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Opening

Overview on Advancing LEZ and Other Measures to Reduce Traffic Related Pollution – Examples from SE Asia

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The Rising Role of Low Emission Zones (LEZs) in Asia

1. Urban transport challenge

Asian cities are facing rapid

- motorisation
- urban expansion
- rising freight demand.

Urban transport has become both a mobility and public health crisis - undermining liveability and climate goals.

2. LEZs as a Targeted Solution

LEZs focus on reducing the highest-emitting vehicles in the most polluted areas..

LEZs provide

- geographically targeted
 - enforceable
 - visible intervention
- links air quality & transport policy

2. Growing Momentum Across Asia – Different Starting Points

Cities across Asia are increasingly exploring LEZ implementation. However, readiness varies widely. LEZ pathways must be tailored—from early policy and data development to advanced scheme design and digital enforcement.

Understanding Low Emission Zones

Low Emission Zones (LEZs) are one of the policy tools that can be used to reduce the impact of air pollution from transport. In simple terms an LEZ is:

an area or zone which restricts or charges the most polluting vehicles from entering and so creates a clear incentive for cleaner transport choices and helps accelerate the transition to low and zero emission fleets.

Therefore, they can be an effective tool in tackling the issue of urban air pollution, specifically where **road transport is identified as a major source of emissions.**

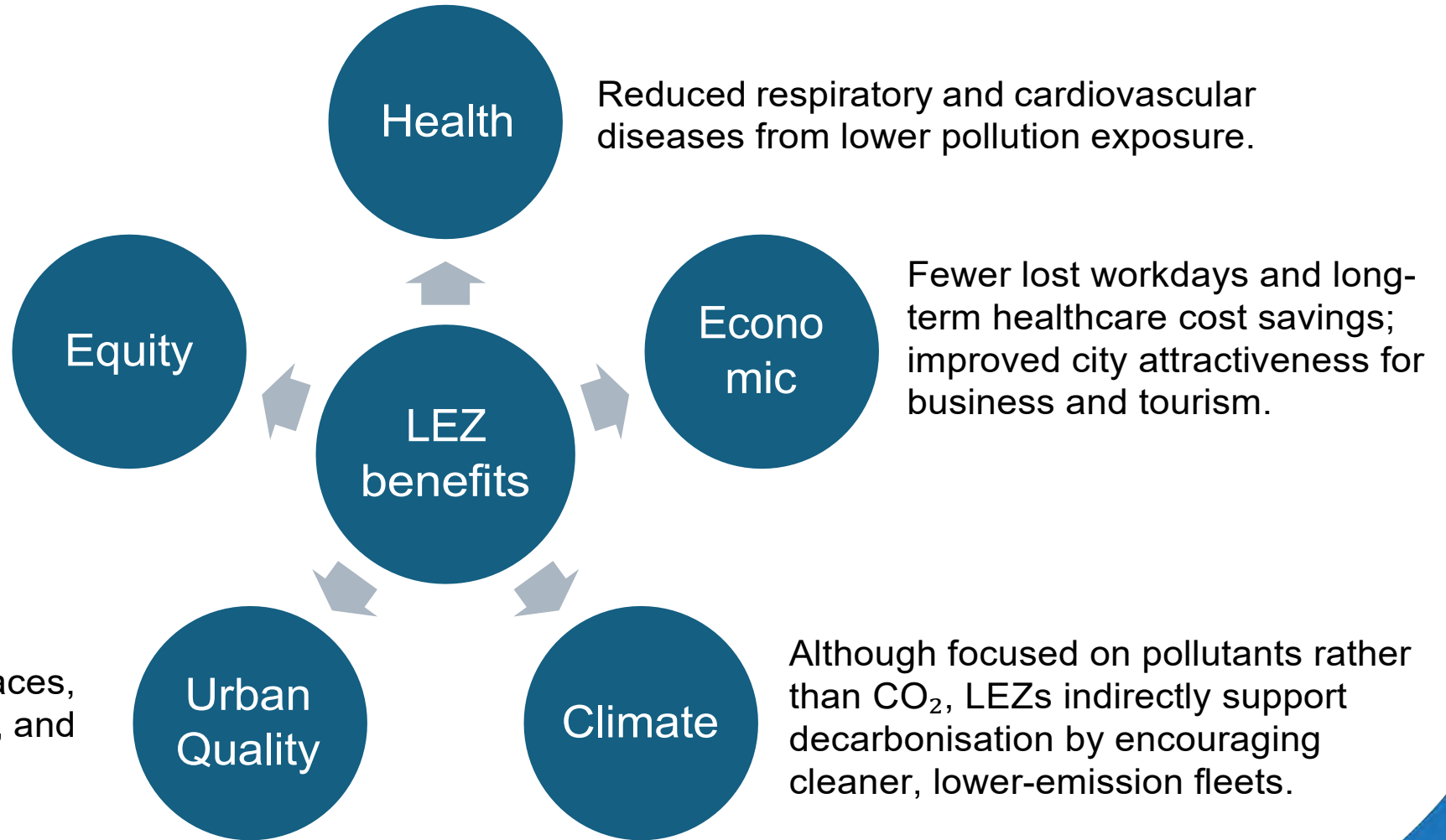
There are two potential types of zone:

- **Urban or city LEZ** typically in a city centre to manage traffic emission around crowded shopping and commercial streets;
- **Industrial LEZ** focusing on industrial areas, ports and airports, that may be away from the main centre, but have a high level of traffic contributing to urban air pollution.



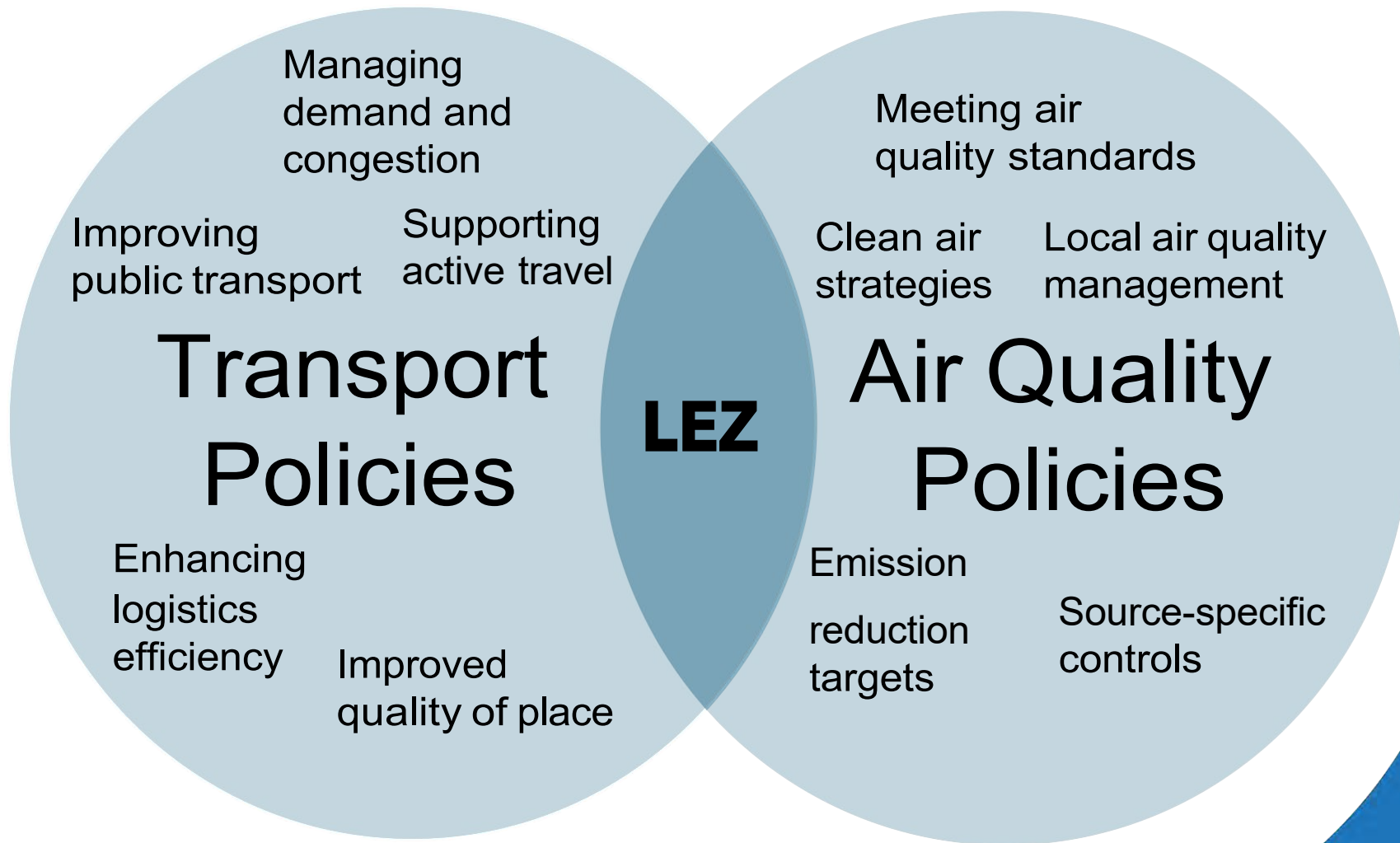
The Multiple Benefits of a Well-Designed LEZ

Cleaner air in densely populated areas where vulnerable communities often live, helping address environmental inequalities.

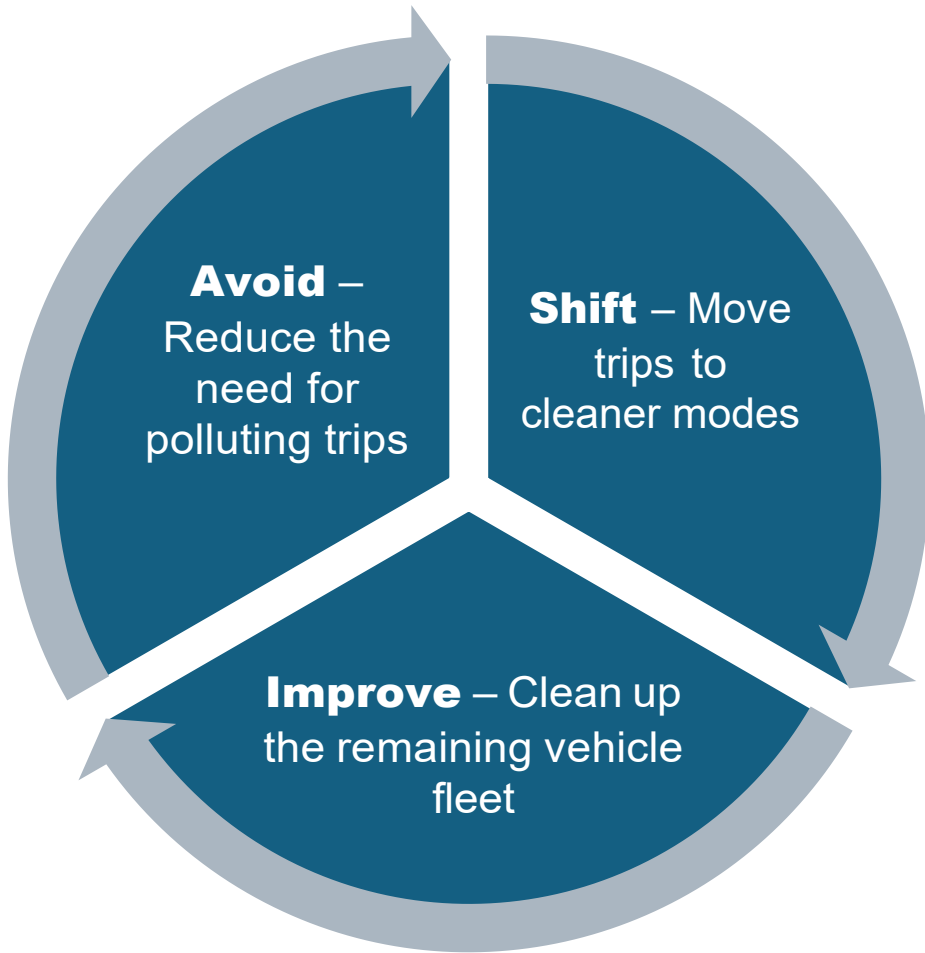


LEZ at the Intersection of Transport & Air Quality Policy

A LEZ is both a **transport** and an **air-quality** policy tool, and an effective LEZ should deliver benefits for both



LEZ Within Wider Sustainable Transport Framework



LEZs should not be considered in isolation but as part of the **Avoid-Shift-Improve** hierarchy, that guides sustainable urban transport policies.

LEZs are primarily an “**Improve**” measure to encourage low emission vehicles, but they support and reinforce Avoid and Shift policies by:

- Encouraging fleet renewal and cleaner technology
- Making active travel and buses more pleasant and reliable
- Creating conditions where mode shift becomes more attractive

Similarly the ‘Avoid’ and ‘Shift’ measures are essential for LEZ success.

They provide people with viable alternatives so they can change travel behaviour in response to LEZ requirements.

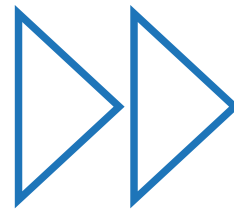
Understanding where a city stands in its Avoid–Shift–Improve journey for an LEZ to be effective.

Understanding Requirements Early is Essential for LEZ Success

Understanding a city's Avoid–Shift–Improve position is the first step.

To translate that into a successful LEZ, cities must also assess at early stage their broader technical, transport-systems, and Policy & governance readiness.

Ensuring the enabling conditions for a successful LEZ are in place



Success depends on maturity of the City to implement LEZ —not ambition.

Early-stage tools developed by ADB **the LEZ Maturity Assessment Toolkit (Pilot)** and **the Transport & Emissions Model Toolkit** support preliminary assessment and help identify where foundational strengthening is needed

The Low Emission Zone Maturity Assessment Toolkit



The **LEZ Maturity Assessment Toolkit (Pilot)** is designed to help cities and investment institutions:

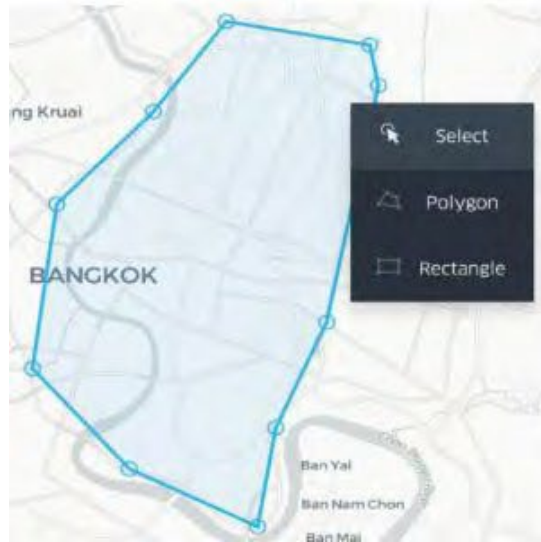
- Understand what LEZs are and whether they are an appropriate solution in the context in which they are being proposed
- What the process is to develop and implement a Low Emission Zone
- How a city is progressing through this process, its level of readiness and what further support it may need.

It supports two assessment pathways:

- **City LEZs** – for urban centres, commercial districts, and mixed traffic environments
- **Industrial LEZs** – for freight intensive areas and specialised operational zones

Transport and Emissions Model Toolkit

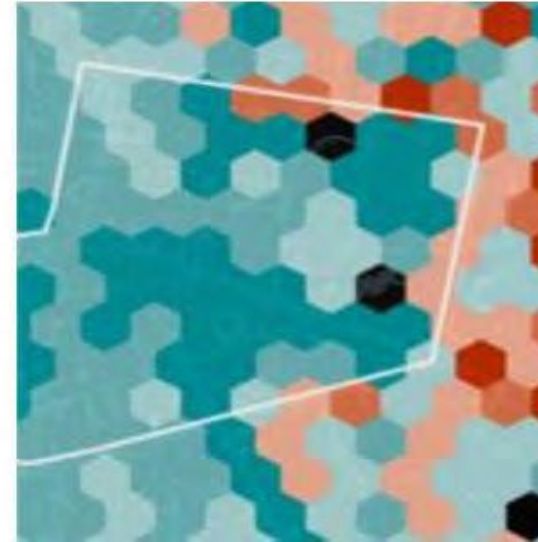
Using publicly available and proprietary data shared with ADB the model can simulate different LEZ restrictions and quantify traffic and emissions



Examine georeferenced LEZ areas with various types of restrictions



Estimate traffic effects in and around LEZ

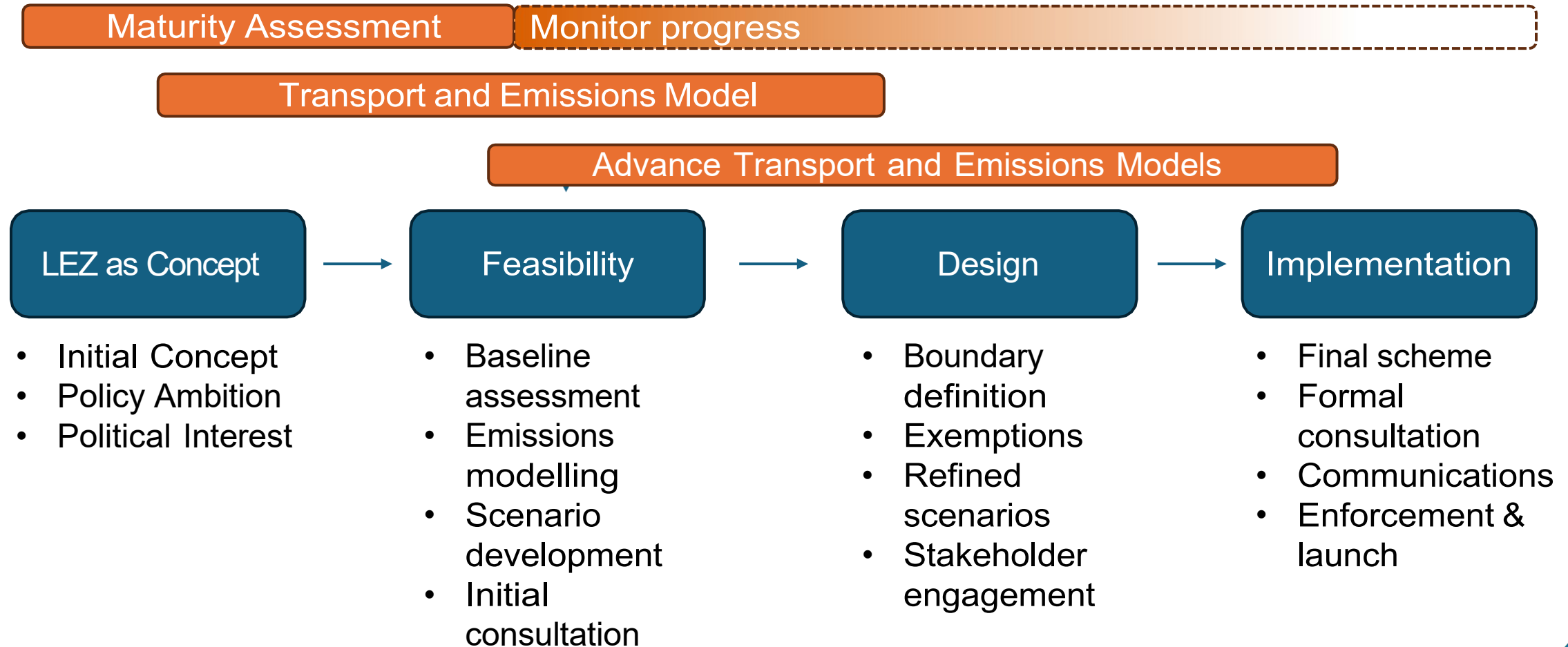


Estimate changes in emissions for CO, NOx, HC and PMx



Results can be provided for rush hour, daytime, evening rush hour and nighttime

Where Tools Support the LEZ Development Journey



ADB Support Aligned to City Maturity

- ADB is committed to supporting cities pursuing Low Emission Zones.
- The early-stage maturity assessments are essential to identify where a city is on its LEZ journey.
- This ensures support is properly targeted—whether technical assistance, early-stage modelling, feasibility analysis, or implementation planning



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Thank You

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