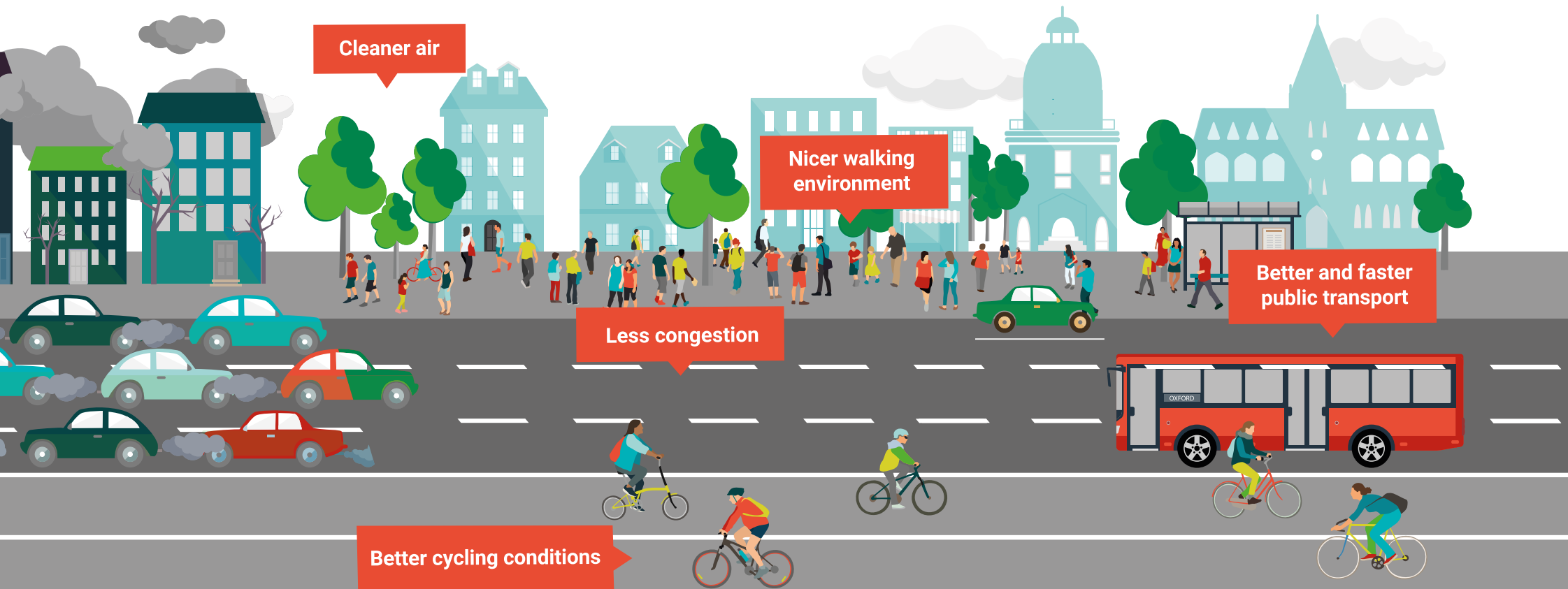


# CONNECTING OXFORD

Improving connectivity / Reducing congestion / Tackling pollution



CONNECTING  
OXFORDSHIRE



OXFORDSHIRE  
COUNTY COUNCIL

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## FOREWORD / A GREAT TRANSPORT VISION

Oxfordshire needs a modern, efficient, reliable, affordable and sustainable transport system. This means transforming transport connectivity and how people move around, while ensuring everyone has access to employment, education, health, retail, and leisure.

Vitally, it also means moving Oxfordshire's transport system to one that is largely zero-emission, and as close to zero-carbon as possible, within 20 years. This will improve people's health and wellbeing and reduce transport's contribution to climate change.

To make this vision a reality, Oxfordshire's transport system needs to encourage more walking, cycling and use of public transport, and reduce the number of motor vehicles on the roads, particularly in and around Oxford.

Sustainably planned housing and employment growth in Oxfordshire will help deliver this vision.



**Cllr Yvonne Constance OBE**  
Cabinet Member for  
Environment,  
Oxfordshire County Council



**Councillor Alex Hollingsworth**  
Cabinet Member for Planning  
and Sustainable Transport,  
Oxford City Council



## INTRODUCTION

Oxfordshire County Council is responsible for most aspects of transport in Oxfordshire. In 2015, the county council and its partners began Connecting Oxfordshire, a transformation of how people travel to and within Oxford, as part of our plan to create a less congested, less polluted city and county.

The plan has three key components:

- A better, faster and more comprehensive public transport network.
- A complete, high-quality, spacious walking and cycling network.
- Reclaiming some of the road space currently used for vehicles to provide more space for buses, pedestrians and cyclists.

The city and county councils have been very successful in securing funding for these plans, with over £80 million available in the next five years for schemes in and around Oxford.

Some good progress is being made including major improvements in Headington, the Zero Emission Zone and design work on improvement schemes for the main routes into the city.

Having laid this important groundwork, Oxfordshire County Council and Oxford City Council are now embarking on the next leg of the journey.

The ideas in this document are based on the policies and strategy set out in Connecting Oxfordshire and represent our current thinking about ways to dramatically reduce congestion and pollution across the city, and deliver much better public transport, pedestrian and cycling access. These changes would work alongside the improvements already planned.

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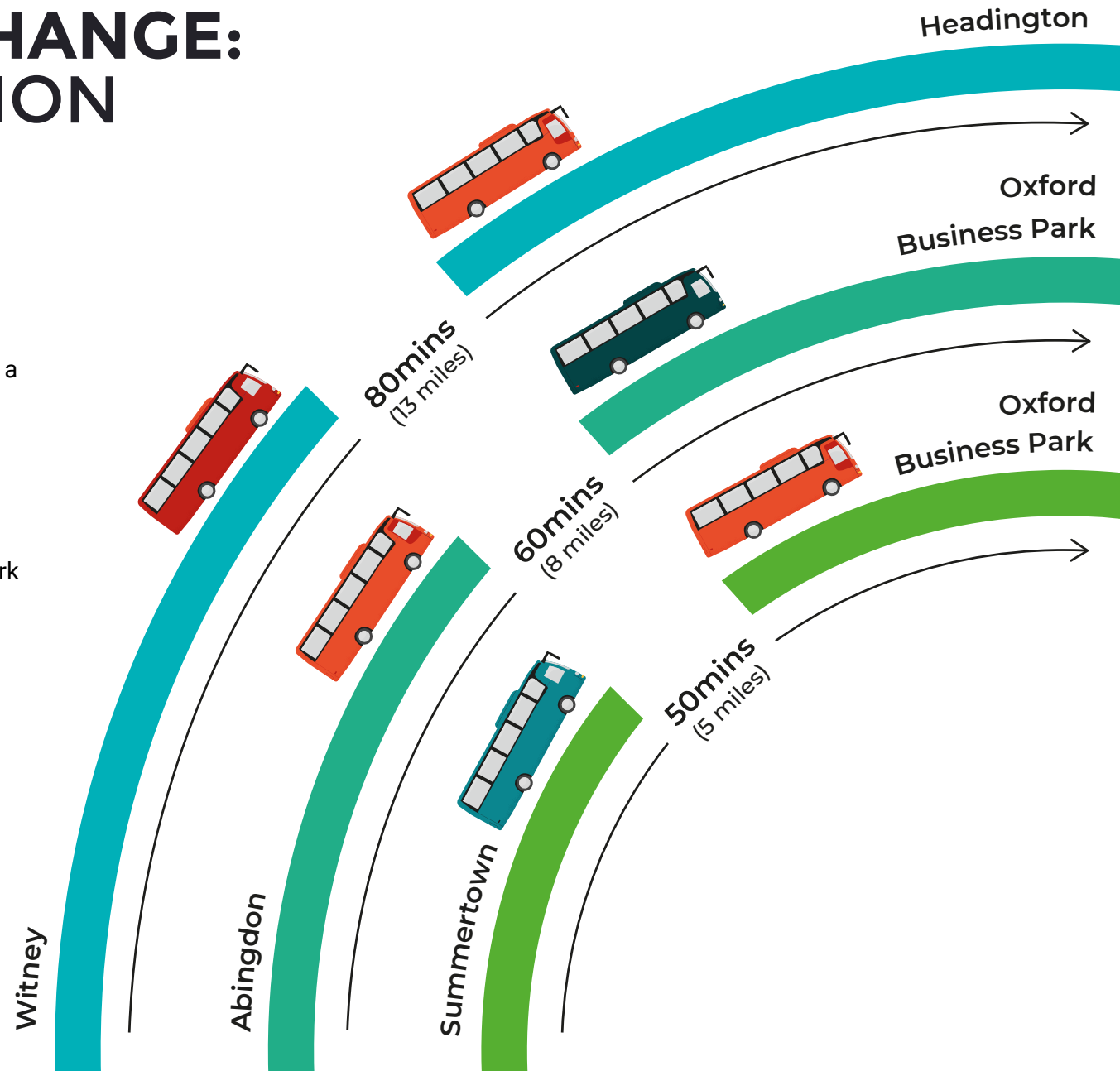
**What do you think of the ideas in this document?**  
**The councils want your feedback.**

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# THE CASE FOR CHANGE: EXISTING SITUATION

## CONNECTIVITY

- Travelling from Witney to Headington (13 miles) in the morning rush hour takes around 80 minutes and a change of bus
- Travelling from Abingdon to Oxford Business Park (8 miles) in the morning rush hour takes around 60 minutes and a change of bus
- Travelling from Summertown to Oxford Business Park (5 miles) in the morning rush hour takes around 50 minutes and a change of bus<sup>3</sup>





## CONGESTION

- The average morning rush hour inbound traffic speed in Oxford in 2018 was 10.6 mph<sup>1</sup>
- In the first half of 2019, there were 65 days when traffic speeds on at least one route into Oxford fell to under 5 mph<sup>2</sup>
- Average bus speeds in Oxford have been under 10 mph since 2016<sup>3</sup>
- Traffic flows across the Oxford ring road have increased by 5% since 2012; over 150,000 vehicles cross Oxford's ring road each day – 81% are private cars<sup>4</sup>

## CLIMATE CHANGE AND AIR QUALITY

- An estimated 220,000 vehicle miles are driven in and around the city by around 45,000 vehicles every morning rush hour, emitting around 50 tonnes of CO<sub>2</sub><sup>5</sup>
- 75% of local air pollution in Oxford comes from traffic<sup>6</sup>
- It's estimated that around 40,000 people die prematurely each year because of air pollution in the UK



Created every morning rush hour by

**45,000** vehicles covering

**220,000** vehicle miles.

# ASSUMPTIONS AND OBJECTIVES

Research undertaken in Oxford for our Local Transport Plan, and experience of transport planning in Oxford and from cities around the world leads us to some key assumptions and objectives that underpin the ideas put forward in this document. Based on the feedback we receive and further technical work, these assumptions may be altered and refined.

- A car carrying only the driver is one of the least space-efficient modes of travel. As population in the county grows, more people will need to travel into and around the city. This means our transport system needs to be increasingly space-efficient – i.e. public transport, walking and cycling.
- Oxford has little space for new or wider roads, so the only way to improve public transport, walking and cycling facilities



is to reallocate existing road space from cars to public transport, walking and cycling. This means reducing traffic levels.

- Car parking generates traffic, particularly if it is free. Only 16% of non-residential car parking in Oxford is public parking, for which relatively high charges are made.
- 84% of non-residential car parking in Oxford is workplace parking, the majority of which is free. 88% of the

city's workplace parking is outside the city centre, primarily in an arc linking north, east and southern parts of Oxford outside of the city centre – which can be described as the Eastern Arc. Workplace parking generates traffic at peak times, when the roads are most congested. It could be argued that providers or users of workplace parking should pay something to mitigate this impact.

- Improving connectivity, particularly in the Eastern Arc, requires substantial long-term investment in bus services which the county council cannot fund currently.
- We have tried to find simple, cost-effective solutions, providing value for money and minimising development costs.
- Any solution must address the city's broader transport problems but also provide particular transport and environmental benefits to those directly affected (whether residents, employees or employers).

## OUR PROPOSED SOLUTION



Based on these assumptions and objectives, the solution we have identified includes:

- New traffic restrictions in the city centre and the Eastern Arc
- A workplace parking levy around part of the Eastern Arc of Oxford

Amongst other things, these would fund:

- New and improved bus routes, particularly across the Eastern Arc of Oxford
- New and improved walking and cycling routes across the city

This is illustrated on the map here, and further details are set out in the pages that follow. A separate Question & Answer document is also available on the county council's website, which provides additional details.

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### We want your views on the ideas put forward.

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Other approaches have been considered, including the introduction of a congestion charge, and whilst not ruled out, the councils do not consider that these approaches would achieve the required objectives based on the work carried out to date.

# CHALLENGES

## POOR CONNECTIVITY

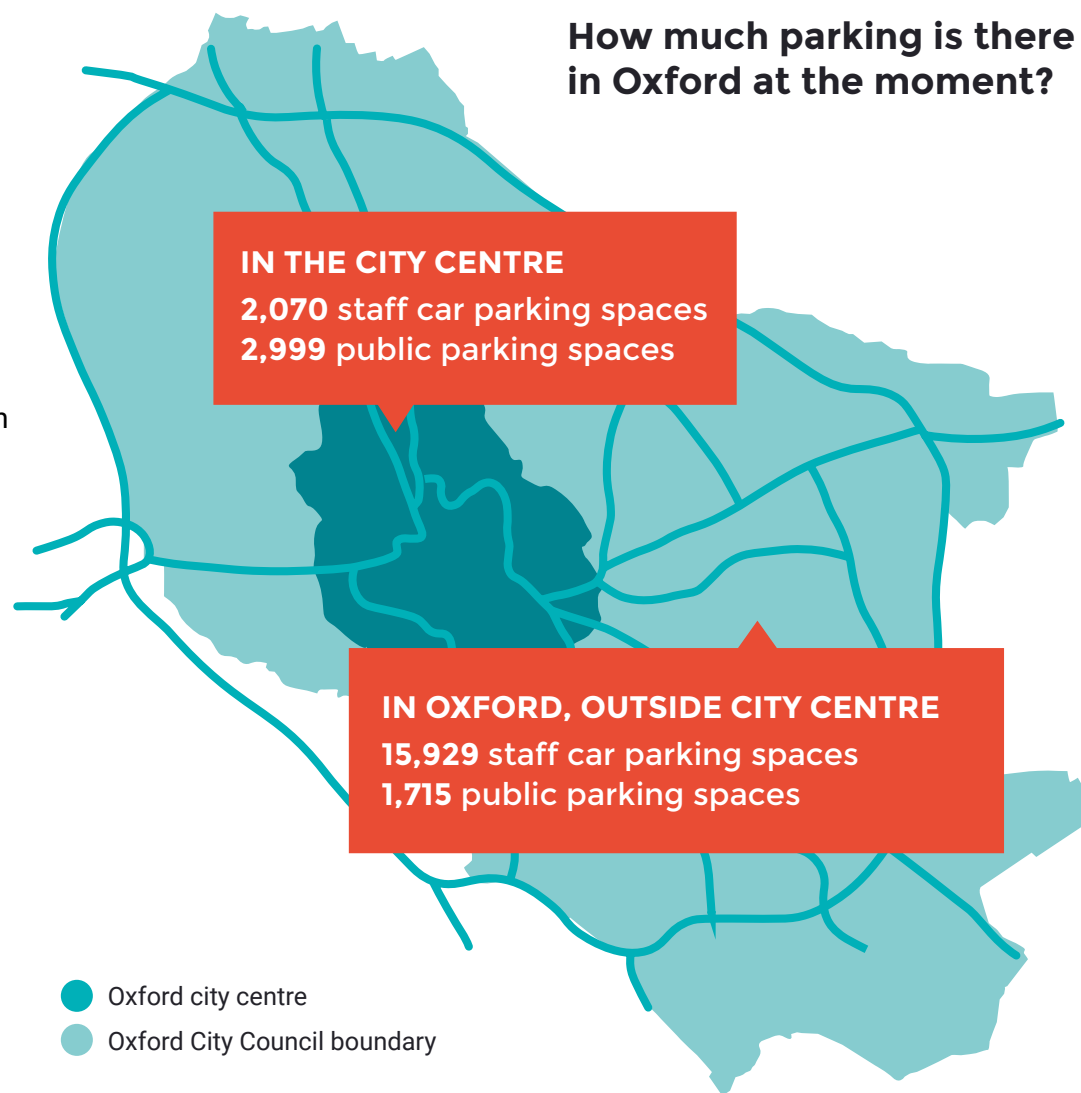
Car use for commuting to the city centre is relatively low, as a result of previous transport strategies and lack of space for workplace parking.

However, outside the city centre, car use for commuting is much higher. Nearly 90% of workplace parking spaces in Oxford are outside the city centre<sup>7</sup>.

Across eastern Oxford in particular, the high availability of free staff car parking means a large number of people choose to drive to work. Car parking surveys carried out by the county council in 2018 reveal that employment sites in eastern Oxford account for well over half of all workplace parking in Oxford.

Poor public transport connectivity across the eastern arc of Oxford is also a major factor. Most parts of the area are well connected to the city centre, but not to other parts of the city or areas outside Oxford. For example, the area around Cowley and Blackbird Leys, home to over 18,000 jobs, has no direct public transport connection to a Park & Ride site or any major Oxfordshire town beyond the city.

How much parking is there in Oxford at the moment?





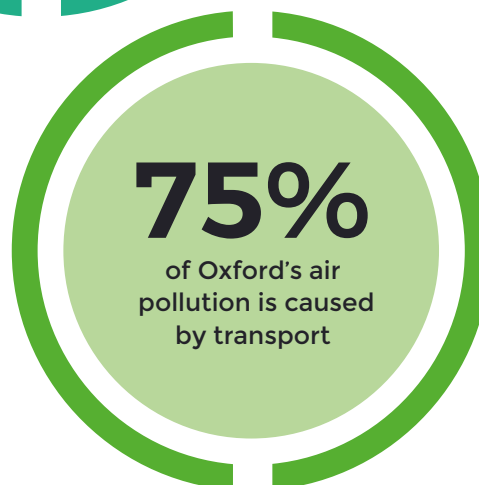
## IMPACTS OF CONGESTION

Traffic congestion is a persistent problem in and around Oxford. It regularly disrupts travel plans and adds significant costs to doing business<sup>8</sup> in Oxfordshire.

Worse still, traffic congestion leads to increased air pollution, which affects people's health and quality of life.

The problem isn't likely to get better. In 2015, the county council's Local Transport Plan<sup>9</sup> projected there could be a further 25% increase in commuting journeys to and within the city by 2031.

No-one wants this increased demand for movement to lead to yet more traffic congestion and pollution. That means making some bold choices about the county's transport systems and making it much easier for people to choose alternatives to the car.



## CLIMATE CHANGE & AIR QUALITY

Air pollution and carbon emissions cause significant harm to people's health and the environment.

Poor air quality disproportionately affects more vulnerable groups, such as pregnant women, children, older people and those with pre-existing respiratory and cardiovascular conditions<sup>10</sup>. And in Oxford transport alone accounts for about 75% of air pollution in the city<sup>11</sup>.

The predicted impact of climate change is well understood, with the UK government recently committing to zero carbon by 2050 and Oxfordshire councils supporting this by making their own commitments to zero carbon. This includes reducing transport's contribution to carbon dioxide emissions, which in the UK is estimated to be 33 per cent<sup>12</sup>.



Oxford's narrow roads have long posed challenges for transport



Space-efficient transport has been promoted in Oxford since the 1970s

## LACK OF SPACE

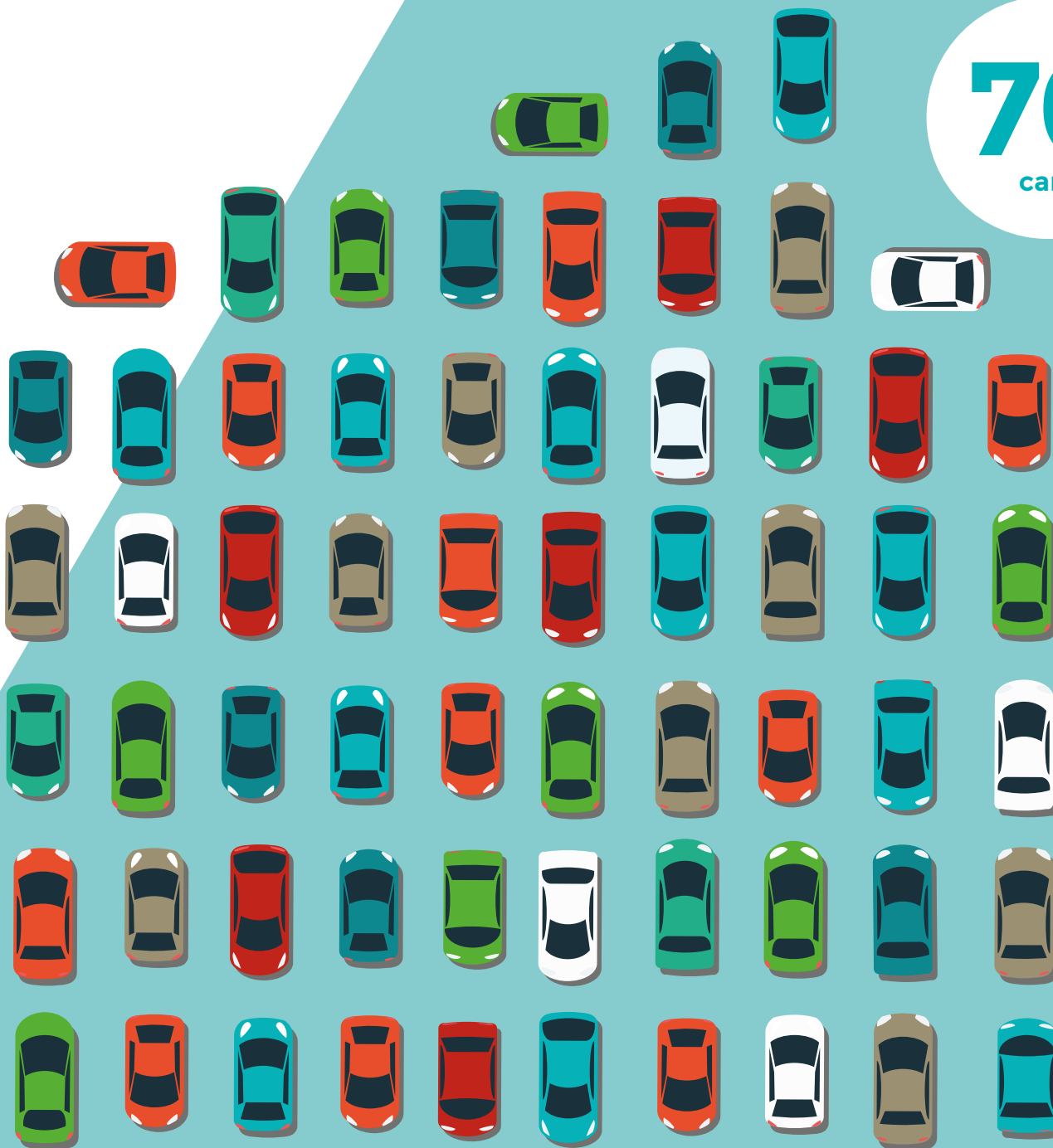
Oxford is a historic city with limited space to move people around. Since the 1970s, the city's transport system has favoured modes of travel which make the best use of the available space: public transport, walking and cycling.

Bus and cycle lanes encourage use of these modes, and in the 1990s traffic restrictions were introduced in the High Street and other city centre streets to reduce traffic levels in the city's historic centre.

However, in many places Oxford's narrow roads mean there is only space for bus lanes OR cycle lanes (not both), and in some cases neither can be provided. This means buses are badly delayed by traffic and cycle lanes sometimes disappear where they are most needed.

The only way to free up space for better pavements and cycle routes and keep buses moving is therefore to reduce traffic.





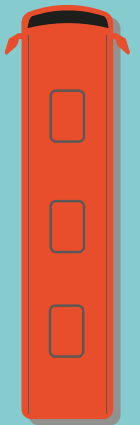
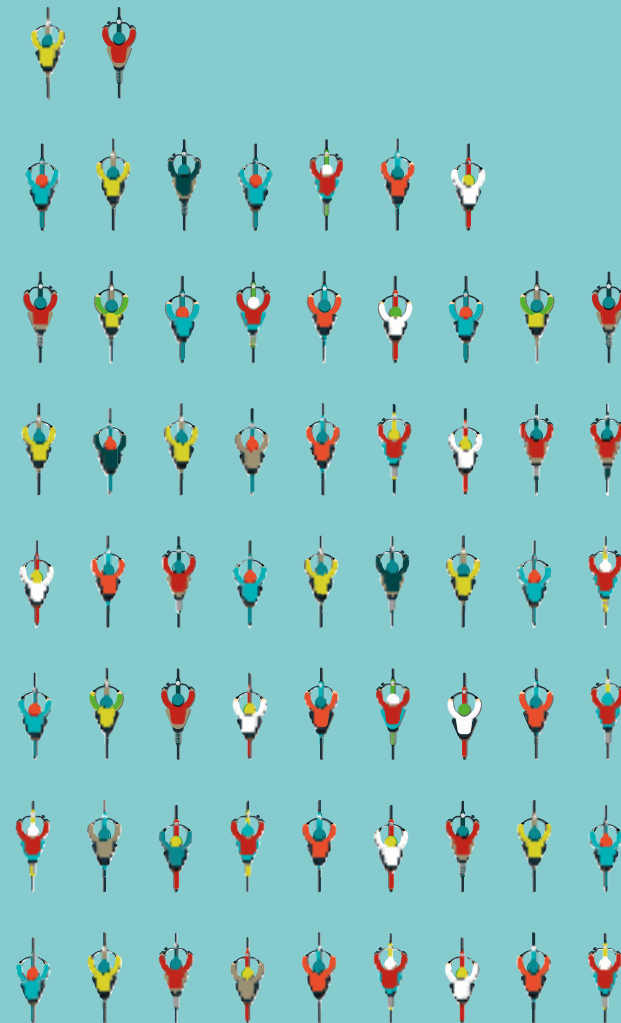
**70**  
cars

v

**70**  
bikes

v

**1**  
70-seater  
bus



# THE DETAILS

## TRAFFIC RESTRICTIONS

### What are they?

Traffic restrictions are places where the road would be closed to most traffic in both directions. They would be similar to the existing “bus gate” traffic restrictions in the High Street and other locations in Oxford city centre, which were introduced in 1999.

Buses, cyclists, taxis and private hire vehicles, and all emergency vehicles, would be allowed to pass through the traffic restrictions. There may also be exemptions for other vehicles including those with Blue Badges.

The traffic restrictions might not be in effect all the time, and the timings might not be the same at all of them. They could operate:

- Full time or just for some of the day (e.g. rush hours only)
- Every day of the week, or just on some days

Like existing restrictions in the city centre, the new restrictions would be enforced using cameras. There would be no rising bollards or barriers.

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**The councils want your views on whether there should be any exemptions and on the timings of the traffic restrictions.**

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## Why are they necessary?

Traffic restrictions reduce the number of vehicles taking up valuable space on the roads. This means we can use road space to create better, cleaner space for other modes of transport:

- Buses will be able to flow freely, even in places where there is no road space for bus lanes
- Less pollution and noise
- Wider, segregated cycle lanes to allow for all abilities of cyclist
- Safer, more pleasant walking and cycling environment
- Essential vehicles will move around the city more easily.

On major routes within the city (e.g. A- and B- roads) it is estimated that traffic levels need to be reduced by about 25% to create free-flowing traffic movement. Detailed transport modelling will be undertaken at the next stage to estimate the effects of the restrictions. In the two years after the 1999 traffic restrictions were introduced, traffic reduced by around 60% in Oxford High Street, around 40% on Magdalen Bridge, and around 20% in the city centre overall. Over the longer term, city centre traffic flows have continued to reduce slightly, with overall flows into the city centre 25% lower today than in 1990s.

---

**Your feedback will help us determine what complementary schemes might work. If you have ideas, we'd like to hear them.**

---

## Where would they be?

In Oxford city centre, we're suggesting three new traffic restrictions at Worcester Street, Thames Street and St Cross Road to reduce the number of motor vehicle trips which pass through the city centre. In the Eastern Arc of Oxford, we're suggesting two new traffic restrictions on Marston Ferry Road and Hollow Way, to reduce traffic on the B4495.

Our current thinking on the location of these five new traffic restrictions is shown on the map on page 7.

Each of the restrictions would apply to a single point on the road, so it would be possible for all traffic to access either side of the restriction. Access to properties and businesses would therefore still be possible at all times, but most traffic won't be permitted to drive through the restriction points at the times when they are in force. This is the same as the existing High Street traffic restriction.

For the two proposed restrictions outside of the city centre, we know that other nearby residential roads may need to be restricted too to ensure they cannot be used as rat-runs. We'll look at this in detail once we've analysed the feedback and we know where the B4495 restrictions should go.

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**The councils want your views on the potential locations of the proposed traffic restrictions.**

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## WORKPLACE PARKING LEVY

### What is it?

A Workplace Parking Levy (WPL) is an annual charge paid by employers for each parking space they provide, on or off-site, that is used for employee (commuter) car parking. Operational parking is exempt from a WPL as are fleet, visitor and customer car parking spaces.

In Nottingham, where a WPL was implemented in 2012, the annual charge per space is currently £415. In Oxford, the annual charge would likely be £400 - £600. Employers are responsible for paying the charge, and may choose to pass some or all of it on to employees who park at work.

Income from a WPL goes to the county council, which must by law spend it on transport improvements.

Our current thinking is that a WPL would be most effective in the Eastern Arc of Oxford, because this part of the city has

the highest amount of workplace parking, and the weakest non-car transport links.

The levy would help fund improvements to bus, cycle and walking routes and also reduce the number of car journeys by creating a disincentive to drive to work.

We're suggesting that employers who provide 10 or fewer commuter car parking spaces would be exempt. There may be other exemptions too.

---

### Should anyone else be exempt? Your views will inform our decisions.

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### Why is it necessary?

A WPL can help reduce traffic and improve accessibility in several ways.

Where employers choose to pass the charge on to employees who park at work, it encourages commuters to travel by public transport, cycle or walk, rather than using

their car, thereby helping to reduce traffic.

Where employers do not pass on the charge, it encourages employers to reduce the amount of staff parking they provide, as this will save them money every year on their WPL 'bill'. Not only does this keep cars off the road, it also means that land currently used for car parking could be redeveloped for other uses.

Finally, it provides a predictable, locally controlled source of transport funding to pay for important transport projects such as new and improved bus services – including those that can serve commuters from other Oxfordshire towns - as well as cycle routes. This improves accessibility and helps reduce traffic further. The main proposal in our WPL scheme is to fund high frequency bus routes (shown on page 16) serving the WPL area, and infrastructure to ensure those routes are fast and reliable.



Our current estimate is that these new and improved bus services and associated bus and cycle infrastructure could cost £60-100 million.

Having a major source of local funding also helps the councils to secure more funding from the government and other sources for transport improvements.

### **Where would it be?**

Our current thinking is that the WPL area should cover a strip around the Eastern Arc of Oxford on page 7.

The area is an irregular shape because it follows the path of a proposed 'core' route for new high frequency bus services, linking major employers in the area to Park & Ride sites and the larger towns in Oxfordshire. The area covers everywhere within the Ring Road that is within around 10 minutes' walking distance from the core bus route shown on page 16.

The bus routes would be the main item to be paid for by the WPL in the short term, so

the idea is that only those employers that are close to the routes contribute to it through the WPL as they are also likely to be the ones benefitting the most.

The two new traffic restrictions outside the city centre mentioned in the previous section and shown on page 7 would help remove traffic congestion along the B4495 and ensure bus routes through the area are fast and reliable. There would also be bus lanes in other places along the bus routes where necessary and space allows.

A decision about the final WPL area will be considered once we've analysed your feedback.

This area has been chosen because:

- It contains just under half of the city's commuter car parking spaces, and so generates a significant amount of the traffic and congestion in and around Oxford
- It is not as well served by bus, pedestrian and cycle routes as it needs to be

To be effective there would need to be on-street

parking controls close to employers within the WPL area so people can't park on street to avoid the charge.

### **How could it benefit employers?**

Employers will benefit from:

- Grants for on-site sustainable transport improvements (eg cycle parking, showers, lockers)
- Grants for on-site car parking management (eg: monitoring and enforcement systems)
- Access to a Travel Plan advisor dedicated to the WPL zone.

### **How could it benefit employees?**

Employees will benefit from:

- Discounts on bus fares
- Discounted P&R parking
- Reserved P&R parking
- Discounts on bike purchases



# THE BENEFITS

## BETTER CONNECTIVITY

Connecting people is the fundamental purpose of a transport system. The workplace parking levy and traffic restrictions would help break the current 'vicious cycle' of congestion and poor bus connectivity across the Eastern Arc of Oxford by:

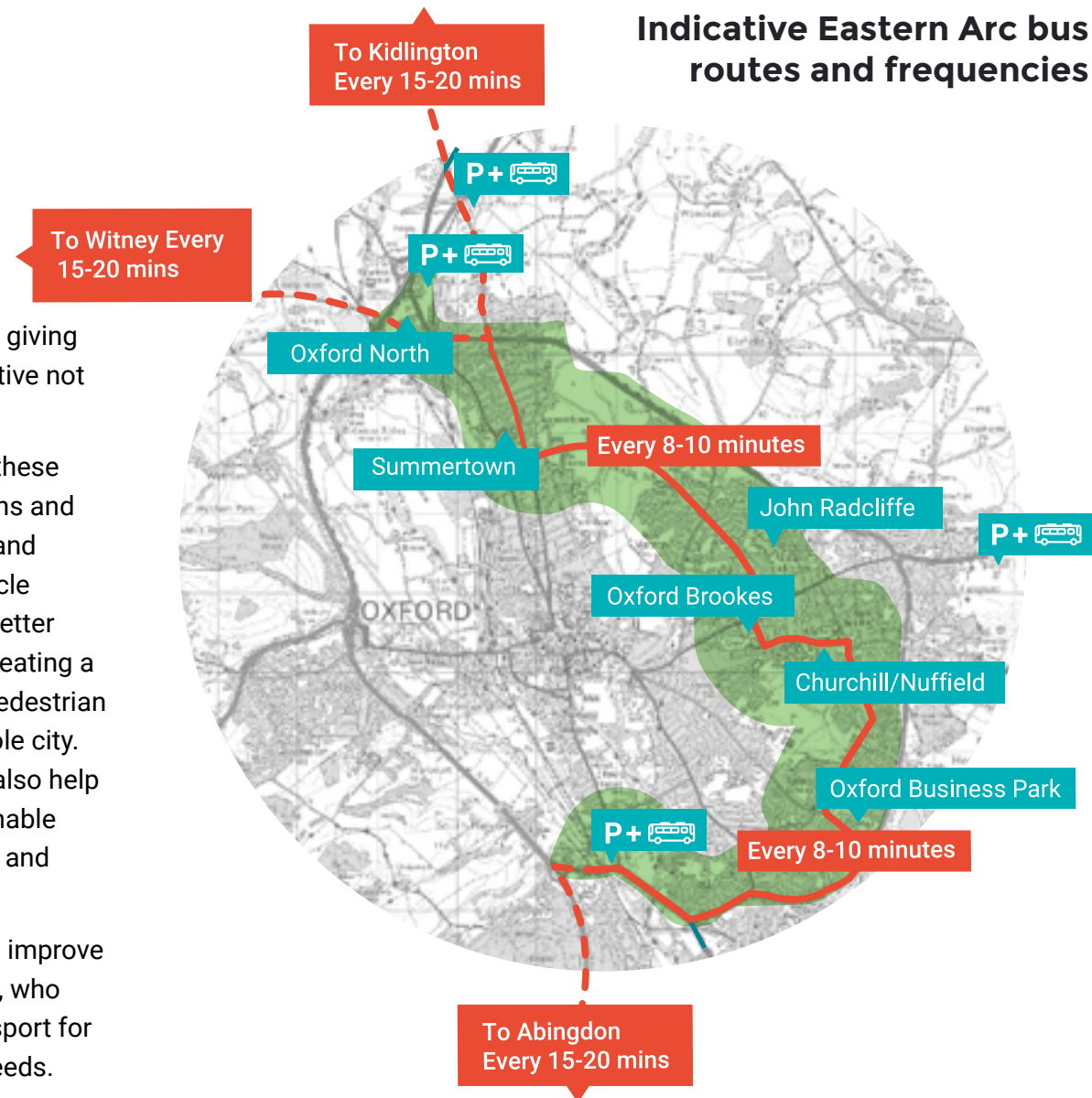
- Speeding up bus journeys so that we can create new Park & Ride services and improve existing ones, and make bus travel quicker so it becomes an attractive option for more people
- Kick-starting funding for new bus and Park & Ride services and offering discounts and incentives to encourage people to use them.
- Giving employers a financial incentive to reduce the amount of

parking they provide, and/or giving employees a financial incentive not to drive to work.

This map illustrates some of these changes. The traffic restrictions and WPL would create the space and funding for pedestrian and cycle paths to be made wider and better separated from traffic, thus creating a continuous, comprehensive pedestrian and cycle network for the whole city. Funding from the WPL could also help employers fund facilities to enable cycling, such as cycle parking and showers.

Reducing congestion will also improve connectivity for all road users, who rely on car, van and HGV transport for their daily lives or business needs.

## Indicative Eastern Arc bus routes and frequencies





## REDUCED CONGESTION

The ideas suggested would reduce congestion by reducing traffic levels. This is the only way to reduce congestion in the long term. Wider or new roads can give short-term relief but only add to traffic growth, congestion and pollution in the long term. This is called 'traffic induction'. Conversely, removing road space can reduce traffic levels and congestion because of an effect called "traffic evaporation".



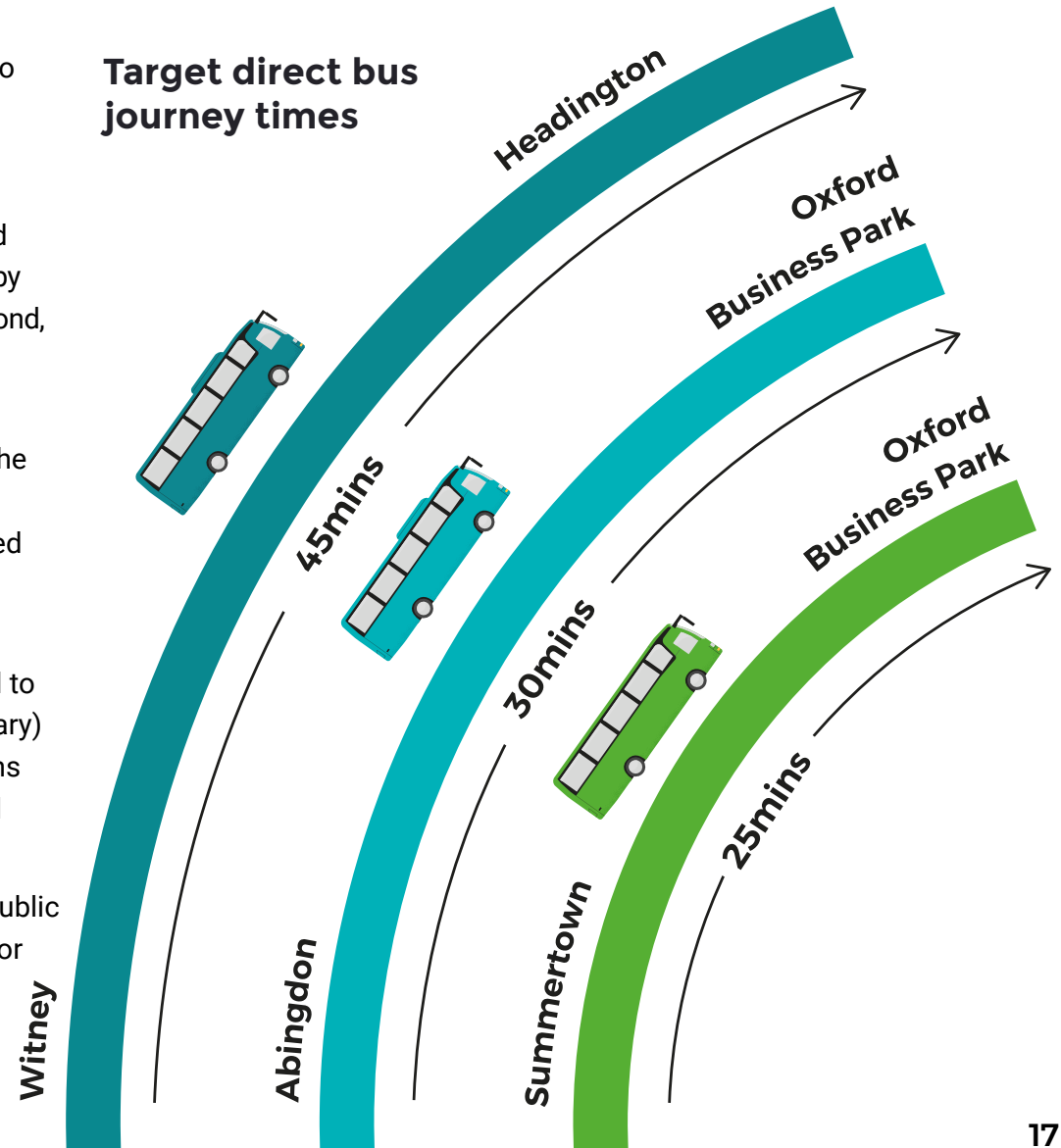
These ideas would impact anyone who travels to and from Oxford for work, education or pleasure. This includes improved connectivity to Oxford from towns including Witney, Kidlington and Abingdon. The benefits would be felt by residents across Oxfordshire and beyond, as well as those living in the city.

Reducing congestion on bus routes should make them able to travel at the speed limit, 24 hours a day, 7 days a week, in many cases without the need for bus lanes.

Less traffic means space previously set aside for cars can be reallocated to walking, cycling, and (where necessary) bus lanes. Pedestrian and cycle paths can be made wider, better separated from traffic, and more continuous.

It will also create opportunities for public spaces to be improved, with space for more trees, seating and events.

### Target direct bus journey times



## TACKLING CLIMATE CHANGE & AIR POLLUTION

Reducing traffic reduces traffic emissions because there are fewer vehicles on the road, covering fewer miles, but also because vehicles emit less in free-flowing traffic than they do in congested stop-start conditions.

The ideas in this document would therefore significantly reduce road transport emissions in and around Oxford, contributing to better air quality and reducing the city's contribution to climate change.

The councils continue to work towards the implementation of a Zero Emission Zone (ZEZ) for the city, which would see all road traffic become zero emission by the mid-2030s. But even “zero emission” vehicles (which have no exhaust emissions) emit pollution in the form of particulate matter from brakes and tyres<sup>13</sup>, so reducing the number of “zero emission” vehicles on the roads will improve our air quality still further.

Encouraging people to use non-car modes also improves public health and well-being in other ways, by increasing people's levels of physical activity (walking – including to and from the bus stop – and cycling).

## WIDER TRANSPORT STRATEGY & PROGRAMME

The traffic restrictions and workplace parking levy put forward in this document are part of a coherent strategy, and would be complemented by other transport schemes and initiatives.

These include schemes funded by the £80m already available for transport in the Oxford area in the next five years, plus new schemes that could be paid for by the WPL and future funding secured from developments or awarded by the government.

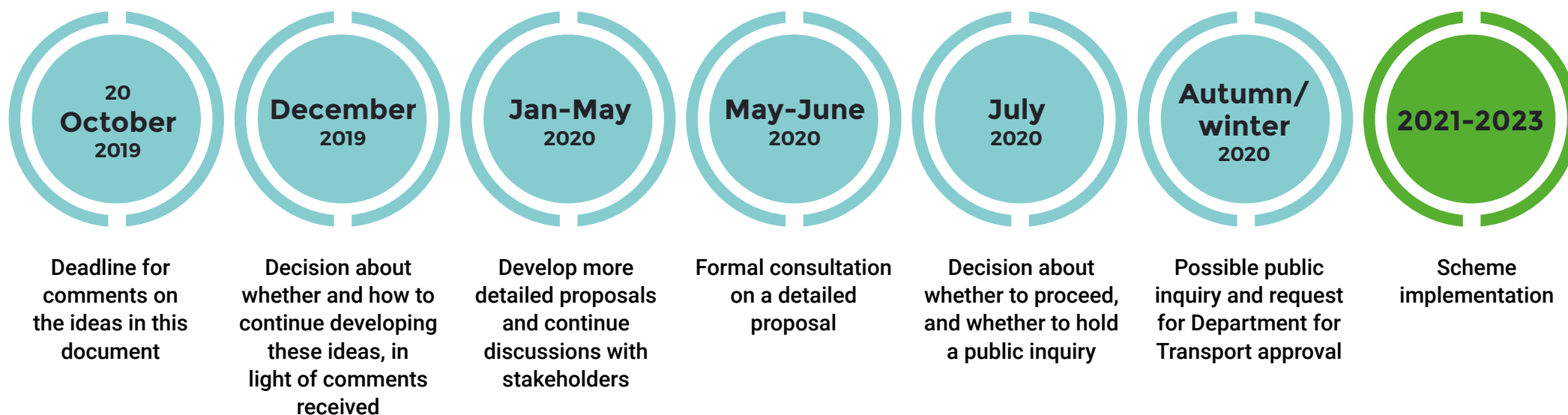
These include, amongst other things:

- Transport ‘corridor’ improvements on the main roads into Oxford, both inside and outside the Oxford ring road. These improvements will be designed primarily to provide free-flowing bus routes, and wider, better segregated, and more continuous pedestrian and cycle paths.
- New or improved quieter, connector cycle routes to support the main road cycle network
- Bus service improvements, providing new and improved connections
- The Oxford Zero Emission Zone, to reduce transport emissions
- Rail improvements at Oxford station and, in the longer term Cowley branch line
- The further roll-out of Controlled Parking Zones across Oxford

# NEXT STEPS

The councils have put a great deal of thought into the ideas in this document, but we are still at a relatively early stage. Further research, public consultation and other technical work would be needed before a decision to implement any of these

ideas could be made. The councils have published their thinking so far to allow anyone to see what is currently being considered and to submit comments and ideas if they wish. If the ideas are taken forward, the next steps would be along the following lines:



## References

<sup>1</sup> Oxfordshire County Council transport monitoring service

<sup>2</sup> Oxfordshire County Council transport monitoring service

<sup>3</sup> <https://greenerjourneys.com/news/bus-speeds-decline-across-uk-road-congestion-rises/>

<sup>4</sup> Oxfordshire County Council transport monitoring service

<sup>5</sup> Oxfordshire Strategic Transport Model

<sup>6</sup> [https://www.oxford.gov.uk/downloads/file/3832/air\\_quality\\_annual\\_status\\_report\\_2016](https://www.oxford.gov.uk/downloads/file/3832/air_quality_annual_status_report_2016)

<sup>7</sup> Oxfordshire County Council Workplace Parking Survey, 2018

<sup>8</sup> [https://www.local.gov.uk/sites/default/files/documents/5.16%20Congestion\\_report\\_v03.pdf](https://www.local.gov.uk/sites/default/files/documents/5.16%20Congestion_report_v03.pdf)

<sup>9</sup> [http://mycouncil.oxfordshire.gov.uk/documents/s33711/Background%20CA\\_JUN2816R12%20Connecting%20Oxfordshire%20vol%208%20part%20i%20-%20Oxford%20Transport%20Strategy.pdf](http://mycouncil.oxfordshire.gov.uk/documents/s33711/Background%20CA_JUN2816R12%20Connecting%20Oxfordshire%20vol%208%20part%20i%20-%20Oxford%20Transport%20Strategy.pdf)

<sup>10</sup> <https://laqm.defra.gov.uk/assets/63091/defraairqualityguide9web.pdf>

<sup>11</sup> [https://www.oxford.gov.uk/downloads/file/3832/air\\_quality\\_annual\\_status\\_report\\_2016](https://www.oxford.gov.uk/downloads/file/3832/air_quality_annual_status_report_2016)

<sup>12</sup> [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/790626/2018-provisional-emissions-statistics-report.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/790626/2018-provisional-emissions-statistics-report.pdf)

<sup>13</sup> [https://uk-air.defra.gov.uk/assets/documents/reports/cat09/1907101151\\_20190709\\_Non\\_Exhaust\\_Emissions\\_typeset\\_Final.pdf](https://uk-air.defra.gov.uk/assets/documents/reports/cat09/1907101151_20190709_Non_Exhaust_Emissions_typeset_Final.pdf)

# FIND OUT MORE AND HAVE YOUR SAY

Visit [www.oxfordshire.gov.uk/connectingoxford](http://www.oxfordshire.gov.uk/connectingoxford) or write to  
Connecting Oxford, Oxfordshire County Council,  
County Hall, New Road, Oxford OX1 1ND

A printed version of the online questionnaire is available if you'd like to give us your views by post. This document and the questionnaire are also available in the following formats:

Easy Read | Other languages | Large print | Other printed and electronic formats.

Please call Joanne Fellows on 07990 368897 or email Joanne at [Joanne.fellows@oxfordshire.gov.uk](mailto:Joanne.fellows@oxfordshire.gov.uk) if you'd like any of these.

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