Breathe London Advisors

Background

In July 2018, C40 Cities Climate Leadership Group (C40) commissioned Environmental Defense Fund Europe (EDFE) to conduct a pilot hyperlocal air quality-monitoring project in London to support policymaking, policy evaluation, and citizen engagement (the Pilot). The Pilot aims to demonstrate innovation in hybrid stationary and mobile monitoring systems, coupled with state-of-the-art air quality models, to assess and inform policy interventions, and to present findings in easy-to-access and understand formats. The Pilot, which will be branded "Breathe London," will inform future policymaking in London and will provide a replicable model for action across other UK cities and globally. The Pilot will run for 12 months from fall 2018 through fall 2019.

EDFE's partners are Google Earth Outreach, the National Physical Laboratory (NPL), Air Monitors Ltd., the University of Cambridge, and Cambridge Environmental Research Consultants (CERC).

Data collection will take place over 12 months and cover the area of Greater London, measuring a suite of high priority pollutants including NO₂, PM_{2.5} (and other PM size cuts), CO₂, NO, Black Carbon and Ultrafine Particles. Air quality will be sampled at over 100 fixed locations and across many thousands of 30m road segments using a combination of static sensors housed in AQMesh pods and mobile instruments installed in Google StreetView cars. The fixed monitoring locations and driving routes have been developed in consultation with the Greater London Authority. In addition, the GLA selected a component of a bid from the Environmental Research Group at King's College London (KCL) to introduce wearable sensors into the Pilot. Sschoolchildren, parents, and teachers will carry wearable sensors to monitor air quality to and from the journey to school. The combined data set will provide an unprecedented level of detail about air pollution in London

The data collected across the Pilot will feed into a newly developed public website. The platform is primarily focused on translating air quality data into meaningful maps and tools for policymakers and citizens.

Breathe London Project Advisory Committee (PAC)

The Breathe London project will be guided by a **Project Advisory Committee** (PAC), a diverse group of leaders and experts from a range of organizations. Representation on the PAC will span academia, NGOs, and medical professionals, with a focus on environmental, public health, and children's issues.

Goals & objectives: The PAC's primary goal is to help ensure that the Pilot is effectively designed and delivered to that it can best advance current and planned air quality improvement policies and programs in London; and to provide strong coordination with other air quality initiatives occurring across London and throughout the UK. Specifically, the PAC's objectives are to:

- Guide the development of the Pilot by commenting on study design, data analysis and interpretation, and potential health implications.
- Ensure that the study supports other air quality projects, programmes, and campaigns being implemented across multiple organizations.
- Bring in additional expertise, connections, and perspectives, complementing those of the Pilot partners.
- Review and advise on the public-facing website and other communications outputs. Consider strategies for engaging and educating citizens.
- Explore how the Pilot outputs can support policy solutions.
- Advise on the potential replicability of the Pilot for other cities in the UK and globally.

Operation and Governance: The PAC to convene in person, approximately every two months throughout the course of the Pilot, or more frequently to respond to changing policy or new initiatives. The meetings will be approximately 2 to 3 hours in length and will be held at a time, day, and location that is as convenient for the members as possible. Videoconferencing will be an option for members who cannot attend in person.

EDFE in consultation with the GLA, C40, and CIFF will nominate two PAC members to serve as co-chairs, subject to the approval of the full PAC membership. EDFE will provide logistical support, coordination, and documentation.

PAC meetings will be private. However, additional public meetings may be held to engage with community groups or other organisations on specific issues or aspects of the Pilot.

Positions are unpaid. However, expenses for travel and subsistence will be refunded.

Scientific Advisory Group

In addition to the Project Advisory Committee, a separate Scientific Advisory Group will provide specialized scientific and technical expertise to the project team on questions relating to data quality, data analysis methods, interpretation of data analysis results, and recommendations for replication. Members will primarily be distinguished researchers from universities and other institutions in the UK and internationally.

Meetings will be by videoconference and held approximately quarterly, beginning in late 2018 or early 2019.