



An Influencing Strategy for Reducing Dangerous Levels of PM2.5 on London's Underground

Introduction

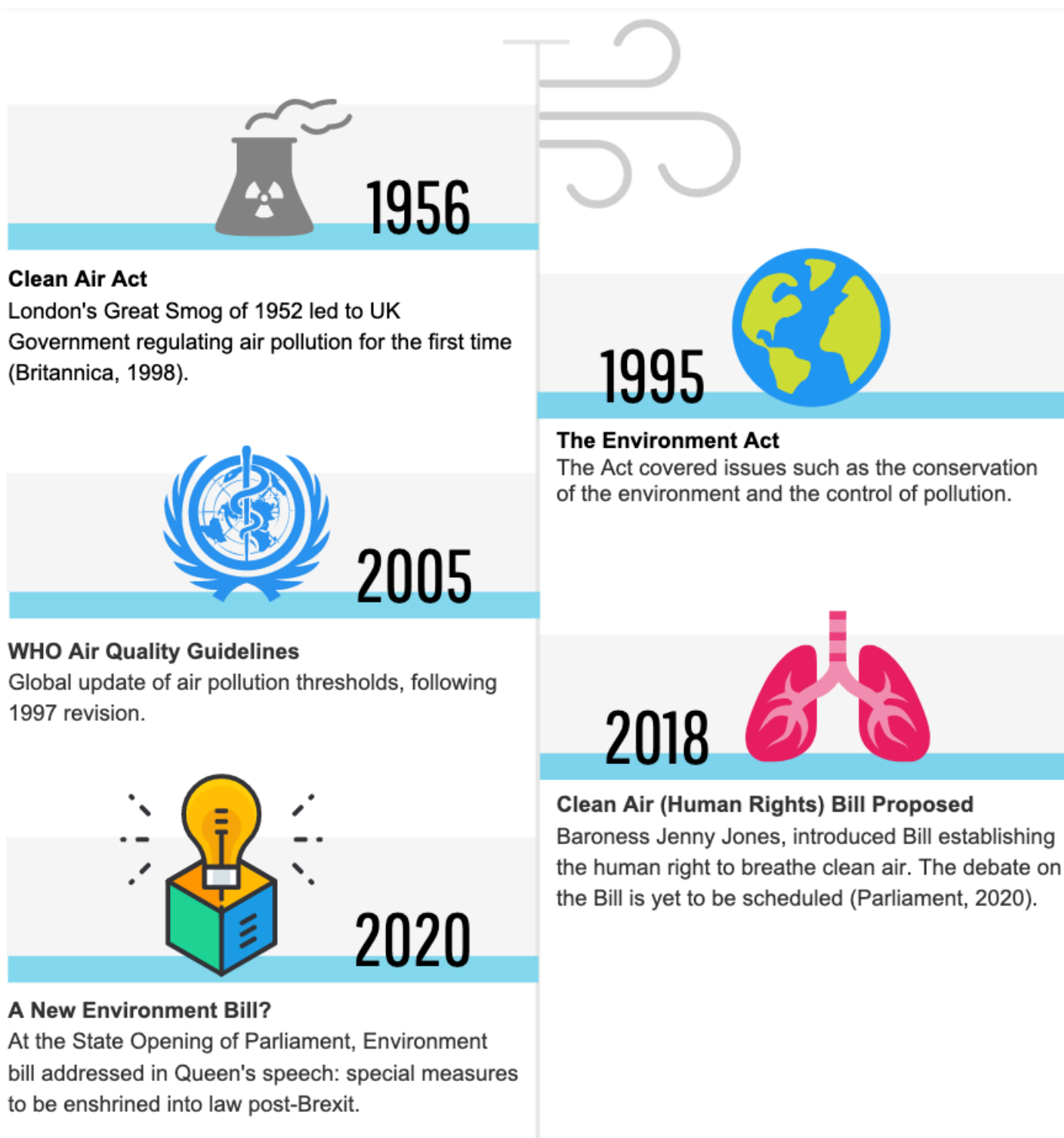
This report aims to lay out an advocacy strategy to limit the air pollution on London's Underground System. Despite popular belief that roads are the most toxic place in London, recent scientific reports show that the Underground is 'the most polluted part of the city' (Saunders et al. 2019). With 2 million passengers using the transport system daily, the tube represents a major public health risk (Hodgson et al. 2019). While the air on the Underground meets the UK's Health and Safety Exposure limits, Zone 1 tube stations can reach limits 10 times higher than the safety threshold set by the World Health Organisation [WHO] (ibid). Accordingly, this campaign will focus on bringing the Underground's air into full compliance with the WHO's guidelines, both in policy and practice. Thus far, there has been limited mobilisation surrounding this issue, despite ~9,000 UK citizens dying prematurely from air pollution and the NHS declaring a *Public Health Emergency* (Dalton 2019). So far, political response has focused entirely above ground, meaning this campaign will involve bringing the focus of policy makers *underground*.¹

Context

The pollution on the tube is made up of PM2.5, small particulate matter of metal, dust and skin leaving a 'toxic miasma' that is stirred up by trains and 'then inhaled by commuters' (Hodgson, et al 2019). While there has been minimal research on its effects, high exposure to PM2.5 has been linked with the exacerbation of lung and heart conditions. Children, the elderly and those with respiratory and cardiovascular disease, are most susceptible to its impacts (DEFRA n.d.). Byrnmour Saunders suggests that spending one hour a day on the tube leads to an "increased chance of death" (ibid). Despite this, Transport for London [TfL] has never published an account of air quality underground (ibid) and Government commissioned reports on PM2.5 in London make no mention of the Underground. However, with policy being re-written post-Brexit, a Mayor of London [MoL] election approaching and COVID-19 generating mass awareness around public health- 2020 presents one of the best opportunities in history to change air pollution policy and practice. See Fig 1.

¹ The UK's commitment to meeting WHO's air pollution guidelines by 2030 has failed to include the Tube in its Clean Air Strategy or London's pollution reduction targets

Figure 1: A Brief History of UK Air Pollution Legislation

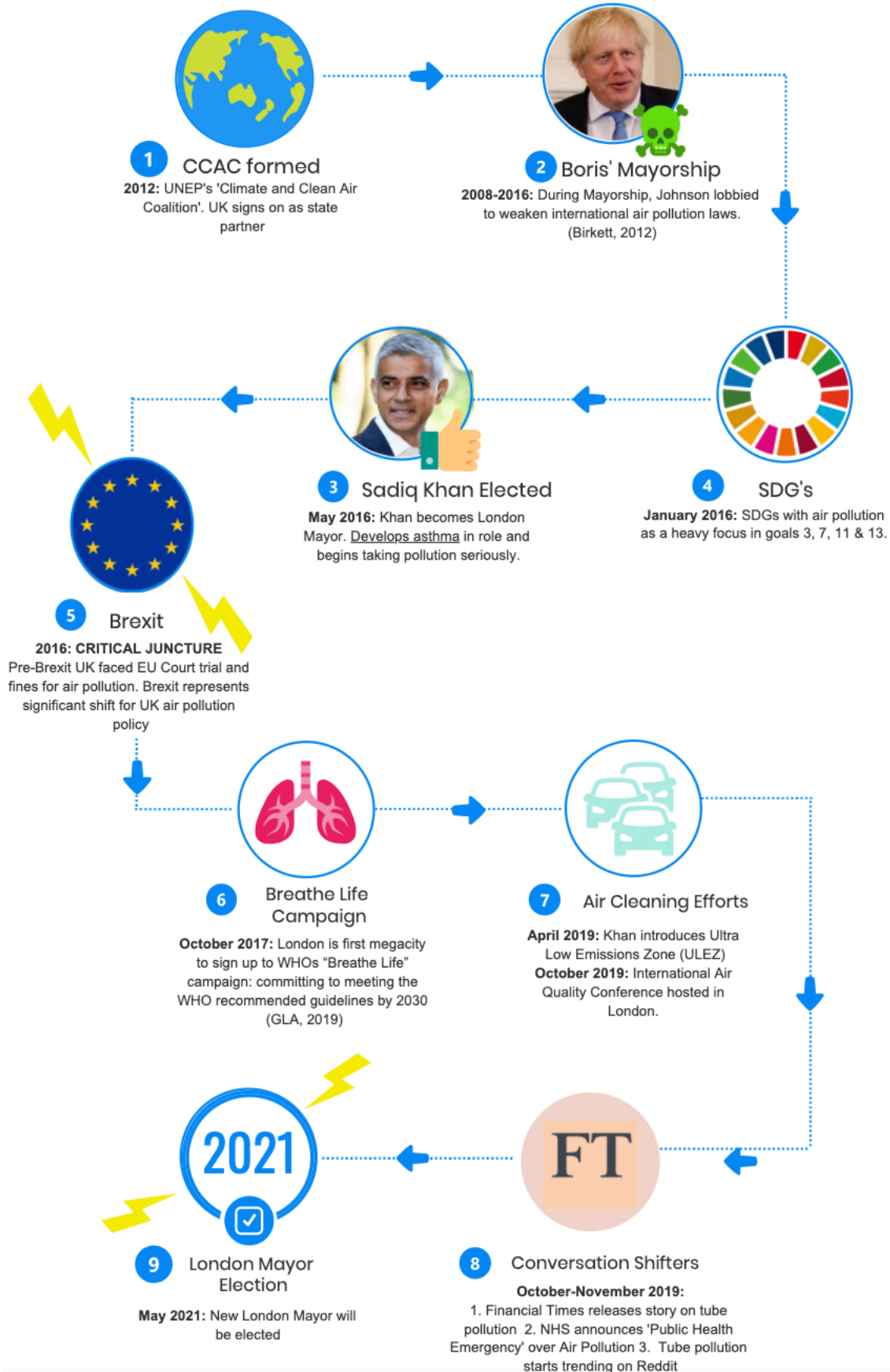


Strategy Objective

The strategy seeks to take advantage of critical junctures, both in the past and future (see Fig 2). The campaign will be London led, given ever-growing disdain towards the EU and its pollution levies. The strategy will rally around one clear goal, bringing *Tube air into full compliance with the WHO's PM.25 thresholds within the next 10 years.*

The strategy takes advantage of Brexit, assuming UK policy will be more malleable as the specifics of Environmental laws are debated and finalised in Parliament. The campaign also centres on the Mayor of London [MoL] election and recommends a suitable activism strategy to ensure Tube air is a focus of the 2021-2025 mayoral term.

Figure 2: Timeline of Significant Events
(Lightning strikes represent critical junctures)



Stakeholder Mapping

Air pollution is not a socially opposed issue, hence the majority of stakeholders sit on the right x-axis. Nonetheless, this does not mean that the issue of air pollution has gone uncontested. 4 figures towards the left of the x-axis represent significant concern for the proposed campaign.

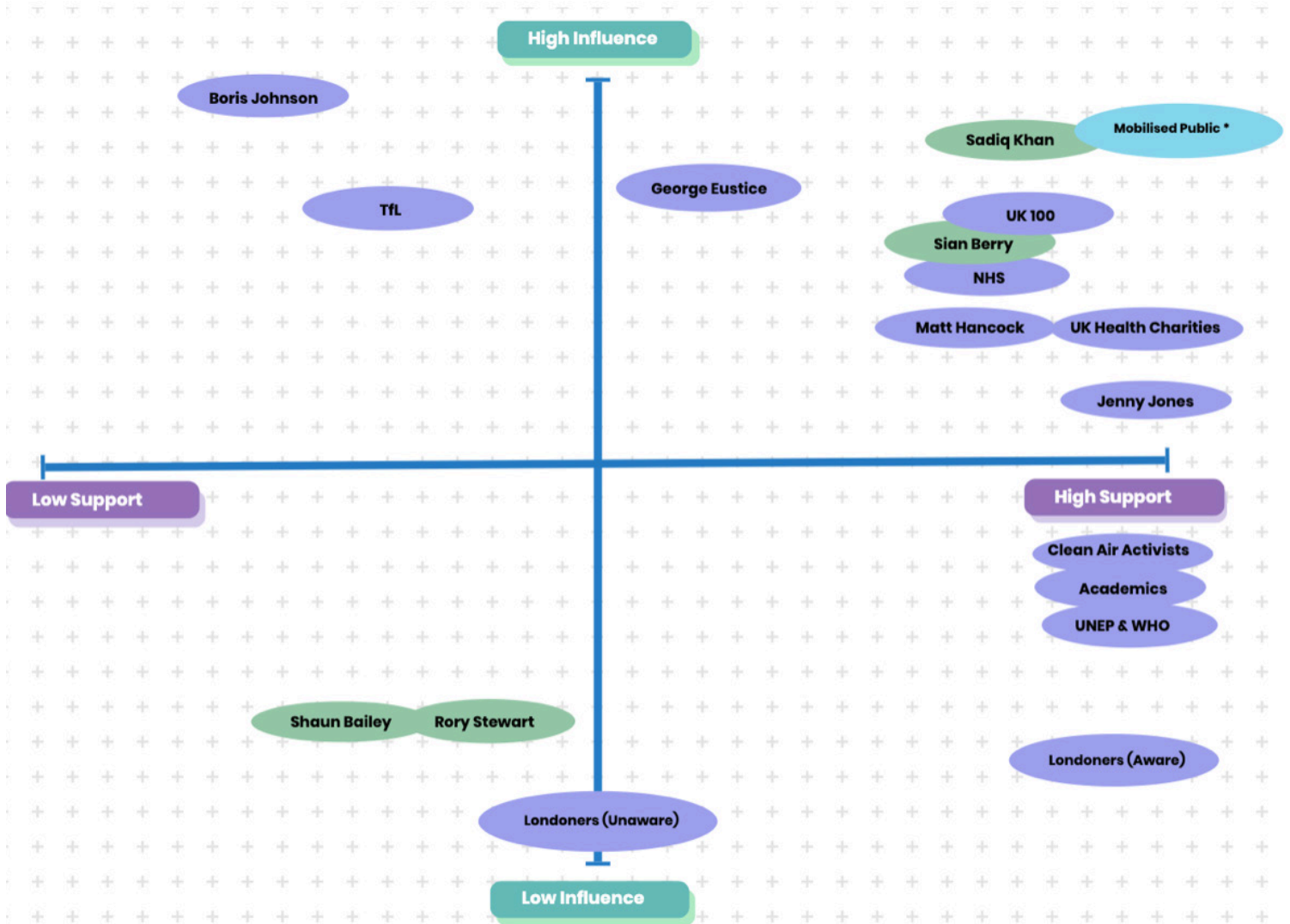


Figure 3: Stakeholders in Air Pollution Policy

* Mobilised Public is in blue as the strategy aims to achieve this mobilisation.

MoL candidates in green, as positions on the y-axis are subject to change May 2021.

i. Boris Johnson

Johnson has consistently voted against UK air pollution policy and lobbied to weaken international air pollution laws. Under his leadership the UK has failed to meet clean air targets and faced large fines under the EU. In 2012 Johnson was responsible for the placement pollution suppressants underneath air pollution monitors (Birkett 2012). Despite proposing a new Environment Bill (Fig 1), *Clean Air in London* found that, '[the Bill] would do little or nothing to clean air over the next 10 years and would significantly weaken existing UK and EU legal protections' (Birkett 2019). Moreover, Government spending has recently shifted away from London to the North, following the general election.

ii. TfL

This campaign could result in large expenses and unfavourable public kick-back to TfL, hence their positioning on the left. Further, TfL have adopted a strategy of denial, with TfL's Health and Environment Director, Lilli Matson, claiming 'we believe the air is absolutely safe,' as the research is yet to *definitively* prove that Underground PM2.5 is damaging to health (Hodgson et al. 2019).

iii. Mayoral Candidates

The future MoL will have considerable sway over where money and attention goes in London from 2021-2025, meaning whoever is appointed will somewhat determine the success of this campaign. Popular candidates, Shaun Bailey and Rory Stewart, pose possible contestation if elected as MoL, due to voting *against* air pollution policies and not including toxic air in their campaigns. Sadiq Khan has made huge strides in pollution reduction since developing asthma in 2016, making him an ideal MoL for the campaign.

The Strategy²

i. Phase 1 "*Power To*": *The Mobilisation of Londoners*

Limited awareness and a subsequent lack of mobilisation has excluded the Underground from air cleaning strategies and environmental policy. Therefore, *Phase 1* intends to raise awareness amongst Londoners and build on their *power to*. Accordingly, those with *visible power* will have no choice but to address the issue if they want to appease their electorate. The most obvious location to raise awareness about tube pollution is on the tube itself. Given that TfL's advertising policy dictates 'commercial media cannot contain negative references to TfL's services or bring TfL into disrepute,' (TfL 2019, 2) awareness stunts will involve a degree of civil disobedience. However, it is important that the campaign is non-confrontational and does not disrupt the journeys of commuters, unlike the Extinction Rebellion tube protests which received significant backlash (Townsend 2019). Instead, the proposed awareness stunt will quietly take advantage of an audience of 2 million during rush hour.

Before rush hour, clean air activists will place large signs over the commercials within tube carriages and passenger walk-ways/escalators. The headlines will read, '***DON'T BREATHE UNTIL YOU READ THIS...***' and include brief informative facts about the tube's danger to public health. Specifically the signs will invite further action, through a scan-able QR code. By capturing the QR code on smartphone cameras, commuters will be directed to a website with links to a petition, scientific research, and encouragements to tweet MoL candidates to pressure them into action- thus generating Londoners *power to* demand change. The stunt will occur 3 months before the MoL election, around the time campaigns start to gain political traction and TV debates are scheduled (March 2021). This should give MoL candidates a chance to rally behind the issue and include Tube air in their proposed policies.

2 Makes use of Rowland's power model (1997)

ii. Phase 2 “Power With”: Forming Coalitions

Alongside this stunt, the campaign will form coalitions with clean air activist groups, such as *Clean Air in London* and the UK 100 (a group of government leaders and private sector partners); to gain access to a wider network of supporters. It will also partner with the organisers of Clean Air Day on the 8 October 2020, to participate in the events and protests already under-planning. Last year’s *Clean Air Day* reached an audience of one billion, with 614 events, 45,000 social media posts and coverage by BBC, Sky, the Times etc. (Clean Air Day 2019, 2). By working through dispersed networks with pre-established media relationships, the campaign will reach wider audiences. Leveraging such networks and public support should also aid formal lobbying in *Phase 3*.

iii. Phase 3: Convincing those with “Power Over’ the Tube

Phase 3 ensures that those with power over the tube (TfL, MoL, MPs), will bring its air into full compliance with the WHO’s PM.25 threshold, both in law and in practice. Specifically, it must appear as a ‘win-win’ scenario for power holders, i.e. *increased popularity for working in the name public health and the environment, while also preventing unnecessary expenditure to the NHS*- a worthy cause in the COVID-19 landscape. Phase 3 will also require good answers to hard questions:

“How much will this cost?” Given the severity and magnitude of the pollution, this issue is an expensive fix. While the cost is difficult to quantify; the new Elizabeth tube line successfully incorporated air ventilation at the cost of 4 million, a comparatively small cost for the 18.5 billion project (AIS 2017). Understandably it will be more expensive to clean and incorporate ventilation into a diffuse system of ancient tunnels, a rough estimate suggests a cost upwards of 50 million.

“Where does the money come from?” Given the downturn of the economy as a result of COVID-19, the campaign goal must be long term (10 years), and find a reasonable source to draw funds from. One possibility is to utilise capacity already in the TfL network. Notably, TfL’s [advertising strategy](#) alone is set to make 3.4 billion in non-fares revenue over the next ten years, which will be put into ‘network improvements’ (TfL 2019). This suggests there is necessary capacity to make improvements with limited cost to the public. Further, the Underground’s rolling stock is undergoing a modernisation process over the next decade (IanVisits 2018). Given that technological advancements in rolling stock have already been budgeted for, asking for suitable air filtration and pollution monitors is neither a big nor difficult ask.

In conclusion, this strategy takes a multi-faceted approach, dancing with the system by capitalising on critical junctures and large audiences to pressure power-holders into action. Its intention is not to discourage people from using the Underground, but to create a safer transport system for the millions that use it.

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