER STREETS

Cycling in London is much safer than it was. Over the past decade, per journey, the rate of cyclists killed or seriously injured on the Capital's roads has fallen by almost a quarter.

In 2002, there were 109 million cycle trips and 20 cyclist deaths in London. Per trip, you had a 5.5 million-to-one chance of being killed and a 264,000-to-one chance of serious injury. By 2011, the last full data year, the number of cycle trips had risen to 182 million – but deaths had fallen to 16. Only one cycle journey in every 328,000 ended in serious injury, and the odds of being killed were 11 million to one. On a strict average, you would have to cycle in London every day for 900 years to come to serious harm.

Yet in some parts of the Capital, the numbers are less favourable. Fear of injury is the number one reason why Londoners do not cycle. The cycle casualty rate has recently started to edge up again. There is no doubt that cycling in London could be safer. It should be safer. And under our plans, it will be safer.

Just as importantly, it will also feel safer. As with crime, which has also fallen sharply, perceptions are as important as reality. Our better routes and our better junctions will tackle casualties, but they will also build confidence. They will encourage more Londoners to see cycling as something 'normal' which people of almost any fitness can do safely, without special equipment or high-tech protective gear, in their ordinary clothes.

## **A smart, targeted approach**

We know pretty clearly how people get hurt and killed on bicycles. That is partly why we have been able to reduce it. Serious accidents and deaths happen disproportionately in two ways: while travelling through the busiest junctions; or in contact with heavy lorries, particularly construction lorries. HGVs make up only four per cent of the traffic, but have been involved in 53 per cent of cyclist deaths over the last three years. Junctions account for only 20 per cent of the road space, but are the sites of 75 per cent of cyclist deaths in the past three years. Our safety strategy focuses strongly, though far from exclusively, on these key danger points.

## **VII. Better junctions**

- The junction review, with 100 junctions scheduled for this year and 500 in total, has lacked resources and a focus on the worst junctions.
- We will increase the budget for junctions five-fold, from £19m to £100m, the vast majority of it spent in this mayoral term, plus substantial further money from our Quietway and Superhighway programmes.
- We will refocus to prioritise early and major improvements at and around London's worst junctions, making them safer and less threatening for cyclists.
- Junctions to be tackled in the next three years will include Blackfriars, Vauxhall, Tower, Aldgate, Swiss Cottage and Elephant & Castle, among others. Other, smaller improvements will still be tackled, but we would rather have quality than quantity.

- Improvements at these places will include widening to allow more space for cyclists, creating more segregated cycle lanes and installing innovative 'early-start' traffic signals to allow cyclists to move onto the junction ahead of other traffic.
- We will introduce more cycle-only paths or phases through junctions and gyratories, and more cycle bypasses around difficult junctions where an attractive and safe route through the junction itself cannot be found.
- We will create a short stretch of segregated bike lane, where possible, just before busy traffic lights so cyclists can get through stationary traffic to reach the ASL at the front.
- We are further refining our sophisticated traffic modelling systems to take better account of cyclists. With the benefit of these, all future road and junction builds or redevelopments and transport schemes on the roads controlled by TfL will be subjected to improved forms of cycling safety assessment prior to approval.
- We have begun off-site trials of a Dutch-style cycle roundabout, with segregated lanes protecting cyclists, and other novel interventions such as eye-level traffic lights for cyclists. If these trials are successful, and the DfT allows, we will roll them out on the road network
- We will investigate converting pedestrian subways at some busy junctions for use as safe cyclist routes, with pedestrians on the surface.
- We will also trial changes to junctions (and roads), using the kind of temporary interventions seen on the Olympic Route Network, rather than risk being stuck with schemes which do not work.
- We are reworking a number of schemes – such as Lambeth Bridge Roundabout and Mile End Road/Burdett Road – proposed in the current junction review which do not fully meet the ambitions we set ourselves in this document.
- We will announce full timetables for the junction changes as soon as possible.



## VIII. Safer lorries and vans

No lorry should be allowed in London unless it is fitted with safety equipment to protect cyclists, and driven by someone fully trained in cycle awareness. We set out below the steps – from ourselves and others – which are needed to achieve this goal:

- We have been working with the freight industry to ensure the highest standards of behaviour in health and safety. While many freight companies and their customers take this issue very seriously, much more needs to be done.
- TfL has developed a programme to provide clear standards for vehicles and drivers – the Fleet Operator Recognition Scheme (FORS). We have already put thousands of lorry drivers on bikes for practical on-street training.
- We will continue to encourage operators to obtain basic level accreditation and then to use FORS membership to embark on a programme of continuous improvement for safety and overall environmental performance.
- Across the Greater London Authority (GLA), TfL and Crossrail, we will maximise our contractual powers to influence behaviour. We will insist that all vehicles, and those of any subcontractors, on our projects conform to the highest practical specifications of cyclist safety equipment, and that all drivers are fully trained in urban driving techniques – gold level accreditation of FORS.
- We will challenge existing legislation and regulations to ensure everything possible is being done to raise standards for drivers and ensure only the safest vehicles are on our streets.
- We will build on the experience of the Olympic Games, where we substantially reduced the number of peak-hour lorry movements, to work out how we can get HGVs out of traffic at the busiest times of day, when they are most likely to come into conflict with cyclists.
- In consultation with business, we will study the experience from cities such as Paris and Dublin, where lorries over a certain size are restricted from certain parts of the city or at certain times of the day.
- We are funding eight full-time Metropolitan Police officers as part of the Commercial Vehicle Unit who investigate HGV collisions with cyclists. They will work to establish patterns – whether particular operators, locations, or types of lorry are disproportionately involved in cycle accidents – which can then be used for targeted enforcement. They will also gather the best evidence and press for the toughest possible prosecutions and penalties under existing law.



- We will also be an active participant in the comprehensive review of how the criminal justice system functions when people are hurt and killed on the roads which British Cycling has established and which is being hosted by the DfT with the participation of the Ministry of Justice, Crown Prosecution Service, the police and the Sentencing Council. We know from experience in London that all too frequently the system produces results which send the wrong message about the behaviour we expect of people on our roads and the right of people to travel safely.
- We will lobby the DfT, Government and the EU for changes in the law to ensure that:
  - Guidance exempting vehicles from fitting sideguards, mirrors and other safety devices is more stringent and less ambiguous.
  - All commercial vehicles used in urban areas are designed to give the driver the maximum visibility all around their vehicle.
  - Safety devices that reduce the likelihood of collisions with cyclists, such as proximity sensors and side cameras, are fitted to all new vehicles and retrofitted wherever practical.
- Many responsible companies and industry bodies are ahead of the game already, and we will work with these firms and promote best practice through all possible means.
- While technology and equipment is important, it is the skill of drivers that is critical. We need to ensure that technology is not swamping the driver, the majority of whom have many years' unblemished experience, so will continue to push for research to ensure the efficacy of new technology.
- We want the Government to be more specific on the content of driving tests for all drivers to maximise cycle awareness training. They should also ensure Commercial Driver Certificate of Professional Competence (CPC) training includes a mandatory element addressing cycle safety. Currently there are no definitions as to content of training and our view is very clear: training must include much greater awareness of cyclists and other vulnerable road users as a basic part of the CPC for any driver in urban areas. The Safe Urban Driving training developed by TfL, with on-bike training for drivers, is a practical example of what good training can look like.
- We will lobby Government to support tougher standards for both commercial vehicles and drivers and to include the principles of FORS into the operator licence conditions.
- We will examine how the Mayor can use his planning powers to require the use of safe lorries in all construction schemes. We already insist on Construction Logistics Plans and we need to see how far we can mandate the use of approved contractors and routes.
- TfL is also supporting London boroughs, through Local Implementation Plan (LIP) funding, to address the issue of HGV and cyclist safety. Recent examples of boroughs using LIP funding to address these issues include investment in driver training for borough fleets, the promotion of FORS to operators within the borough and ensuring that cyclist safety is addressed through road scheme design. All future TfL cycling funding for boroughs will be conditional on ensuring their own fleets and contracted services adhere to best practice.
- We are also assisting boroughs and businesses across London, including developers and utility companies, to ensure that they work together to lever their buying powers.
- We will continue to fund the Metropolitan Police Commercial Vehicle Unit to carry out targeted enforcement action in partnership with – the Vehicle and Operator Services Agency (VOSA) and the Traffic Commissioners. This activity includes routine inspection of vehicles and expert investigative assistance at the scene of all personal injury collisions between cyclists and

large goods vehicles, and is critical to ensure we know who and what is occurring on London's roads. We will also continue to share appropriate details to maximise enforcement.

- We are also strongly of the opinion that Government should provide more resources and effective powers to VOSA and Traffic Commissioners for greater enforcement and ensure that appropriate action can also be taken against foreign registered vehicles and drivers.

### **Working with the construction industry**

Finally there are particular issues with construction vehicles that need to be tackled as a disproportionate number of recent cycling accidents have involved vehicles in this sector. A recent TfL report into construction logistics and cyclist safety identified 12 recommendations to address these issues. While there have been great strides in improving health and safety on construction sites, similar improvements need to be made in relation to vehicles before they arrive at site.

We will lobby Government, the Health and Safety Executive and others to ensure that the principal contractor takes ownership of the road risk associated with a construction site. We will also work with vehicle manufacturers to improve the design of vehicles in the future. While we will push for early resolution of the issues highlighted by this report and publish the outcomes, the first step we will take is to publish our own guidance for Construction Logistics Plans in April this year.

### **IX. 20mph limits, training, awareness and enforcement**

- There is clear evidence that traffic travelling at speeds of 20mph improves the safety of both cyclists and pedestrians. Much London traffic often travels below this speed in any case.
- The multiple functions of the TLRN means that in considering lower speed limits on these routes, the potential benefits in terms of both safety and liveability of town centres need to be taken into consideration alongside the other functions the TLRN performs, including the movement of people and goods.



- We will take a case-by-case approach to the use of 20mph limits on the TLRN and we will reduce the speed limit to 20mph at several locations on the TLRN where cycle improvements are planned. For example, in Camberwell and New Cross Gate on our proposed Cycle Superhighway 5, and around Waterloo.
- We support the installation of 20mph zones and speed limits on borough roads and have funded many 20mph zones across the city's residential zones.
- We will statistically pinpoint the most dangerous places using 'Compstat'-style near-real-time monitoring of casualties, then ensure that the relevant action is taken by TfL or the borough.
- We will expand the Metropolitan Police's Cycle Task Force by more than a quarter, from 39 to 50 officers, to improve enforcement against antisocial road user behaviour, including encroachment into cyclist ASL and mandatory cycle lanes.
- We will also act more vigorously against cyclist violations, such as failure to show lights at night and riding on the pavement.
- We will lobby Government for more cycle awareness to be included in the standard driving test and in tests for bus and lorry drivers.
- We will launch a public campaign to explain the specific sorts of cyclist provision to road users, such as the difference between a mandatory and advisory cycle lane.
- We will launch major safety education campaigns, informed by research, which will address road user behaviour and encourage Londoners to share the road safely.
- All Londoners who wish to cycle will have access to the training and information they need to avoid collisions and stay safe. This includes funding children's cycle training at all schools in London and more funding for adult cycle training (delivered through the boroughs).



# MORE PEOPLE TRAVELLING BY BIKE

The dangers – and perceived dangers – of cycling are far outweighed by its health and happiness benefits. Regular cyclists have, on average, the fitness of someone at least 10 years younger. They are half as likely than average to suffer from heart disease, 27 per cent less likely to have a stroke, and will live, on average, more than two years longer. Cycling is an effective way of keeping a healthy weight and reducing anxiety and depression. Cycling is cheaper than any form of motorised transport, an important consideration when living costs in London are high. It is the most reliable way to travel any distance beyond walking range: you always know precisely how long your journey will take, avoiding stress. And like any exercise, it creates endorphins, natural highs that lift the mood.

Cycling levels will have doubled in the next 10 years. This will be supported by ensuring that in every borough, cycling is a mainstream and popular mode of transport which attracts people of all ages and backgrounds. In Outer London, distances may be too great for many to make the entire commute to central London by bike. So we will particularly target shorter journeys now made by car, and journeys to railway stations.

We will enhance the Barclays Cycle Hire scheme, which is part of the face of London and hugely important in 'normalising' cycling. Ninety-five per cent of journeys made by Barclays Cycle Hire bike would not otherwise have been cycled.

## **X. Helping commuters cycle**

- We will deliver 80,000 additional cycle parking spaces in residential locations, stations, workplaces and other trip destinations by 2016. We will put them where people most need them, above all in central London.
- Subject to planning and land issues, we will create a Dutch-style cycle superhub in at least one central London mainline rail terminus, with storage for thousands of bikes, good security and very good cycle routes radiating from it. We expect and will help Network Rail to play their part in delivering it. It will also have London's largest Barclays Cycle Hire docking station, with at least several hundred hire bikes. We want thousands of commuters to switch to bikes for the last stage of their journeys to work, significantly relieving pressure on the Tube and bus networks in central London.
- For the first stage of the journey, from home to station, we will build a number of suburban cycle superhubs (which could include other forms of cycle hire) and very good cycle routes around stations which serve a wide hinterland via heavy and crowded connecting bus flows. We will work with the train companies and Network Rail to deliver this.



- More bike parking will also be delivered at other central termini and suburban stations. At every mainline terminus, including the superhub, there will be protected spaces for casual users (those who do not leave their bikes at the station every night) and more stringent weeding out of bikes which never leave the racks.
- We will lobby the Government and train companies for more cycle spaces on trains and to harmonise their confusing rules about the carriage of bikes.
- We will trial allowing bikes off-peak on the DLR.

## **XI. Helping children cycle**

- The school run is a major contributor to traffic congestion, especially in residential and suburban areas. But the proportion of children cycling to school in London has fallen, even as cycling for other purposes has risen dramatically. Unless we do something about this, we risk a new generation growing up that is a stranger to cycling.
- We will encourage communities to design their own safe cycling routes to school, including segregated cycle infrastructure, new and better crossings, filtered permeability, or some combination of these. We will fund pilot Cycle to School Partnerships, money for which schools and councils can bid, to pump prime these improvements. We will cooperate with schools and councils where barriers exist on TfL roads, though we anticipate most will be on borough roads.
- Each Cycle to School partnership must demonstrate how its proposals will substantially improve the number of children cycling to school, with infrastructure improvements that address key barriers to school cycling.
- We will also fund cycle training in schools. We will review how our Bikeability funding is spent, to ensure it is relevant to children's real needs. Training will work best where it is combined with route improvements which give parents the confidence to allow their children on the roads.



## **XII. Expanding and improving cycle hire**

- We will extend Barclays Cycle Hire to many parts of Hammersmith & Fulham, Lambeth and Wandsworth by the end of 2013. This represents a nearly 30 per cent rise in the size of the scheme, to around 11,000 bikes.
- Our new mainline terminus Cycle hub will have London's largest docking station, with at least several hundred bikes, at our new mainline terminus Cycle Superhub (see above), with very good cycle routes linking from it. This and the wider bike parking at the Superhub will help address unsatisfied commuter demand.
- We will expand popular docking stations, where space and planning allows, to reduce the problem of empty and full docks. This will involve reducing the number of bikes at less well-used docking stations.
- We will open (or move) docking stations along our Quietway and Central London Grid routes (within or just beyond the existing footprint of the scheme) to drive usage of the new routes.
- We will carry out incremental expansion of the footprint where there is strong demand.
- We will work with local authorities who wish to pay to extend the footprint such as to Kentish Town.
- To drive usage, we will encourage companies, universities, colleges and hotels to install new docking stations on their premises, at their own expense, for the use of their staff, students and guests.
- For this, we will particularly target companies and universities with a number of separate central London sites which are slightly too far apart to walk between, but slightly too close for public transport to be convenient.
- Given the heavy use of the scheme by tourists, we will develop and market Barclays Cycle Hire tour routes, along quiet streets, which they can follow, with appropriate signage, printed leaflets, website downloads and apps for their phones. This again will drive usage.
- We will integrate cycle hire with the roll-out of contactless payments using credit, debit and charge cards, to make it a fully joined-up part of the transport network.

## **XIII. Exploring the potential of electric bikes**

As many as a fifth of new bicycles sold in mass-cycling nations, such as the Netherlands and Germany, are now electric. E-bikes help you pedal using a small motor, powered by a battery which is charged every night from a normal household socket. No licence, equipment or insurance is needed to ride one.

They are particularly useful for people who need to ride in a suit without breaking sweat, or to ride up hills, or to travel long distances, who are older or less fit, or who are otherwise put off by the physical effort of an ordinary bike. As such, they could be hugely important in our goal of bringing non-traditional groups to cycling. E-bike growth could also take us some distance towards the Mayor's electric vehicle target.

We will seek funding from public budgets and commercial sponsorship for three trials to give e-bikes a high media profile, raise awareness of them and allow us to assess their potential for wider use.

- A small trial of public hire e-bikes, similar to Barclays Cycle Hire but self-contained and geographically separate from it, probably to link a hilly place without rail access to a nearby Tube station.
- A trial of the latest all-terrain, full-suspension electric mountain bikes with the Metropolitan Police. These bikes go over rough ground faster than a normal bike goes over tarmac, and also climb stairs. With criminals increasingly using (ordinary) bikes, e-bikes will keep the police one step ahead.
- An e-bike trial with a high-profile company whose staff are seen moving around the streets a lot, perhaps a courier firm or an estate agent.

#### **XIV. Communicating our plans and inspiring new cyclists**

- As mentioned earlier, we will brand and map our routes in ways that are easy to understand and that align with people's existing mental maps of London.
- We will refocus our marketing, targeting, for instance, journeys where public transport is less dense or is overcrowded. We will introduce novel tools such as online calorie maps, showing not just distance and time taken but fat burned. We will promote cycling to people who are concerned about their fitness, such as gym users.
- We will promote cycling as an alternative to public transport with signs and notices at bus stops and Tube stations detailing how easily you could have made the same journey by bike.
- We will conduct an annual spring marketing campaign to exploit the surge of interest in cycling that comes with the warmer weather.
- We will start a City Hall cycling blog, which the mayoral and TfL cycling teams will write. It will be the main way we explain to Londoners what we are, and are not, doing.
- Every year, London will celebrate its place at the forefront of world cycling with the annual RideLondon festival of cycling, funded by private sponsorship. The world's cycling elite will come to London to compete, and a family fun day will get Londoners of all ages out on their bikes.



## **XV. Encouraging cycling through the boroughs and other partners**

Delivering the Mayor's vision will depend on close cooperation between many different organisations, public and private.

The London boroughs will play a central role in our plans, by helping to develop, fund and deliver better and safer routes for cycling, by in some cases transforming their town centres for cycling, and by promoting and increasing the wide range of cycling opportunities in their areas.

The Metropolitan and City of London Police have a vital job in safety, security and enforcement against antisocial cyclist and driver behaviour.

Joint working with Network Rail and the train operating companies is essential to the marriage between cycling and railways, a relationship with huge potential for both sides. Through their membership of the National Cycle Rail Working Group, TfL and its rail partners are already working closely together in a joint cycle parking fund, and a programme for additional bike space at the London termini.

We will continue to consult with interest groups such as British Cycling, Sustrans, the London Cycling Campaign and freight associations, such as the Freight Transport Association, the Road Haulage Association, the Society of Motor Manufacturers and Traders and individual trade bodies, like the Mineral Products Association. We will draw on their expertise and local knowledge to develop innovative solutions and communicate with road users.

We will work closely with schools and universities to encourage students to cycle and carry on cycling into adulthood. We are closely involved in workplace travel planning initiatives to promote cycling.

The DfT will continue to be an important partner. We will press the Government and EU to allow innovative schemes for London's roads, changing and modernising traffic regulations to benefit cyclists and improve routes.

- We will promote cycle routes and cycling as a major alternative for orbital suburban journeys where public transport is less dense – for instance, with a 'South Circular Quietway' paralleling the route of the A205, and a new route from Stanmore to the Thames.
- We will work to promote cycling for short journeys that are currently done by car, such as to the shops. We will work with the major supermarkets and retail parks to improve cycling access and provision.
- We will work with the Canal & River Trust (formerly British Waterways) to invest in and protect responsible, shared use of London towpaths with pedestrian priority. Less crowded stretches of towpath offer opportunities for our proposed Quietways. All others will remain available to cyclists as now, but will not be actively promoted because of crowding issues. Additional routes to be created in parallel to the canals will give cyclists extra options.
- We will closely monitor all major new planning applications, schemes and developments, such as Earl's Court and Nine Elms, to promote meaningful pro-bike content and discourage anti-bike content. We will do our best to improve some new schemes, such as the Olympic Park,

that were given planning consent under previous regimes with insufficient provision for cycling.

- We will monitor roadworks and building schemes to avoid unnecessary disruption to cycle routes. Following the standard set by the Crossrail works at Farringdon, we will try to ensure that even when a road is closed to motor traffic, passage is still provided for bikes.
- We will monitor all the borough cycling schemes we fund to ensure that they meet the standards laid out in this Vision and in the new London Cycling Design Standards.
- We will monitor road surface conditions on the Quietways and Superhighways and ensure, encouraging the boroughs where necessary, that they are in good repair and free of debris.
- We will encourage private-sector funding, including further sponsorship deals, and explore alternative public funding sources, such as the EU and Big Lottery Fund.



# BETTER PLACES FOR EVERYONE

Central to our vision is the belief that more cycling will benefit everyone, not just cyclists. A classic 'cycle permeability' measure, such as blocking one end of an inner-city residential street to cars, improves life for all who live or walk on that street. It makes children safer when they cross the road. It cuts traffic, noise and pollution. It makes room for new green space, tree-planting or pavement. It may increase property values.

The presence of cyclists on quiet side streets deters crime and antisocial behaviour. It is harder for someone to spray graffiti or break into your car if there are people passing.

## **Better neighbourhoods for everyone**

- Quietways will be accompanied by streetscape improvements, such as tree-planting to create green corridors and linear parks.
- More dropped kerbs will help older and disabled people.
- Road surfaces will be improved.
- Along the routes we will promote community safety initiatives, including better lighting on some streets, CCTV and security patrols along canal towpaths and through parks.
- Streets will be de-cluttered, making them more attractive.
- By creating better places, we make people want to visit. Fifteen years ago, Broadway Market in Hackney was in decline. Now, thanks in part to car restrictions and a busy cycle route, it is full of life and its businesses are thriving.
- Parking will be a sensitive issue in the implementation of this plan, particularly in parking stress areas such as Westminster and Kensington and Chelsea. We will do our best to avoid affecting parking in the most sensitive areas, proceeding with care and in full agreement with councils. But in the medium term our plans should lead to easier parking. By cutting car use and car movements, particularly for short trips, bikes will reduce demand for parking, more than outweighing any reductions in supply.

## **More prosperous places for everyone**

- The economic benefits of cycling, particularly to neighbourhood shops and businesses, are increasingly well documented. Studies in the US cities of Portland and New York find that cyclists visit a neighbourhood's shops more often than drivers or public transport users, and spend more overall. Cyclists travel shorter distances to shop than drivers. Cycling can help save precious, but endangered, pubs and small shops.
- Research by the London School of Economics suggests that the cycling industry contributed almost £3bn to the UK economy in 2010, directly employing 23,000 people.
- Wider economic benefits accrue from improved health, reductions in obesity and drops in absenteeism.

- Increased disposable incomes and opportunities for spending benefit the wider economy.
- Cycling can save people dramatic amounts of money. The average London cyclist, using his or her bike 150 days a year, saves just under £800 a year in transport fares, even after the cost of the bike, maintenance and equipment are included, according to research by the Par Hill consultancy. A commuter cycling every day from Outer London will save up to £2,000 a year. Social enterprises, such as the successful BikeWorks project in Tower Hamlets, use cycling as a tool to tackle social and environmental challenges at a community level.

### **Better cyclists for everyone**

We will take steps to improve people's perceptions of cyclists. We recognise the real problem of antisocial cycling, though we also believe that it can be overstated. Most people cycle responsibly. Cyclists cause only about three per cent of injuries to pedestrians in London, roughly in proportion with their share of overall road traffic. The injuries they do cause are also, as you might expect, disproportionately at the lower, less serious end of the scale. Most cyclists are also motorists and pedestrians; we reject attempts to set groups of road users against each other.

We will increase enforcement action against illegal and intimidating cyclist behaviour, which often occurs in particular places. Just as importantly, though, we believe that the policies in this Vision will reduce illegal behaviour of their own accord. Removing one-way streets and gyratories will cut the incidence of cyclists travelling the 'wrong' way or on pavements. Giving cyclists defined space of their own will reduce conflict between them and other road users. Quietways will attract new types of cyclists, making London cycling calmer, less Darwinian.

In short, one of the best ways of stopping people cycling on the pavement is to give them better places to cycle on the road.



## **Better transport for everyone**

In the past 15 years, and over the next 15, London's public transport network has seen, and will see, massive expansion. There has been a doubling of bus passenger miles travelled, and huge investment is unlocking capacity on the Tube. But London's population will rise to nine million before the end of this decade. Even our unprecedented investment will not entirely meet demand.

Many journeys are short and very cyclable. Cycling can relieve significant pressure on the public transport network, freeing space on the Tube, buses and trains for people who might never themselves cycle.

- Our new segregated East-West Superhighway along the Victoria Embankment will have the capacity for about 1,000 cyclists an hour, each way. That is equivalent to almost four entire trainloads of people (based on seating capacity) on the District and Circle lines beneath the same street. We could increase effective capacity on this stretch of the Underground by as much as 10 per cent – and for relatively minimal outlay.
- Our routes will parallel Tube, rail and bus routes, with similar branding. We will actively promote them as alternatives to public transport, reducing crowding for everyone.
- Some of the worst crowding is at mainline termini, as commuters join the Tube for the last stage of their journeys. These journeys are often short and cyclable. We will create a cycling Superhub in at least one mainline terminus to relieve pressure on its Tube connections.

More people cycling will also benefit motorists – especially in Outer London – by taking thousands of cars off the roads. Like a car, a bike is personal, on-demand and door-to-door, so it has significant potential to attract drivers to whom public transport does not appeal. TfL's London Travel Demand Survey supports this view, showing that car-drivers take public transport much less than other people, but cycle just as much as non-drivers do.

## **A healthier city for everyone**

- Cycling, which of course has zero emissions, improves air quality for everyone. Last June, a report for the Central London Air Quality Cluster group of local authorities analysed 'cost-effective actions to cut air pollution'. It made a number of striking findings.
- If just 14 per cent of journeys in central London were cycled – emissions there of the greatest vehicle pollutant, NO<sub>x</sub>, would fall by 30 per cent, or 453 tonnes a year.
- Emissions of the other main vehicle pollutant, particulate matter, would fall by 24 per cent, or 33.8 tonnes a year. According to the Massachusetts Institute of Technology, air pollution from vehicles prematurely kills 2,200 Londoners every year, many of them in central and inner London. Over the years ahead the bicycle could, in short, save literally thousands of people's lives.
- There can, perhaps, be no better note to finish on, and no better example of the service that can be performed to cyclist and non-cyclist alike by this quietly miraculous invention.



## Other formats and languages

For a large print, Braille, disc, sign language video or audio-tape version of this document, please contact us at the address below:

### Public Liaison Unit

Greater London Authority  
City Hall  
The Queen's Walk  
More London  
London SE1 2AA

Telephone **020 7983 4100**  
Minicom **020 7983 4458**  
**www.london.gov.uk**

You will need to supply your name, your postal address and state the format and title of the publication you require.

If you would like a summary of this document in your language, please phone the number or contact us at the address above.

### Chinese

如果需要您母語版本的此文件，  
請致電以下號碼或與下列地址聯絡

### Hindi

यदि आप इस दस्तावेज की प्रति अपनी  
भाषा में चाहते हैं, तो कृपया निम्नलिखित  
नंबर पर फोन करें अथवा नीचे दिये गये  
पते पर संपर्क करें

### Vietnamese

Nếu bạn muốn có văn bản tài liệu  
này bằng ngôn ngữ của mình, hãy  
liên hệ theo số điện thoại hoặc địa  
chỉ dưới đây.

### Bengali

আপনি যদি আপনার ভাষায় এই দলিলের প্রতিলিপি  
(কপি) চান, তা হলে নিচের ফোন নম্বরে  
বা ঠিকানায় অনুগ্রহ করে যোগাযোগ করুন।

### Greek

Αν θέλετε να αποκτήσετε αντίγραφο του παρόντος  
εγγράφου στη δική σας γλώσσα, παρακαλείστε να  
επικοινωνήσετε τηλεφωνικά στον αριθμό αυτό ή ταχυ-  
δρομικά στην παρακάτω διεύθυνση.

### Urdu

اگر آپ اس دستاویز کی نقل اپنی زبان میں  
چاہتے ہیں، تو براہ کرم نیچے دئے گئے نمبر  
پر فون کریں یا دیئے گئے پتے پر رابطہ کریں

### Turkish

Bu belgenin kendi dilinizde  
hazırlanmış bir nüshasını  
edinmek için, lütfen aşağıdaki  
telefon numarasını arayınız  
veya adrese başvurunuz.

### Arabic

إذا أردت نسخة من هذه الوثيقة بلغتك، يرجى  
الاتصال برقم الهاتف أو مراسلة العنوان  
أدناه

### Punjabi

ਜੇ ਤੁਹਾਨੂੰ ਇਸ ਦਸਤਾਵੇਜ਼ ਦੀ ਕਾਪੀ ਤੁਹਾਡੀ ਆਪਣੀ ਭਾਸ਼ਾ  
ਵਿਚ ਚਾਹੀਦੀ ਹੈ, ਤਾਂ ਹੇਠ ਲਿਖੇ ਨੰਬਰ 'ਤੇ ਫ਼ੋਨ ਕਰੋ ਜਾਂ ਹੇਠ  
ਲਿਖੇ ਪਤੇ 'ਤੇ ਰਾਬਤਾ ਕਰੋ:

### Gujarati

જો તમને આ દસ્તાવેજની નકલ તમારી ભાષામાં  
જોઈતી હોય તો, કૃપા કરી આપેલ નંબર ઉપર  
ફોન કરો અથવા નીચેના સરનામે સંપર્ક સાધો.