

TramForward

Campaigning for Light Rail

PRESS RELEASE FROM *TramForward*

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LRTA warns about high levels of pollution

The Light Rail Transit Association notes the recent EU final warning and threat of heavy fines against five countries, including the UK, on air quality breaches.¹ This concerns Nitrogen dioxide emissions, which is largely from vehicle exhausts. However, a worrying source of equally harmful PM10 and PM2.5 pollutants has recently been identified.

It has generally been assumed that most vehicle pollution comes from the tail pipe and by cleaning up engines or moving to electric vehicles that can be cut. Research² has shown that up to 90% of harmful PM2.5 and 85% of PM10^A pollution come from non-exhaust sources such as tyre wear, road surface wear, and the brakes. This is known as the Oslo effect after the city where it was first noted³. Unfortunately, electric vehicles can be up to 40% heavier so even more of these harmful particles are emitted from the tyres. Electric rail based vehicles such as trams, with regenerative braking emit virtually none of these pollutants.

The World Health Organisation and the University of Bath has identified⁴ serious health risks and concludes that there were 16,335 premature deaths in the UK in 2012 due to this pollution. It has further identified hotspots around the country where this is particularly bad. Unsurprisingly these focus on places of high traffic density.

It has also been shown that increased incidence of Alzheimer's disease, diabetes, and dementia may be linked to these particulates⁵.

These pollution problems will remain, whether we are in the EU or not.

Andrew Braddock, Chairman of the LRTA says: "This research quite clearly shows that we urgently need to improve air quality in our urban areas, in addition to providing punctual, frequent, high capacity, high quality public transport. Trams with their clean braking and traction systems are perfect for the city environment."

"Other countries are tackling the problem. There are 21 completely new tram systems opening this year in such places as Algeria, Luxembourg, Denmark and the USA. Unfortunately there are no new tram systems under construction in the UK⁶ though there are moves to open a test line in Preston and the realisation that trams can deliver for cities is dawning in Cardiff, Derby, Glasgow, Oxford and Southampton."

"With devolution of transport investment decisions to city region combined authorities headed by powerful Mayors, there is considerable scope to bring our public transport up to continental standards and transform air quality".

Notes and references

A) Particle pollution, also called particulate matter or PM, is a mixture of solids and liquid droplets floating in the air. Some particles are released directly from a specific source, while others form in complicated chemical reactions in the atmosphere.

Particles come in a wide range of sizes. Particles less than or equal to 10 micrometers in diameter are so small that they can get into the lungs, potentially causing serious health problems. Ten micrometers is less than the width of a single human hair. Particles between 2.5 microns and 10 microns are known as PM10 and those below 2.5microns are PM2.5 <https://airnow.gov/index.cfm?action=aqibasics.particle>

- 1) <https://www.euractiv.com/section/climate-environment/news/five-countries-face-fines-after-breaking-eu-pollution-laws/>
- 2) <http://www.tandfonline.com/doi/abs/10.1080/10962247.2012.741055>
- 3) <http://www.applrguk.co.uk/media/files/LR-Applrg-Oslo-Report-06-07pdf>
- 4) <http://www.wired.co.uk/article/uk-air-pollution-levels-london>
- 5) http://ec.europa.eu/environment/integration/research/newsalert/pdf/air_pollution_brain_neurological_risk_Parkinsons_388na3_en.pdf
- 6) Tramway and Urban Transit No 951 March 2017 <http://www.tautonline.com/>

NOTES FOR EDITORS

1. **TramForward** is the campaigning arm of the Light Rail Transit Association (LRTA).
2. The LRTA is the world's leading organisation campaigning for better public transport in urban areas through light rail, tramway and metro systems and has been in existence for more than 75 years. It also supports the revitalisation of suburban and rural transport through the application of light rail and TramTrain technology.
3. The LRTA acts through its network of local branches, which campaign for better transport in their areas.
4. Membership of the LRTA costs less than 14p a day. To join, visit www.lrta.org or write to the Membership Secretary, LRTA, 38 Wolseley Road, Sale, Greater Manchester, M33 7AU. Members receive the monthly magazine Tramways & Urban Transit - written and read by experts in the field - and gain other benefits including discounts on videos and books, tours of transport systems and cut-price admission to selected transport museums.
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