

# Transport in Bristol



## Bristol Civic Society update 24 April 2018

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# Themes



MetroBus progress update  
Bristol Transport Strategy and other  
consultations in 2018  
20 mph speed limit review  
Air Quality challenge





# MetroBus



# Why build a bus rapid transit network?



Prosperous region – economy worth £25bn p.a.

High car dependency and poor air quality

Ambitious growth: 105,000 new homes and  
82,500 jobs by 2036



1m+ people and 85% of journeys within the  
sub-region

Need to improve access to job opportunities

Road network at capacity

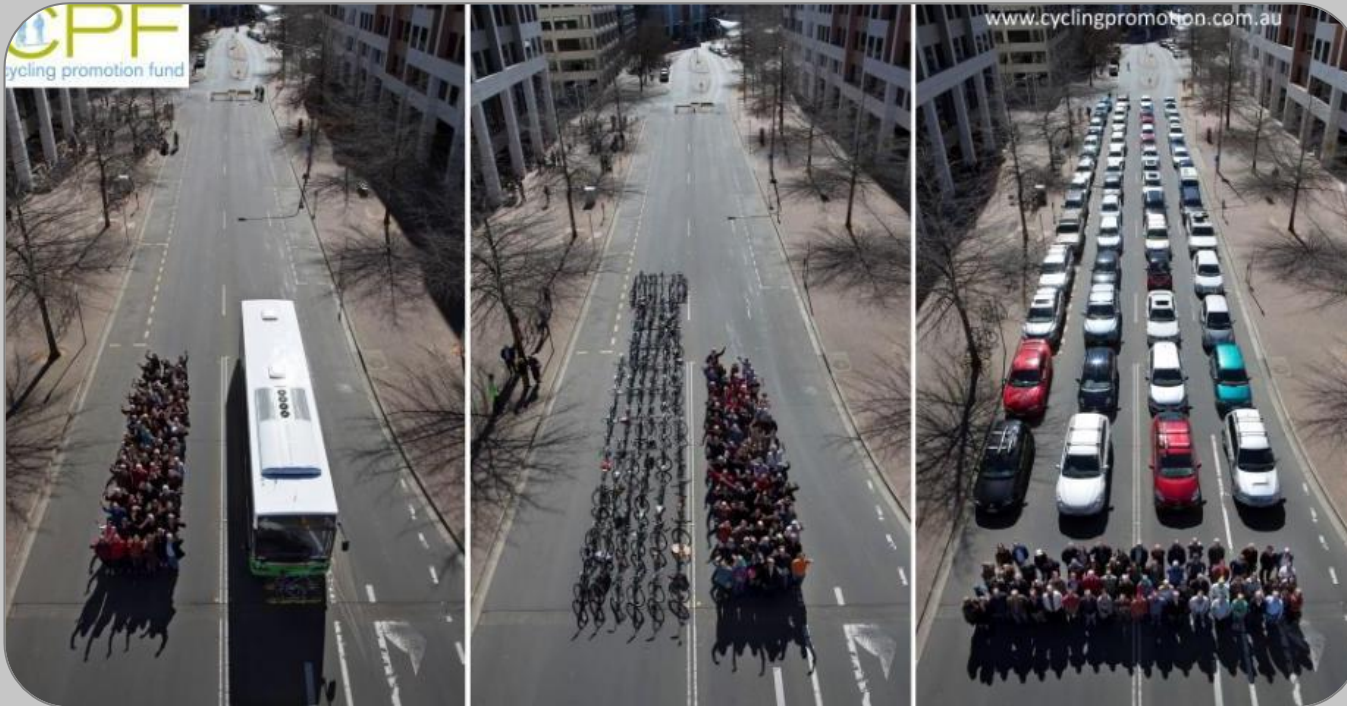
# Why build a bus rapid transit network?

Distinct public transport mode

Tackle traffic congestion

Support economic growth

Reduce emissions





# MetroBus key principles

Quick, frequent and reliable

Serves key destinations

High quality bus stops

Walking and cycling improvements

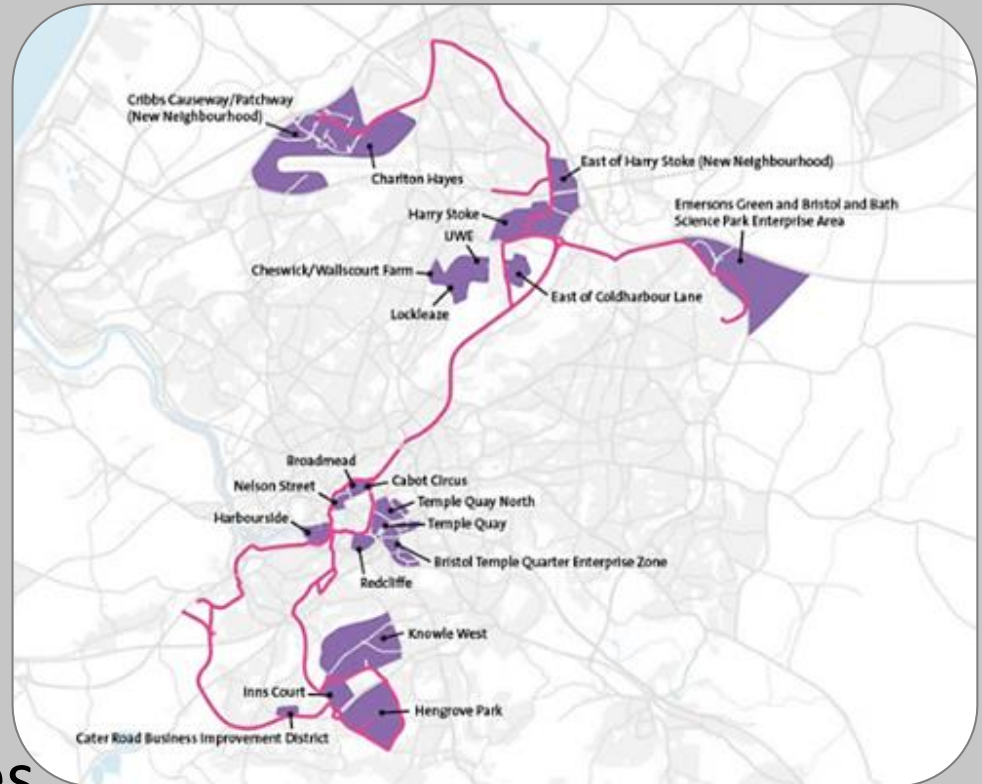
Commercial operations

Capacity for growth

Benefits existing bus services

Smart and integrated ticketing

Distinctive high quality vehicles



# What have we built?

**3.5km** busway segregated from general traffic

**8** road bridges

**3** railway bridges

**92** new bus stops

**282** new cycle stands

Over **10km** of new cycle routes

Over **6km** of new road space

Refurbished city centre

New Baldwin Street link across River

Frome culvert

**1** full restoration of a grade 2 listed bridge



# City centre



More space for pedestrians, cyclists and buses  
Direct routes for motorists  
Reduced congestion



# Baldwin Street link



# Bridges



£3.2m restoration of Ashton Avenue bridge  
Winterstoke bridge over Portishead railway  
South Bristol Link railway underbridge

# Busway



Segregated route from Long Ashton Park & Ride  
Avoids Cumberland Basin congestion  
Parallel walking and cycling path  
Flood protection



# South Bristol Link



Opened winter 2016/17

Improved links to Bristol Airport and P&R

Removed traffic from residential roads

4.5km of new walking and cycling paths



# Bathurst Basin



New bridge to remove bottleneck

New walking and cycling paths and crossings

Flood protection

# M32 bus-only junction and bus lane



# More than a bus



Walking and cycling improvements

Strategic transport links for now and the future

Moving people from homes to jobs, education and leisure





# Vehicle



Distinctive  
Branded by route  
Environmentally friendly  
Twin doors  
Spacious  
Wi Fi





# iPoint



Buy tickets

Top up smartcards

Real time information

Journey planning



**m1**

m2

m3

**Emersons Green to City Centre**  
Via Lyde Green Park & Ride, Science Park, UWE,  
Cabot Circus - **starts 29 May 2018**



metrobus

# Operators



**m1** Bristol Community Transport

**m2** First Bus

**m3** First Bus



# Community

Contractors worked in community to develop local skills  
Alun Griffiths Ltd set up a new regional base in south Bristol and employed local people



## **Alun Griffiths Construction Ltd**

- 12 local staff members
- 15 local operatives
- 1 apprentice engineer
- 1 UWE student placement
- 5 summer placement students

## **Balfour Beatty**

- 3 graduates
- 2 apprentices
- 2 summer placement students
- Work experience for 3 students



# Brought to you by MetroBus

brought  
to you by  
metrobus



as part of the metrobus  
project we've made  
major improvements  
to the city centre

the improvements include:

- a new link across the centre from Baldwin Street, with new traffic routes to reduce congestion;
- a more fitting environment for the Cenotaph, with less traffic around the monument to create a more pleasant public space;
- dedicated public transport routes through the city centre to make bus journey times more reliable;
- new city centre cycle routes that connect to the existing cycle network and make it easier and safer to travel by bike;
- new bus stops, shelters and taxi ranks to make public transport easier and more pleasant to use.



metrobus is a new  
public transport  
service coming to  
the greater Bristol  
area in 2018, offering  
faster, more frequent  
and more reliable  
journeys

[www.travelwest.info/metrobus](http://www.travelwest.info/metrobus) @MetrobusBristol



Bathurst  
Basin  
new bridge

brought  
to you by  
metrobus

metrobus is a new  
public transport  
service coming in  
2018, offering faster,  
more frequent  
and more reliable  
journeys



As part of our improvements in  
Bristol city centre we've built a  
new bridge at Bathurst Basin.

The bridge improves traffic  
flows and includes a new cycling  
and walking path linking the  
existing paths on Commercial  
Road and Cumberland Road.

We've also built new crossings to  
make it easier to walk and cycle.



Department  
for Transport



[www.metrobusbristol.co.uk](http://www.metrobusbristol.co.uk) @MetrobusBristol



# Transport consultations 2018

- Joint Local Transport Plan (WECA + North Somerset)
- Bus Strategy (WECA + North Somerset)
- Key Route Network (WECA + North Somerset)
- Bristol Transport Strategy
- Transport Development Management Guide (TDM Guide)
- Local Cycling and Walking Infrastructure Plan (LCWIP)
- 20 mph review
- (Clean Air Plan)
- (City centre framework)



Joint Spatial Plan

Joint Local Transport Plan (WECA)  
Statutory Plan

WECA Bus Strategy

Bristol Local Plan

WECA Key  
Route Network

City Centre  
Framework

Bristol Transport Strategy  
Not statutory

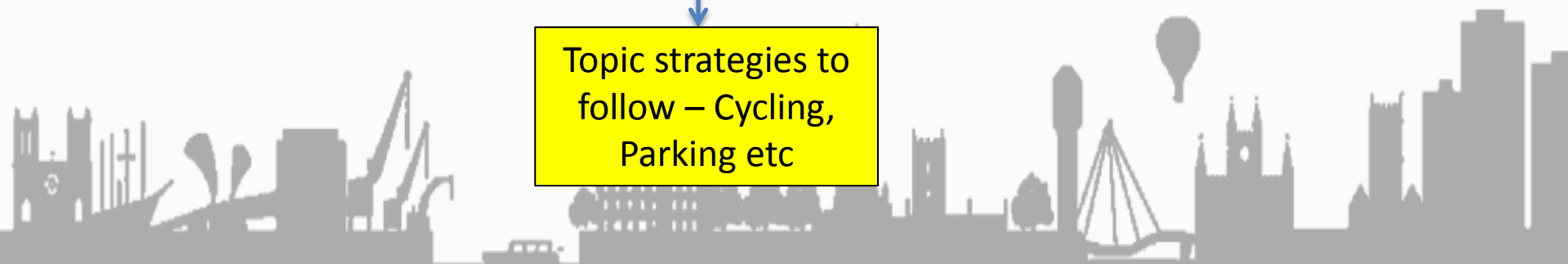
Clean Air Plan

20 mph review

LCWIP

TDM Guide

Topic strategies to  
follow – Cycling,  
Parking etc



# Bristol Transport Strategy

- Bristol Transport Strategy focuses the JLTP down to city level and sets out the transport vision for Bristol for the next 20 years
- Vision and ambitions for transport in Bristol to 2036
- Initiatives and actions to achieve vision
- Written in partnership with Congestion Task Group
- Bristol will lead consultation in Sept 2018
- Umbrella document for other BCC strategies
- Links up and across to WECA documents





# Bristol Transport Strategy

## Key objectives:

- Invest in our transport systems to support housing, jobs and economic growth
- Promote equality through more inclusive transport
- Create healthy places – active travel & safe systems
- Build better places – connecting communities
- Enable reliable journeys – efficient and resilient
- Support sustainable growth – carbon, technology



# TDM Guide

- Design guide for developers going through the development management process
- Sets out preferred transport principles for new developments
- Technical document to be used as reference
- To be appended to the Bristol Transport Strategy
- Bristol will lead consultation in Sept 2018

# Local Cycling & Walking Infrastructure Plan

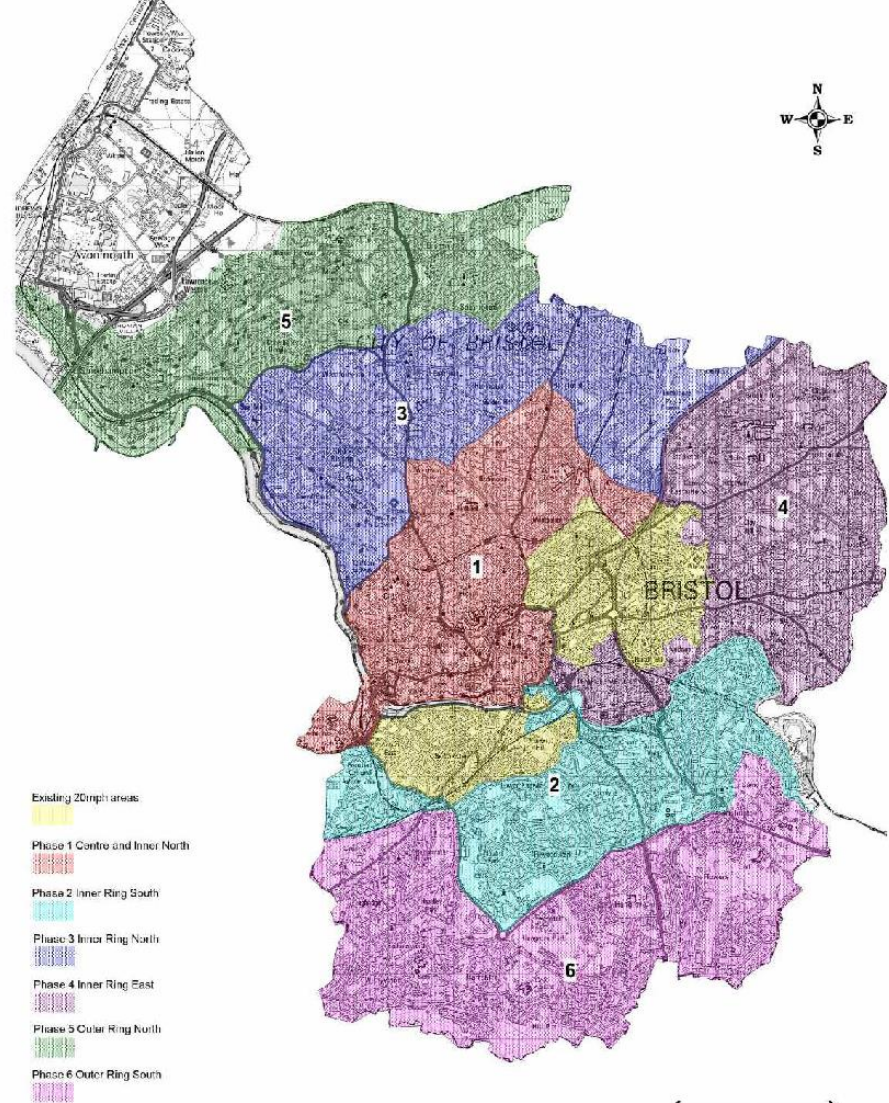
- Government grant funded
- West of England wide
- A complete walking and cycling network across sub-region
- Identifies gaps for future projects and investment
- Ready for future bids
- Data gathering underway
- Referred to in JLTP and Bristol Transport Strategy
- WECA will lead consultation in the Autumn



# City wide 20 mph review



**A LITTLE BIT SLOWER.  
A WHOLE LOT BETTER.**



2.5km

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# 20 mph speed limits – the project

- 20 mph speed limits now cover most residential streets and local high streets across the City
- Wholly sign-based intervention and relies mainly on driver compliance with limited enforcement
- The speed limit project started in 2010 with two pilot areas
- City wide roll-out formed six phases and was completed in Sept 2015





# 20 mph speed limits – the objectives

## Safety

- Make roads safer for all road users and fit in with the road safety policy: 'Safer Systems Approach to Road Safety in Bristol'.
- Reduce number and severity of collisions – **6% lower for every 1 mph slower**

## Community

- Make it easier to cross roads and access local facilities
- Help build stronger social cohesion through more on-street activity as people choose to walk and cycle more

## Health

- Make walking and cycling more attractive on busy roads
- Increase physical activity and health



# **20 mph speed limits – the effect**

## **UWE Bristol 20 mph evaluation report**

- 94% of roads surveyed have seen slower speeds
- Reduction of 4 deaths, 11 serious injuries and 159 slight injuries each year since the introduction of 20 mph
- Most 20 mph roads see speeds averaging less than 24 mph
- Main exception is Outer North and Outer South area with average speeds of 24.5 and 26.7 respectively, with an average drop of 3.3 mph
- Daytime speed down on average by 2.7 mph
- Night-time speed down on average by 2.4 mph
- Active travel in Bristol increased with more people walking or cycling for 10 minutes or more in their local area most days



# 20 mph review – scope and timeline

- ***Councillor-led***, area-based review of 20 mph speed limits
- Commences in May 2018 – 8 week on-line consultation
- Certain roads are specifically highlighted for review where speeds are marginal – for a more detailed response
- Any change in speed must be ***evidence-based*** with consideration across area boundaries for consistency
- Review allows consideration of both 20 mph and 30 mph roads and will provide the option to retain the speed limit, but include traffic calming
- Consultation runs to July followed by analysis by September
- Any changes will require Traffic Regulation Order process and will take several months to complete



# Bristol's Air Quality challenge





# Bristol's Air Quality challenge

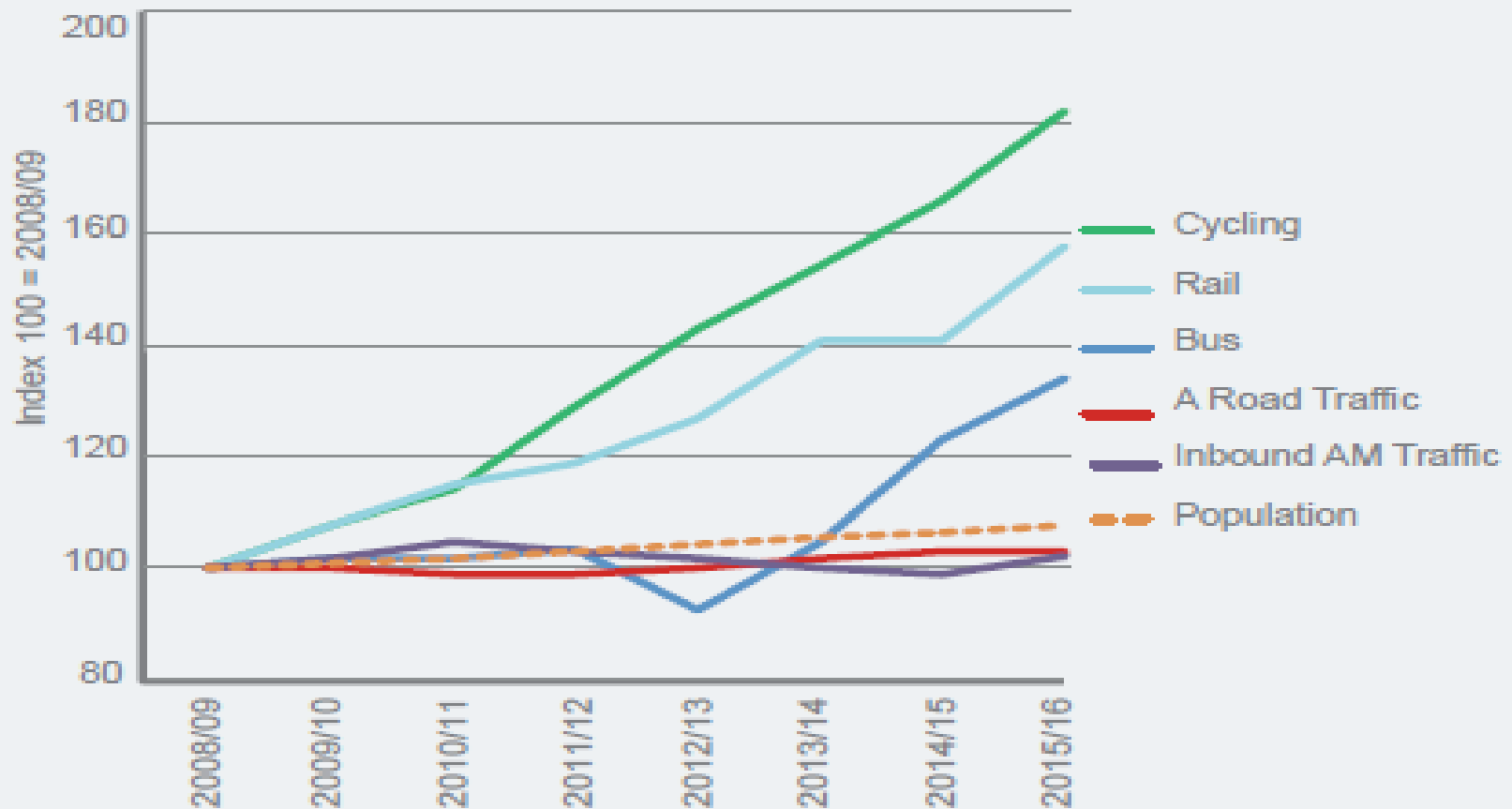
Despite being the UK's first Cycling City 2008, European Green Capital 2015 and Global Smart City 2018 Bristol has an air quality problem

- Local health impact (PM + NO<sub>2</sub>) ~ 300 deaths p.a.
- Additional health effects and poor local amenity
- Diesel is the dominant source of NO<sub>x</sub> (~NO<sub>2</sub>)
- Diesel **cars** = 40% of NO<sub>x</sub> emissions in central Bristol
- Widespread breaches of NO<sub>2</sub> AQ standard
- Modal shift hasn't solved poor air quality

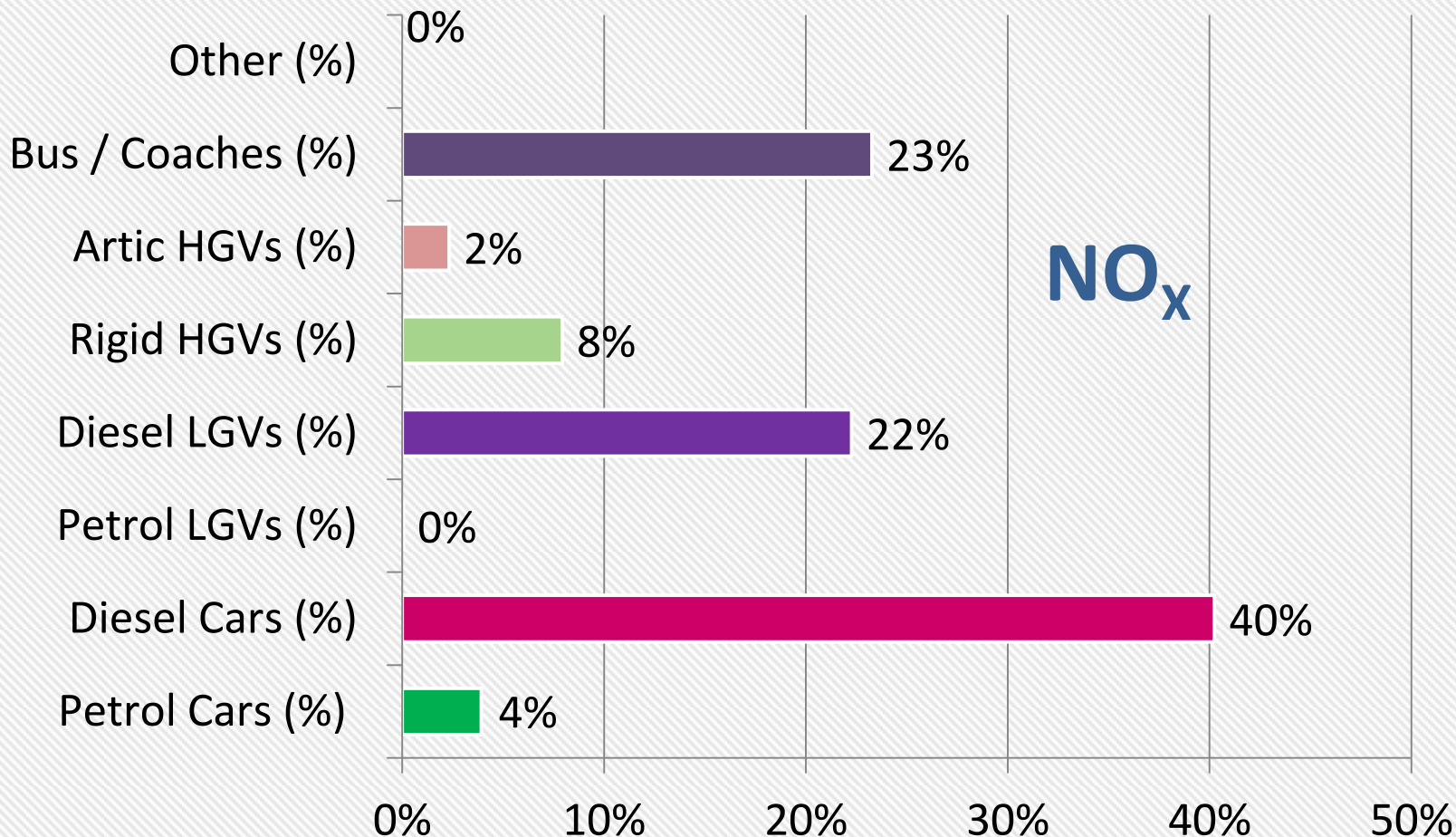


# Modal Shift

**Figure 15:**  
**Change in transport use**  
(Percentage growth since 2008/09)

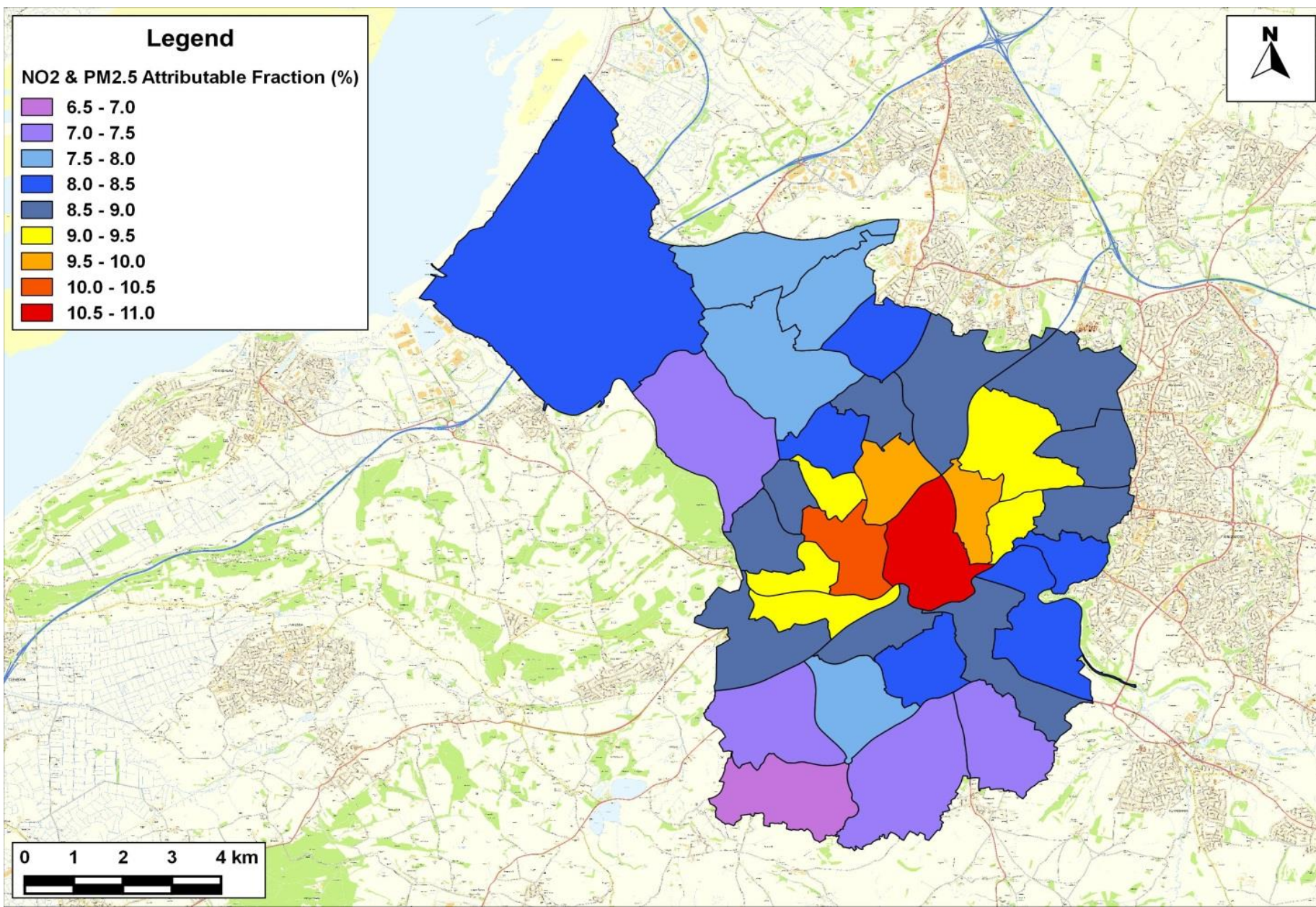


# Bristol: NOx emissions by vehicle class



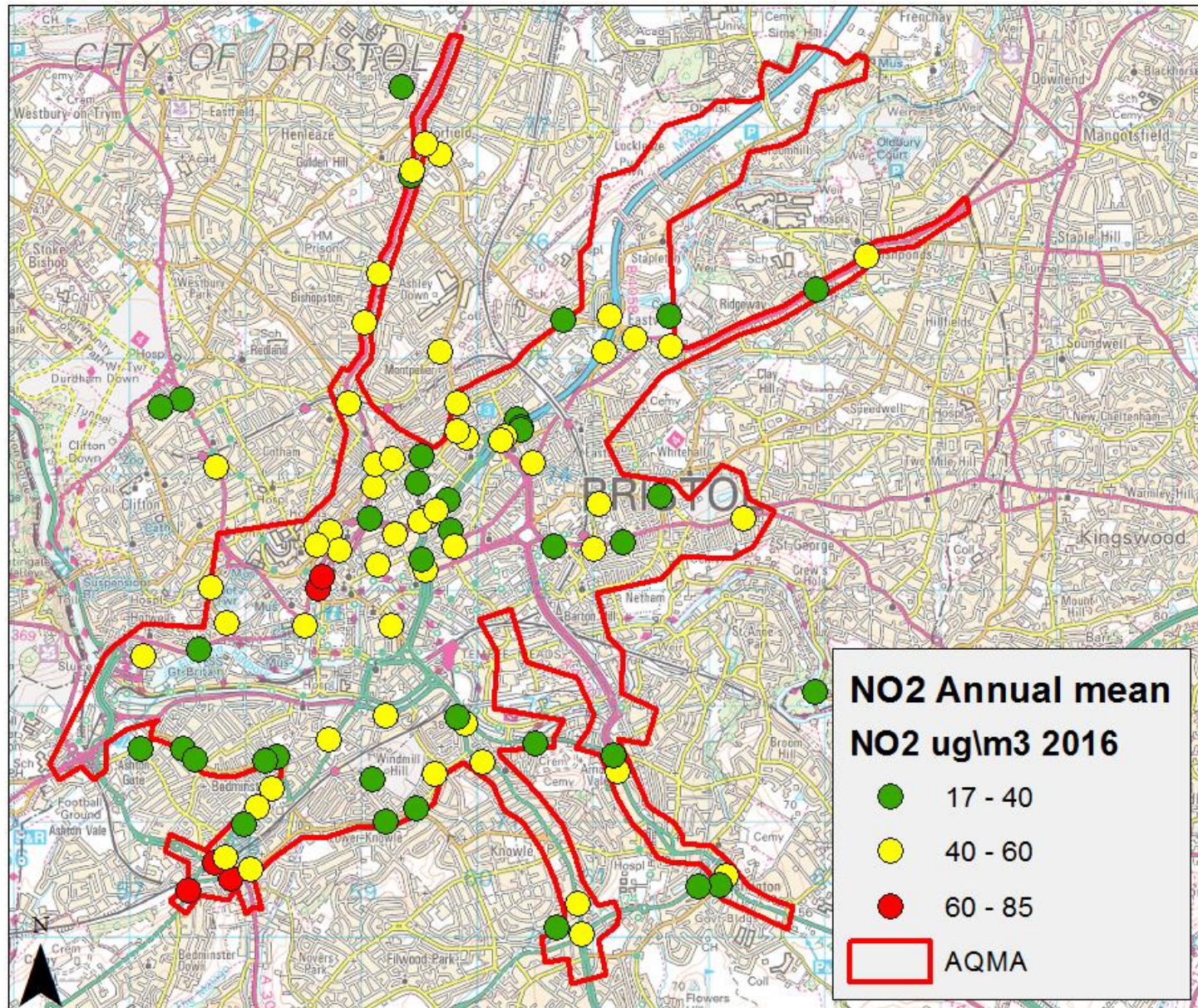
**Diesel = 96% of NO<sub>x</sub>**

# Proportion of Deaths (%) Attributable to PM<sub>2.5</sub> and NO<sub>2</sub>





# Local Monitoring



# Air Quality Action Plans

- UK national plan published July 2017
- 27 cities mandated to produce plans
- Bristol's Clean Air Plan Strategic Outline Case submitted to Government in March 2018
- 2 stage engagement from now to autumn 2018
- Full Business Case required by December 2018
- Over-riding objective is to achieve compliance with the European air quality standards in the...

**“shortest possible time”**





# Measures under consideration

- More cycle paths
- Bus anti-idling zones
- Variable parking tariffs
- More freight consolidation
- Taxi and other vehicle upgrade grants
- Convert more of the council fleet to electric
- Traffic management – gating, queue relocation etc
- Car club expansion
- More bus priority
- **Clean Air Zone**



# What is a Clean Air Zone (CAZ)?

- Restricted zone where non-compliant vehicles would be charged to enter
  - Options for two zone sizes and two vehicle classes
  - All options include complementary measures
  - One further option for a non-charged CAZ with more complementary measures
- 
- Clean Air Plan engagement around 5 CAZ options
  - Consultation on preferred option





# CAZ vehicle classes

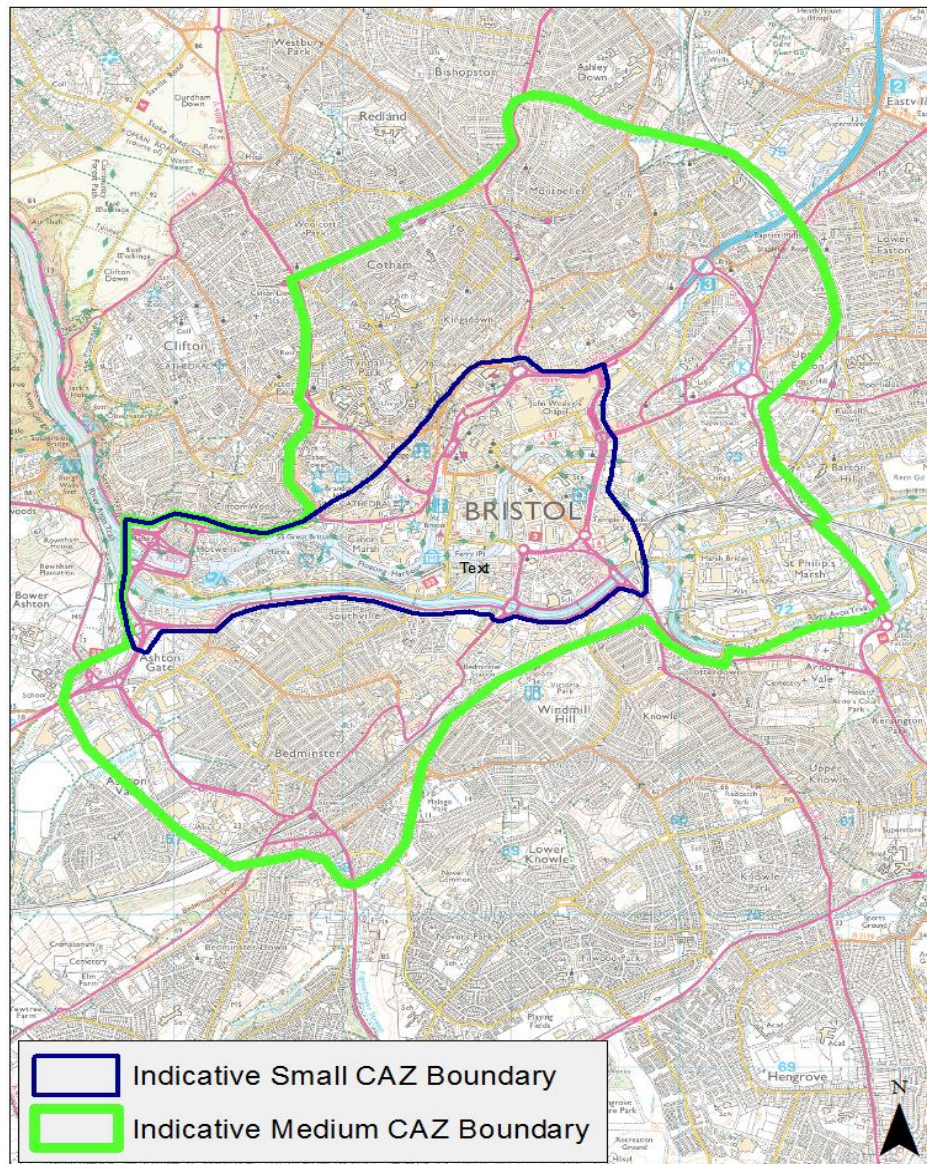
Clean Air Zone class	Vehicles included
A	Buses, coaches and taxis <sup>23</sup>
B	Buses, coaches, taxis and heavy goods vehicles (HGVs)
C	Buses, coaches, taxis, HGVs and light goods vehicles (LGVs)
D	Buses, coaches, taxis, HGVs, LGVs and cars

Vehicle type	NO <sub>x</sub> Emissions limit
Bus/coaches	Euro VI
HGV	Euro VI
Van (1305-3500kg)	Euro 6 (diesel) Euro 4 (petrol)
Car/light commercial (up to 1305kg)	Euro 6 (diesel) Euro 4 (petrol)



# Clean Air Zone options for consideration

- **Class C  
(Small & Medium)**
  - + non charging
- **Class D  
(Small & Medium)**
  - + non charging
- **+ Non charging package**



# Thank you

