

How can we increase the Uptake of Cycling in London?

Group 1
Happy Uber Cycling, 20 Nov



How can we increase the Uptake of Cycling in London?

1

It can be recommended that £10 million is spent on more hire bikes distributed through the City of London to ensure supply keeps up with demand

- a. Increase hire bikes in areas with high share of bike travels and existing infrastructure to further support the ecosystem, i.e. Hackney and Islington
- b. A £10 million investment increases uptake in the number of journeys completed by bike by 5%
- c. The return on investment through hiring bikes out at £2/journey yields a 12% return on investment

2

It can be recommended that £15 million is invested into building new separate bike lanes from the road to help users feel safer and encourage more journeys to be completed by bike

- a. Kensington and Camden have been recommended as ideal locations for improvements
- b. The investment will increase the number of journeys completed by bike by 30%
- c. The return on investment through building the bike lanes yields a £13 : £1 (environmental benefits)

3

It can be recommended that between Brent Cross Station and Regents Park one car lane to be replaced with a bike lane

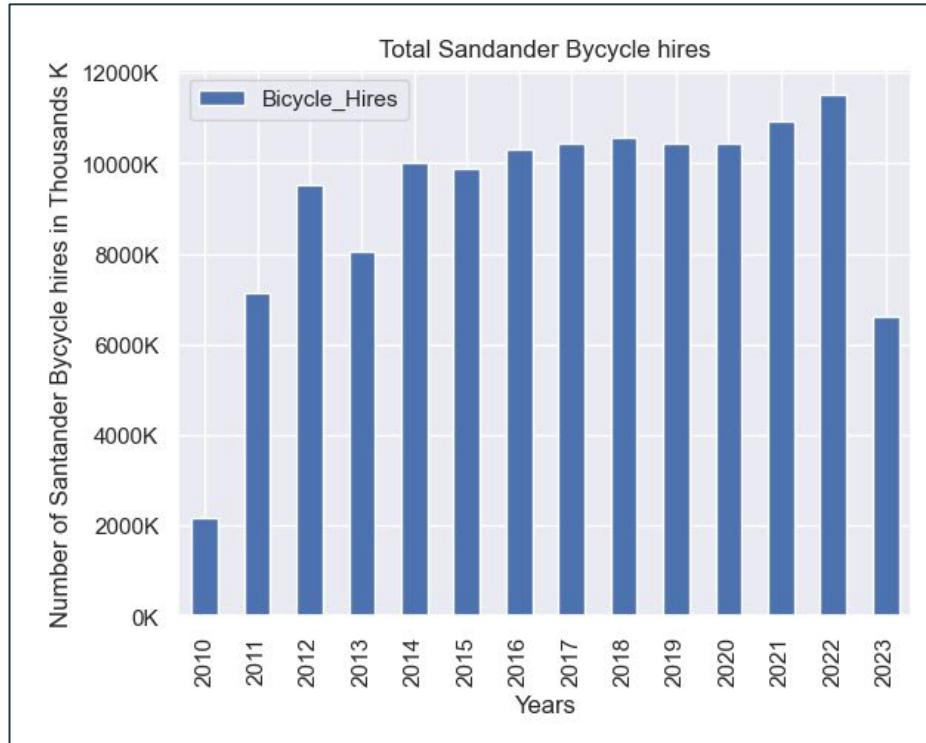
- a. The investment is comparably small at £4 millions
- b. The investment will increase the number of journeys completed by bike by 40%
- c. The return on investment through building the bike lanes yields a £13 : £1 (environmental benefits)

£10m → 5% uptake

Over 12,000 Santander Cycles are available between approximately 800 London docking stations, with a peak usage of 12 million. A £10m investment is predicted to boost annual bike hire by 5%, generating £1.2m in fees and a 12% ROI.

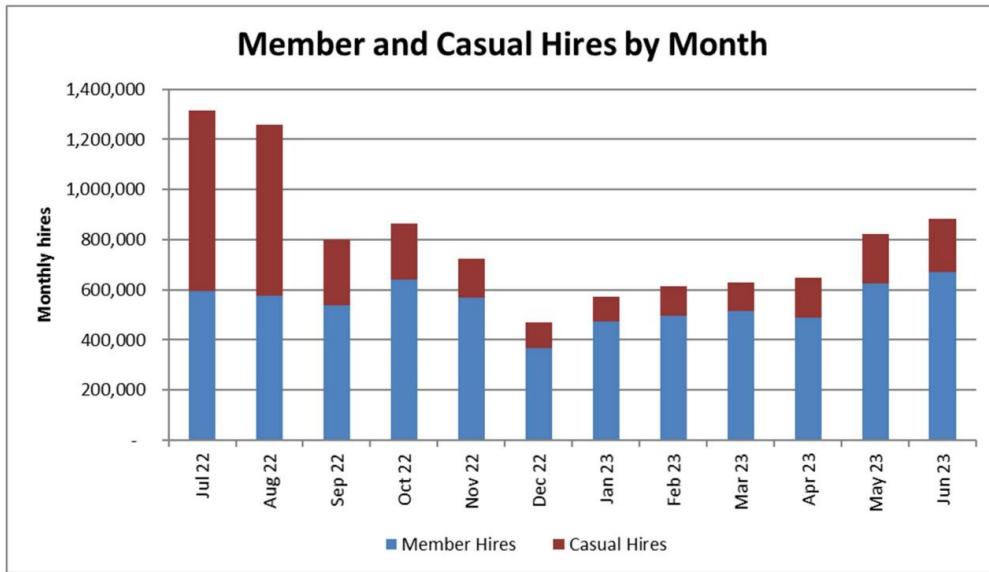
Almost all plan to use Santander Cycles again, with nearly 8 in 10 expressing that it promotes more cycling in London. Just over half of frequent users are interested in membership.

The Number of Santander Bike Hires has continued to rise over the last 13 years, peaking around 12m cycle hires annually



- **12,000 Santander Cycles** at 800 London docking stations (Source 2023).
- Peak demand: **12 million with 12,000 bikes**
- Adding a bike may increase the number of hires by **1,000 journeys annually, costing £17K**
- **£10m investment results in a 5% uptick in bike hire, adding 588 new bikes and 588,235 additional bike hires** annually
- New bikes will generate **£1.2m additional bike rental fees** based on £2 user cost

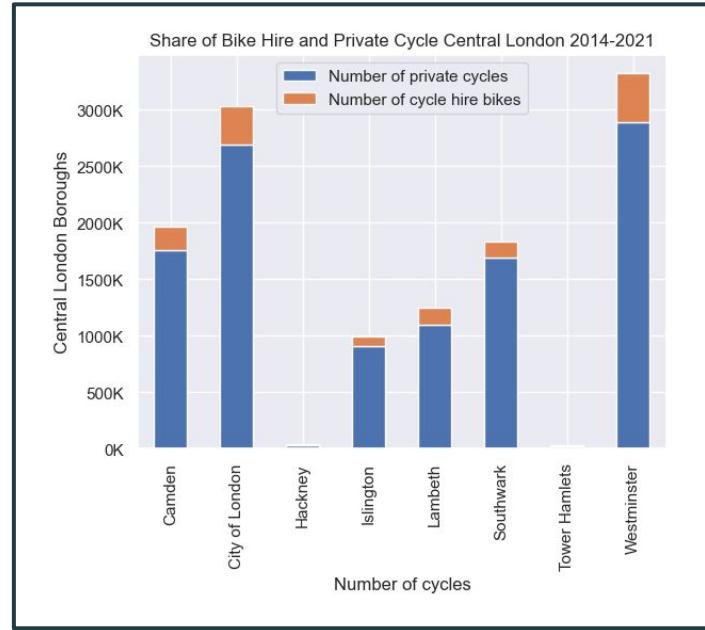
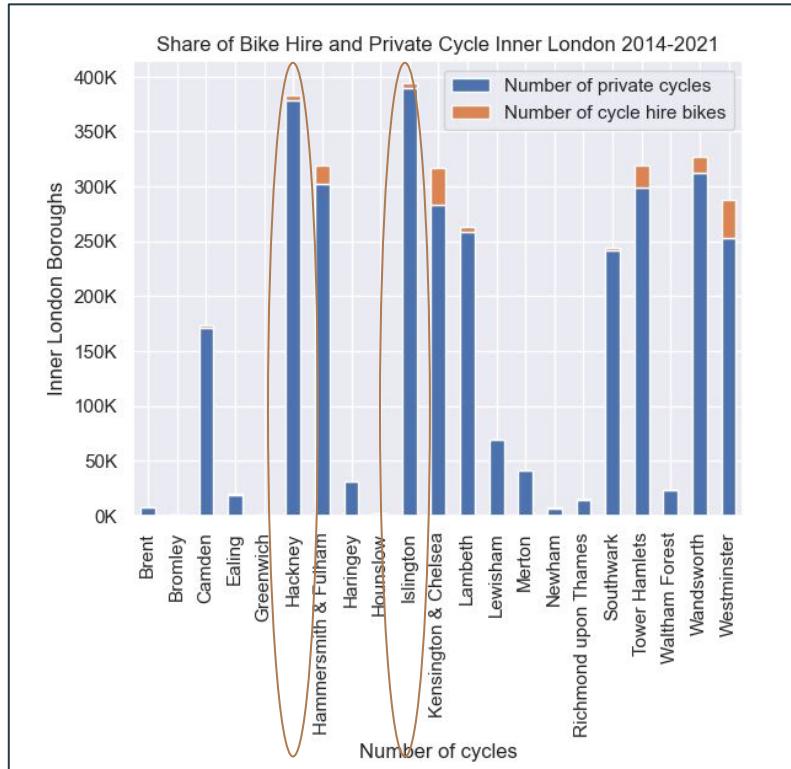
In June 2023, Santander bike membership hires reached 998,000, and there was a rise in casual hires during the summer months of July and August



- **Leisure, speed and convenience** are the main reasons for use, especially in Central zone
- Main concerns: **insufficient bikes and docking spaces**, more prominent in Central zone
- **20% of casual use the bikes 3-5 times a week while members tend to use it 50% of the time**
- About 2/3 of casual users live in London

Survey Feedback: Nearly 8 in 10 expressing that it promotes more cycling in London

Except for affluent areas like Kensington & Chelsea, central London possesses a greater proportion of cycle hire bikes



Recommendation:

Increase hire bikes in areas with high share of bike travels and existing infrastructure to further support the ecosystem, i.e. **Hackney and Islington**

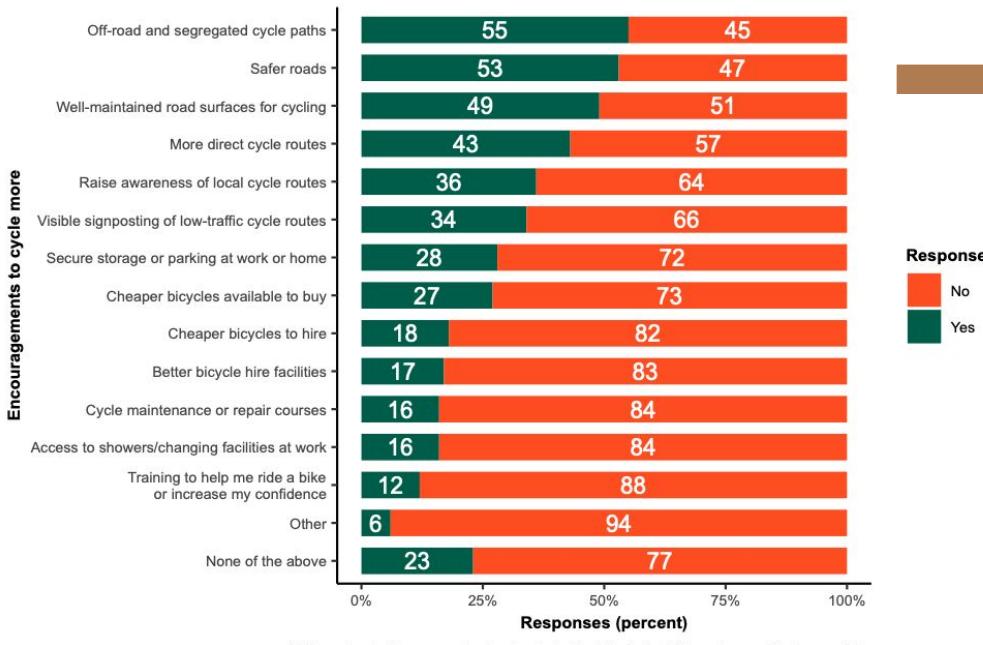
£15m → 30% Uptake

Build new cycle lanes separated from the road to increase the number of journeys completed by bike in those areas by between 30 and 40%, whilst a UK Government Report found that the average benefit-cost ratio for cycling projects is above £13 : £1 (environmental benefits)

Kensington & Camden are ideal locations for the bike lanes as both already have above average number of journeys completed by bike, proving demand, however both have poor infrastructure & high numbers of reported incidents

Study done on barriers to cycling

Question asked sample size of 2,554 individuals: We know there are many reasons preventing people from cycling or cycling more, which of the following, if any, would encourage you to cycle more?



Majority highlighted related to Cycling infrastructure and safety

Over 50% of respondents emphasized the importance of off-road and segregated cycle paths (55%) and safer roads (53%).

Additionally, cycling surfaces (49%) and the availability of more direct cycle routes (43%) were highlighted by a significant portion of respondents.



(1) Road—no bike provision (Photo credit for both Anne Lusk)



(2) Sharrow-painted bicycle and double chevron (photo credit for both Anne Lusk)



(5) Two-way cycle track (photo credit for both Steve Bercu)



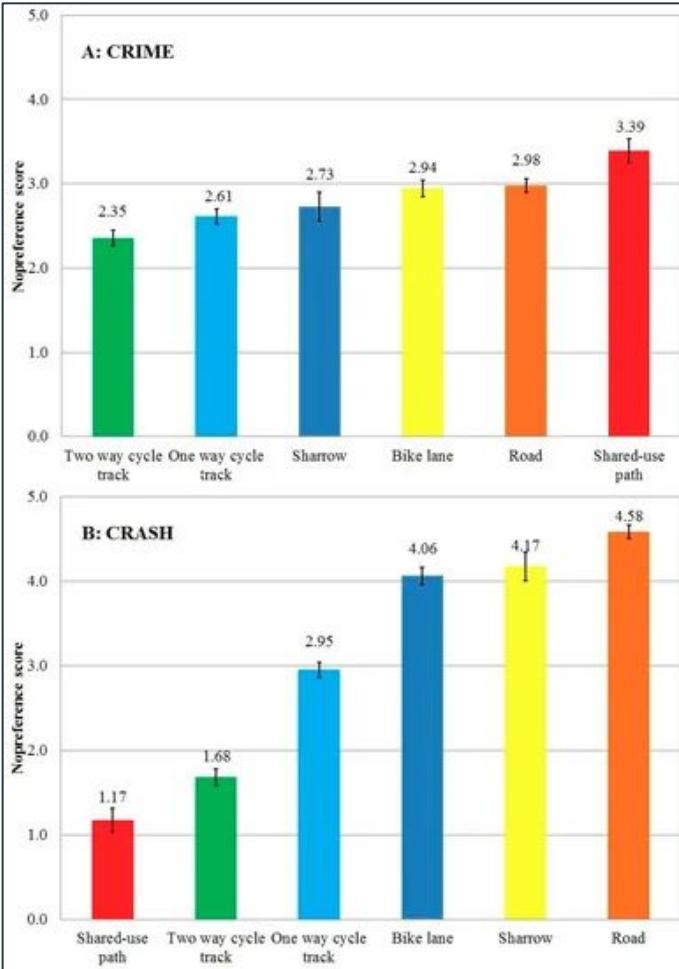
(3) Painted bike lane (photo credit for both Anne Lusk)



(6) Shared use path (photo credit for both Anne Lusk)



(4) One-way cycle track (photo credit Nate Lusk first picture – photo credit Anne Lusk second)



How Separated Bike Lanes affect the Crime & Crash rates and increase the number of journeys completed by bike

From the study conducted in Boston, one can see that

- Lowest crime rates on two and one-way cycle tracks.
- Lowest crash rates on shared-use paths, as well as on the two mentioned above.

Green Lanes in Enfield (Inner London) saw a **42% increase in recorded bike journeys after installing separated bike lanes**. The **Quietway 2 bike lane**, connecting Walthamstow and Bloomsbury, **contributed to a 33% rise in bike journeys**.

Protected Bike Lanes should be built in Kensington & Camden

- Kensington is the sole London Borough lacking protected bike lanes.
- In 2022, there were 140 reported cyclist incidents in Kensington.
- Recommend constructing a £9 million, 6km protected bike lane linking Ealing to Westminster.
- Camden reported 252 cyclist incidents in 2022.
- Recommend building a £6 million, 4km protected bike lane connecting Camden Town & Regents Park to Hyde Park.



Street space for cycling

This map shows all the [streets](#) in London where there are 11 metres or more total road space. These streets have enough space on both sides for protected cycle lanes of 2.2m. [Blue](#) are existing protected cycle lanes.

£4m → 40% Uptake

Convert one lane of traffic for 4 miles between Brent Cross Station & The Regents Park. Previous data would suggest an uptake in cyclists of 40% and above, with a lower cost/mile than building new cycle lanes from scratch

The A41 is an ideal location for this, as it connects multiple other bike paths & tube stations to each other. The road has multiple lanes for the entire distance, and connects inner & central London

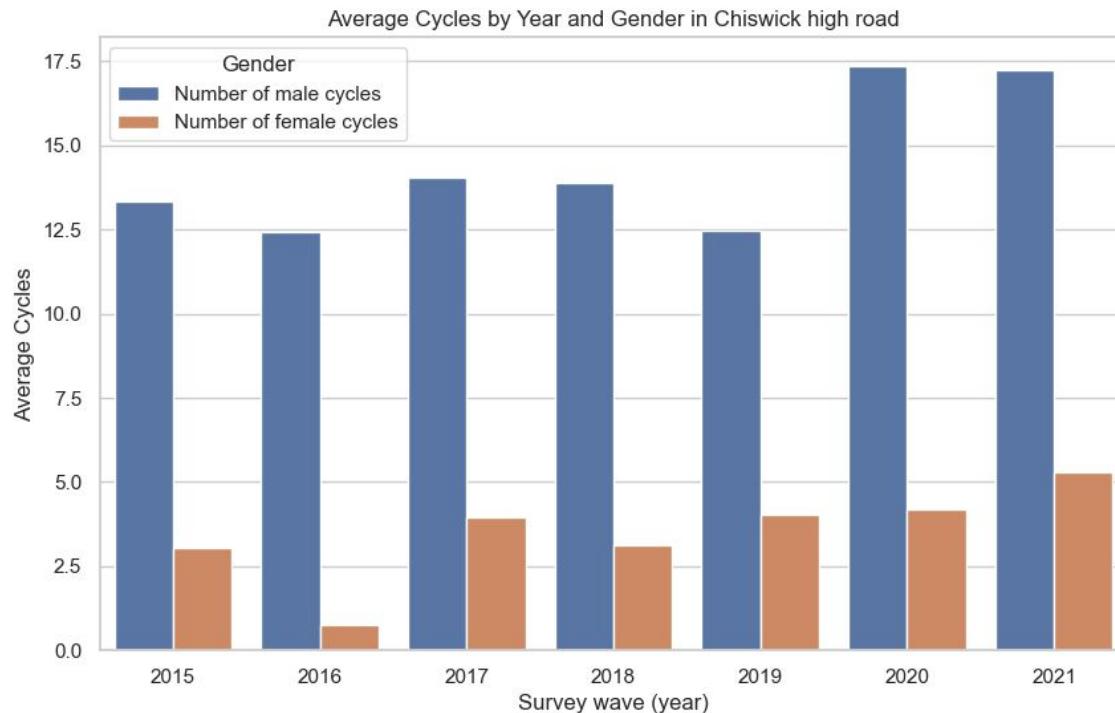
Case Study: Chiswick High road

Separated from the road vs painted on the road - does it make a difference?



C9 Segregated cycleways (Chiswick): were established in 2020 as an emergency solution in response to the COVID pandemic. Subsequently, in September 2023, an official public vote solidified their permanence.

Cyclist numbers on Chiswick high Road have experienced an increase.

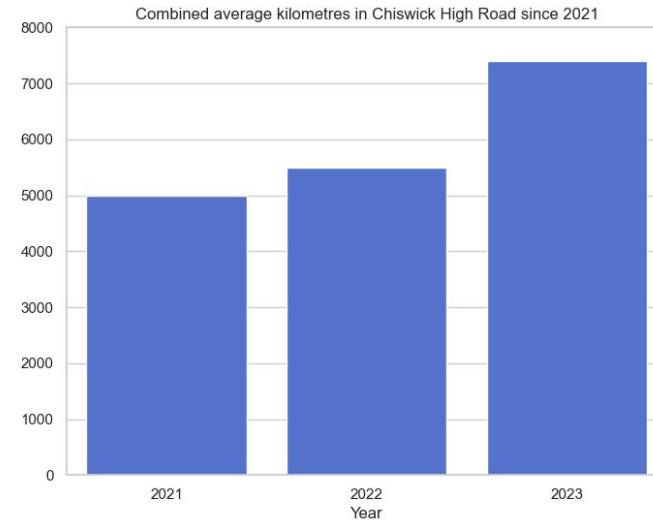
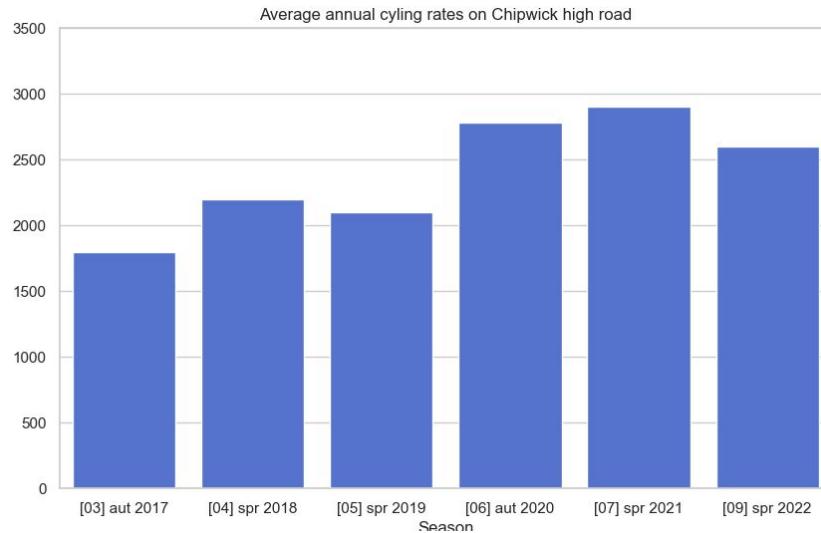


There was a 40% increase in the average cycles between 2019 & 2020 when the separated bike lanes were installed

TFL reported that cycling has increased by 72%, along with an increase in air quality & drop in collisions

Bikes now make up almost $\frac{1}{6}$ (20%) of the vehicles using the road during the day, compared to an average of 2% across London

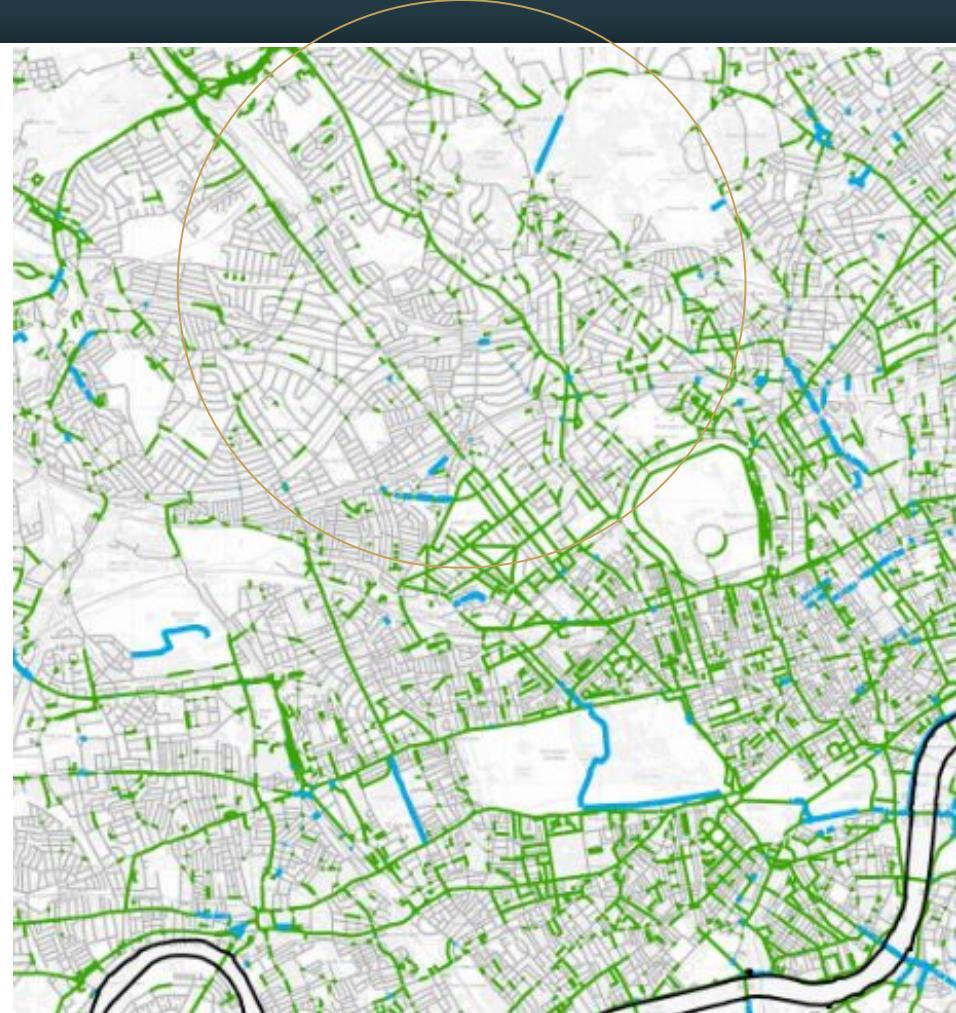
Further published Monitoring Data Reports from Hounslow council supports a continual increase in cyclist since the segregated cycleways introduced



- There was a 35% increase in the annual cycling rates between 2017 & 2022
- The peaks in 2020 & 2021 represent the higher number of cyclists during COVID-19.
- There has been a 47% increase in the distance travelled on Chiswick High Road since 2021

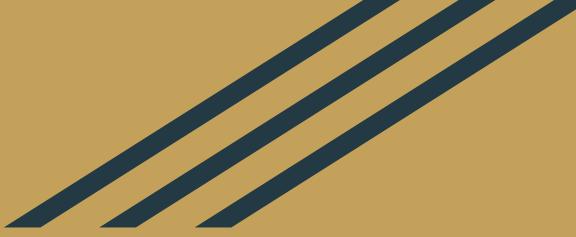
Replace one lane of traffic for 4 miles between Brent Cross Station and The Regents Park

- Previous data shows that the number of cycling journeys would increase by between 30 & 40%
- The cost would be comparatively low at £4 million
- The recommended route passes 5 tube stations, allowing for easy access to other locations within the city
- The recommended route fills a gap in cycle lanes between North-West & North-East London
- The route joins to the previously recommended Camden route, which when used together, joins inner London to Central London



Limitations & recommendation for further analysis

1. We recommend a £10m investment in Hackney and Islington to address the urgent demand for more bike and docking stations, building on existing preferences for speed, convenience, and leisure, however limitations exists:
 - a. Initial regression analysis on effect of bike hires on overall cycling demand, suggested a coefficient of 7.5 with an R Squared of 0.74, for the future more post-covid data will inform the correlation
 - b. Santander survey limited to 2017/18, covid data showed that bike hire time increased significantly
 - c. TFL to explore with additional data the situation in central London to identify sweet spots, and how e-bikes drive demand
 - d. Investigate correlation between infrastructure supporting cycling and demand in cycling and hire bikes
2. Limitation for road initiatives:
 - a. COVID skewed the time-series data → increase in bike demand due to covid or bike lane?
 - b. TFL to further investigate into the cost-income ratio and the environmental and safety benefits of bike lanes
3. Gender differences related to safety ♀ ♂
 - a. The (monetizable) impact of (red and white) painted cycle lanes and arrows, bike signs, street light



Thank You
Any Questions?