

ARUP

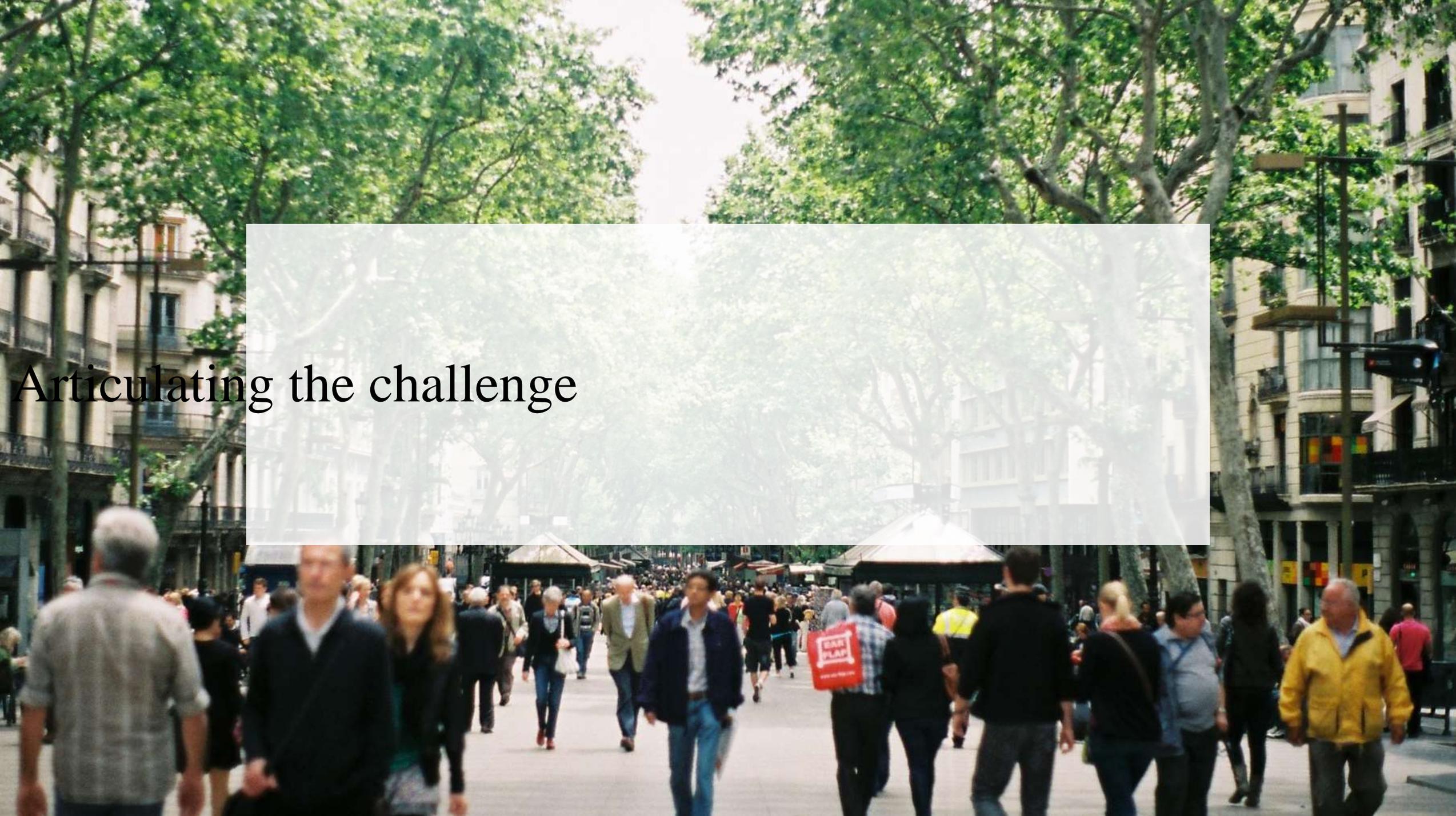
Towards a walking world

Isabel Dedring

Global Transport Leader, Arup

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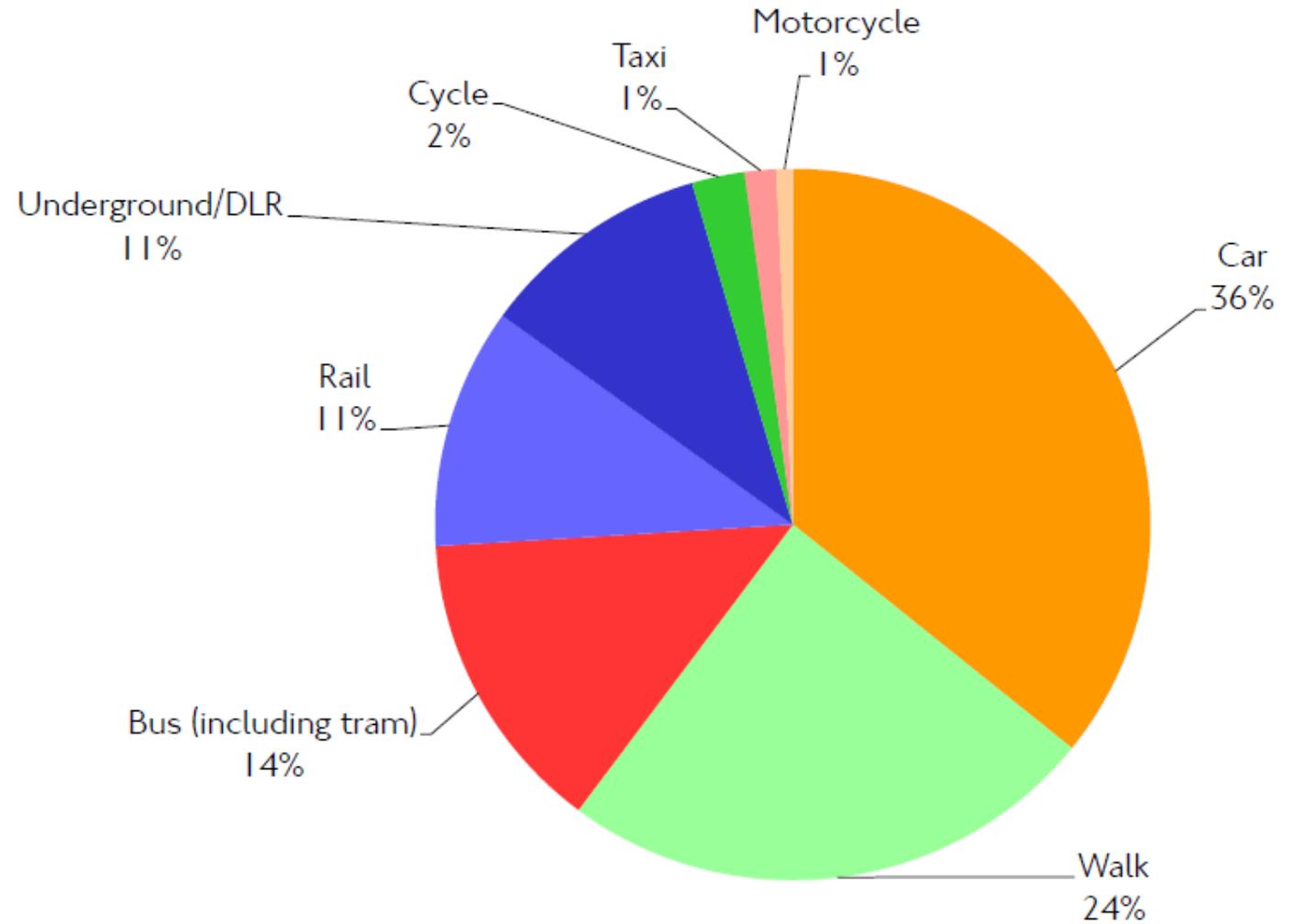


A wide-angle photograph of a busy pedestrian street, likely in a European city. The street is lined with tall, leafy trees that create a canopy effect. On the left, there are multi-story buildings with balconies. On the right, there are modern buildings with large windows. The street is filled with people walking in both directions. In the foreground, a man in a grey shirt is walking away from the camera, and a woman in a black jacket is walking towards the camera. In the middle ground, a man in a blue jacket is walking towards the camera, and a man in a yellow jacket is walking away from the camera. In the background, there are more people walking, and some outdoor seating areas with umbrellas. A semi-transparent white box is overlaid on the center of the image, containing the text "Articulating the challenge".

Articulating the challenge

Walking is a major mode in all cities

Figure 2.3 Modal shares of daily trips in London, 2016.



Its benefits are well understood and articulated



health and wellbeing



safety



placemaking



social cohesion and equality



local economy



city attractiveness



urban regeneration



cost savings



virtuous cycles



ecosystem services



liveability



transport efficiency



leadership



urban governance



sustainable development

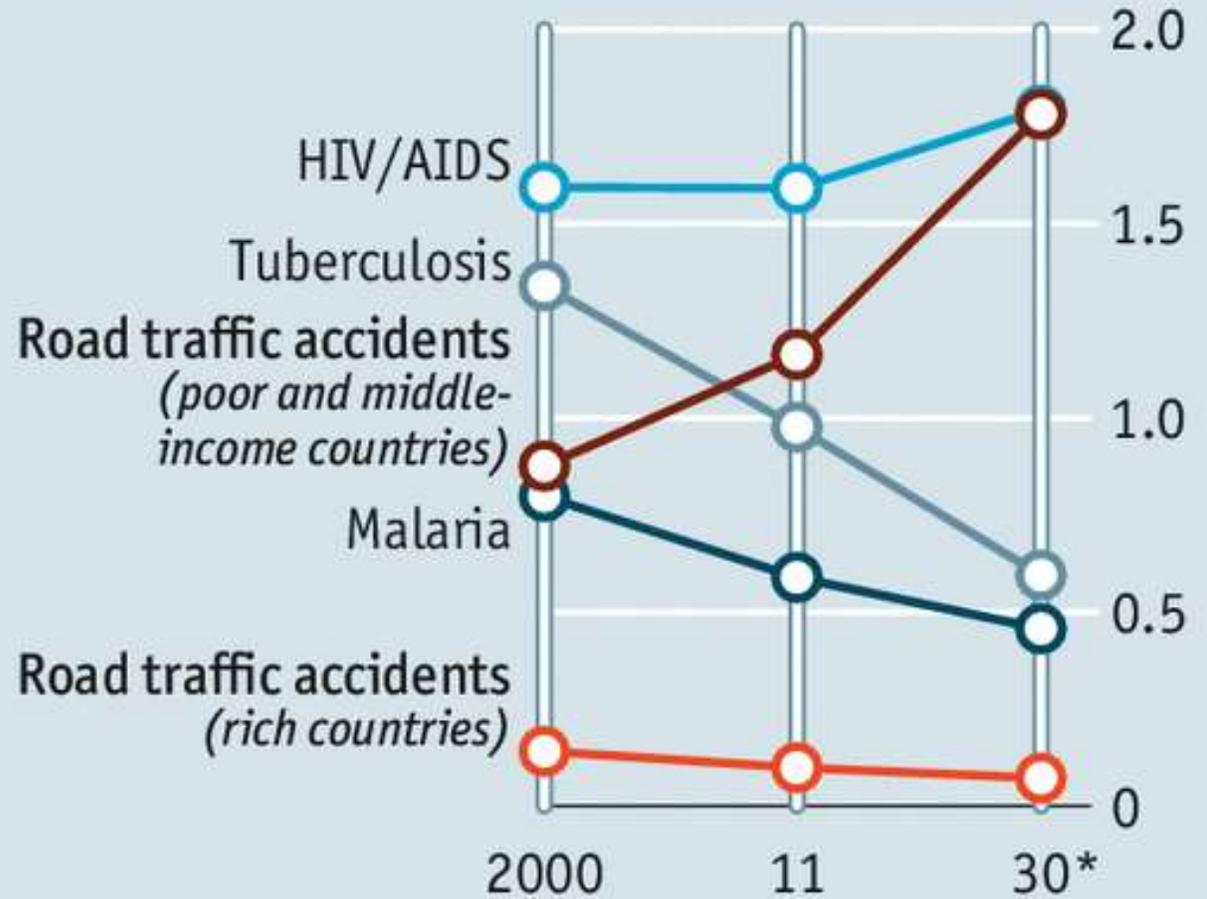


planning opportunities

But we know we aren't yet getting it right

Carnage

Global deaths by selected cause, m

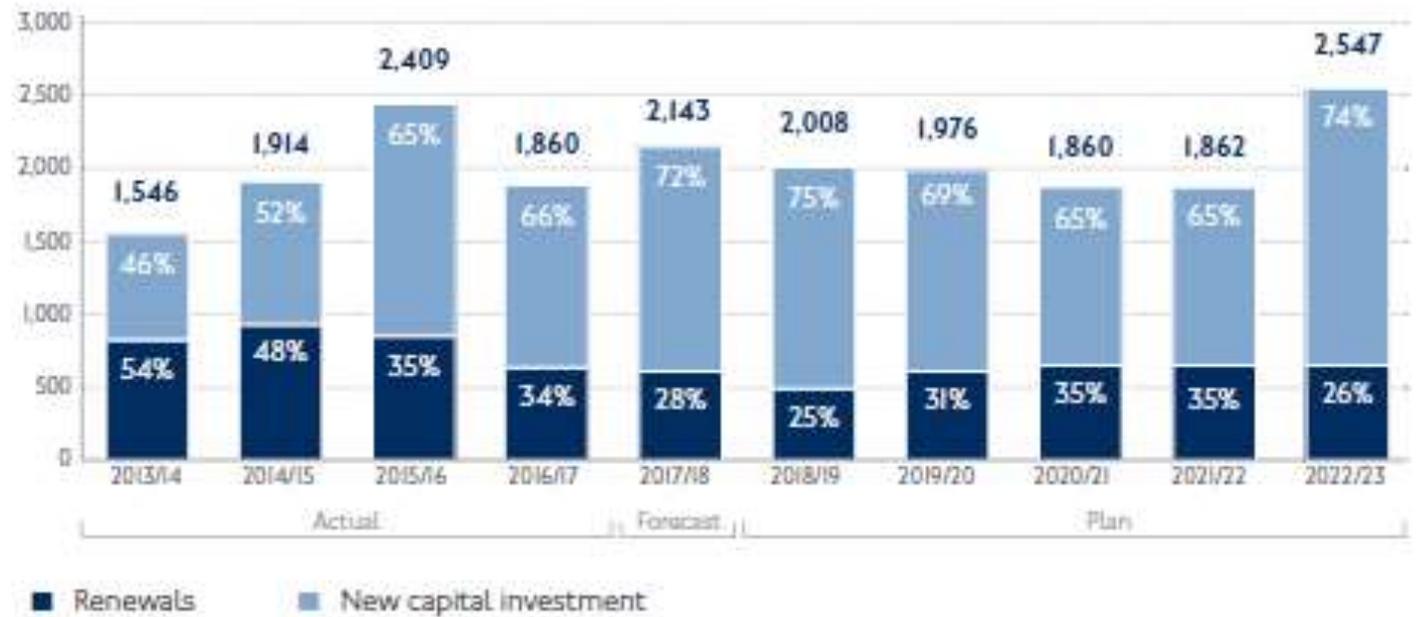


Source: WHO

*Forecast

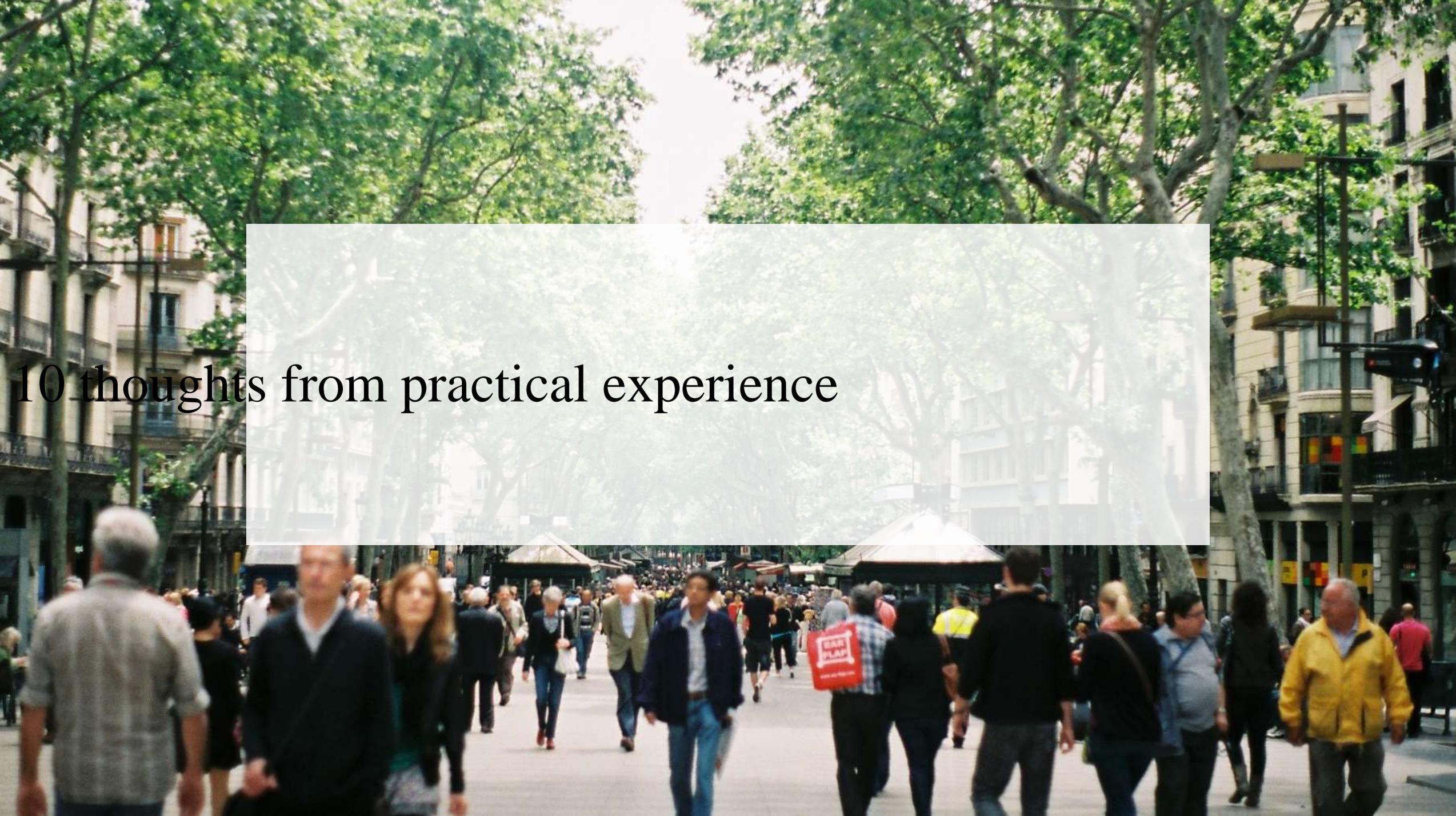
Walking does not get the funding or attention it should – based purely on its share of movement, let alone its challenges

Capital expenditure (excluding Crossrail)
(£m)



What can we
do to bridge
this gap?



A wide-angle photograph of a busy pedestrian street, likely in a European city. The street is lined with tall, leafy trees that create a canopy effect. On the left, there are multi-story buildings with balconies. On the right, there are more buildings, some with colorful awnings. The street is filled with people walking in both directions. In the foreground, a man in a grey shirt is walking away from the camera, and a woman in a black jacket is walking towards the camera. In the middle ground, a man in a blue jacket is walking towards the camera, and a man in a yellow jacket is walking away from the camera. A red sign with the text "BAR PLAF" is visible in the middle ground. The overall atmosphere is lively and urban.

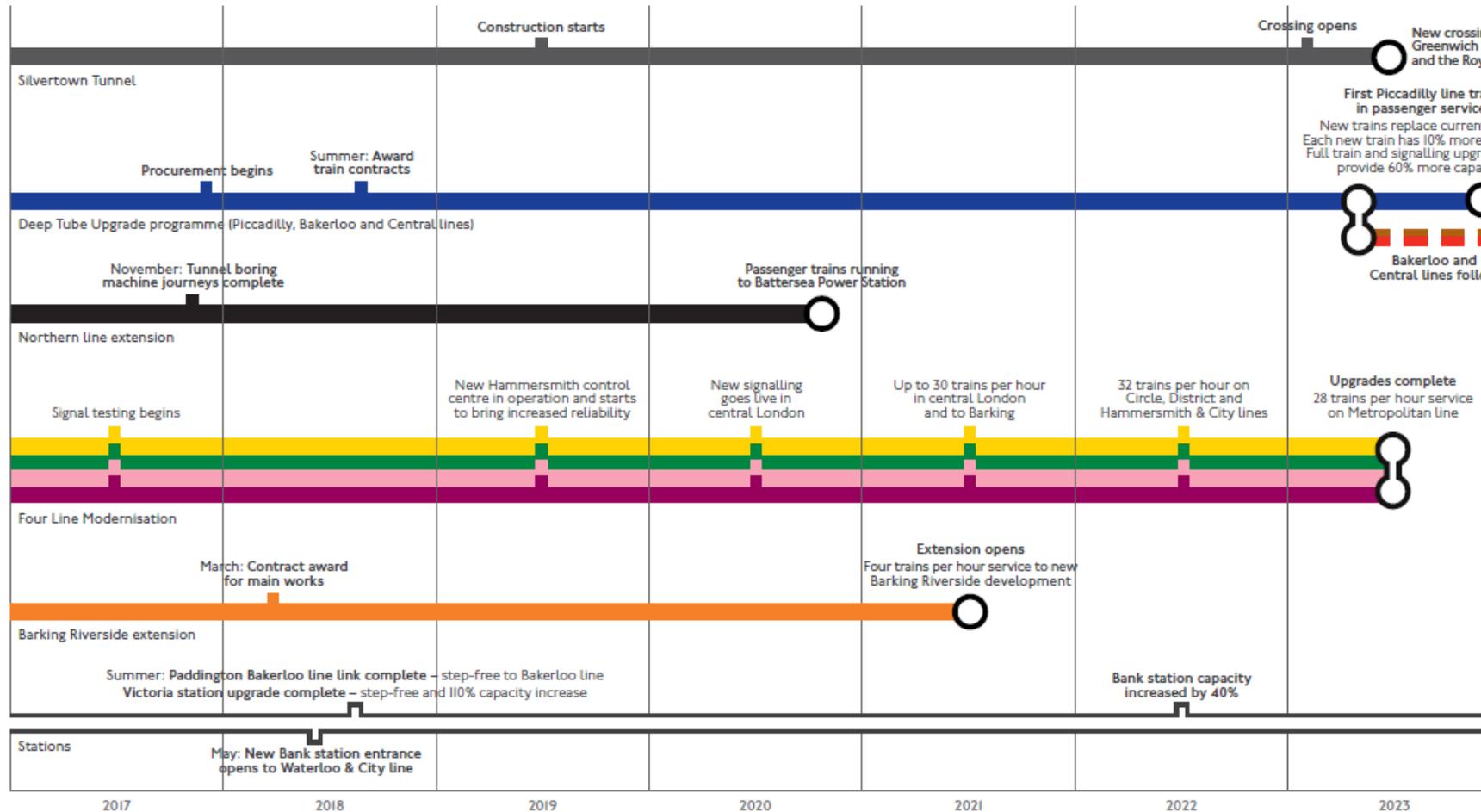
10 thoughts from practical experience

A wide, pedestrian-friendly street lined with mature trees and multi-story buildings. The street is filled with people walking in both directions. In the foreground, a man in a grey shirt is seen from the back, and a woman in a black jacket is walking towards the camera. Further down the street, a man in a blue jacket and a woman in a black jacket are walking. A red sign with the text "BAR PLAF" is visible on the right side of the street. The overall atmosphere is that of a vibrant, urban environment.

1 A large capital programme

Transport
 ‘recognises’ and
 mobilises around
 large capital
 programmes

Key milestones of the Investment programme



Transport
'recognises' and
mobilises around
large capital
programmes



London cycling experience shows the value in defining a large capital programme



London cycling experience shows the value in defining a large capital programme



Leveraging capital programmes from other agendas



A wide, pedestrian-friendly street lined with mature trees and multi-story buildings. The street is filled with people walking in both directions. In the foreground, a man in a grey shirt is seen from the back, and a woman in a dark jacket is walking towards the camera. Further down the street, a man in a blue jacket and a woman in a black jacket are walking. A red sign with the text "BAR PLAF" is visible on the right side of the street. The overall atmosphere is that of a vibrant, urban environment.

2 An arsenal of evidence of financial impact

Increase in
property values
and business
revenue
attributable to
walking
investment



IMPACT OF BIKE FACILITIES ON RESIDENTIAL PROPERTY PRICES

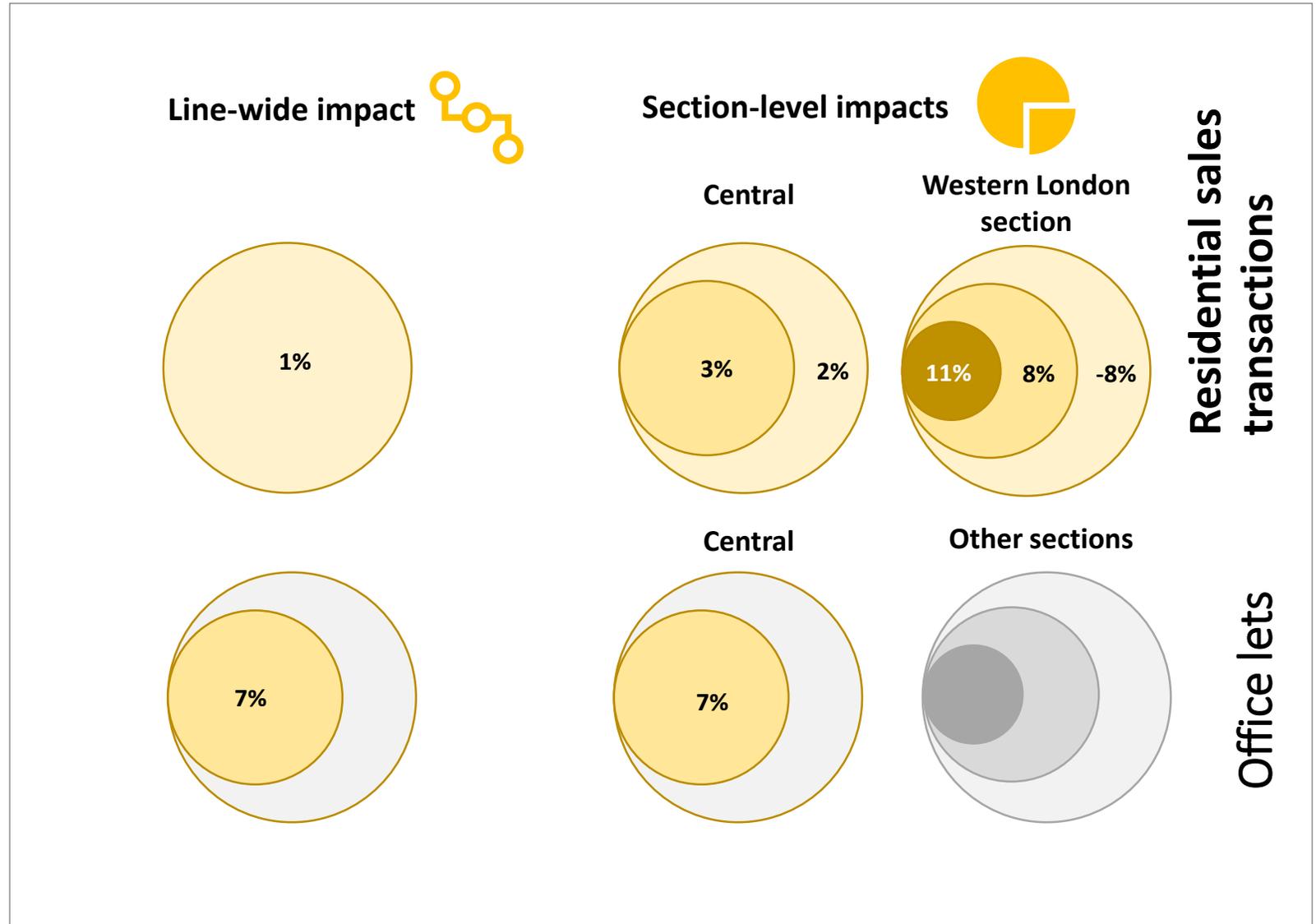
Jenny H. Liu, Assistant Professor

Wei Shi, PhD student

Toulan School of Urban Studies & Planning | Portland State University | Portland, OR, USA

Crossrail pre-opening impacts analysis

Increase in property values and business revenue attributable to walking investment



3 A burning platform



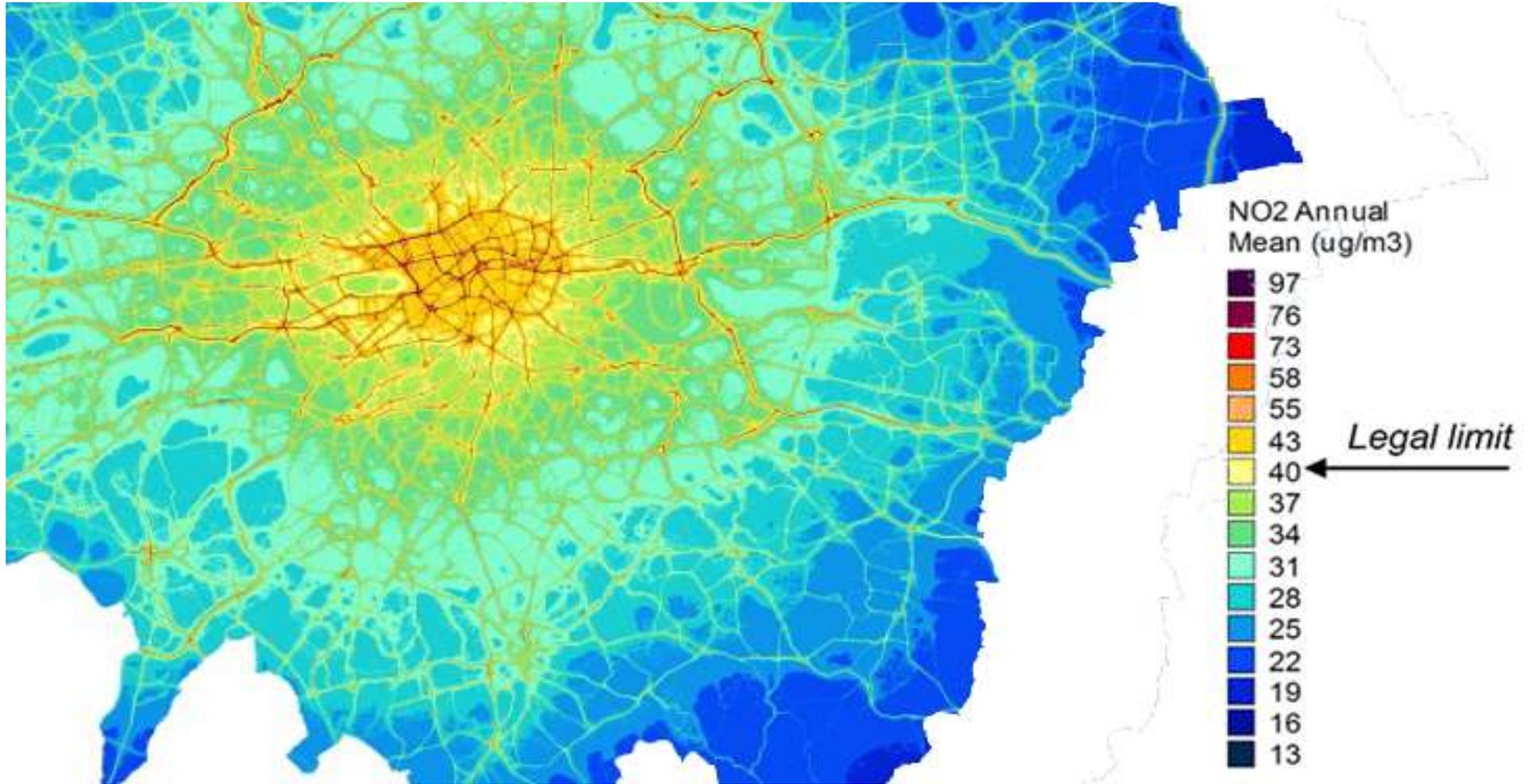
A charismatic
and tenacious
influencer



A mobilised
community



Leveraging
political
pressure
from other
agendas





4 Iconic interventions

Even one intervention
can change mindset in
the city



High Line Aerial Greenway Redevelopment Project,
New York City, NY

This can include smaller (but still globally-interesting) interventions

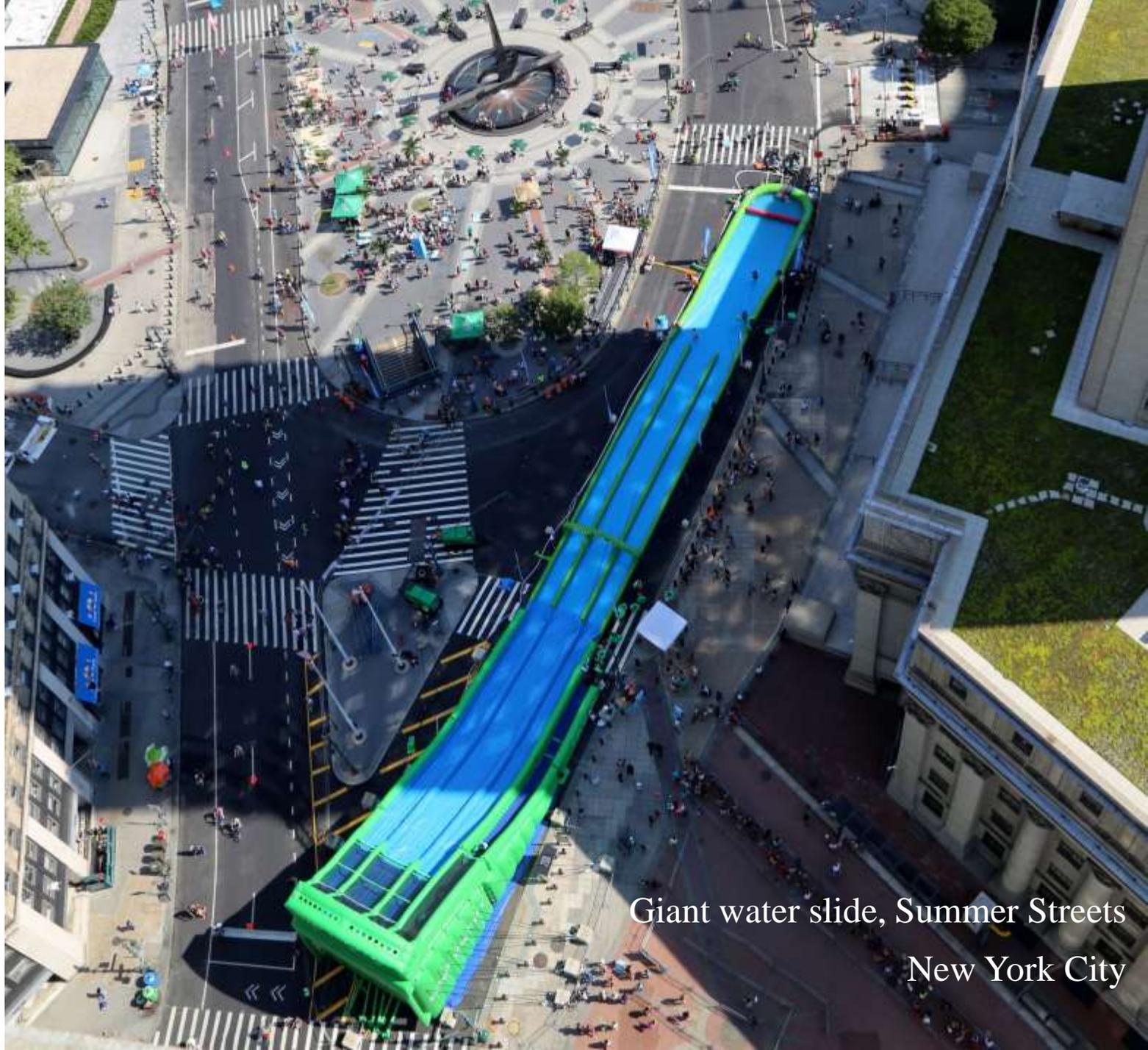


Pavegen's energy-converting tiles harvest energy from pedestrian footfall and transform it into electrical power

A wide-angle photograph of a busy pedestrian street, likely in a European city. The street is lined with tall, leafy trees that create a canopy effect. Buildings with balconies and windows are visible on both sides. In the foreground, a large crowd of people is walking in various directions. A semi-transparent white rectangular box is overlaid in the center of the image, containing the text '5 Iconic events'.

5 Iconic events

These can reboot
public – and
decisionmaker –
perception of space
and walking



Giant water slide, Summer Streets
New York City

These can reboot
public – and
decisionmaker –
perception of space
and walking



Low-Energy Interactive Public Light Sculpture,
Rotterdam, Netherlands

These can reboot
public – and
decisionmaker –
perception of space
and walking



Times Square Yoga
New York City

These can reboot
public – and
decisionmaker –
perception of space
and walking



A wide, tree-lined pedestrian street filled with people walking. The street is flanked by tall, leafy trees and multi-story buildings. In the foreground, a man in a grey shirt walks away from the camera. A woman with long brown hair walks towards the camera. In the middle ground, a man in a blue jacket and jeans walks towards the camera. A man in a yellow jacket walks away from the camera. A red sign with the text 'BAR PLAF' is visible in the crowd. A semi-transparent white rectangular box is overlaid on the middle of the image, containing the text '6 More 'temporary' infrastructure'.

6 More 'temporary' infrastructure

Less controversial
to put in
'temporary'
interventions



Royal College Street cycle lane
London

A wide-angle photograph of a busy pedestrian street. The street is lined with tall, leafy green trees that create a canopy effect. On the left, there are multi-story buildings with balconies. On the right, there are more buildings, some with colorful awnings. The street is filled with people walking in both directions. In the foreground, a man in a grey shirt is walking away from the camera, and a woman in a black jacket is walking towards it. In the middle ground, a man in a blue jacket is walking towards the camera, and a man in a yellow jacket is walking away from it. A red sign with the text "BAR PLAF" is visible in the middle ground. The overall atmosphere is vibrant and urban.

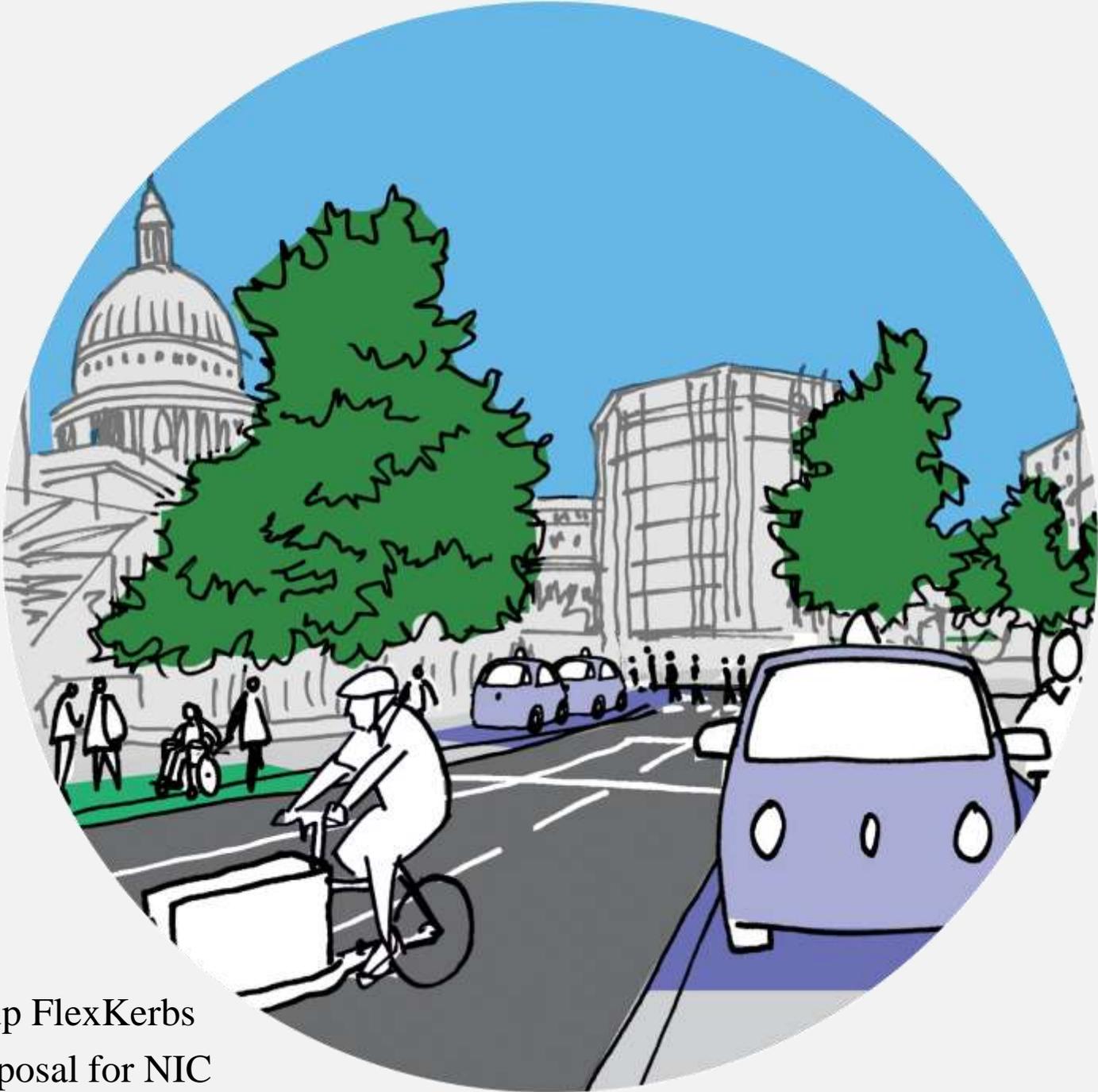
7 More flexible infrastructure

Flexible use of
road space and
time means we
make more of what
we have

Golden Gate Bridge zipper lane
San Francisco



Flexible use of road space and time means we make more of what we have

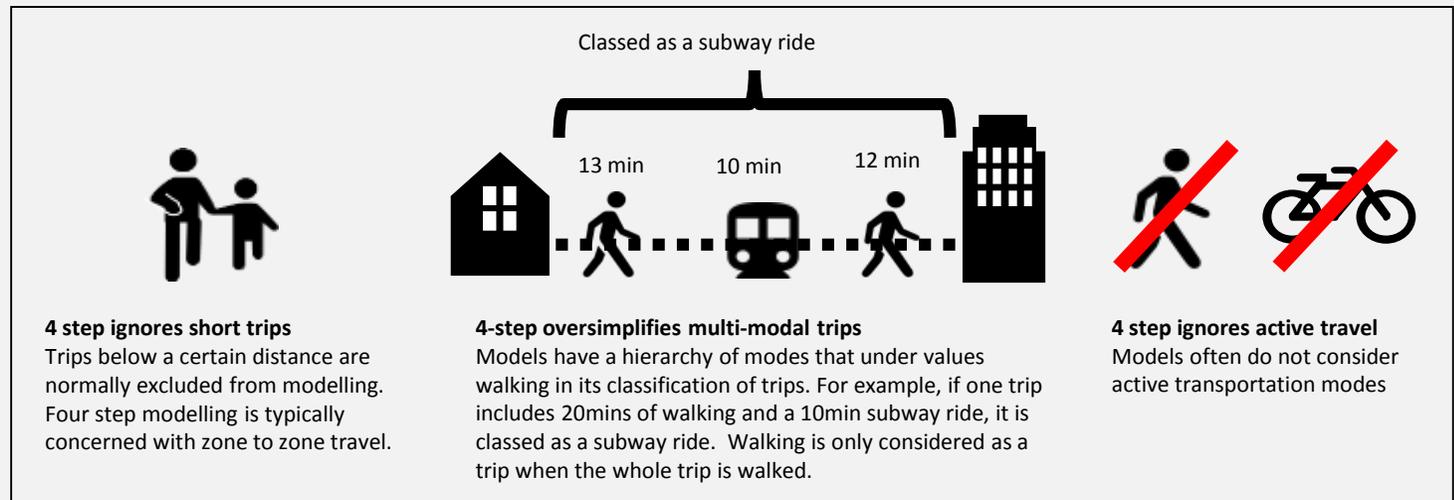
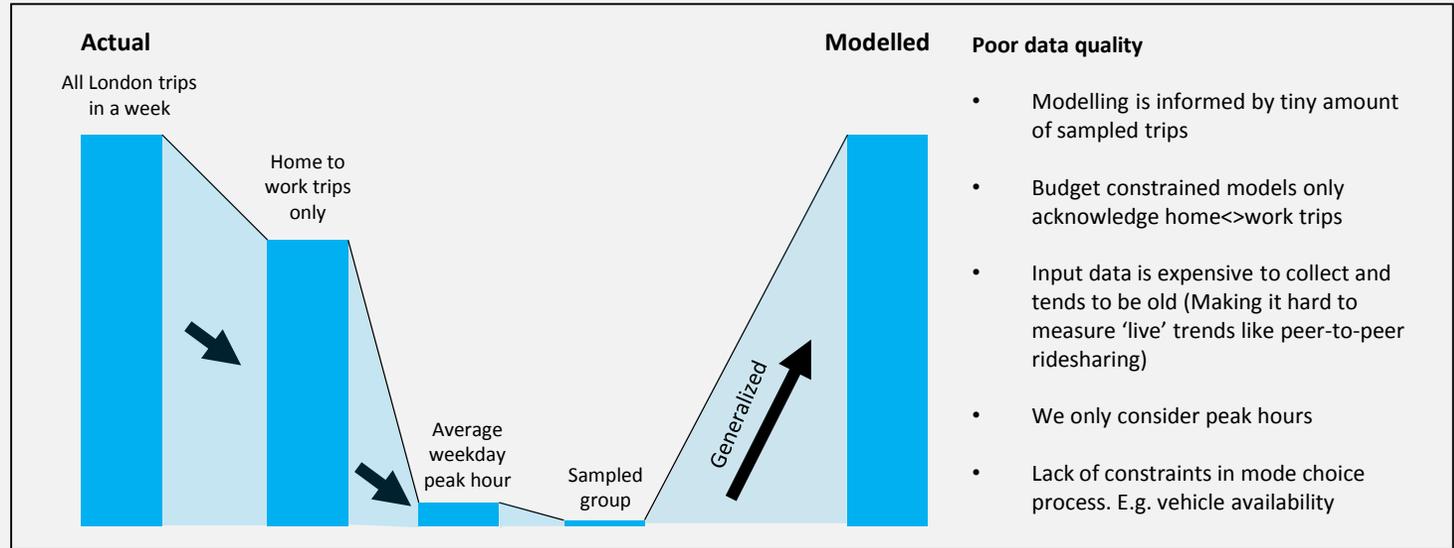


Arup FlexKerbs
Proposal for NIC

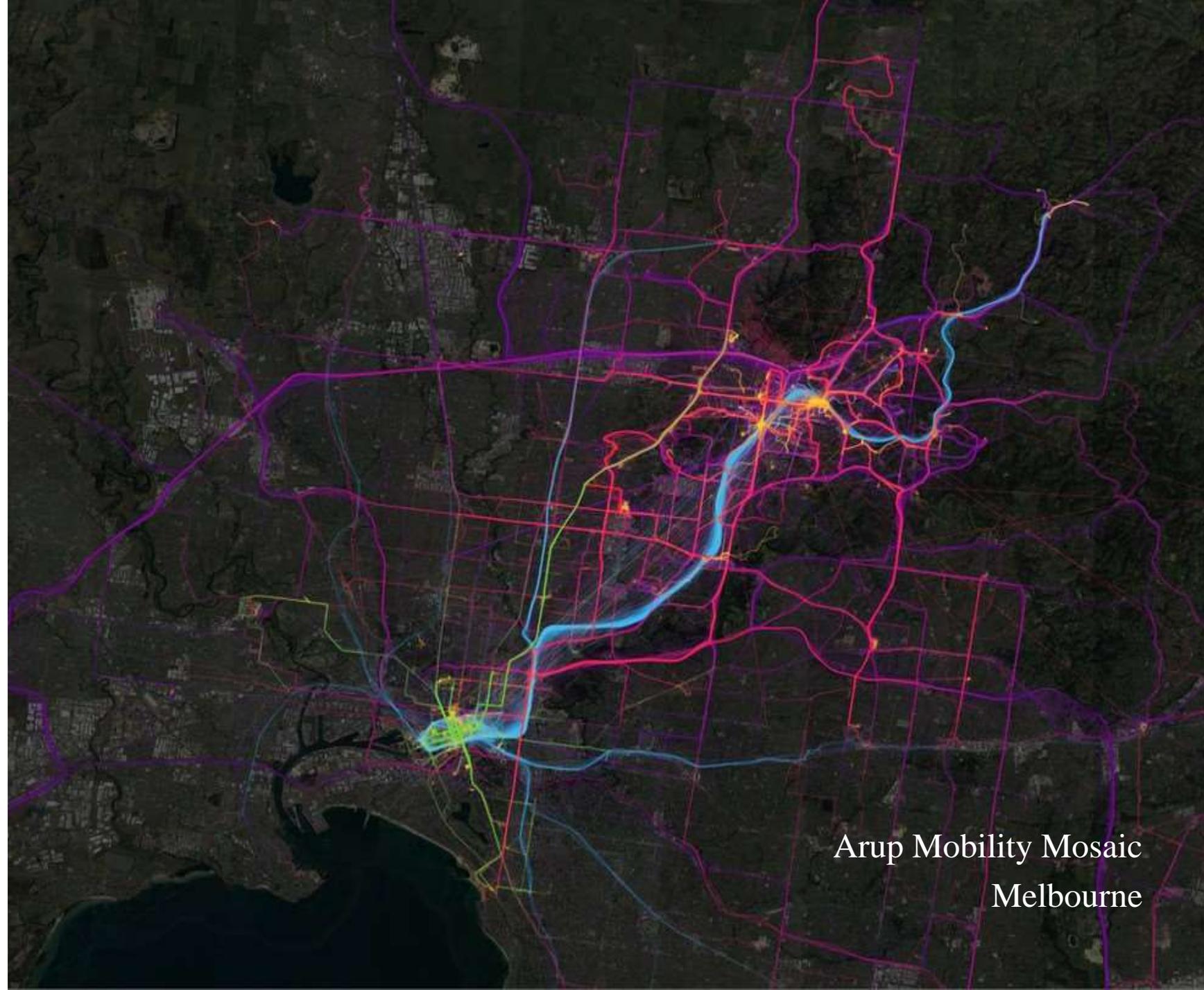
A wide-angle photograph of a busy pedestrian street, likely in a European city. The street is lined with tall, leafy trees that create a canopy effect. People of various ages and ethnicities are walking in both directions. In the foreground, a man in a grey shirt is seen from the back, and a woman in a dark jacket is walking towards the camera. In the middle ground, a man in a blue jacket is walking towards the camera, and a man in a yellow jacket is walking away. A red sign with the text "BAR PLAF" is visible on the right side. The background shows buildings and a traffic light. A semi-transparent white rectangular box is overlaid on the upper half of the image, containing the text "8 Insight from big data".

8 Insight from big data

Traditional transport modelling massively underestimates walking



Big data means
we can truly
understand
pedestrian
movement for
the first time



Arup Mobility Mosaic
Melbourne



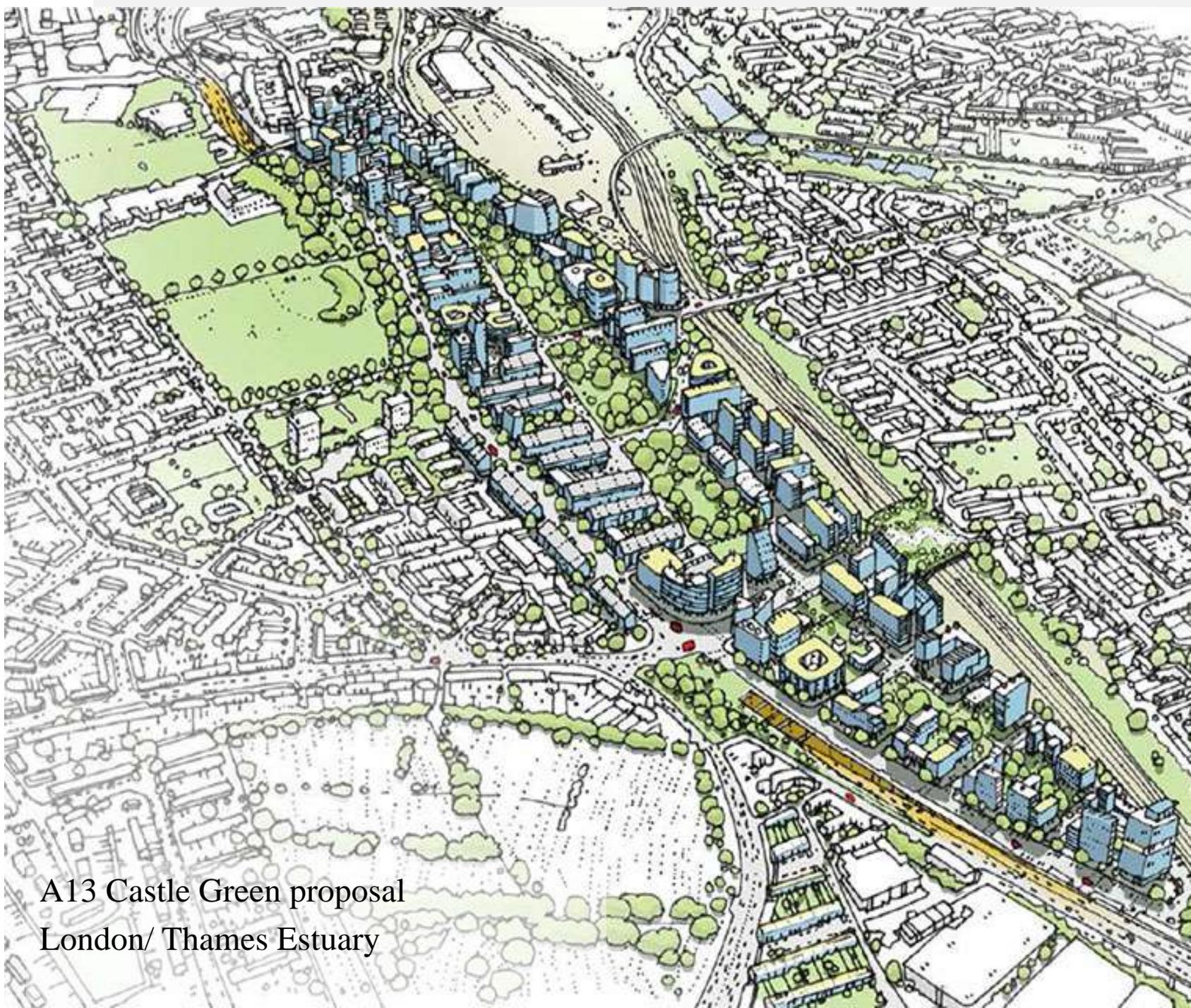
9 Big, creative proposals

Think bigger, not smaller



Freeway-Covering Urban Public Park,
Dallas, TX

Think bigger, not smaller



A13 Castle Green proposal
London/ Thames Estuary

Exploit greenfield opportunities



Jurong Lake District
Singapore

Think in 3
dimensions



Low Line proposal
New York City



10 Co-creation with the public

How do we tap into the local and emotive aspects of walking?



Harnessing the grassroots through social media



I Make Rotterdam Luchtsingel bridge
Rotterdam, Netherlands

An aerial, high-angle photograph of a large, busy pedestrian plaza. The plaza is filled with many people walking in various directions. The ground is paved with light-colored tiles and features a grid pattern of white lines. The lighting is bright, creating long, distinct shadows of the people on the ground. The overall atmosphere is one of a vibrant, active urban space.

Cities Alive

Towards a walking world

ARUP

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Thank you

isabel.dedring@arup.com