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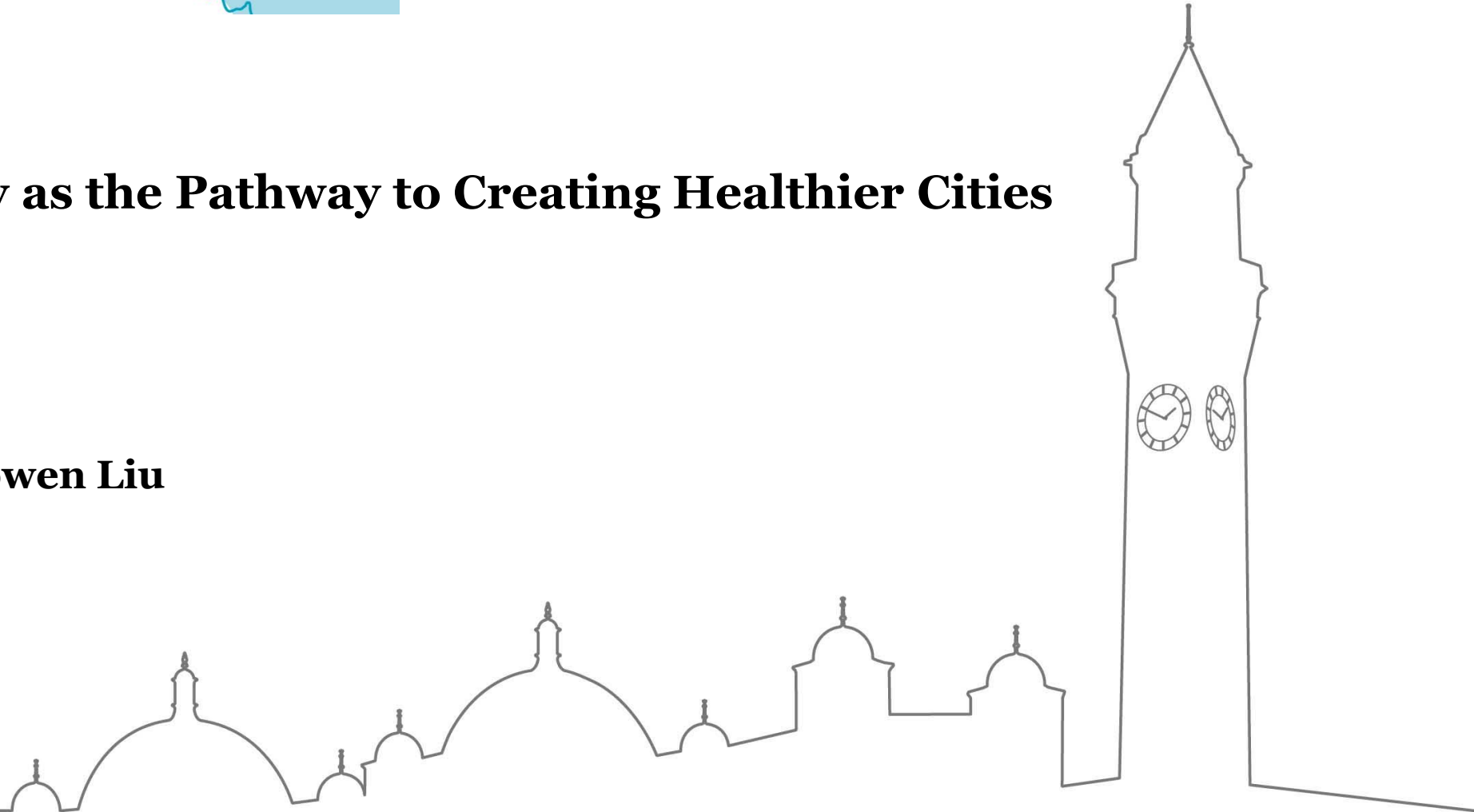


# Integrated Policy as the Pathway to Creating Healthier Cities

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# Introduction

- The ongoing debate surrounding Ultra Low Emission Zones (ULEZ) and Clean Air Zones (CAZs) in cities, highlighting the emerging political, citizen, and media discussions.
- Emphasize the overlooked policy challenge: How to enhance urban health through these interventions?
- Stress the need for a more integrated approach to improve urban health, considering policies like Birmingham CAZ and others, which may not be maximizing health or economic benefits.
- The latest legal approach focuses on limit values to protect public health explicitly. New strategies, like the Environment Act, emphasize exposure reduction, encouraging broader action for health benefits.



## 1. Health and Economic Impact:

Urban air pollution poses significant health risks and has direct and indirect economic consequences.

## 2. Traffic-Related Emissions and Policy Focus:

Traffic emissions, a major contributor to urban air pollution, are a key focus of policy interventions. Governmental efforts, such as Low Emission Zones and Clean Air Zones, target these emissions to enhance air quality.

## 3. Noise as a too often overlooked emission.

## 4. Regional Interventions:

Widely applied regional interventions, like Low Emission Zones and Clean Air Zones, involve restrictions or charges on specified vehicles in specific city areas. These measures aim to reduce emissions and mitigate the health risks associated with urban air pollution.



## 1. Integrated Approach for Healthier Cities:

- Integrated solutions within a broader strategy for healthier living. Emphasizing urban environmental quality is key to attracting talent and retaining residents.

## 2. Core Policy Challenges:

- Effective Measures: holistic and integrated policies;
- Encouraging Behavioural Change: in individual, household, private, and public sector
- Establishing Air Quality Monitoring: Building a network of air quality sensors

## 3. Overarching Policy Challenge:

- Balancing Health, Economy, and Public Response: Creating cost-effective clean air policies that maximize health and economic benefits involves addressing entrenched behaviors, sparking debates, and potential citizen action.



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## Urban Air Quality Measurement and Evaluation:

- **Comprehensive Sensor Network:** well-designed sensor networks needed
- **Advanced Data Analysis:** “deweathering + causal inference techniques”, with health and economic impact assessment

## Three Types of Modelling:

- *Local Scale Dispersion Modelling*
- *Air Quality Lifecourse Assessment Tool*
- *Spatial Analysis for Risk Assessment*



## Research Base

- **Reduction on NO<sub>2</sub> and NO<sub>X</sub>:** CAZ reduced NO<sub>2</sub> and NO<sub>X</sub>, biggest reductions are at busy traffic sites
- **Positive spatial spillover effect:** The CAZ's influence extends beyond its boundaries, discouraging the use of polluting vehicles even in adjacent areas, contributing to a beneficial spillover effect.
- **Limited impact on PM<sub>2.5</sub>:** CAZ was not designed to improve PM<sub>2.5</sub> – (so as expected) no significant impacts were detected for PM<sub>2.5</sub>, CAZ have limited impact on PM<sub>2.5</sub>, a crucial pollutant affecting health.
- **Enforcement Challenges:** Implementation issues hinder their efficiency and effectiveness in improving air quality.



# The Policy Challenge

- a. How to design healthier cities?
- b. How to design and/or manage out environmental pollution?
- c. How to encourage behavioural change by policy and by alterations in urban design and management?

CAZ/ULEZ are only one small part of the solution - CAZ targets a very small area, target on limit value exceedance;

The new legislation target on exposure reduction approach - encourage broader action and health benefit;

An integrated approach is required that works on the assumption that **all** policies and alterations or additions to the urban realm enhance urban health and this includes reducing environmental pollutants.

# Toward an Integrated Air Quality Policy

## Welcome Discussion:

City-Region Approach?

Integrated Approach?

Health Focus?

Urban Logistics and Vehicles?

Well-Being and Green Infrastructure?

PM2.5 Pollution target policy?

Holistic Approach?



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