

Transport Planning and ESG

(Environmental - Social - Governance)

*Principles for good street and
place design*

Christian Bodé, Georgie Wells,
Lucy Sykes, Mike Morgan

Hello!



Christian Bodé
Croydon

Technical Practice
Lead

Streets



Georgie Wells
St Albans /
London

Principal Consultant

Future Mobility



Mike Morgan
Cardiff

Senior Consultant

Streets



Lucy Sykes
St Albans /
Manchester

Senior Active Travel
Consultant

Streets

Safety Moment: Cycling in the dark

- **Lights:** You're obliged to have one front white light attached to your cycle, one rear red light, a red reflector at the back and four amber pedal reflectors.
- **Clothing:** Be bright. Stand out. You can buy a roll of reflective tape online which is a cheap way to add extra reflective strips to your usual cycling clothes (or bike).
- **Route planning:** Try to travel new routes in daylight first.
- **Maintenance:** Check your bike regularly - trying to fix it roadside in the dark is miserable. Fit winter tyres to reduce puncture risk and keep them pumped up. Avoid the gutter area where broken glass, wet leaves and other debris collects.
- **Stay alert:** Go slower in the dark than you would in daylight. But don't let the cold and dark put you off, with the right kit cycling can still be fun in Winter!

Winter miles = Summer smiles

Purpose of our talk

- **Discuss challenges with ESG-positive transport schemes**
- **Set out the wide range of Environmental, Social, Governance (ESG) goals that transport schemes can achieve**
- **Provide 8 ‘success factors’ for ESG-positive transport schemes**

2. Surface transport

Key messages

- **Electric and other zero-emission vehicles.** The biggest share of abatement in this sector will come from the transition to zero-emission vehicles. These are likely mostly to be electric (i.e., battery-powered), especially for cars and vans, for which the Government is targeting a full switchover in sales of new vehicles by 2030. Hydrogen is also a possibility, primarily for larger vehicles like heavy goods vehicles. The key indicators that we will use to monitor this are the share and number of new vehicles of each type being sold each year.
- **Forward indicators for zero-emission vehicles.** Beyond these headline numbers, we will also monitor a suite of indicators of the key enablers of this transition. This includes measures of the underlying supply chains, public attitudes to these vehicles, and prices.
- **Charging infrastructure.** It will also be vital for high-quality charging infrastructure to be widely available in all areas of the country, so that drivers can have confidence that they will be able to charge their vehicles even if they don't have access to private charge points. We will monitor this through indicators on quantity, quality, and geographic coverage of the public charging network.
- **Conventional vehicle efficiency.** Alongside the transition to zero-emission vehicles, it will be important to continue to improve the CO₂ intensities of the conventional vehicles that continue to be sold. We will monitor both these intensities directly and key enablers such as the average size of vehicles and the use of biofuels in road transport.
- **Travel demand.** The sector's pathway also relies on demand-side action leading to reduced traffic growth. Our framework includes both high-level indicators monitoring overall vehicle traffic levels and supporting indicators looking at demand for and public attitudes towards alternative lower-carbon modes of travel. These outcomes are a crucial part of the sector's transition, as they can deliver near-term emissions savings and help realise a range of co-benefits.



“The UK has ambitious, legally binding targets to reduce Carbon emissions. The priority is not setting targets – it’s delivery time...and we will need more walking, cycling and public transport provision”

Chris Stark, CCC

Why are these schemes so important? Because, when the right scheme goes in the right place, the range of impacts is huge.



**Increasing
active travel /
reducing car
trips**



**Improving
social
cohesion,
health and
wellbeing**



**Delivering
climate
resilience**



**Supporting
accessibility
for all**



**Contributing
to Net Zero
goals**

Molly walks to the beach (as shown here), and to school, in the middle of the road with Mum or Dad, so they can be best seen by oncoming traffic.



Georgeham Street
The main road through a quiet village in Devon

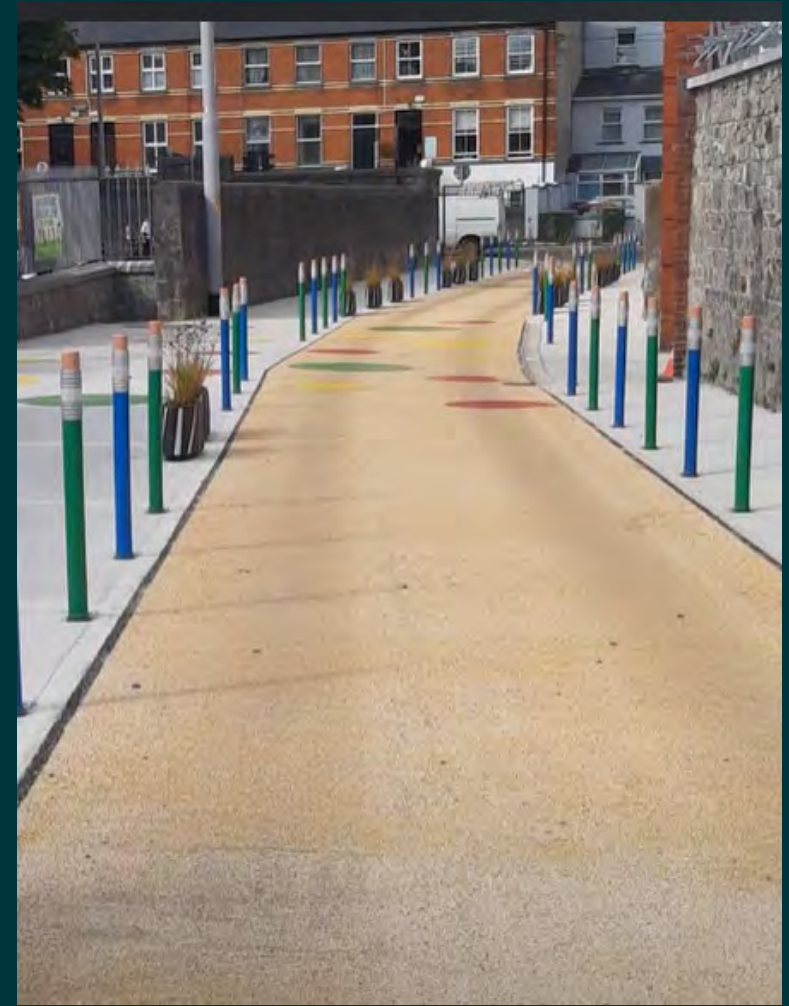
Arthur bikes to nursery down his quiet street in the middle of a small city outside London. Parked cars dominate the street. The pavements are narrow and can be busy in the mornings as there are lots of schools and nurseries in the area.



Dalton Street
Residential street in a small city



Creative and deliverable street and place design.



What is ESG? How does it relate to street and place design?

Environmental

“Achieving net zero”

- Behaviour change (demand reduction & mode shift) is a key element – not just fleet electrification
- Human behaviour change is hard, and requires us practitioners to think differently about transport schemes
- There is significant carbon benefit to be realised if we can achieve a shift to more sustainable modes
- Air quality, noise, flood risk etc.

Social


“Improving social outcomes”

- Street and place improvement schemes offer opportunities for a raft of localised / community benefits
- Social interaction / overlooked / passive surveillance etc
- Schemes that help people make active trips are good for physical/mental health & wellbeing and help provide better transport equality for those without cars (usually those that cannot afford one)
- Our approach offers socially inclusive techniques – co-design of schemes, new ways to get communities and different groups involved.
- Take views and opinions of a wide range within the community – children, disabled people, elderly etc. Not just one or two vocal groups.

Governance

“Ensuring governance is fit for purpose”

- Street and place improvement schemes are looking for behaviour change (people to use streets and places in different – more active – ways)
- This focus on human behaviour benefits from different governance approaches to the traditional
- Transport planners / engineers collaborating side by side to iterate scheme design
- Spending longer on internal AND external engagement reduces opposition and confusion about scheme benefits



**Why is it so difficult to
deliver ESG+
walking & cycling
schemes**

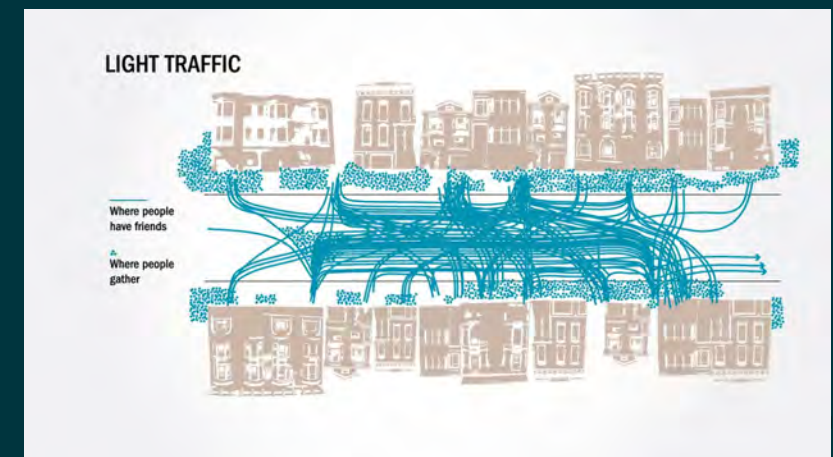
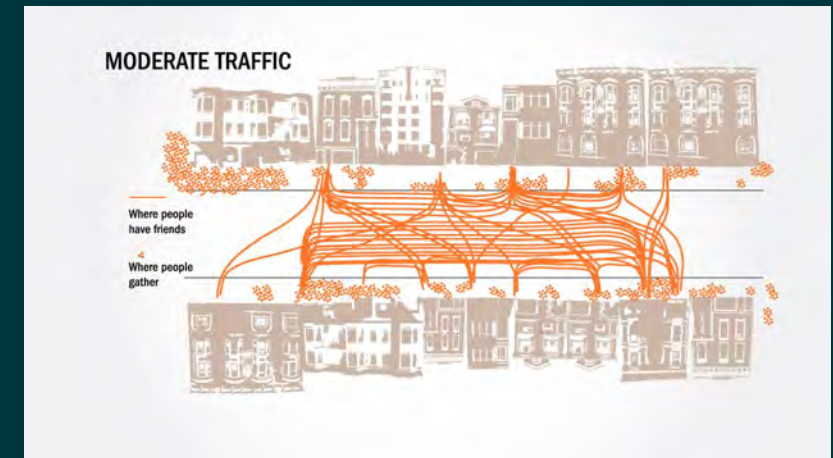
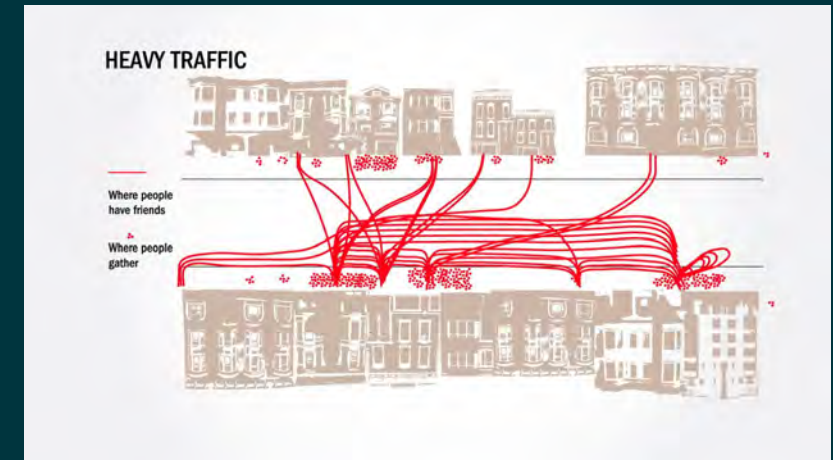
Our streets & places prioritise vehicles over other modes



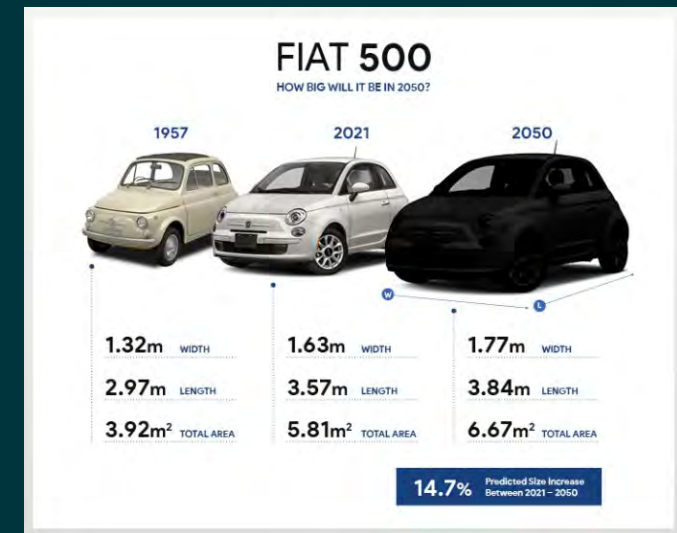
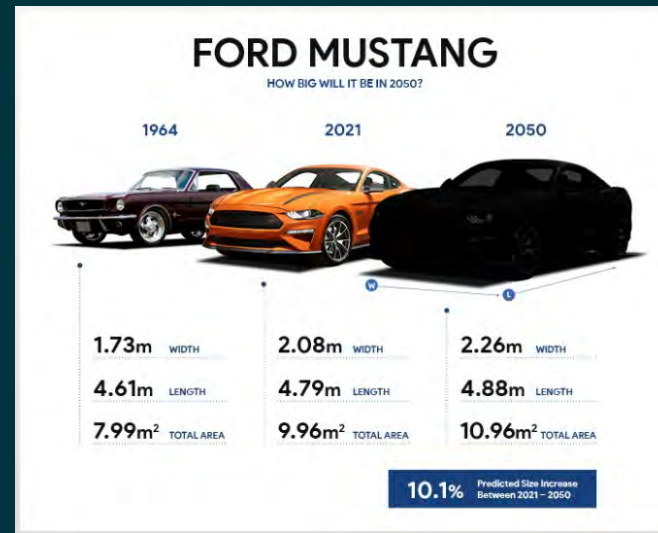
- We expect and accept car dominance, even when it causes us problems, believing it to be convenient
- Our streets are designed for vehicle priority, often an alternative isn't considered possible
- We are so used to this, that even small incremental changes can be difficult and often resisted even when they bring obvious benefits
- Normalisation of bad behaviour by drivers e.g. pavement parking

What has this led to?

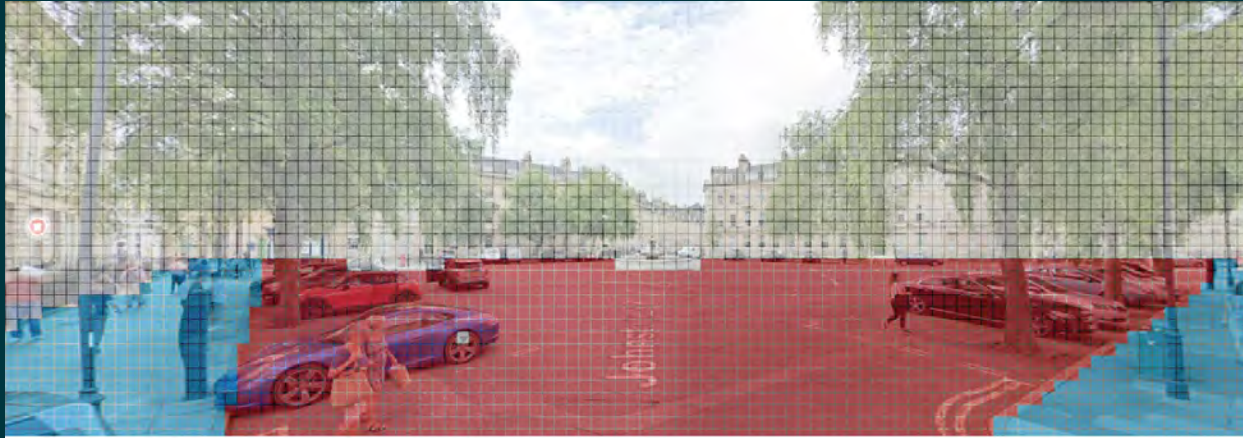
- In the UK, cars on the network has grown from 13 million (1970) to over 40 million (2022)
- Poor urban design, planning policies and approvals has developed a dependence on the car, which is not sustainable.
- Urban design often assumes car ownership, therefore excluding those who cannot or do not want to own a car
- Filtered from strategic network built to move motor vehicles (A and B roads), on to residential streets
- This comes with a significant social cost in terms of community severance and safety



We have a finite amount of space on our streets....



Have we got our priorities right?



Cars (71%) Pedestrians (29%)



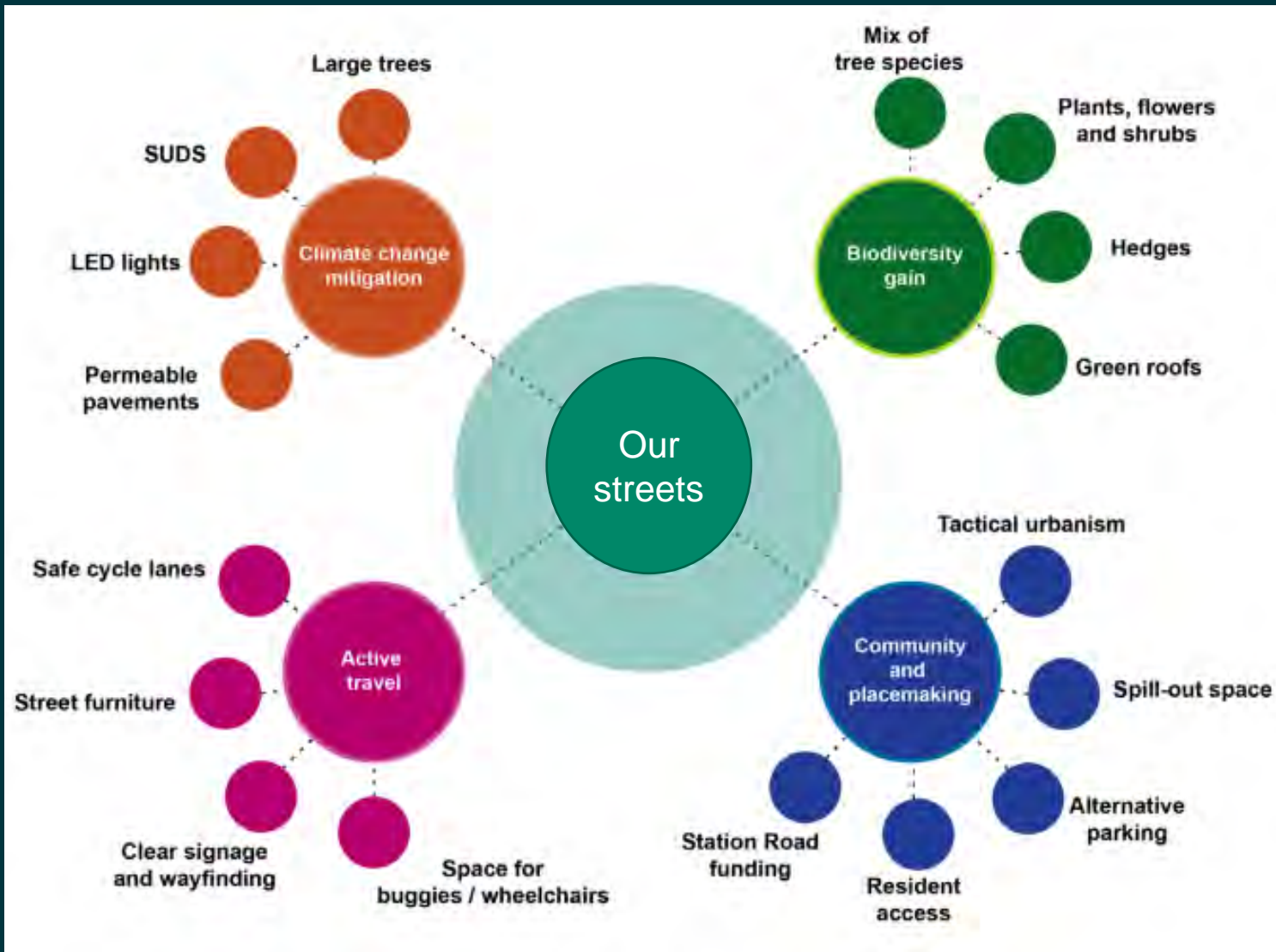
The Arrogance of Space Mapping Tool

The Arrogance of Space-Copenhagenize



LT Studio- Laura Place

Our Streets – What can they offer?

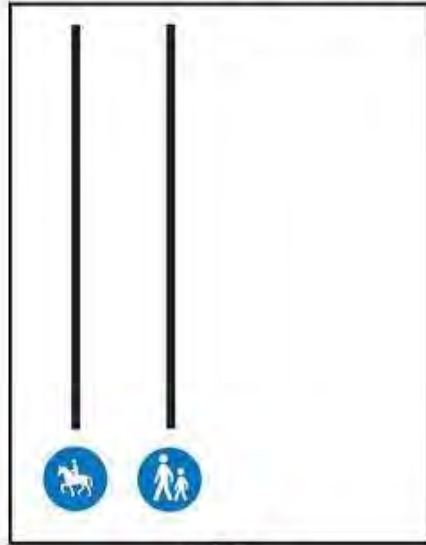


Multiple benefits

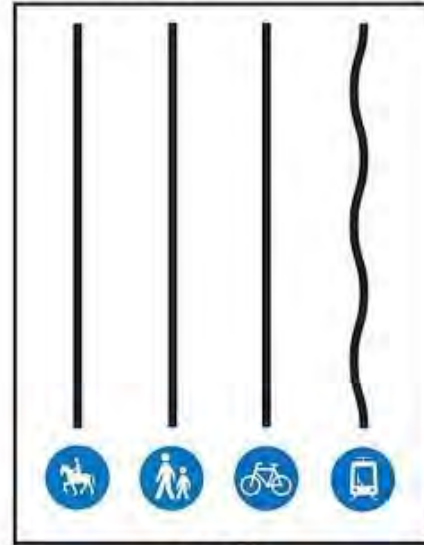
- Quieter streets, which support social interaction
- Improved connectivity, helping to move people quicker
- Areas for nature to recover and thrive

We need to change the question – how do we move people?

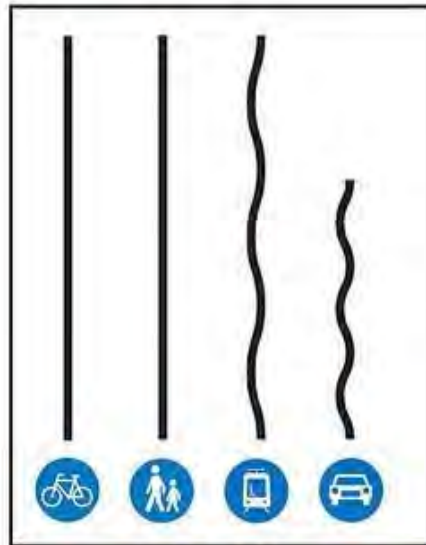
A Short History of Traffic Engineering



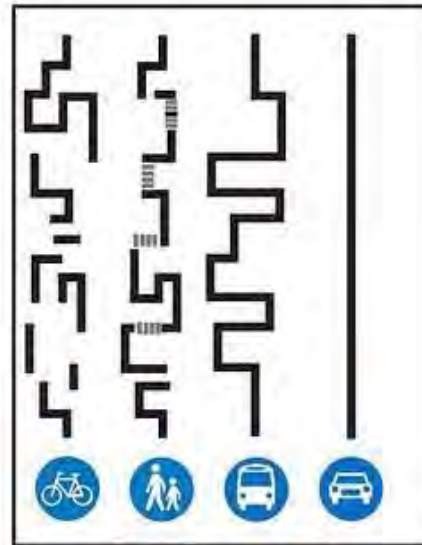
1800



1900

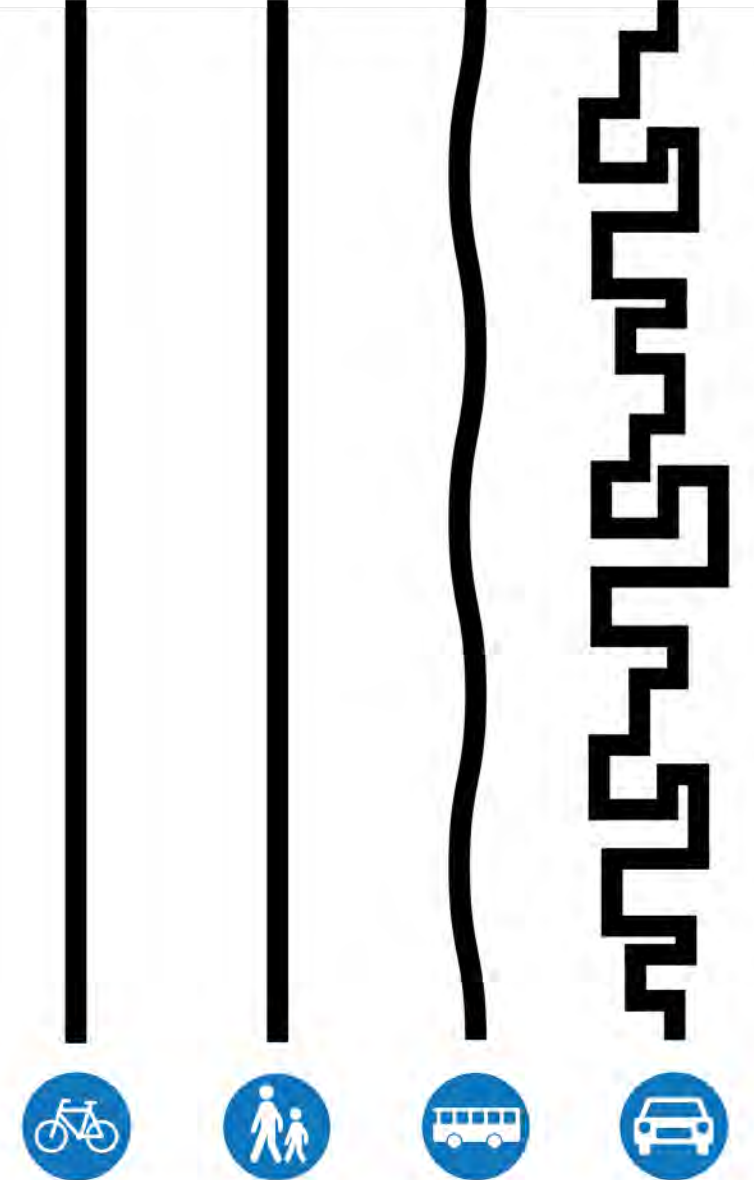


1920



1950 - present

COPEN HAGEN IZEU
Copenhagenize Design Co.
2013



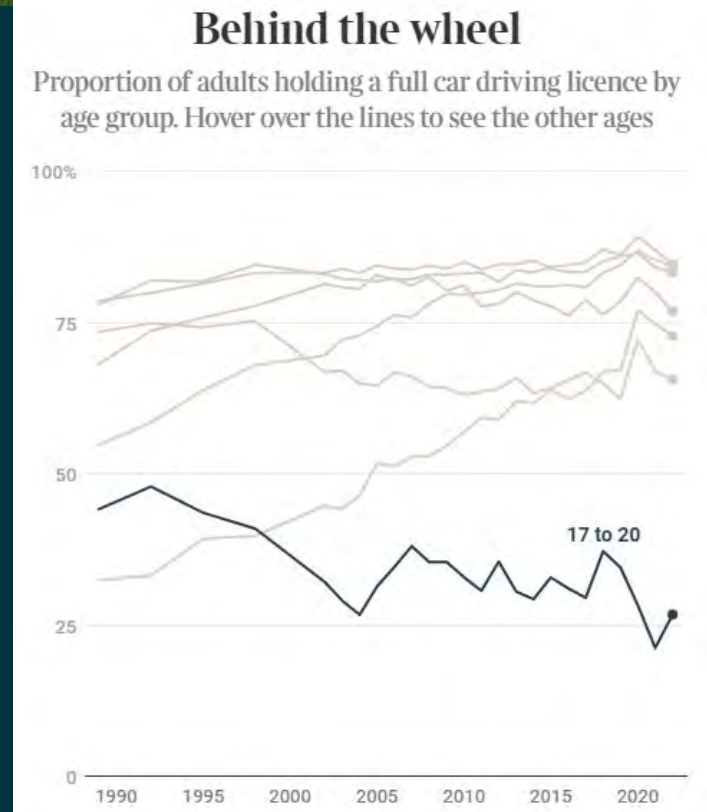
Traffic Planning Guide for Modern Cities

Mikael Colville-Andersen

Society has a choice, or does it?

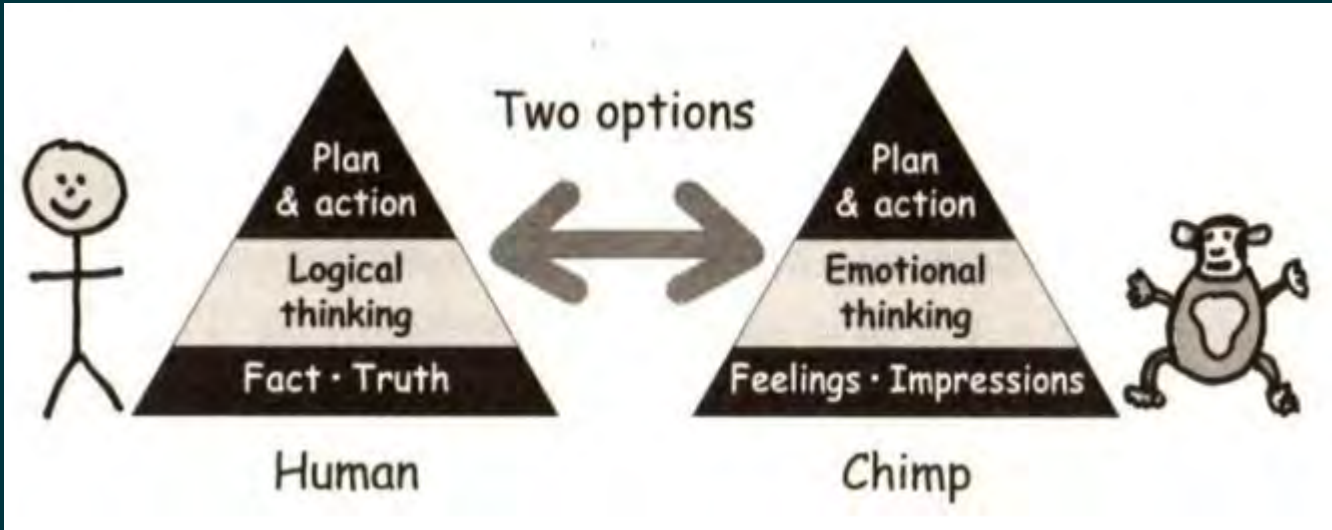


- Society celebrates car ownership.
- Businesses cater to vehicle access over people
- Car ownership is freedom, status, opportunity.
- But the proportion of young people getting a driving license is in decline (*reasons include cost, education choices, urban living, environmental concerns and lack of interest in driving*).
- To accommodate non-drivers, we need to improve other transport options – active travel and public transport.
- It's about providing viable alternatives...



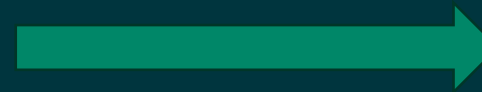
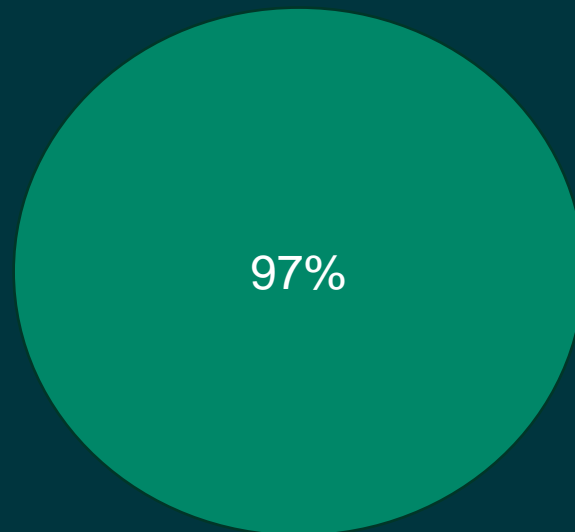
Why three quarters of young people aren't learning to drive

We are asking for behaviour change. As humans, we can think logically, but we are driven by our 'chimp'.



The Chimp Paradox- Dr Steve Peters

3 %



What does this equate to with society?

We are often fighting against misinformation



Efforts to limit traffic in Oxford, England, have prompted a backlash in the community, including a protest on Feb. 18. Martin Pope/Getty Images



MARTIN POPE/GETTY IMAGES

And we've tended to fear, and underinvest, in engagement with the people our schemes affect most

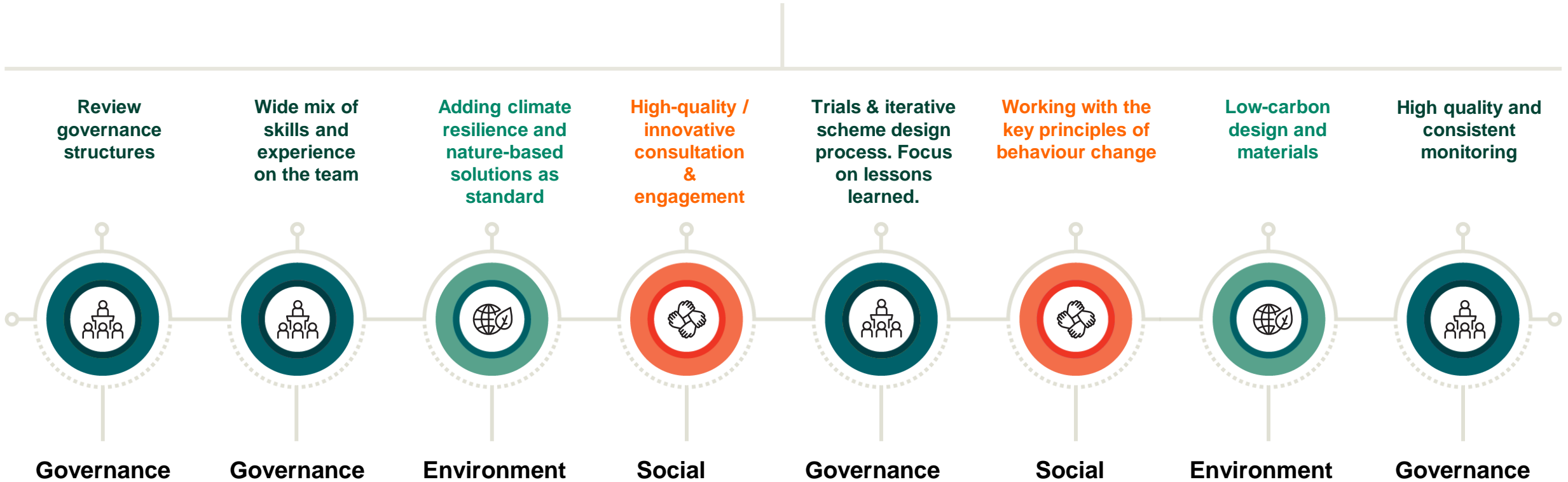
- Often, it's poor practice, which means people don't expect to be involved in shaping their public spaces
- Historic lack of investment in consultation and engagement – fear of asking questions and being 'held to the answers' (*it's a consultation not a referendum*)
- A lack of engagement during COVID, and fast-moving implementation has eroded trust in some places
- But engagement with communities and businesses is even more critical when we are seeking to understand the barriers around behaviour change (mode shift)

**If we want different
results, we must do
things differently...**

What can we do differently?

A new approach to street and place design: key considerations

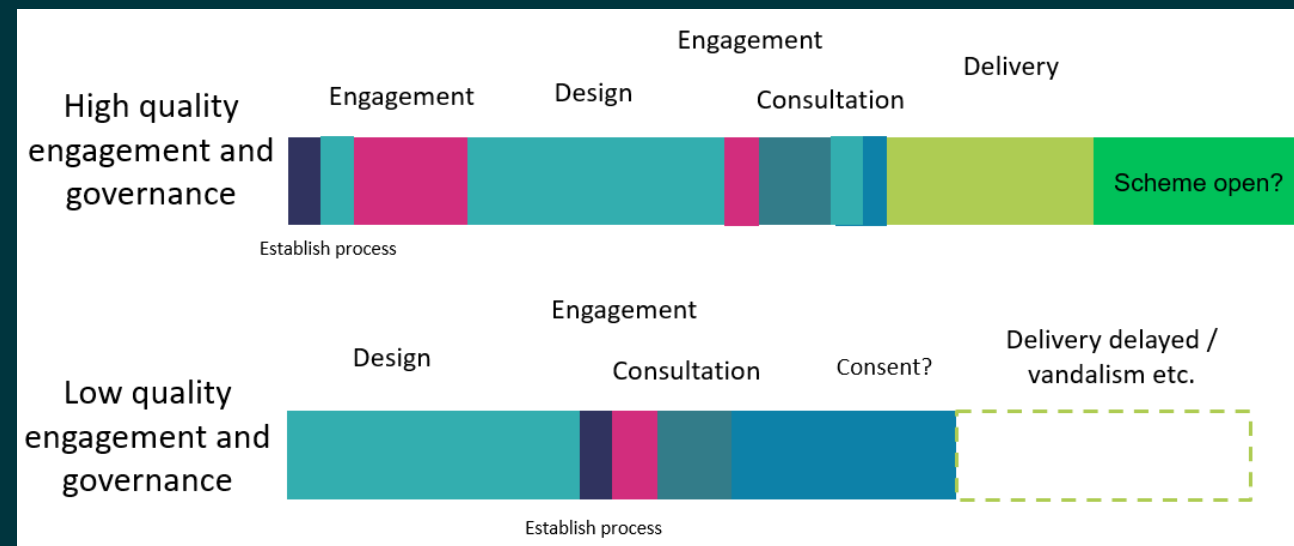
8 Factors to aid successful delivery



AECOM

1 Review governance structures

- Governance structures need to support the delivery of people-friendly schemes- this might require some change.
- Review existing systems, processes and procedures
- Establish a clear decision-making process and identify key gateways
- Other teams will need to be involved – greening, conservation, heritage, maintenance, various monitoring teams/experts which adds complexity



AECOM

Case Study: Working with South Gloucestershire to support with governance

Client: South Gloucestershire (2023)



AECOM developed a 'Route Map for Success'



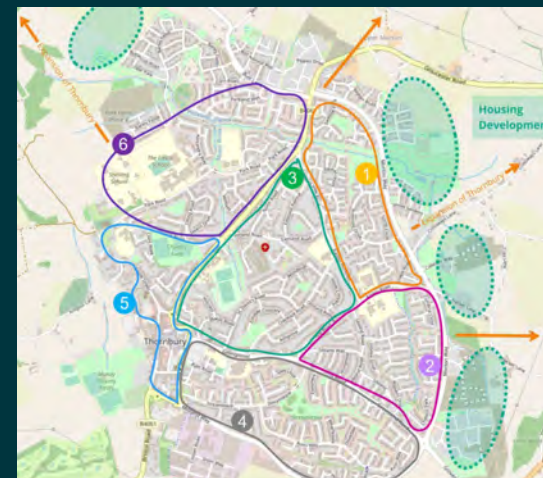
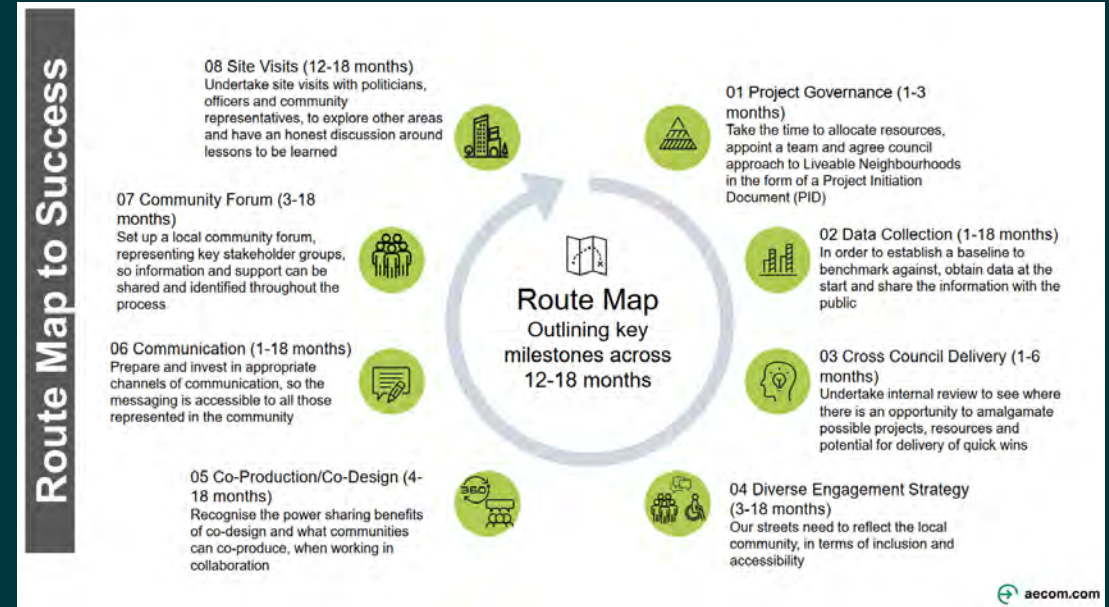
The document presented good practice across key elements of governance.



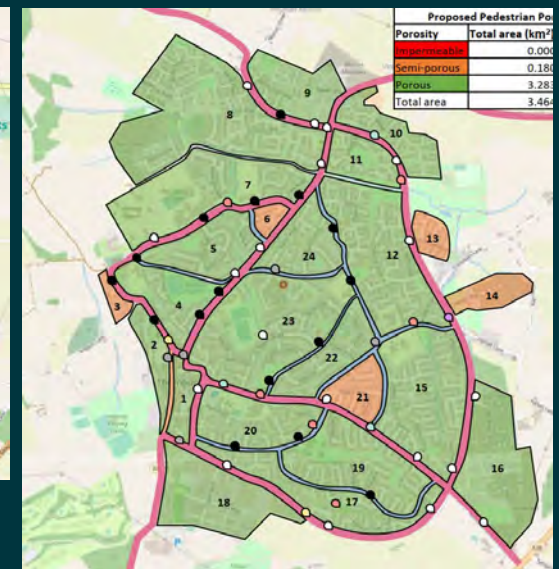
6-month secondment as a Technical Advisor



Able to develop internal capacity, identify workstream opportunities, support with technical assessments, and advise on engagement platforms.



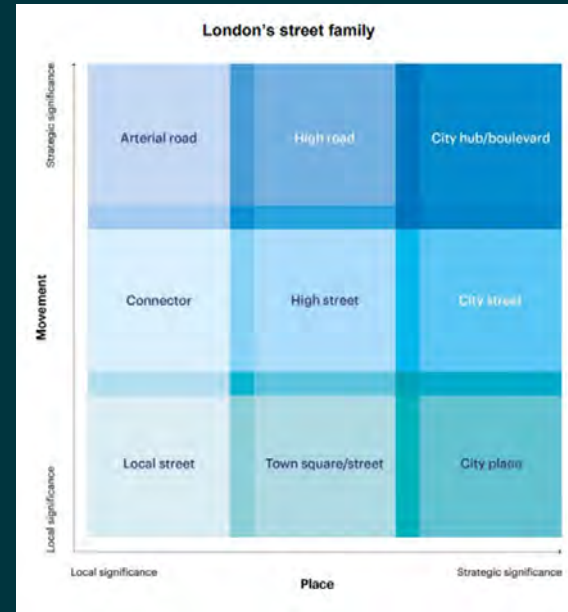
AECOM



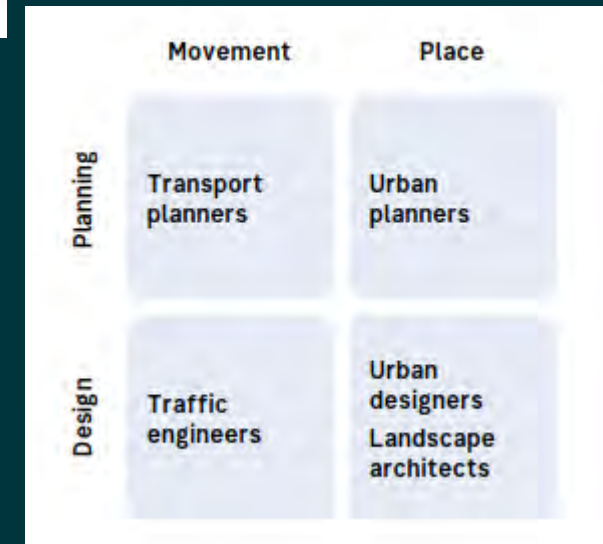
AECOM

2 Adopting diverse, multi-disciplinary teams

- The solution doesn't lie in one discipline; it requires a multitude of skill-sets
- Appreciation of both Movement and Place
- Move from 'Predict and Provide' to 'Design and Provide'
- Requirement for more iterations of work- these are no longer just transport schemes
- Diverse teams = diverse solutions
- Breaking the norm and working in blended teams can bring challenges



Roads Task Force- London Street Family



Case Study: Bandon Street Improvement Scheme

Client: Cork County Council



Adopting a multi-disciplinary team to capture all opportunities



Reallocation of space away from vehicle to pedestrian



Nature-based drainage solutions



Consultation with disability representatives inc the Irish Wheelchair Association



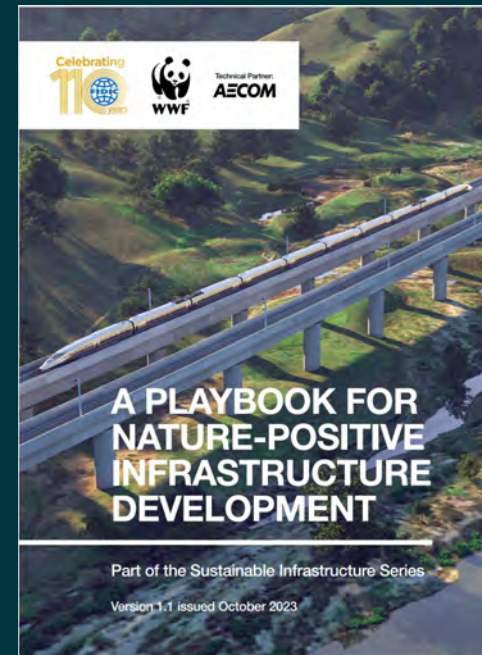
AECOM



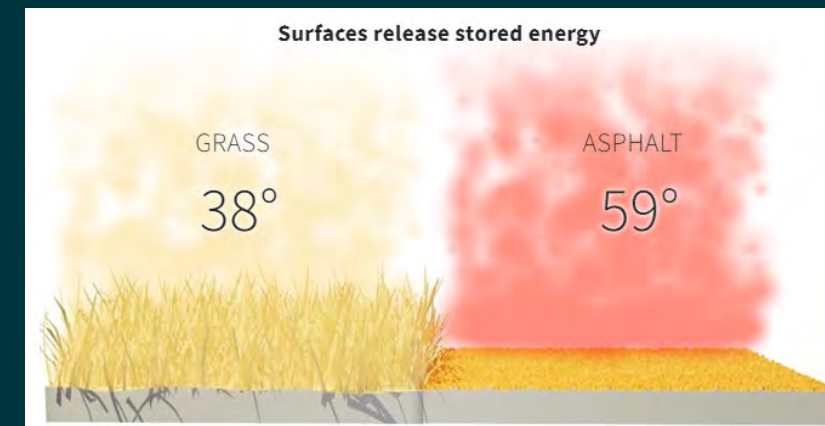
AECOM

3 Climate resilience and nature-based solutions

- We should expect our streets to work harder for us; we can frame this under both a public health crisis and a climate crisis
- Reallocation to green-infrastructure
- Statutory requirement to provide 10% Biodiversity Net Gain on or off site in England
- Cost can be a perceived barrier. However there is also a cost to inaction.
 - Nature-based funding
 - Partnership working with water companies, local businesses, and communities support longevity.



AECOM



Reuters – The floor is lava

Case study: Mansfield Flood Resilience Project

Client: Severn Trent Water



The UK's first catchment-scale SuDS retrofit project to reduce flood risk across a whole town - largest of its kind



Removal of 58,000m³ of surface water from the combined sewer system



Intercepting storm water, improving water quality, providing green infrastructure and improving biodiversity



Programme of measures in schools and generation of green jobs



AECOM

4

High-quality & consistent consultation and engagement

- **Rebuild trust in the engagement process**
- Build in multiple touch-points
- Seek seldom heard voices and be proactive in engaging
- Co-design as an increasing element of the design process:
 - Programme in time for **iterations**
 - Accepting the **resourcing** required to manage responses
 - Value of approach in **de-risking** the scheme
 - Build **skills** in this area



Case Study: Bath Liveable Neighbourhoods

Client: Bath and North-East Somerset (B&NES)



Engagement-led approach to scheme design- 15 areas



Co-design as a tool to empower communities in the design process
“blank sheet of paper”



Building trust, and a sense of ownership, through transparency



AECOM / B&NES



AECOM / B&NES

5

Understanding what it takes to change behaviour

- People are complicated
- Behaviour is difficult to predict
- The provision of a safe cycling or walking environment doesn't mean people will use it
- People may misuse the space preventing others from using it
- People can be unaware of the changes around them
- People do not like to change
- We need to... work together to overcome potential barriers to change
- We need to... bring people on the journey from concept to delivery
- We need people to... WANT to change their travel choices

The key to both success and failure...
people



Case Study: Behaviour change for the next generation

Client: National Transport Authority Ireland



Creating tools to empower schools in the decision-making process



Reducing vehicle dominance in favour of active travel



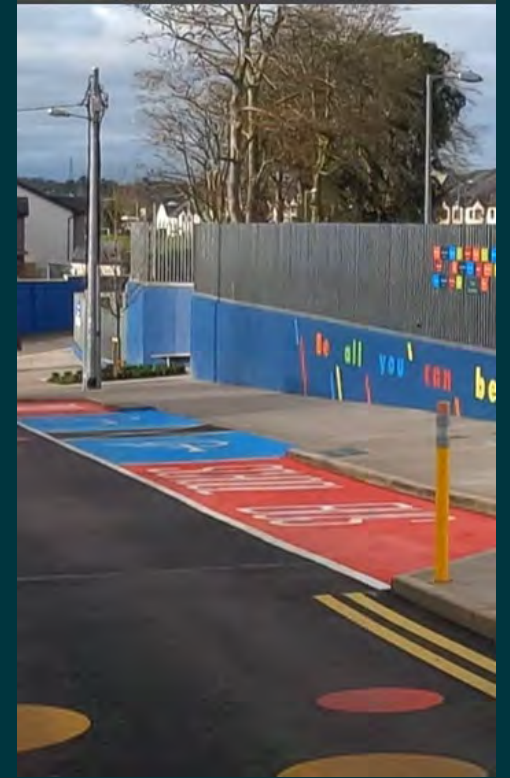
Inviting schools to take ownership of their place - designing art to be adopted



AECOM / NTA



AECOM / NTA



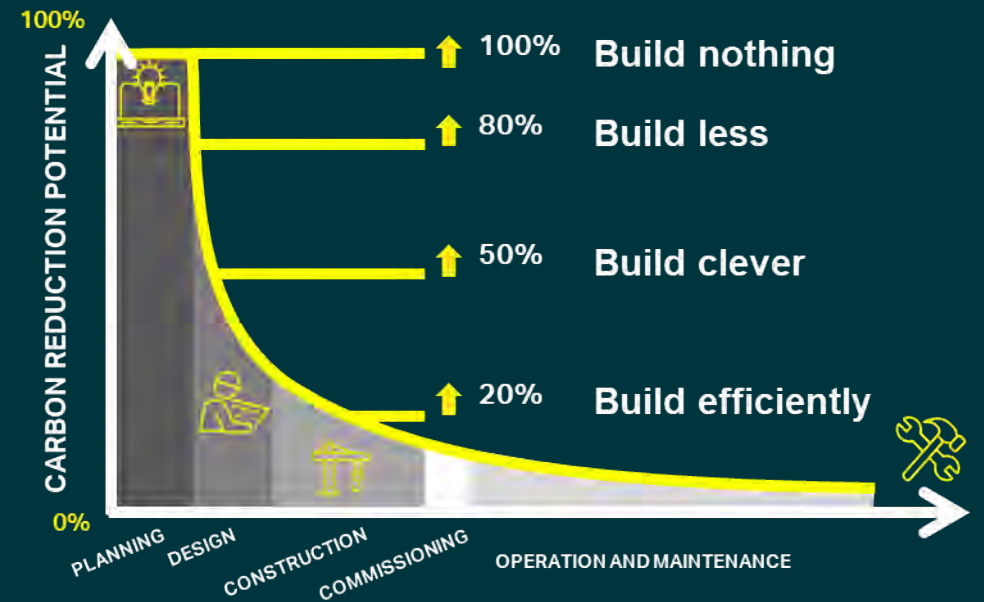
AECOM / NTA

6 Low carbon design and materials

- We need to consider how we can reduce carbon at each stage of the project lifecycle
- Review the embedded carbon of our material choices, consider:
 - Green infrastructure replacements
 - Design adaptations
 - Recycled materials
 - Review material composition
- Material impact must be accounted for in design-establish carbon plans and identify opportunities for decarbonisation
- Use locally sourced materials
- But also need to present as being commercially viable



AECOM- Sustainable Legacies



7 Trials and an iterative scheme design process

- Trials show openness to change and building a two-way dialogue. Its supports behaviour change
- But trials must actually be trials
- It is helpful to communicate how a scheme would evolve over time: **'Now, Soon, Later'** is a useful mantra
- There is benefit it reminding people what the opportunity could be, beyond the initial intervention
- The scheme doesn't stop once it's been implemented; don't miss the opportunity to share lessons learned (even if this is uncomfortable)
- Feedback and monitoring should be built into project plans and properly budgeted for and reacted to. Otherwise, the scheme seems like a fait accompli



Google



Google

Case Study: Reimagining kerbside space

Client: London Borough of Camden (2020-2024)



Materials are bright, engaging and simple – **no jargon or technical detail**



Process is consistent across the borough-wide programme of Safe & Healthy Streets schemes – webpage, flyer, street signs etc are used in a uniform way for each scheme.



This includes LTNs, School Streets, Placemaking improvements, Mobility Hubs, Cycle Lanes



Language and 'identity' is consistent and rigorously checked by comms team



Questions are consistent too, so repeat responders build familiarity and trust that all schemes / areas are 'treated the same'

London Borough of Camden



Somers Town Future Neighbourhoods 2030

STR

SAFE AND HEALTHY STREETS

Have your say on our proposals for Green Mobility Hubs in Somers Town

Green Mobility Hub

Have your say! Consultation now open until 17th October 2023

We want to add new Green Mobility Hubs to Somers Town. These hubs will be designed to provide new, sustainable types of transport for Somers Town residents. They could include shared bikes, car clubs, cargo bikes and e-scooters.

To find out more and share your views, visit our website to answer a few quick questions!

camden.gov.uk/ma

To find out more including full details on what we are proposing and to share your views, visit our website. You can use the QR code to access the site from your phone.

If you'd prefer to fill out a paper form or like information in another format (like larger print or another language) call 020 7974 4444.

Thank you for sharing your thoughts with us.

camden.gov.uk/Phase1



8 High quality and consistent monitoring

- Creative and scheme specific monitoring programmes.
- For example, School Streets should have ATCs but also perception surveys, air quality monitoring (at least a year in advance!) and ideally video surveys to assess how street and space movements and interactions change.
- Consistency of collection and reporting (*and transparent reporting of the good and bad*) across multiple similar schemes will build trust in the data produced.
- Make data as accessible and engaging as possible. Fact Sheets with graphics and pictures can be quick to produce once a template is established.
- Seek data from partners too – Micromobility providers have rich datasets – access to these can be built into contracts.



WECA

West of England
E-scooter Trial
Evaluation Final Report

AECOM materials for LB Camden

Monitoring: Haverstock Hill & Rossllyn Hill Walking, Cycling and Road Safety Scheme

As part of the Haverstock Hill & Rossllyn Hill Walking, Cycling and Road Safety Scheme, several trial changes were made to these streets to support walking and cycling, including:

- Provide protected cycle lanes in both directions on Haverstock Hill/ Rossllyn Hill (between the junctions with Prince of Wales Road and Pond Street), including spaces for emergency vehicles to pass traffic.
- Install four new zebra crossings and one new signal crossing.
- Provide more seating for people to stop and rest.
- Install more cycle parking to help people switch their journey to the shops by bike.
- Extend the hours of operation of the bus lane to a 24/7 Monday to Sunday arrangement.
- Add shared use bus boarders at most bus stops to enable cyclists to remain separated from traffic throughout their journey.
- Subject to approval from Transport for London, add pedestrian countdown timers, wider advanced stop lines and "early release" facilities for cyclists at the junctions with Pond Street and England's Lane.
- Remove the majority of parking provision on Haverstock Hill/ Rossllyn Hill and relocate some of this provision to adjacent side roads. Some disabled parking and some loading provision will be retained on Haverstock Hill/ Rossllyn Hill and an extra disabled parking bay will be provided.
- Remove traffic islands at formal and informal crossing.

The scheme was implemented under an Experimental Traffic Order (ETO) which came into force in January 2022 following a 6-month construction period.

To review the impact of the Haverstock Hill and Rossllyn Hill Scheme after the ETO was implemented, data on motor vehicles, pedal cycles, pedestrians, air quality and emergency response times was collected before and after scheme implementation. The data has been compared and summarised in this monitoring report. This information is useful, alongside consultation activities and relevant policies, in guiding the decision on whether the trial scheme should be made permanent, modified, or removed at the expiry of the ETO.

Summary

A review of 'Before' and 'After' (i.e. after the trial scheme was implemented) data for the Haverstock Hill/ Rossllyn Hill Scheme indicates the following:

- On average, motor vehicle levels on Haverstock Hill/ Rossllyn Hill were **12% lower** in 2022 ('After-scheme') compared to 2021 ('Before-Scheme').
- Cycle levels were **19% higher** in 2022 (August – December) when compared to 2021 (August – December) on Haverstock Hill/ Rossllyn Hill. The largest increase was observed on Haverstock Hill/ Rossllyn Hill between Glenloch Road and Howitt Road (40%).
- A **126% increase** in Lime dockless bike hire usage was observed when comparing the number of trips on Haverstock Hill/ Rossllyn Hill between August 2021 – December 2021 ('Before-scheme') and August 2022 – December 2022 ('After-scheme'). Between August 2020 – December 2020 (pre-scheme, during-pandemic) and August 2022 – December 2022, a 220% increase has been observed.
- On average, pedestrian flows have decreased by 13% on Haverstock Hill/ Rossllyn Hill when comparing August – December 2021 ('Before-scheme') and August – December 2022 ('After-scheme').
- Bus speeds for Routes 168, 268 and C11 have, on average, marginally decreased since the implementation of the Cycling Scheme.
- 5 collisions involving casualties have been recorded between 01 November 2021 and 31 July 2022 ('After-scheme') on Haverstock Hill/ Rossllyn Hill. Over the same period in 2019/2020 ('Before-scheme'), 11 collisions involving casualties was recorded and in 2020/2021 ('Before-scheme' and during the pandemic), 6 collisions involving casualties were recorded which is equal to a **55% reduction and 17% reduction** respectively.
- No 'After-scheme' monitoring is currently available for Haverstock Hill/ Rossllyn Hill. At 4 out of 6 monitoring sites, raw and unadjusted NO₂ levels were lower in 2022 compared to 2021.
- No direct impact on emergency vehicle response times has been identified from the implementation of the Haverstock Hill/ Rossllyn Hill scheme. London Fire Brigade response times have shown a slight increase in response times.

In summary, the latest monitoring data gathered indicates higher cycling levels following the completion of the scheme compared to the 'Before-scheme' data. Motor vehicle levels and pedestrian flows were lower 'After-scheme' on Haverstock Hill/ Rossllyn Hill.

camden.gov.uk/making-travel-safer-in-camden

Conclusions

A different approach to street and place design: key considerations

8 Factors to aid successful delivery

AECOM

Governance



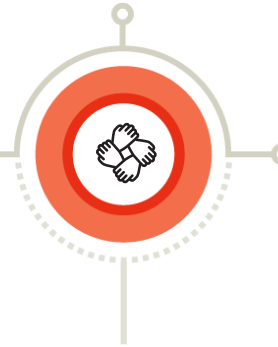
1. Review governance structures
2. Encourage team diversity
3. Trials & iterative scheme design process. Focus on lessons learned.
4. High-quality and consistent monitoring

Environment



5. Climate resilience and nature-based solutions as standard
6. Low-carbon design and materials

Social



7. High-quality / innovative consultation & engagement
8. Working with the key principles of behaviour change

Final points

1

Recognise
this requires
a cultural
shift.



2

Don't be
intimidated
by the
challenge.



3

It's not just
about active
travel...



4

Be prepared
to collaborate
and be
flexible.



5

Invest in the
process.



Contacts



Christian Bode
Croydon

Technical Practice
Lead

Streets

christian.bode@aecom.com



Georgie Wells
St Albans /
London

Principal Consultant

Future Mobility

Georgie.Wells@aecom.com



Mike Morgan
Cardiff

Senior Consultant

Streets

mike.morgan@aecom.com



Lucy Sykes
St Albans /
Manchester

Senior Active Travel
Consultant

Streets

Lucy.sykes@aecom.com

AECOM Delivering a
better world