

BIKE *life*

2017

Bristol





Forward motion

Our vision for cycling in Bristol



Bristol has built a name for itself as being a cycling city. Statistics suggest Bristol has very high levels of walking and cycling to work compared to most other large cities in the UK. Despite the city growing over the last few years, the amount of cars travelling around the city has gone down whilst cycling, walking and bus use has gone up.

I want to support this trend. Not only does cycling have great health benefits, keeping us active and improving our air quality by reducing the amount of cars, it also has social and economic benefits. Whilst I do not see myself as a cyclist, I ride my bike everywhere and want to make cycling an ordinary part of life that everyone can feel safe doing.

I have set up the Congestion Task Group to achieve improved road experiences for all users and to improve our people flow, connectivity, air quality and to grow our economy. Cycling is a key part of that and the more modes of sustainable travel that we adopt, the quicker we will achieve those aims.

Marvin Rees
Mayor of Bristol

Introducing Bike Life

Sustrans, the charity making it easier to walk and cycle, is collaborating with seven cities in the UK – Belfast, Birmingham, Bristol, Cardiff, Edinburgh, Greater Manchester and Newcastle – to report on progress towards making cycling an attractive and everyday means of travel.



Bike Life is inspired by the Copenhagen Bicycle Account, and is an assessment of city cycling development including infrastructure, travel behaviour, satisfaction, the impact of cycling, and new initiatives.

This is the second report from Bristol following on from the original report published in 2015. The information in this report comes from local cycling data, modelling and a representative survey of over 1,100 residents in Bristol conducted by ICM*.

More details on all seven Bike Life city reports can be found at www.sustrans.org.uk/bikelife.

Our thanks to the people of Bristol who took part in the survey and who told us their stories in this report.

There are substantial benefits to Bristol from people cycling

- Over 26 million trips** made by bike in Bristol in the past year
- Bicycles take up to **24,515 cars** off Bristol's roads each day, equal to a **73 mile-tailback**
- £62 million total benefit to Bristol** from people riding bikes for transport and leisure annually
- Saving the NHS £1.4 million annually**, equivalent to the average salary of **61 nurses**

There is huge potential for more people to ride bikes...

- 10% of workers travel to work by bike****
- 26% of people live within 125m of any cycle route**
- 50% would like to start riding a bike, or could ride their bike more**
- 29% think cycling safety in Bristol is good**

...and public support to make that happen

Residents in Bristol think investing in more street space for cycling, walking and public transport is the best way to keep the city moving, improve people's health, and reduce air pollution.

- 71% of residents say Bristol would be a better place to live and work** if more people cycled
- 72% of people would like to see more money spent** on cycling
- 65% of people would find protected roadside cycle lanes very useful** to help them cycle more
- 77% of residents support building more protected roadside cycle lanes**, even when this could mean **less space** for other road traffic

* Survey conducted May-July 2017.

** In 2015/16. Figure calculated using 2011 census uplifted with data from automatic counters.



Making progress

Provision and levels of cycling in Bristol

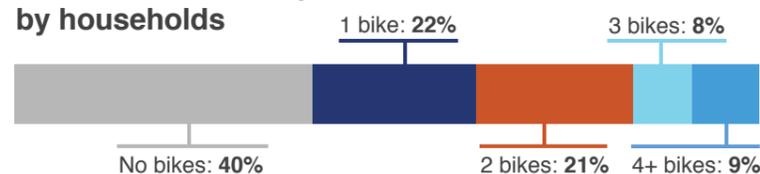
Bike ownership in Bristol

A bike gives people more choice for getting around, helping them to reach jobs and services, and to see family and friends more often.

63% in 2015 In Bristol, three fifths of households (60%) have access to at least one bike. Three fifths (61%) of households with children have at least one child's bike.

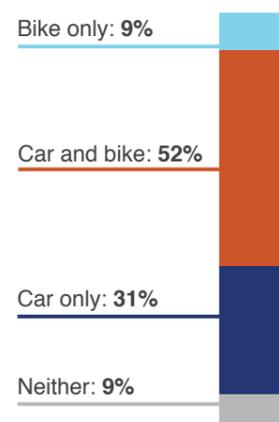
Most households that own a car also own a bike. People use different modes for different journeys.

Adult bike ownership by households



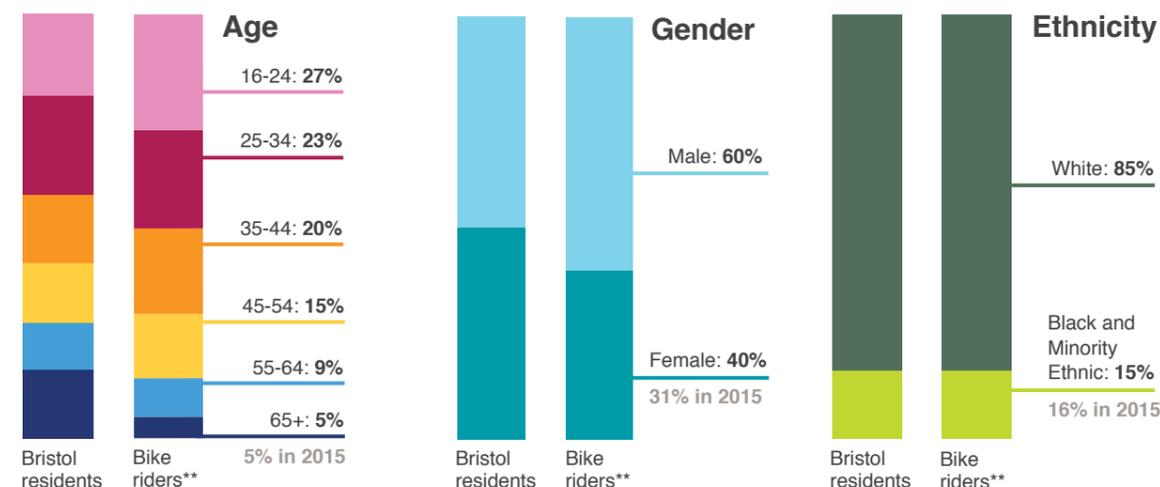
Car and bicycle ownership refers to the percentages of all people living in households that own cars/bikes. Note that census data is normally reported as the percentage of households with given numbers of cars.

Car and adult bike ownership by households



Who is cycling?

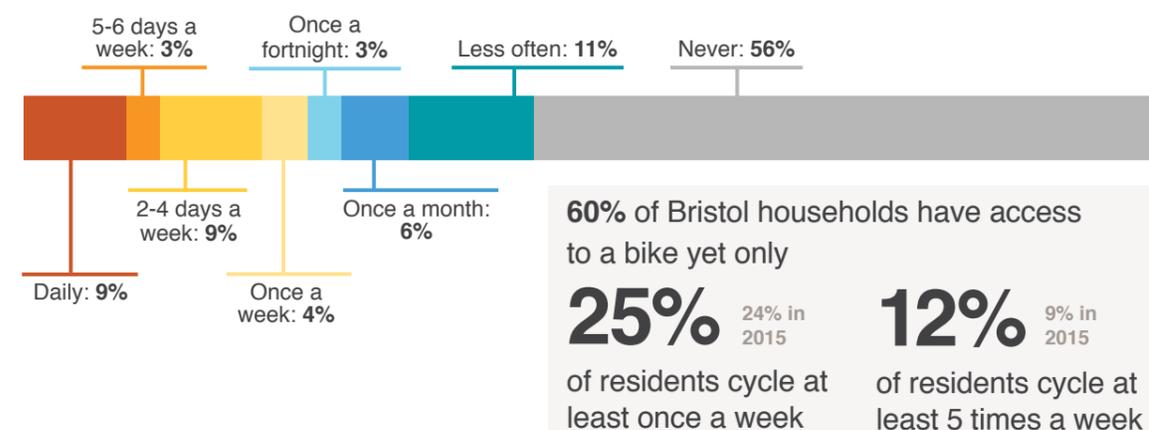
In Bristol, women and over 65s are under-represented when it comes to riding a bike.



For age and gender, the division of Bristol residents uses 2015 estimates. For ethnicity, it uses the 2011 census.



How often are people riding a bike?



What's available and who's aware?

from 106 miles in 2015 ↑ **112 miles**

of cycle routes including

from 71 miles in 2015 ↑ **75 miles**

of routes physically separated from vehicles*

42% in 2015 **42%**

of people are familiar with the traffic-free routes in Bristol

26% ↓ 27% in 2015

of people live within 125 metres of any cycle route

80% 80% in 2015

of all streets in Bristol have a 20mph speed limit



9,900 ↑ from 9,500 in 2015

public bike parking spaces, equivalent to 12 bike riders per space

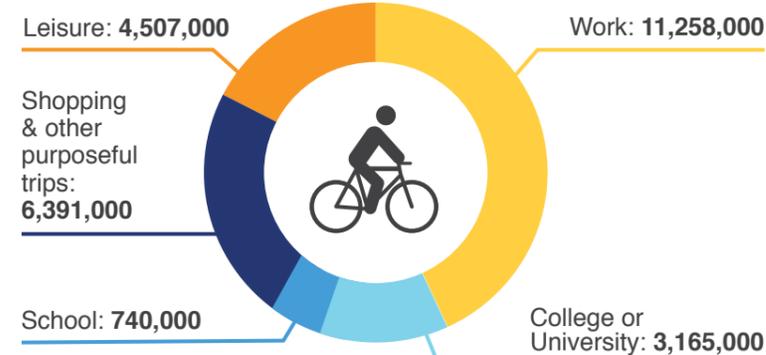
572

railway station parking spaces for bikes, equivalent to one parking space for every 30 passengers per day



Where are people cycling?

Number of trips in the past year



58%

of Bristol residents' cycle trips are for work or education

10% 9% in 2014/15

of workers travel to work by bike in Bristol†



* Includes protected bike lanes, shared footways and paths away from roads. ** Ridden a bike in the past four weeks when the survey was conducted in May – July 2017. † In 2015/16. Figure calculated using 2011 census uplifted with data from automatic counters.

Developing Bike Life

What's happened in Bristol since 2015



Bristol's annual travel to work survey shows that 10% of Bristolians now cycle to work and the amount of cycling in Bristol has doubled since 2008 when Bristol was awarded Cycling City status.

This shows sustained investment is working and people understand this – Bike Life in 2017 shows that **72%** of Bristol residents support more spending on cycling.

People who cycle to work are more likely to be satisfied with their journey than those who drive, partially due to the reliability and efficiency of using bikes to get around Bristol. Across much of the city it is faster to travel to work by bike than by car in the morning peak.

The growth in cycling gives us a great opportunity to move more people around using much less space than is required for cars. The estimated cost of congestion in the region by 2036 (if no further investment to improve travel conditions takes place) is projected to be £800 million per year. This would damage competitiveness and impact on the ability of the region to attract new businesses and create jobs.

In Bristol, we appear to have the highest proportion of women cycling of any Bike Life city, and good representation from all ages and backgrounds. We know that women, children and older people are more likely to cycle if safe, high quality facilities are provided, especially traffic-free routes and protected bike lanes. The past two years have been busy, with a large number of facilities being constructed at the same time. When finished these will completely change public transport across parts of Bristol, as well as adding new routes to the walking and cycling network, although there is always more to be done.



Connecting the Bath to Bristol Path with Bristol city centre

Bristol City Council has been working to develop a dedicated cycling route through Castle Park, and the centre of Bristol and onto routes to the west and north of the city.

A two-way dedicated cycle track has almost been completed along the length of Baldwin Street. It will complete a traffic-free link across the city centre from Castle Park to College Green.

Furthermore, cobble sets have been flattened and the pedestrian pathway widened in Castle Park so that cycling is more comfortable and there is more space for walkers and bikes, whilst preserving the historic environment.



Connecting the city network elsewhere

In the city centre we are coming to the end of construction work for multiple projects. Prince Street and Ashton Avenue bridges have been reopened for people walking and with improved surfaces for cycling and walking. A high quality two-way segregated cycle track on Cattle Market Road links Clarence Road with a better pedestrian environment around the future Bristol Arena Site and forthcoming home of the University of Bristol Temple Campus, and the Whitchurch Railway Path.

Elsewhere in Bristol the cycling network is expanding, with miles of new routes since 2015 and more to come in the next few months.

These include Easton Way, providing 700 metres of off-road path linking the Bristol Bath Railway Path to the Lawrence Hill area.

New links planned for the cycle network are connecting more people to jobs and leisure, particularly in south Bristol through the proposed Filwood Quietway.





The impact

The health, economic, and environmental benefits to Bristol



Many people are cycling in Bristol

21 million in 2015

26 million trips

made by bike in Bristol in the past year which altogether adds up to

87 million miles



Benefiting individuals and the local economy

90p per mile

net benefit for each mile cycled instead of driven which adds up to

£39 million

annual benefit to Bristol from people with a car choosing to cycle for transport

£62 million

annual benefit to Bristol from all trips made by bicycle*

These figures are based upon monetising the benefits and drawbacks of driving and cycling. This includes travel time, vehicle operating costs, health, congestion, infrastructure, local air quality, noise, greenhouse gases and taxation.



*The value of £62m is made up of £39m plus the value of purposeful trips cycled by people without access to a car, plus the value of leisure cycle trips made by everyone.



Unlocking significant health benefits in Bristol

In Bristol the physical activity benefits of cycling

prevent 27 early deaths annually*

which is valued at

£87 million*

based on what people say they would pay to improve their chances of survival, and calculated using the method set by the World Health Organisation.

Cycling also averts **211** serious long term health conditions annually, saving the NHS in Bristol

£1.4 million per year

equivalent to the average salary of

61 nurses



Based on Sport England MOVES tool which shows the return on investment for health of sport and physical activity.



Keeping your city moving

Transport capacity of a 4m wide lane per hour



8,000-12,000 bus passengers



5,000-10,000 people on bikes



5,000-10,000 pedestrians



800-1,100 people in cars

Studies suggest riding a bicycle rather than driving frees up road space. This helps to keep Bristol moving.

Source: Litman, 2017. Evaluating Transportation Land Use Impacts. Based upon Eric Bruun and Vuchic, 1995. The Time-Area Concept.

24,515 return cycle trips are made daily in Bristol by people that could have used a car.

If these cars were all in a traffic jam it would tail back **73 miles**



If these cars were to be parked they would take up the space of over **5 Castle Parks**.



More people riding bikes has environmental benefits

13,128 tonnes of greenhouse gas emissions saved annually

equivalent to the carbon footprint of **3,455 people**.

More people riding bikes improves air quality:

26,158 kg of NOx and **2,858 kg of particulates** saved annually.

In Bristol **196 early adult deaths** occur each year where long-term exposure to air pollution (PM2.5) is deemed to be a contributory factor.



Based upon Public Health England, 2014. Estimating Local Mortality Burdens associated with Particulate Air Pollution. Adults = 25 years+.

* Based on WHO/Europe Health Economic Assessment Tool (HEAT) which enables an economic assessment of the health benefits of cycling by estimating the value of reduced mortality resulting from specified amounts of cycling.



Stories from our city

What cycling means to people



Zoe Banks Gross, mother and founder of Kidical Mass

I love to ride my bicycle and I've always been a confident commuter, but I stopped when I was pregnant and didn't put my son on the back of my bike until he was nearly two years old. I kicked myself because he loved it. And while Bristol does need more family-friendly cycling infrastructure, there are segregated paths and places that are car-free and great to take small kids.

A few friends commented about how they thought I was brave for riding with him, so then I thought about helping some of my friends who had also stopped cycling when they'd had kids. I started a family cycling group called Kidical Mass.

The idea was to help mothers find the confidence to get back on their bikes and do something active with their kids. I trained to become a ride leader and cycle instructor and that allowed me to help other mothers re-find their independence.

The area I live in is quite diverse, so a lot of the women that haven't learned to cycle have come from communities where it wasn't acceptable for a girl to learn to cycle. It's amazing to watch them gain that empowerment.



Peter Wise, Director, Minuteman Press (printing and design franchise)

We are a design and print enterprise based in south Bristol. All our staff are committed to changing how we work and the entire team travel to and from work by train, bus, bicycle or on foot.

We used to have two people making each city centre delivery, with one person needed to park and stay with the car. We now fully operate with no motor vehicles.

We make all our deliveries in Bristol by bike and trailer. As well as the cost saving to the business on car parking, fleet insurance and maintenance, we are more reliable and efficient to our customers.

We can plan our journeys precisely because we have removed uncertainties caused by road-works or congestion. I know what time I will arrive at a customer's door, and that allows me to spend more time talking about their project and what I can do for them, and spend less time in transit.



James Lucas, Co-founder, Bristol Bike Project

I realised the potential for bikes to change lives while volunteering at Bristol Refugee Rights. Marginalised people find it difficult to get around using transport that so many of us take for granted but bikes provide independence and seemed like the solution.

So myself and Colin Fan set up the Bristol Bike Project and just started asking people for unwanted bikes that we could fix. The response was fantastic and we quickly outgrew our humble back garden beginnings.

The support of partners and the people of Bristol who wanted to donate an old bike has allowed us to help people from a cross section of groups in the city. We teach bike maintenance, provide a supportive and social environment and work one-on-one with people who need a bike most to gain employment or education.

Bikes are powerful tools that, through our project, have really empowered people suffering from mental health problems, recovering drug addicts and the homeless.



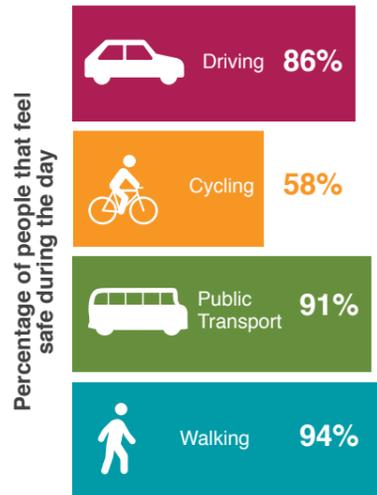
Barriers and potential

What needs to change to make cycling commonplace



⚠️ Safety and security continue to be a significant concern

Riding a bike feels less safe than other ways of travelling



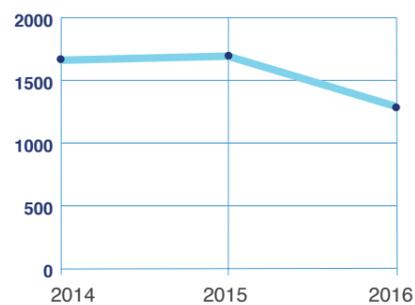
A reported cycling injury occurs **once every 348,000 miles** pedalled around Bristol

Whilst over half (54%) of people think Bristol is a good place to ride a bike overall, when you dig deeper there are clear concerns about safety. ↓ from 60% in 2015

only 29% of people think **cycling safety** in Bristol is good.
 31% in 2015

only 20% think **safety of children's cycling** is good.
 22% in 2015

Reported bike thefts

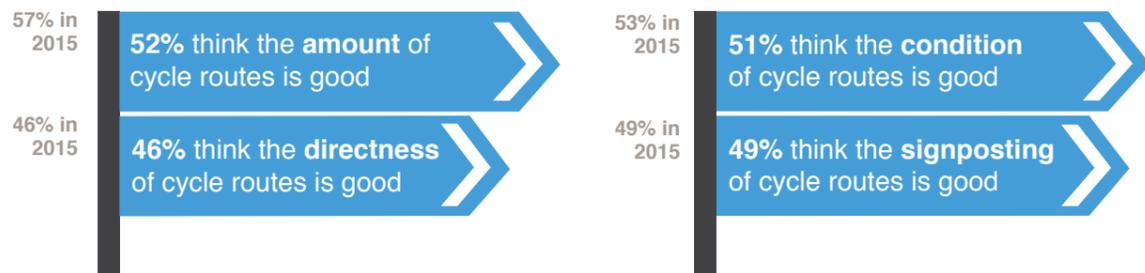


There were **1,291** reported bike thefts in Bristol in 2016.

This equates to a **1.1%** chance of a bike rider in Bristol having their bicycle stolen in the past year.

26% of people think the security of bicycle parking is good. 27% in 2015

🚶 How do residents rate Bristol's cycle routes?



Caroline Bannister, Deputy General Manager, South Bristol Community Hospital

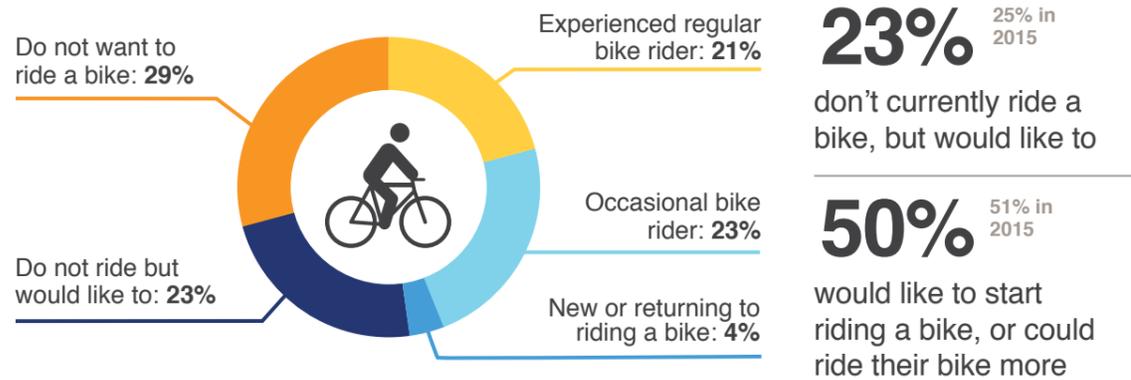
Two members of our Early Supported Discharge (ESD) team are keen cyclists. They came to me with the idea of trialling the use of e-bikes to make home visits to stroke patients recently discharged from hospital. Through their loan scheme, Bristol City Council was able to provide us with two e-bikes to trial for six months. The bikes proved to be such a success that after three months we secured the use of three more.

Every member of the ESD team is now using the e-bikes. This means we're putting fewer cars on roads for short local journeys, and the journey times are proving to be the same or even less than by car.

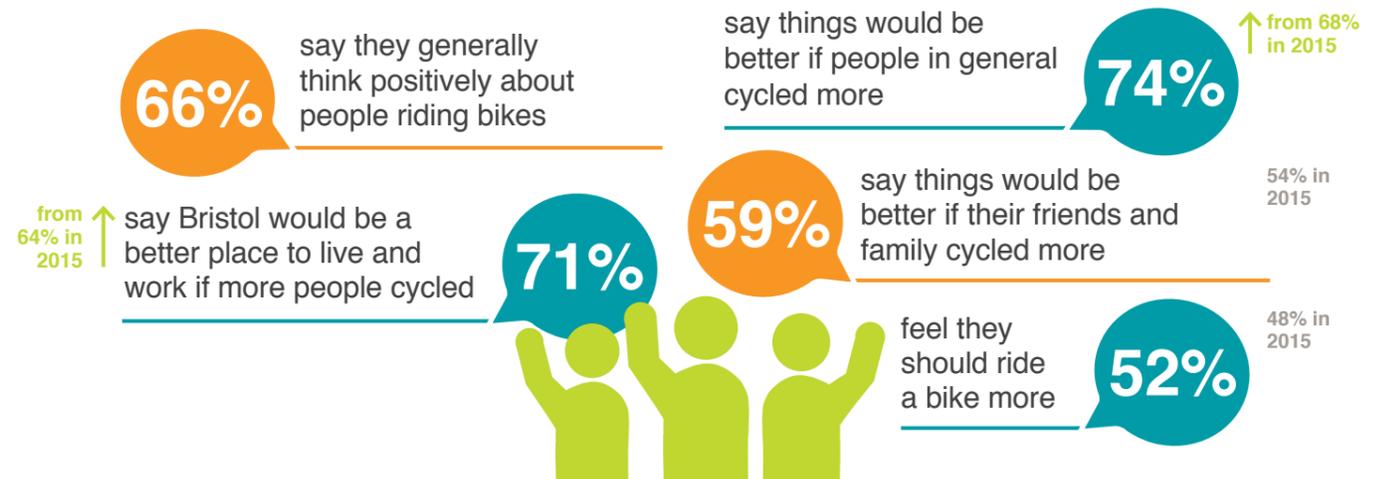
It's better for the environment and it's saving the hospital time and money.



How do people see themselves when it comes to riding a bike?



Perceptions of cycling are positive



What the public want

Investment, safety and dedicated space



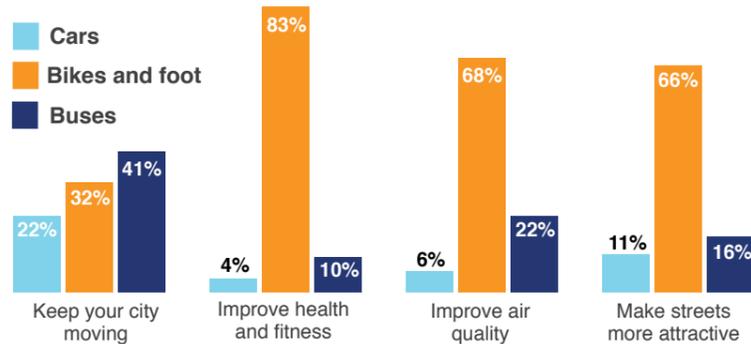
Bike to the future

Our ambition and plans to make it happen



Prioritising investment in cycling and walking

Overall residents in Bristol think more space for cycling, walking, and public transport, as opposed to additional space for cars, is the best way to keep the city moving, improve people's health, reduce air pollution and make streets more attractive.



72%



of residents would like to see more investment in cycling in Bristol

70% in 2015

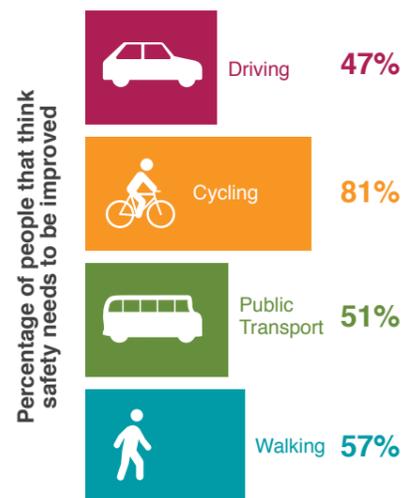
This includes 55% of those aged over 65, those least likely to ride a bike

61% in 2015

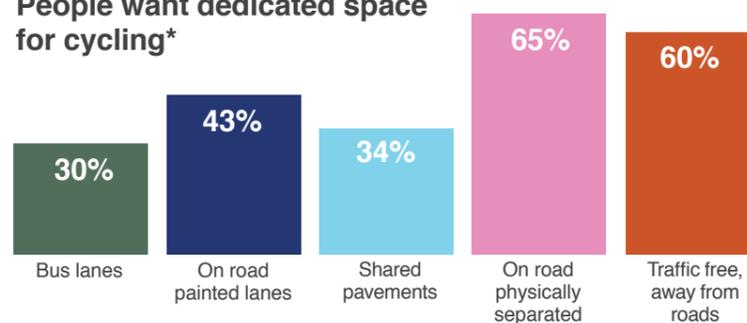


Improved safety and space for cycling

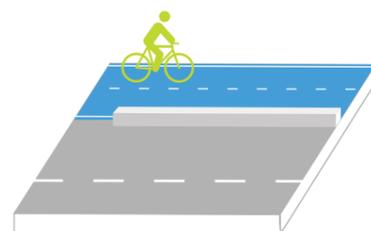
Residents think cycling safety needs to be improved



People want dedicated space for cycling*



What people would find very useful to start cycling/cycle more



77%

of residents support building more protected cycle lanes, even when this can mean less room for other road traffic

Big developments to city infrastructure

Bristol has been living with disruption from one of the biggest construction programmes in more than a generation, but the benefits will be substantial and help cement the city's sustainable credentials. MetroBus is near completion and major walking and cycling network improvements will link into the development of our new Arena and Temple Quarter Enterprise Zone.

Population increase

Since Bristol became the UK's first "Cycling City" in 2008, cycling levels have grown 10% every year, demonstrating that with sustained investment of £16 per person, real change is possible. With the number of trips to work by bike now at 10%, people on bikes make up a third of all traffic on some routes at peak times.

Bristol however, faces continued challenges. The West of England's population is set to increase by almost 10% by 2036, and 105,000 new homes and 80,000 new jobs are planned in the next 20 years. Transport systems will be under increasing pressure. Meanwhile poor air quality is responsible for approximately 300 premature deaths annually and is a public health issue that the city must tackle.

Keep Bristol moving

Plans are being made now to keep the city moving as the population grows. A new Bristol Transport Plan will integrate cycling into the city's transport future. In particular, the city's cycling network will better connect people from

home to work and leisure. It will be important to ensure all new housing developments are connected to the cycling network.

The travel choices of those living in the surrounding West of England Area have a critical role to play. At the 2011 census over 80,000 people commuted daily into Bristol from surrounding authorities. The West of England Combined Authority is producing a Local Cycling and Walking Infrastructure Plan for the wider network that will show where investment is needed.

2020 targets

Target: £16 per head of population spent on cycling. **2017:** £25 per head spent, which includes new cycle routes delivered as part of the Metrobus scheme and Cycle Ambition Fund.

Target: Progressing delivery of an attractive, safe, 8-80 cycle network. **2017:** 6 miles of new routes delivered.

Target: 75% of pupils receiving Bikeability Level 2 training. **2017:** We reached 75% in 2016/17.

Target: 20% of commuter trips into the city centre by bike. **2017:** This reached 12% in 2016/17

Target: Experimental or cutting edge cycle projects delivered every year. **2017:** We've rolled out on-road bike hangars across the city, and asked the city to identify small scale changes that can make a big difference through our Bugbears project. In 2017 YoBike launched the UK's first large-scale dockless hire bike scheme in Bristol.

* The equivalent graph in the 2015 report showed 'very useful' and 'fairly useful' responses combined.

Notes on terminology and methodology:

The attitudinal survey was conducted May to July 2017.

Due to the rounding up or down of individual figures, the percentages on charts may not total 100% exactly.

Survey results have been tested for change between 2015 and 2017. The level of significance has been set at 0.01 but these should be seen to be indicative only, as they have not been corrected for multiple comparisons. Where a survey result is shown as a change from 2015 this was a statistically significant result at this level.

Note that some values published in 2015 have been recalculated using improved methodology in 2017.

Further details are available at www.sustrans.org.uk/bikelife

Sustrans is the charity making it easier for people to walk and cycle.

We connect people and places, create liveable neighbourhoods, transform the school run and deliver a happier, healthier commute. Join us on our journey. www.sustrans.org.uk

Sustrans is a registered charity in the UK No. 326550 (England and Wales) SCO39263 (Scotland)

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For further information visit

Bristol cycling infrastructure projects
travelwest.info/CAF

Local maps guides, news and events
betterbybike.info

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