

What if...?

Storytelling for Paradigm Shifts in Transport: A Modeller's Role



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Widening the Perspective of Strategic Modelling
Transport Professionals Association
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What are we designing for?



Overview

1. What are we trying to build?
2. Why good intentions meet resistance
3. How strategic models can help
4. Case Studies
5. What you can do

1. What are we trying to build?



2. Why good intentions meet resistance

When this is what you know...



...and this

2. Why good intentions meet resistance



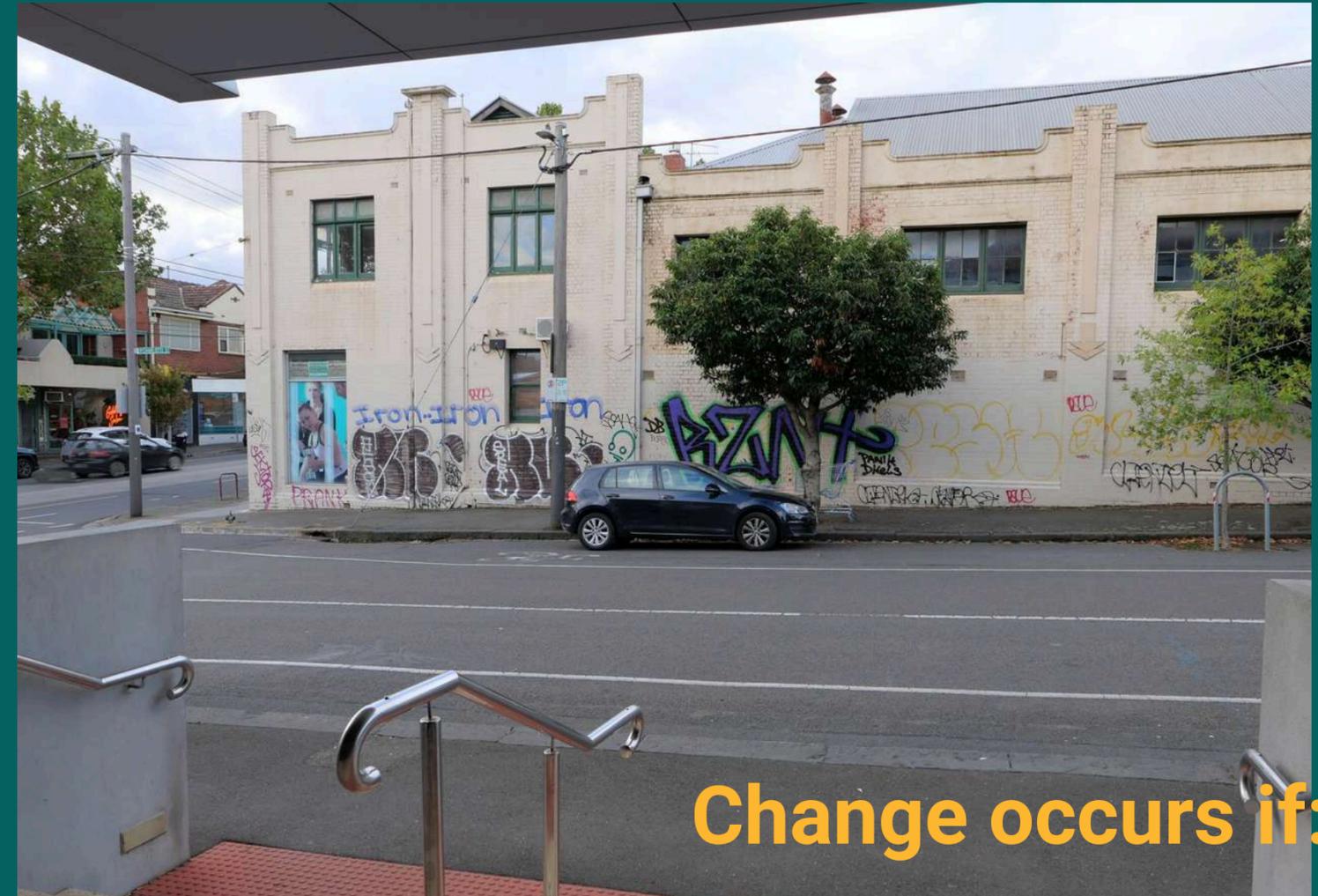
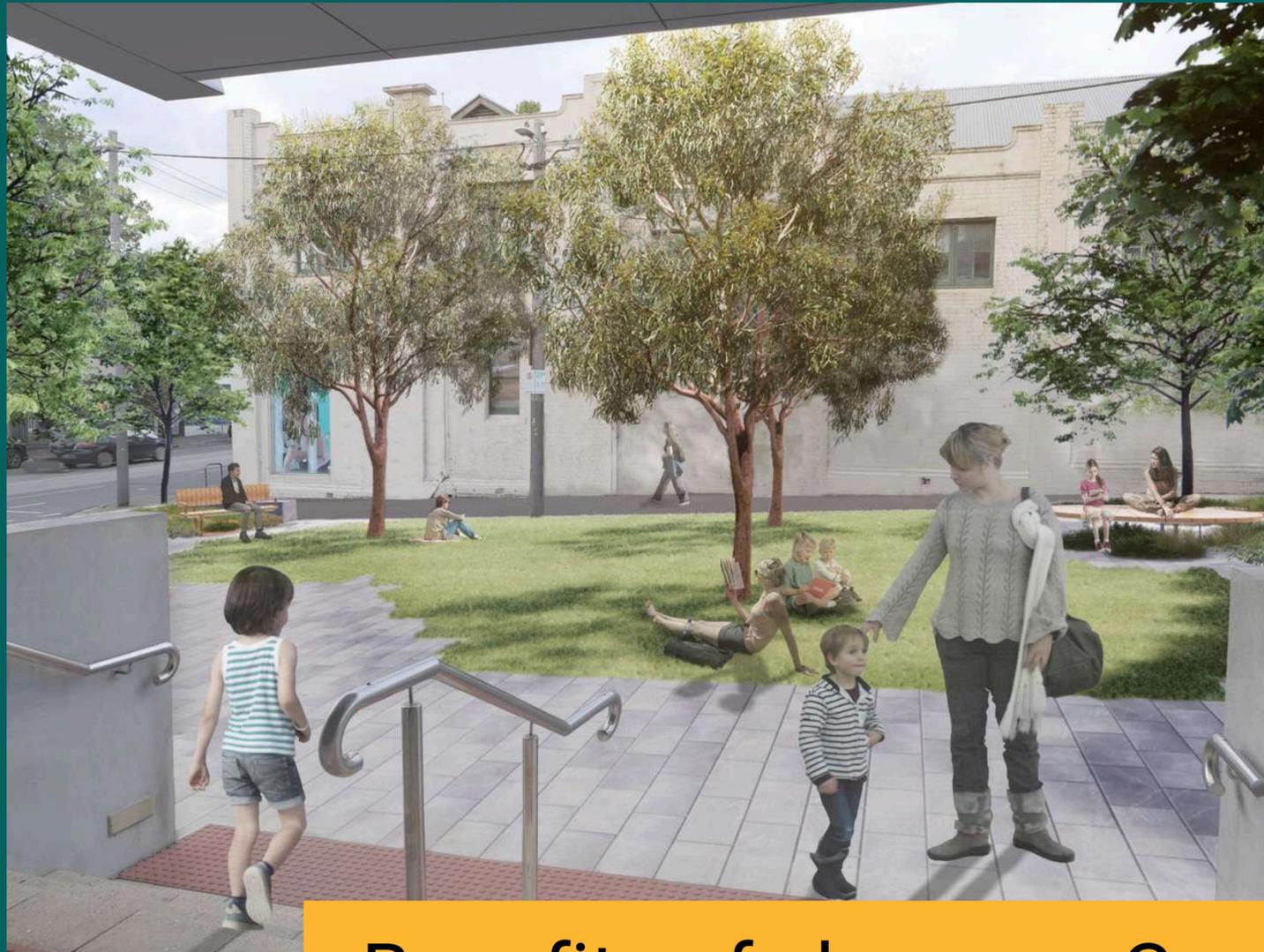
It's hard to imagine getting around any other way

2. Why good intentions meet resistance



It's hard to ~~imagine getting~~ around any other way

2. Why good intentions meet resistance



Change occurs if:

Benefits of change > Cost of changing + benefits of status quo

Images: Discontinued proposal for a park outside Richmond Library (Charlotte street)/ Actual. Source: yoursayyarra.com.au

3. How Strategic Models Can Help



3. How Strategic Models Can Help

If your model shows...

Traffic will increase 12%

80% of the city can reach essential services in 15 minutes

School-age children within 800m have 40% higher active transport rates

The story becomes...

"Roads will be more congested"

"Mobility is about more than the commute"

"Safe streets change how families move"

4. Case studies

New narrative + evidence = new transport paradigms

1. London's congestion charge
2. Bogota's Ciclovía
3. ITDP Cycling Cities

London's Congestion Charge

London as a leader in climate action and urban liveability.

Vision

- Reframe the narrative: Not "penalty" but "climate leadership" - Ken Livingstone won two elections on this story.
- Extensive modelling and economic analysis had explored options to mitigate traffic congestion in London since the 1960s (Smeed report); followed by the Review of Charging Options for London (ROCOL) report in the 90s
- Post-implementation, the evidence story shifted perception: CO2 savings, mode shift, improved air quality

Action

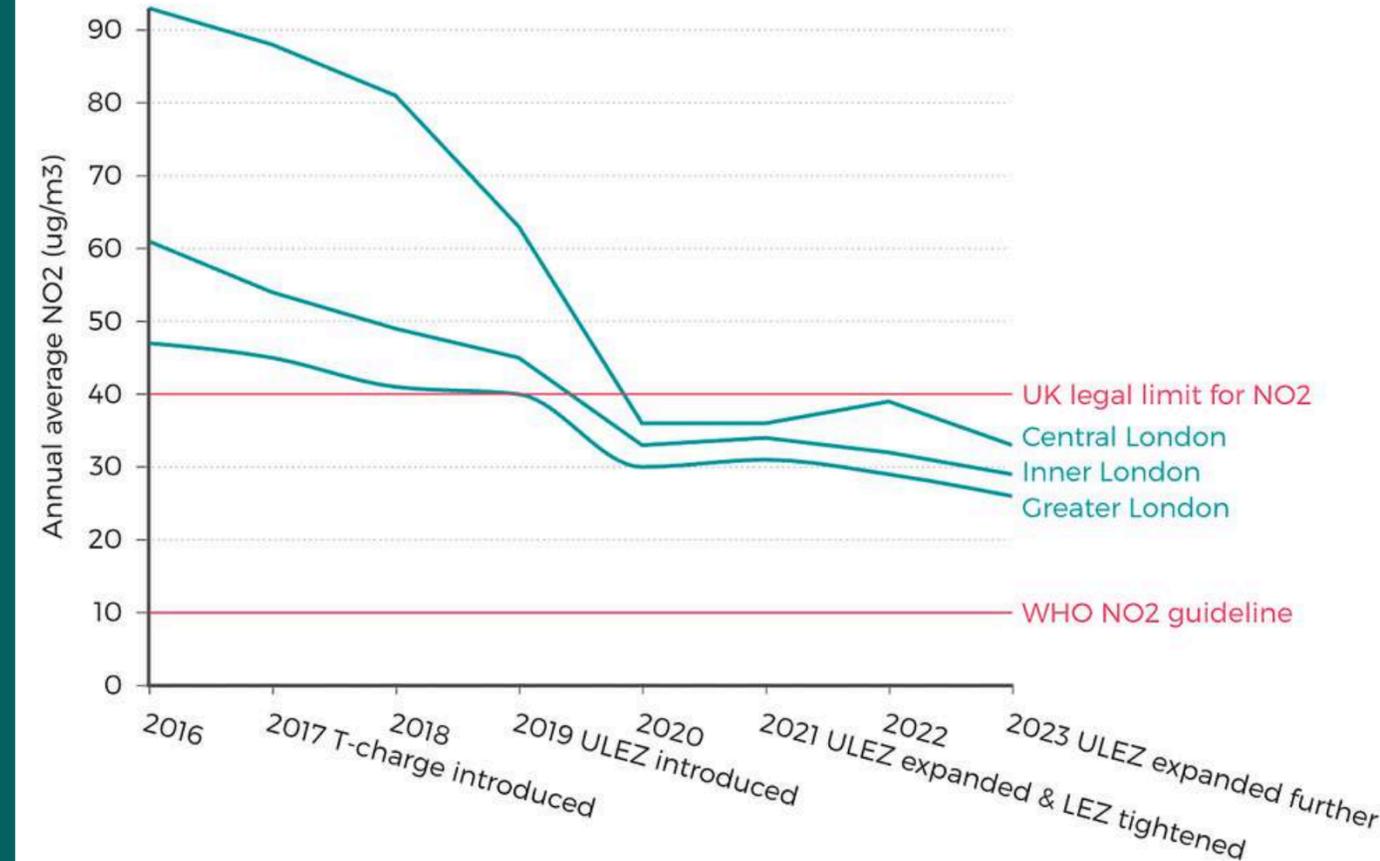
- Support for the schemes has increased over time as evidence demonstrates the benefits of the scheme.
- Congestion charge expanded to other road pricing mechanisms (LEZ and ULEZ) and extended across Greater London
- London's PM10 and NO2 limits met
- 10% mode shift from vehicles to active and public transport transport; in turn easing congestion.

Result

Sources:

- Transport for London 2023. ["Congestion Charge marks 20 years of keeping London moving sustainably"](#).
- C40 Knowledge Hub 2024. ["How Road pricing is transforming London"](#).
- Centre for Public Impact 2016. ["London's Congestion Charge"](#).

Air pollution in London (NO2)



Source : C40 Knowledge Hub 2024. ["How Road pricing is transforming London"](#).

Bogotá's Ciclovía

"Ciclovías close streets to cars and open them to people-powered mobility"

Reclaim streets as democratic public spaces. Slogan: "Bogotá doesn't have the sea, but it has the Ciclovía."

Vision

- Emotional narrative: "Every Sunday, this city becomes ours" not a traffic management fix, but civic identity. Made tangible through experience
- The **continuation** and **expansion** of Ciclovía was data-driven; underpinned by data on usage; needed to justify continued road closure.
- **Global adoption** underpinned by evidence of health benefits

Action

- 127km of streets are "open" in Bogotá every Sunday; a tradition which has been running over 50 years.
- Pm 2.5 levels drop from 65 to 5 $\mu\text{g}/\text{m}^3$ on the stretch of road covered by Ciclovía on Sundays.
- Bogotá has the most bike lines of any city in Latin America
- > 450 similar programs inspired worldwide, backed up by dedicated resources on how to "Open Streets"

Result



Sources:

- Velázquez-Cortés, D. et al. 2023. *Health benefits of Open Streets programmes in Latin America: a quantitative health impact assessment*, The Lancet Planetary Health. 7 (7), [https://doi.org/10.1016/S2542-5196\(23\)00109-2](https://doi.org/10.1016/S2542-5196(23)00109-2).
- Taylor, L. 2024. "The tranquility frees you": Bogotá, the city that shuts out cars every week", The Guardian.
- Khawarзад, Aurash April 2011. "Using Ciclovía to Plan Your Streets", Project for Public Spaces.
- Guerrero Casas, Marcela, 2024. "Ciclovía at 50: What we can learn from Bogotá's Open Streets initiative", World Economic Forum.

ITDP's Cycling Cities Campaign

Support dozens of cities worldwide to make cycling an everyday mode of transport

Vision

- Built a global movement narrative: "Cycling Cities" as a shared banner under which diverse cities could experiment and learn
- Paired technical support (design, policy, data) with public storytelling about benefits: cleaner air, safer streets, cheaper mobility, better access
- Used milestone stories e.g. kilometres of bike lanes built, major streets redesigned, mode shift figures to show tangible progress and create "peer pressure" between cities

Action

- Almost 2,000 km of cycle lanes
- almost 4,000 open street events
- over 1,000 bicycle training classes
- Increases in the share of 'people near protected bikelanes' (PNB) in many countries, up as much as 14%

Result

Sources:

- Institute for Transportation & Development Policy (ITDP) 2024. "[Cycling Cities](#)".
- ITDP 2022, "[Making the Economic Case for Cycling](#)".



Making the Economic Case for Cycling



ITDP's Cycling Cities Campaign

As part of ITDP's **Cycling Cities** campaign, this report finds that supporting a shift to cycling:

- **Lowers transport costs for people by reducing car dependence with a safe, affordable alternative to driving, and enables less car ownership or the avoidance of ownership altogether;**
- **Saves cities money through fewer healthcare costs from traffic crashes; less congestion and unproductive time spent in traffic; and a decrease in air pollution and emissions that contribute to climate change;**
- **Creates jobs and economic opportunities in related industries like manufacturing, tourism, shared micromobility, goods delivery, street vending, etc.**

Source

<https://itdp.org/publication/economics-of-cycling/>



Making the Economic Case for Cycling



5. What you can do

1. Expand what you measure
2. Be transparent about assumptions and trade-offs
3. Provide outputs that lend themselves to storytelling

Get the [street storytelling workbook](#)



Models enable new stories to be told

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**Better
Streets**

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