

Brighton & Hove Air Quality achievements and challenges



Samuel Rouse | Principal Emissions and Air Quality Officer



“We share the ambition and determination to preserve our majestic lands and waters; above all, to ensure that we have clean water, **clean air** and clean food,”

His Majesty King Charles, 17th September 2025

"Every breath of air we take, comes from the natural world and if we damage the natural world, we damage ourselves".

Sir David Attenborough

No bigger fish to fry than air quality:
Crucial to learning, healthy long-life expectancy,
equalities and diverse habitats.
Airport growth and vehicle sales shall not compromise
continued improvements in air quality.



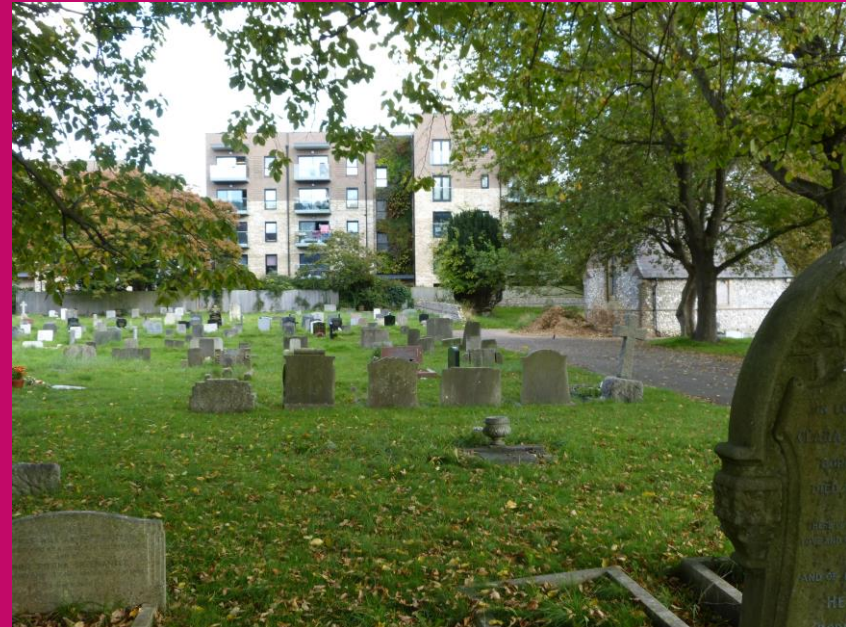
**Brighton & Hove
City Council**

Best air quality in the region is in the National Park



Early Indications, WHO AQ guidelines are met in the cleanest places

Rain or shine the umbrella is an overarching clean air shed



Worst place for harmful emissions is where people live



Blighty before the
Clean Air Act

Babies born in the
1950s need NHS
care now

Pre-WWI housing stock, multiple emissions sources 2025



Clean air essential amongst high population density People live at different heights above ground



Progress with the energy transition, more to come



What are we doing well?

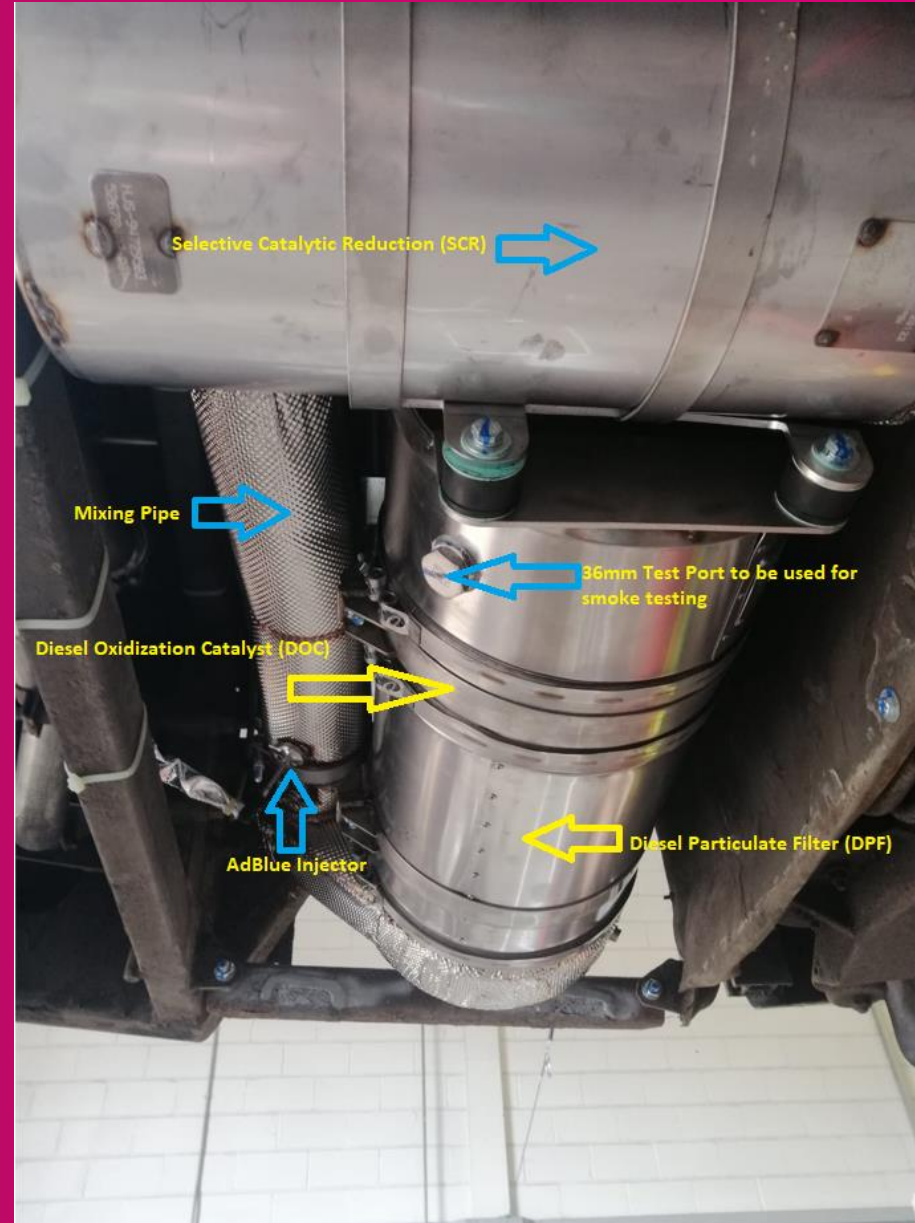
- 70 + 30 years since key legislation, 25 years as a Unitary Authority
- Air quality assessment and reporting
- Monitoring, long terms trends, real-time, awareness raising
- Managed £ 4million of funds: DfT, DEFRA, private - more to come OZEV, LEVI, ZEBRA
- Bus exhaust fit projects and a pathway beyond bus-ULEZ
- Traffic counts and analytics
- Installing EV charging infrastructure off-street, lamp columns, fast and rapid
- Guiding the planning process, equalities and environmental impact assessments

FAQ or FOI? Quelle est la belle question?

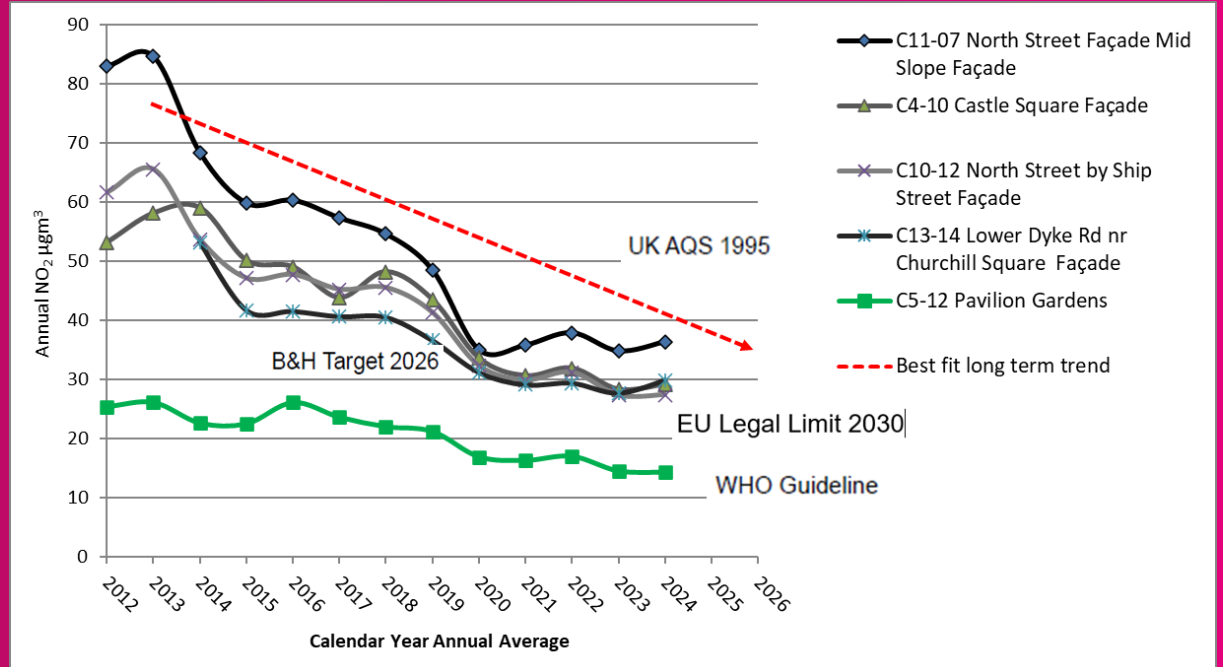
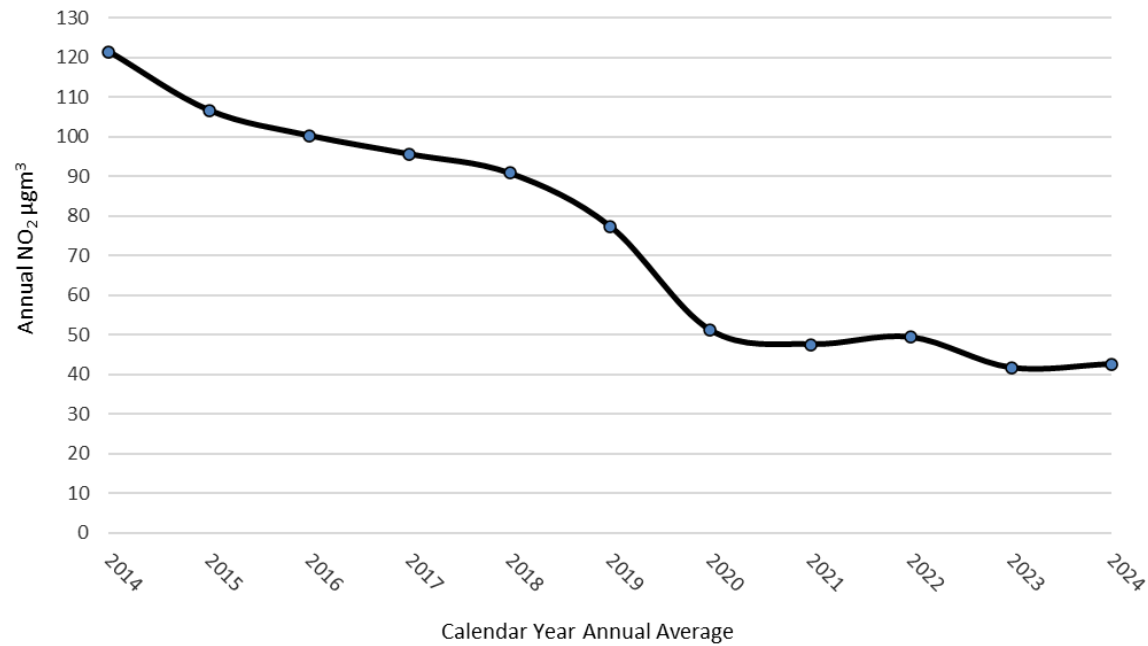
What is the beautiful question?

- Can we raise awareness in the city, so nobody is impacted or penalised for engine idling or chimney smoke?
- Will fleet operators and motorists bother to buy euro-7 from 2027?
- How soon can we achieve zero for grids, buildings and transport?
- What might urban areas feel like without combustion?
- Is it safe to drop the pace share the space pedestrians, bicycles, e-bikes with some electric vehicles?
- Can we promote bicycle touring, safe links remote with central

Bus exhaust fit projects and beyond bus-ULEZ



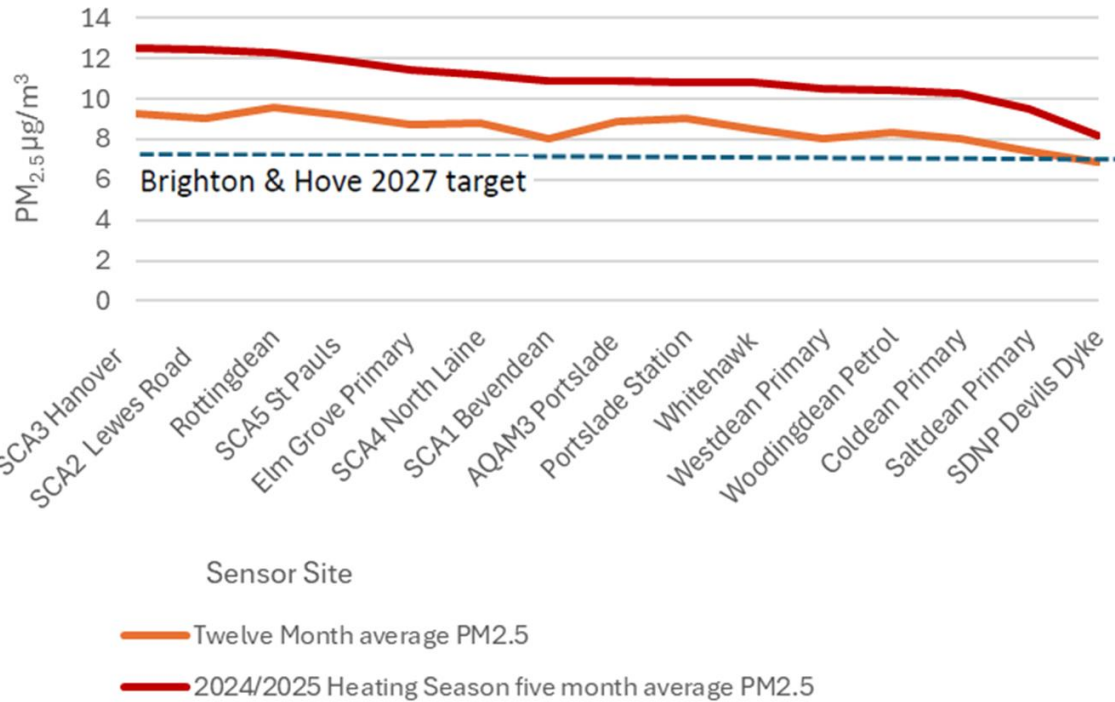
Most substantial NO₂ improvement on the footway North Street



Real-time sensor network for gases and particles

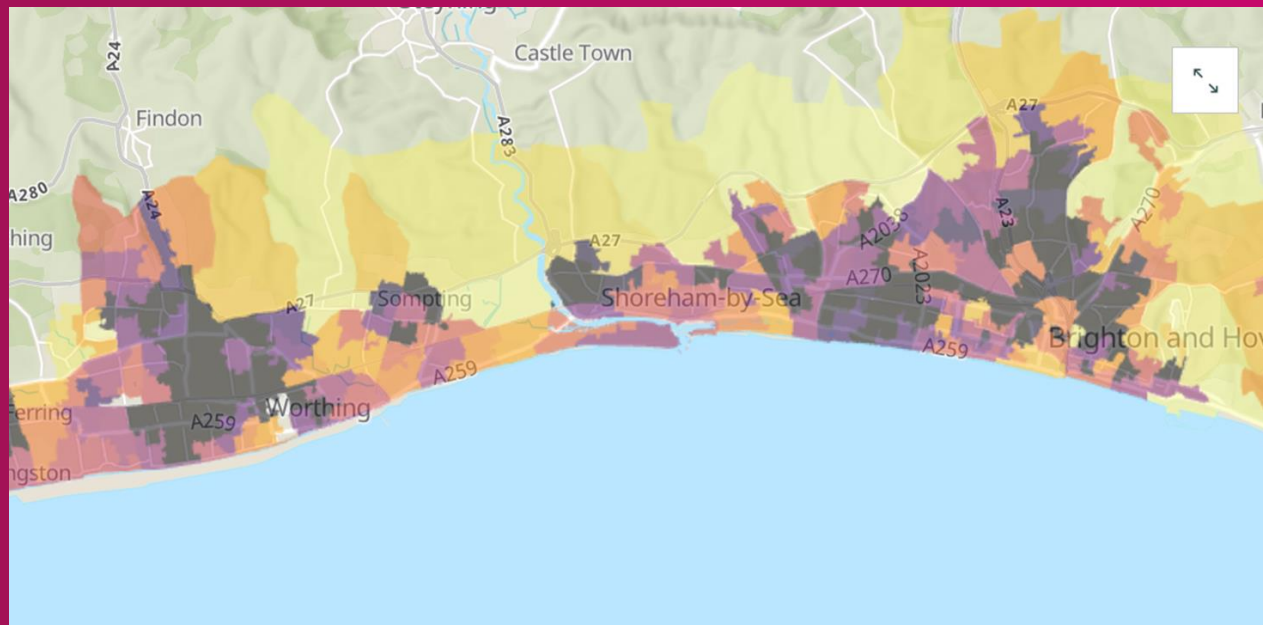


Higher concentrations of PM_{2.5} during the heating season



Public health insight and UCL

Where are the wood burners?



- According to EPCs approaching 6% of Brighton & Hove households with active fireplaces or stoves: >7,000 in the city
- In the urban area: 400 smoke sources per sq mile
- Prevalence of asthma >1000 per sq mile
- Emergency COPD hospital admissions >300, 2023/24

**A breath
of fresh air**

**Responding to the
health challenges
of modern air pollution**



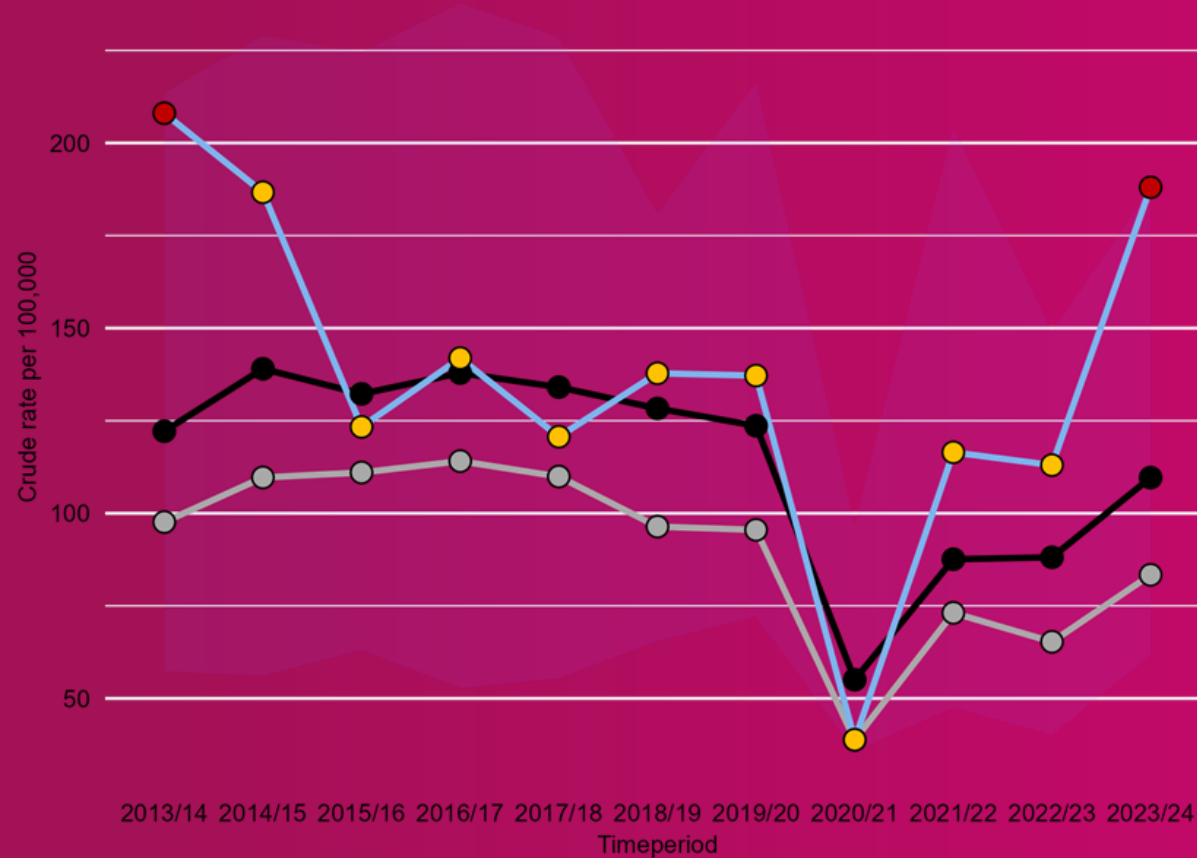
**Royal College
of Physicians**



**Brighton & Hove
City Council**

Asthma hospital admissions increasing since Covid-19

Hospital admissions for asthma (under 19 years), Persons, 10-18 yrs, 2013/14 - 2023/24; England, South East region (statistical) and Brighton and Hove



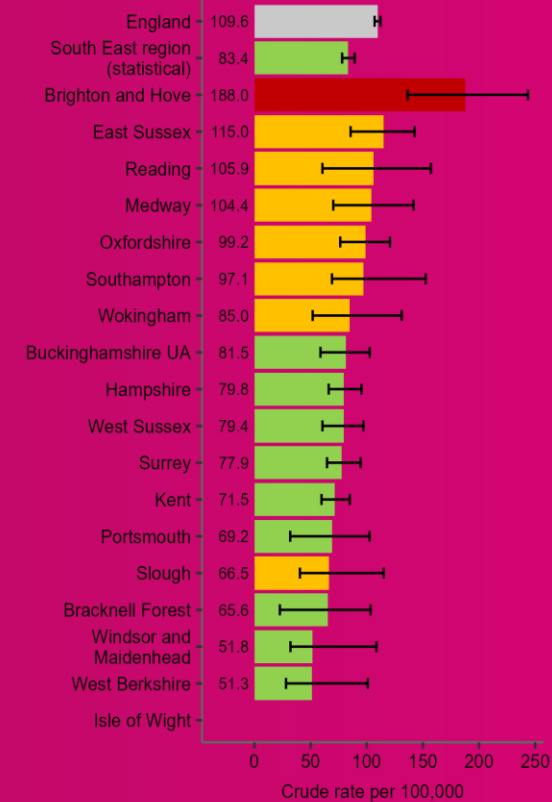
Geography: — England — South East region (statistical) — Brighton and Hove

Compared to England: ● Better ● Similar ● Worse
○ Not applicable ● England ● Region

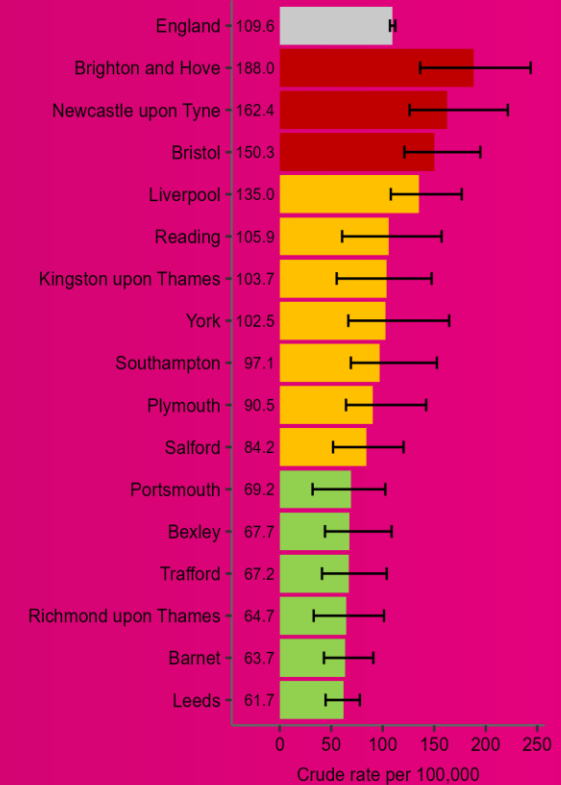
Band: Nearest statistical neighbours range (min. & max. values)

Hospital admissions for asthma (under 19 years), Persons, 10-18 yrs, 2023/24

England, South East region and OHID South East UTAs



England, Brighton and Hove and its nearest statistical neighbours (NHS England)



Compared to England: ■ Better ■ Similar ■ Worse ■ Not compared

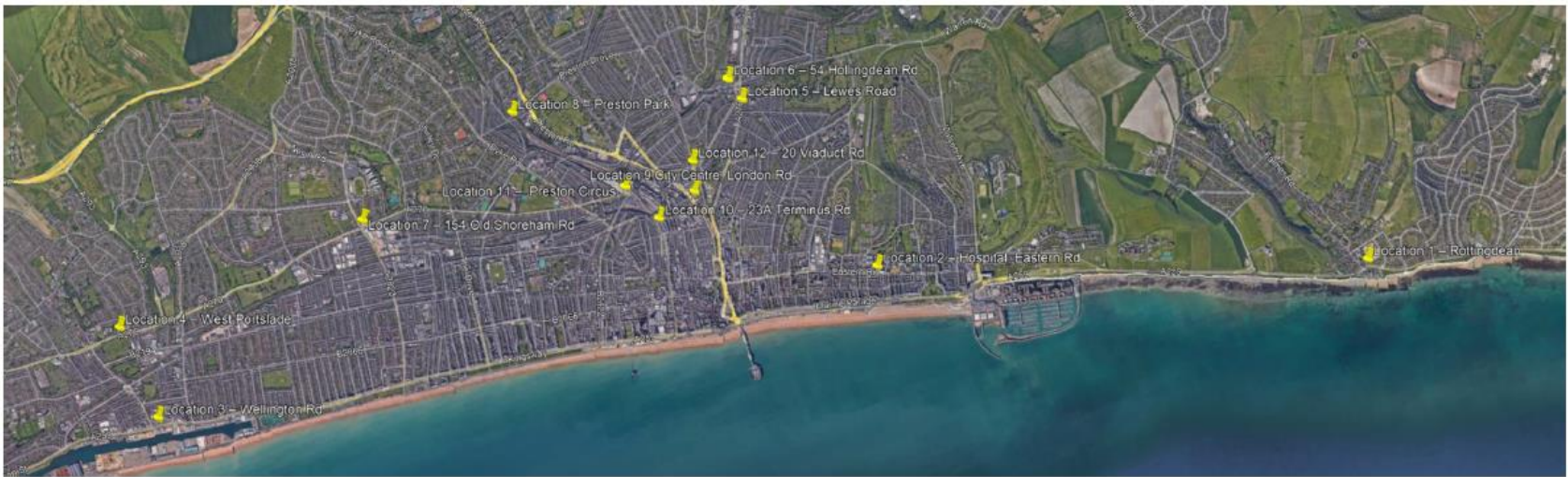


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Source pathway receptor changing



Traffic counts and analytics



Location	Part of City	Road Name	Road	Description
1	Rottingdean	Marine Drive	A23	Sea front road
2	Hospital	Eastern Road	C-Link	Hospital
3	West Portslade	Wellington Road	A259	West of Middle Street
4	West Portslade	Old Shoreham Road	A270	Brackenbury Primary
5	Lewes Road	Lewes Road South of Gyratory	A270	Traffic near junction
6	Lewes Road	Hollingdean Road	C-Link	Acceleration and queuing
7	Hove	Sackville Road	A2023	South of Old Shoreham Road
8	Preston Park	The Drove	C-Link	Hill climb west of railway tunnel
9	City Centre	London Rd	A23	Outside Co-Op / Nandos
10	Near Station	Terminus Road	A2010	Terrace houses west of station
11	Preston Circus	Eastern End Old Shoreham Rd	A270	Terrace houses hill climb
12	Preston Circus	Viaduct Road	A23	Terrace house next to A23

Brighton & Hove AQMAs on the road 2025

Between 3.6 and 5.6% of road using cars are electric



- Petrol Motorcycle 99% ULEZ compliant and starting to see electric mopeds



- Diesel car 42 to 67% ULEZ standard
- Petrol car 94 to 95% ULEZ



- Diesel LCV 61% to 77% ULEZ



- Diesel HCV 85% to 96% ULEZ
- PSV estimated 97% ULEZ in the zone



- Electric hybrid buses with geofence

UK expected to align with euro-7 vehicle emission standards 2027



- MC later than cars



- Limits on non-exhaust emissions (EV & ICE) better battery durability, realistic emission testing



- Heavy vehicles stricter exhaust NO_x and PM and non exhaust PM emissions from July 2027, cleaner for longer under real-world driving conditions



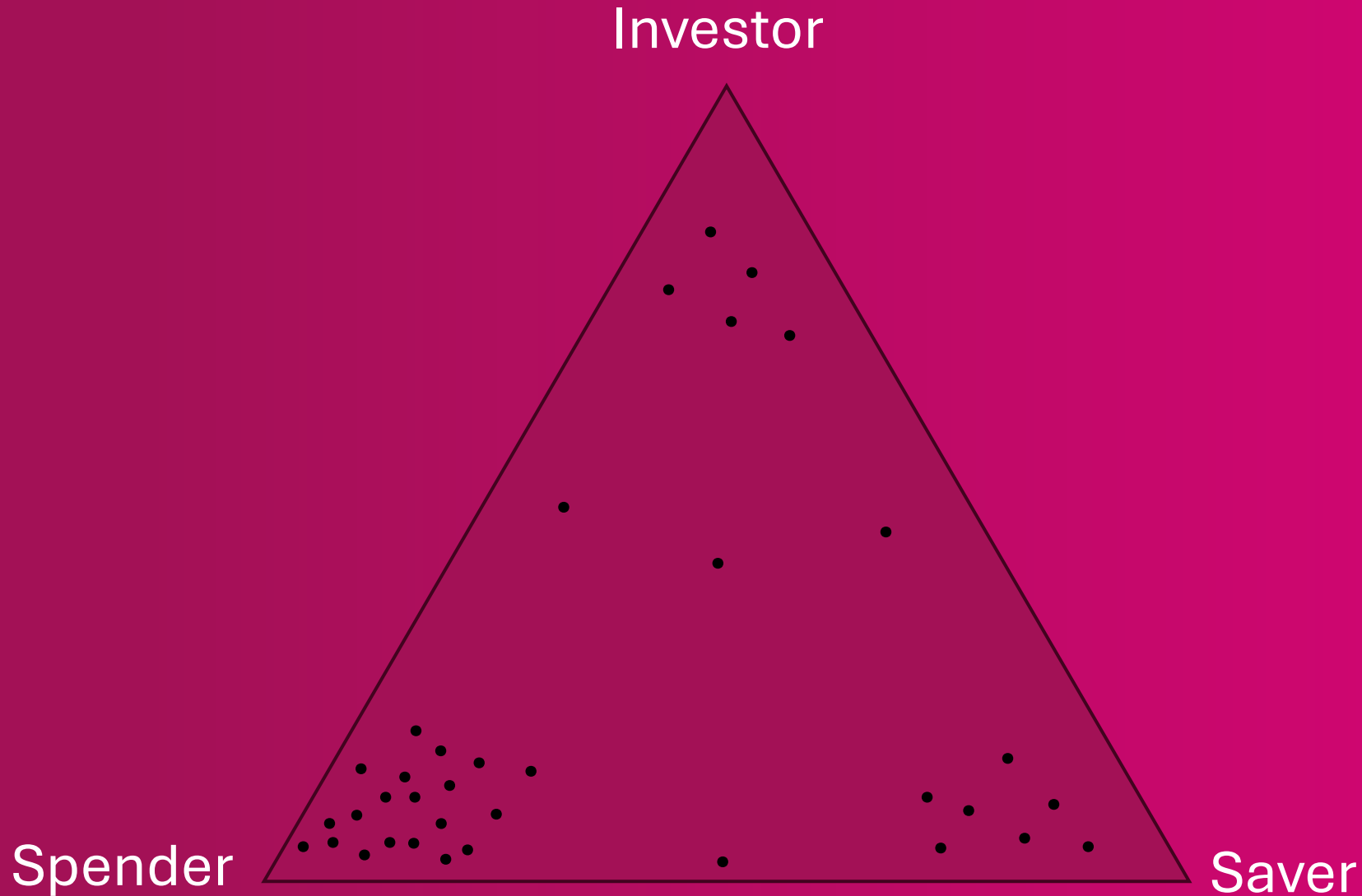
- Stricter AQ limits urgent for government to act

The Leap-Frog Stretch



- Do nothing, then jump over more than one technological step
- For example: parts of Africa had no telephones, then exponentially grew the number of mobiles, leap-frogging the land line stage
- Advance from CAZ, ULEZ standards (2014) directly to zero
- Challenge to progress from fireplaces and gas fired heating to electrification with heat pumps. Some will leap faster than others
- Public good funds for nature and rewilding

Can we invest in & spend on a less polluted future?



Lower inflation
and interest rates
helps availability
of cleaner energy
and tech.
Facilitates
consumer
choice and
behavioural
change.