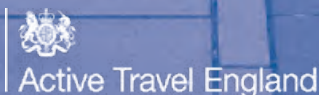


**A vision for creating an
inclusive wayfinding system
that works for everyone**



Pathways Project

Blueprint



A vision for creating an
inclusive wayfinding system
that works for everyone

Pathways Project Blueprint

Participating Organisations

Applied Information Group initiated the concept of a better national wayfinding system for active travel. Applied has been commissioned by the Walk Wheel Cycle Trust to author this study. It is supported by Active Travel England, Welsh Government, Transport Scotland and Northern Ireland's Department for Infrastructure. An HM Treasury compliant Strategic Outline Business Case authored independently by Tim Ashwin at The Hub Transport Advisory has been commissioned in parallel to interrogate the economic case.

This study is grounded in the Department for Transport's 2026 Cycling and Walking Investment Strategy. This states the intention to publish a vision and outline business case for a consistent national approach to active travel wayfinding and launch local pilots to collect the evidence base of what works by the end of 2026.

The content of this study has been informed by extensive cross sector consultation at local, regional and national level, research and development of a prototype Inclusive Wayfinding Toolkit and preliminary pilot studies with local authorities across a range of settings.



Active Travel England



Llywodraeth Cymru
Welsh Government



applied

Pathways Project Blueprint
July 2026



Accessible version
available online
www.pathwaysproject.uk

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Foreword

by Chris Boardman MBE

For decades, we’ve known that active travel – walking, wheeling and cycling – is one of the simplest, most effective ways to improve the health of our nation.

It boosts local economies, strengthens communities, reduces congestion and pollution, and gives people genuine independence in how they move. And yet, despite its benefits, active travel has never reached anything close to its full potential in the UK. The reason is simple: we’ve never given it the coherent, nationwide system it deserves.

Sixty years ago, Britain transformed the way we travel by creating a unified road sign and wayfinding system – an investment that didn’t just make driving easier; it changed behaviour, connected the country, and became a global benchmark. Today, we stand at a similar moment. The Pathways Project is our chance to do for active travel what that system did for motoring.

Pathways aims to make the UK’s walking, wheeling, and cycling network visible, intuitive, and accessible to everyone. Right now, active travel is held back by inconsistency – different signs, different standards, gaps in coverage, and a general lack of public confidence. If we want people to use the nation’s pathways, we need to make them obvious, reliable and welcoming.

This project has the potential to be a once-in-a-generation shift. A universal, inclusive wayfinding system will improve accessibility, increase activity levels, and help unlock the enormous return on investment already being made in active travel infrastructure. More importantly, it will give people confidence – confidence to choose healthier journeys, to explore their local areas, to move freely and independently.

The Pathways Project sets out a clear, practical four-step programme: build the coalition, design with the public, test in the real world, and scale nationwide. It is ambitious, but it is achievable – and it’s exactly the kind of strategic thinking the UK needs if we want to create a healthier, more connected, more active nation.

The Government has embraced these outcomes and this vision. Clear policy targets are now included in the 2026 Cycling and Walking Investment Strategy (CWIS3).

This is not just a signage project. It’s a generational legacy – something that, decades from now, people will take for granted as part of the fabric of British life. Just as the road sign system reshaped how we travel by car, Pathways can reshape how we travel under our own power.

I’m proud to support this vision. It puts people first, it builds on international best practice, and it gives us the tools to unlock a better future – one where active travel is the natural, confident choice for millions across the UK.

Chris Boardman MBE
National Active Travel Commissioner



This is a generational legacy – something that, decades from now, people will take for granted as part of the fabric of British life. Just as the road sign system reshaped how we travel by car, Pathways can reshape how we travel under our own power.

The Pathways Project

Executive summary

People are more likely to choose walking, wheeling and cycling when routes are easy to understand, navigate and trust. Current inconsistencies create unnecessary barriers, particularly for people new to active travel, children, disabled people, older people, visitors or those considering a change in travel behaviour.

Active travel delivers significant public value through a single, relatively low-cost investment. It improves public health, reduces pressure on health services, cuts carbon emissions and air pollution, eases congestion, supports economic growth and placemaking, and provides affordable, inclusive access to jobs, education and services.

As a result, active travel contributes simultaneously to health, climate, transport, economic and social policy objectives.

All four UK governments have demonstrated strong support for active travel, recognising that high-quality infrastructure is essential to enabling more people to walk, wheel and cycle. Recent years have seen increasing investment in active travel networks and growing alignment around design standards and guidance, including LTN 1/20 and equivalent approaches across the devolved nations.

However, despite progress in infrastructure delivery, and some fine examples of clever solutions, the user experience remains fragmented throughout the UK. Inconsistent signage, mapping, branding and route information across regions undermine the usability, visibility and legitimacy of active travel networks.

People are more likely to choose walking, wheeling and cycling when routes are easy to understand, navigate and trust.

Current inconsistencies create unnecessary barriers, particularly for people new to active travel, children, disabled people, older people, visitors or those considering a change in travel behaviour.

A consistent national approach to wayfinding would reduce cognitive effort, lower anxiety and enable people to make quick, intuitive travel decisions. Just as standardised signage supports confident navigation on the road network.

The national government and devolved administrations have committed to improvement

in this area. Substantial public investment is outlined in the recently published CWIS3 and equivalent initiatives across the UK, including a commitment to reviewing TSRGD legislation. There is an urgent opportunity to establish a national wayfinding strategy today. Avoiding costly future retrofitting and ensuring that effective, consistent wayfinding becomes business-as-usual in all new active travel projects.

The Pathways Project has engaged stakeholders from across the UK to develop a three-year programme to design, test and pilot a transformational national wayfinding system for walking, wheeling and cycling.

This Blueprint of the Pathways Project proposes an integrated ecosystem of four complementary systems:

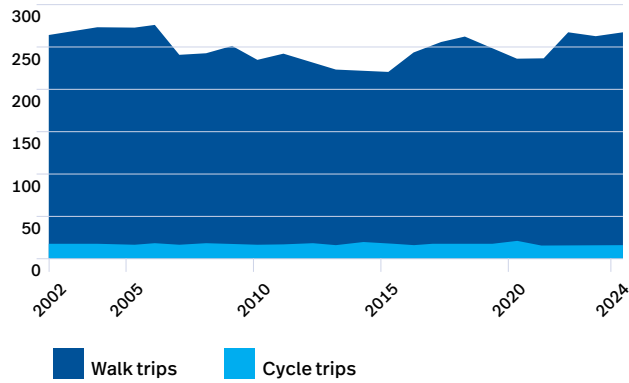
- Network System** – National standards for a network of local routes. Organised around a systemised database of signs & directions and used by everyone.
- Awareness System** – Maps and route information that increase awareness of places and travel opportunities.
- Behavioural System** – Signage and information that encourage safe, considerate and compliant use of active travel networks.
- Data System** – A coherent active travel data specification enabling information sharing across platforms, improving accessibility and enabling innovation.

These systems offer a common-sense solution to making everyday journeys easier, safer and more intuitive. By standardising what should be standardised and localising what should be localised, they balance national consistency with local identity and flexibility.

Together, these systems create a consistent, scalable and future-proof approach to active travel wayfinding across the UK. Maximising the value of infrastructure investment and helping more people choose walking, wheeling and cycling for everyday journeys.



These systems offer a common-sense solution to making everyday journeys easier, safer and more intuitive.



Average walking and cycling trips per person per year in England, 2002–2024. Source: Department for Transport, National Travel Survey 2024, table NTS0303. Despite policy emphasis and billions of pounds of investment in active travel, the average number of walking and cycling trips per person in England has remained broadly unchanged over the past 22 years. Trend data from Scotland and Wales points to a similar underlying picture.



The Pathways Project



The Pathways Project is a proposed national active travel wayfinding system for the UK.

This document is a vision study that summarises this idea. It sets out the challenges facing current active travel information systems, presents a vision for a more coherent national approach, and outlines a route from concept development to implementation.

Why does it exist?

It is recognised that while investment in active travel infrastructure continues to increase across the UK, the information systems that support walking, wheeling and cycling remain fragmented, inconsistent and difficult for users to understand. Despite isolated innovations, existing guidance, standards and local initiatives do not create a coherent experience across places, limiting participation and reducing the impact of active travel investment. Pathways has been developed to address this gap and support a more connected, user-centred approach.

Who is it for?

The document is intended for the UK Government and devolved governments in Scotland, Wales and Northern Ireland, as well as local authorities, transport bodies, delivery partners, funders, active travel organisations, network owners, designers and practitioners involved in the planning, delivery and management of walking, wheeling and cycling networks across the UK.

Project status

This Blueprint is not a statement of policy, an approved standard, or a final design solution. It is intended to support discussion, raise awareness, inform further research, and provide a basis for piloting and evaluation. The document is designed to help relevant sponsors, authorities and delivery partners consider the concept and contribute to its future development.

The central idea

Pathways proposes a UK-wide wayfinding approach that can be implemented locally. As a network of local networks, it seeks to connect locally managed walking, wheeling and cycling networks through a shared set of principles governing logic, naming, coding, signing, mapping, behaviour and data. The goal is to create a consistent, understandable and scalable system that helps people navigate active travel routes with confidence wherever they are in the UK.

Intended outcomes

The ambition is to make active travel easier, more attractive and more accessible, leading to more people choosing walking, wheeling and cycling for everyday journeys. In turn, this can support improved public health, stronger social cohesion, increased local economic activity, reduced congestion, lower environmental impact and better returns from public investment in active travel infrastructure.

Document structure

The document is structured around four main sections. It begins by examining the current problems and limitations of the existing approach to active travel wayfinding. It then sets out the vision and principles behind the proposed system, explaining how a unified ecosystem could operate and scale. The third section explores the economic and social benefits of the proposal, drawing on a Strategic Outline Business Case. The final section presents a delivery plan, outlining the steps required to move from vision to implementation.

What happens next?

The next phase of the project focuses on building a stronger evidence base, testing concepts through pilot projects, refining the proposed system through research and evaluation, and developing the governance, funding and delivery arrangements needed for wider implementation. This work will be undertaken in collaboration with project sponsors, delivery partners and other stakeholders to determine how Pathways can be adopted and scaled across the UK.

The goal is to create a consistent, understandable and scalable system that helps people navigate active travel routes with confidence wherever they are in the UK.

Definitions

Definitions, acronyms and terms used in this document

Active Travel A collective term used by the UK Government to describe all forms of walking, wheeling and cycling.

ATE Active Travel England. A DfT body established to promote Active Travel in England.

DfT Department for Transport. Responsible for all transport systems and movement across the UK.

Walk Wheel Cycle Trust Charity that curates the National Cycle Network.

CRT Canal and Rivers Trust. Charity that operates pathways along canals and rivers.

Transport Scotland Government body responsible for all transport modes in Scotland.

Transport for Wales Government body responsible for all transport modes in Wales.

Applied Information Group Wayfinding experts, designers of Legible London and many wayfinding systems.

Pathway Pavement on the side of the highway, cycle path or shared pedestrian and cycle path.

Wayfinding How people orient themselves and navigate using environmental cues, signage, tools, and spatial understanding.

Signage Visual elements placed within an environment to convey directional, informational, or identification cues.

Pathways Project Initiative to improve wayfinding and behaviour across the UK.

NCN National Cycle Network. 20,500km of walking and cycling routes covering the whole UK.

TSRGD Traffic Signs Regulations and General Directions. A DfT system, backed by an act of Parliament that determines how information is displayed on the highway. The devolved nations have the ability to amend this legislation for their nations.

TSM Traffic Signs Manual. The usable interpretation of TSRGD used by transport planners.

Active travel network Interconnected system of paths, routes, and spaces that enable people to move effectively.

Standards Agreed rules that make sure information and transport systems work together correctly.

Playbook A ‘how to do it’ guide to create and run a complex system.

ATDS Active Travel Data Specification. An open data specification to collate and empower use of active travel data.

GATIS General Active Transportation Infrastructure Specification. A recently proposed US open data standard.

Network effects How systems improve the more they are interconnected.

Waterfall methodology Linear, sequential approach to project development.

Agile Iterative, flexible approach allowing for continuous feedback, adaptation, and incremental delivery.

Treasury Green Book UK government guidance for evaluation of public spending projects to ensure value for money and effective decision-making.

The purpose

Encouraging more people to choose active travel

A consistent approach to active travel wayfinding will amplify the impact of investment and help more people choose everyday walking, wheeling and cycling journeys.

Why this matters

We intuitively understand that without the right physical infrastructure, movement is constrained. What is often overlooked is that the same is true when information is missing or inconsistent. Infrastructure enables movement. Information enables participation.

A lesson from history

Seventy years ago, the UK faced a similar problem on its roads. New standards of road infrastructure were being proposed and built, and the need for safer routes and clearer driver information became the catalyst for a rethink in road signage and wayfinding. The Worboys Committee, and the signing system that followed, introduced a nationally consistent, user-centric information system. This reduced uncertainty, shaped behaviour and made the road network more coherent and usable at scale. Active travel investment is creating better routes and streets, but those routes need to be easy to understand, easy to follow and easy to trust. Wayfinding helps people know where they are, where they can go, how routes connect, and what is expected of them along the way. Without that information layer, active travel infrastructure cannot deliver its full value.

The cost of uncertainty

Imagine if road signs, rules and expectations changed from one town to the next, or if, as you approached a sign, you were left wondering: what does that mean? Driving would be unpredictable and stressful. Confidence in attempting or completing journeys would be low, and people's behaviour would become erratic. Regardless of how well designed the roads were, routes might be underused or never discovered. This is the experience of active travel today. Inconsistent directions and unclear behavioural cues discourage use and exclude less confident users. Faced with uncertainty, people default to existing behaviours, and journeys that could be made by active travel are avoided or made by car.

The impact of wayfinding

Wayfinding helps people recognise and understand active travel networks. It helps them follow appropriate routes, explore new places and find their destinations quicker and more confidently. Wayfinding is a behaviour-change tool and it moves the dial. By making routes, choices and expectations clearer, it helps reduce uncertainty and gives people more confidence to choose active travel, particularly for shorter everyday journeys.



Government has set a target for England that by 2035, 55% of short journeys, under 5 miles, in towns and cities should be made by walking, wheeling or cycling.⁷

Wayfinding changes behaviour

Evidence from the UK and internationally shows that clear, consistent wayfinding directly increases activity, confidence and use:

- Legible London contributed to a 5% increase in walking and a 42% increase in confidence among users, despite partial rollout.¹
- The Disabled Citizens Inquiry 2023 recommends the development of consistent wayfinding to help disabled people navigate barriers thrown up by infrastructure.²
- In 2014, the City of Vancouver found that 82% of interviewees stated they were more likely to walk between places because of new maps. While only a statement of intent, the City went on to increase the number of trips made by foot, bike and public transit from 40% in 2008 to 53% in 2018.³
- Three public health studies (2005–10) found many people find navigating in unfamiliar or only partially known environments stressful to the point of avoiding making trips.⁴
- A 2004 study found that one extra kilometre walked every day, could reduce the probability of people becoming obese by 4.8% with associated reductions in related diseases.⁵ Extending this, a Harvard Medical School report, 'Walking For Health', suggests that walking regularly could save Americans over \$100 billion a year in health care costs.⁶

Economic case

The SOBC demonstrates that a targeted £5 million investment in the Pathways Project will catalyse substantial economic returns by optimising the application of existing budgets. Pathways is projected to deliver transformative impact over a 30-year appraisal period, generating total economic benefits between £1.5 billion and £3.2 billion, with a central estimate of £2.3 billion. Because these benefits are realised through more effective use of existing highway and active travel funding commitments that result in net cost savings over the long term, the project achieves a financially positive result and a 'High' to 'Very High' Value for Money (VfM) rating.

The Prize



Investment to impact
The Pathways Project turns active travel infrastructure into a system people can actually use.



More everyday activity
Making walking, wheeling and cycling easier to choose for short, local journeys – increasing participation across all age groups and abilities.



Greater inclusion and accessibility
Supporting people who are less confident, less familiar or more vulnerable to move independently and safely.



Safer, calmer streets
Shared expectations reduce confusion, conflict and risk between users.



Better value for money
One national system replaces fragmented local reinvention, maximising the return on infrastructure investment.



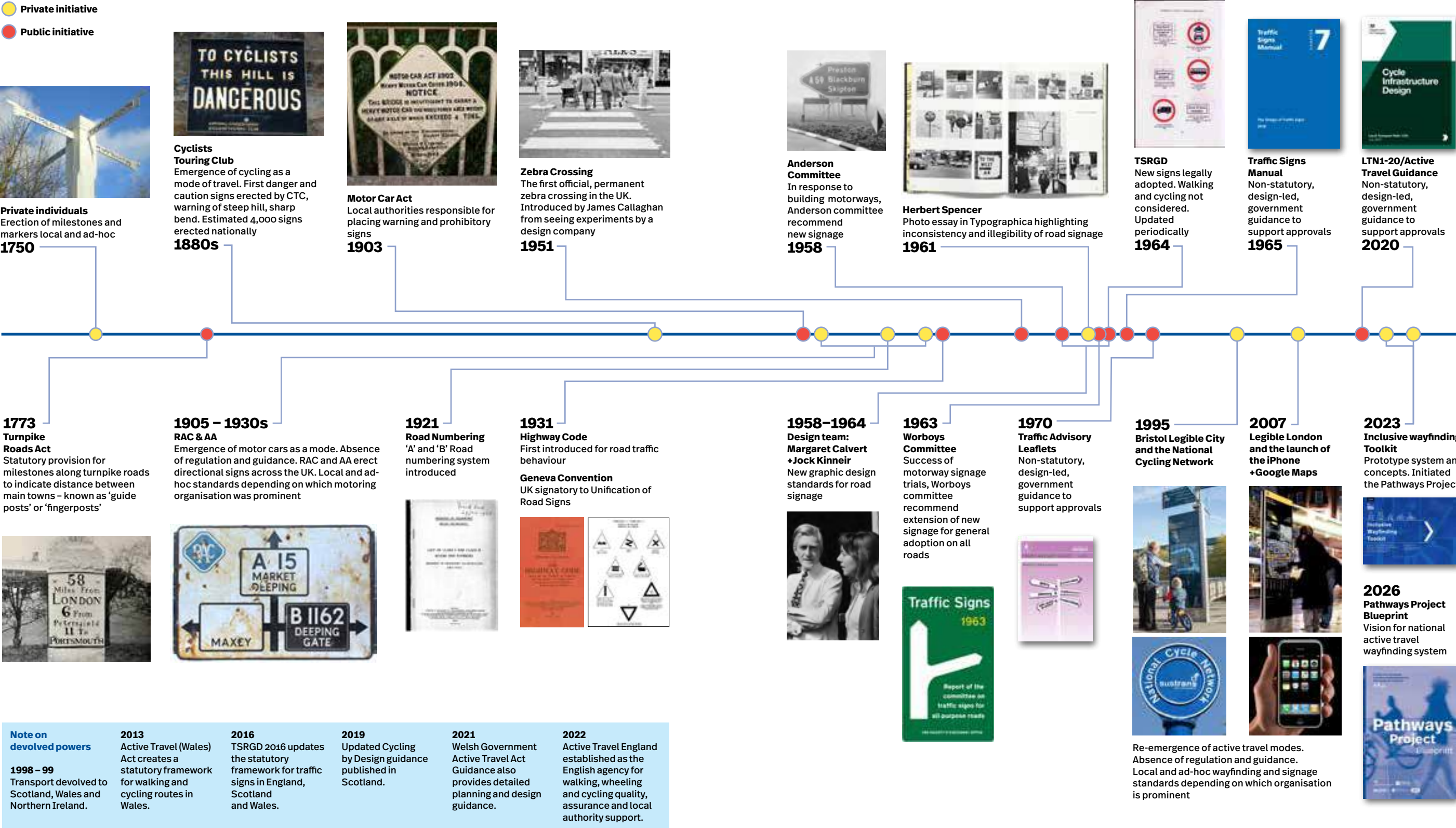
A lasting national legacy
A British, world-class system designed to scale, adapt and endure.

Background

Evolution of road information

The road network has evolved over the last two centuries. The way complementary information systems were created points to an important lesson for how this can be applied to active travel. Advancements were often driven by private initiatives and experiments that sought to fill gaps as they appeared. The Pathways Project follows this innovative tradition.

The development of information systems for road users progressed thanks to public and private initiatives that sought to fill gaps and make improvements, ultimately leading to a single national standard.



Problem one

Difficult everyday experience

People’s experiences and behaviours are shaped by a series of everyday touchpoints that together determine whether a network feels clear, intuitive and accessible.

For many people the lack of clear wayfinding causes frustration and makes active travel an uncertain choice. Confidence is damaged and limits participation. This is particularly acute for disabled and older people.



Disappearing signage
Poor maintenance leads to the impression that information cannot be relied on.

Across towns, cities and villages throughout the UK, people too often have to piece together poor quality, incomplete or missing information in order to make their everyday journeys.

People’s experiences and behaviours are shaped by a series of everyday touchpoints that together determine whether a network feels clear, intuitive and accessible. When these break down, journeys become frustrating, difficult or impossible.

It is common for information to stop without warning, change format, or fail to reappear after crossings, shared spaces or complex layouts. Moving from one local authority area to another is a particular pain point. Organisations responsible for wayfinding often apply information in their own styles to support local projects and objectives. As a result, signs, road markings, routing, networks, and wayfinding vary in design, placement and content.

Even local trips can require people to learn multiple visual languages and systems, stop to scan the environment, backtrack, or check phones, maps or surroundings simply to confirm direction.

London has mature pedestrian and cycle systems, adapted and refined over many years, making it possible to walk, wheel and cycle over longer distances with confidence. Manchester, Bristol and Brighton provide further examples where policy, infrastructure and design have been purposefully aligned. However, these are not representative of most journeys experienced throughout the country.

People often judge a journey by its weakest link or greatest pain point. These failures create uncertainty and friction, which become barriers to everyday use, particularly for disabled people and those less confident.



Uncoordinated
Cluttered collections of directions that often do not connect along a whole journey.

Conflicting spaces
People don’t behave like vehicles, so shared spaces create conflict.



Disconnected
People experience journeys as a whole. Poor quality connections have an oversized impact compared to pieces of quality infrastructure.



Entropy
People lose trust in information if signs are not maintained.



Confusion
Multiple instructions demand unwanted attention and are often therefore ignored.



The logical impact
The cumulative effect of these experiences is uncertainty. When journeys feel unclear or difficult to interpret, choice is constrained and participation falls. Evidence from behavioural research shows that travel decisions are shaped as much by perception and emotion as by rational factors, such as time or distance. If people cannot readily understand or trust an environment, they are less likely to use it, regardless of whether infrastructure is physically present. Uncertainty reduces active travel, reinforces default behaviours, and undermines the effectiveness of public investment.



Mixed messages
No surprise if cyclists don't dismount when instructions are inconsistent and conflict.



Which way?
Public Rights of Way signage often lacks specific directions.

Inconsistent codes
There are no agreed guidelines about when and what colour to use.



Incorrect
There is no North Station. Naming rigour matters for navigation and building trust.

Signs of progress in London

London demonstrates what a coordinated approach can achieve. Legible London has is a defacto national standard for pedestrian wayfinding, in the UK, and globally. Its system logics, fundamentals, layout, hierarchy, and mapping scales have been adopted by towns and cities aiming to deliver high quality wayfinding. Cycleways has established a city-wide approach to cycle wayfinding. As the network expands, the system will continue to be rolled out, progressively improving coverage across the city.



Nonsensical
Miss-application of road-traffic design creates crazy results and damages respect.



Confusion
Uncoordinated multiple systems make the individual do all the work.



Digital journey planning
Digital tools cannot replace physical information. Digital routing is only as reliable as the data on which it is based; where data is incomplete or inaccurate, people may be directed along unsuitable or inaccessible routes. Devices are not always available or reliable, and navigating by screen can disconnect people from the places through which they are moving.



Setting expectations
One-off attempts to set behaviour are ineffective. Expectations are better set through repeated, consistent messages.

Problem two

A fragmented network

Active travel networks are fragmented and inconsistent. They are rarely experienced as coherent, legible systems that support people’s whole journey.

When networks don’t make sense, people have to make sense of them themselves.



There is no single national network
There is no single, unified national active travel network in the UK. While regional and local networks are becoming more common, they are typically planned and delivered independently, shaped by local approaches, funding opportunities and administrative boundaries. There is no consistent obligation or mechanism to connect active travel networks across boundaries, to align route logic, or create a coherent experience from one area to another. Progress is being made. Guidance, investment and local delivery are addressing the quality and consistency of active travel infrastructure. However, the same level of consistency does not yet exist for the way networks are named, signed, mapped or explained.



Fragmented networks are a barrier to use
Fragmentation operates as a direct barrier to use. Gaps in information, inconsistent cues, missing route confirmation and changes in route identity become critical moments of uncertainty, whether people are moving between places, crossing administrative boundaries, or making simple local journeys. This prevents people from building a reliable mental model of the network. Journeys become harder to plan, repeat or adapt; confidence is lost and use declines. Even well-designed local systems can prove difficult to transfer between places. A cyclist or pedestrian familiar with London may still find Inverness, Newport or another city difficult to navigate if route naming, coding, destination hierarchy, visual identity and system logic are too different.

What a coherent network looks like

The UK’s national road network uses consistent signs, markings, route numbers, junction logic and behavioural rules. Whatever its status or whoever maintains it, the network is understood as one system, and people do not need to relearn its language as they move from place to place.

The system is also aligned with road infrastructure. Route status, junction layout, speed, priority and behaviour are communicated together, helping people understand not only where to go, but what kind of environment they are in and how they are expected to behave.



A network is experienced as its weakest link
A well-designed network can be undermined by an inaccessible connection, an unclear or broken route identity or the absence of information or reassurance at a critical decision point. This matters because people’s memory of a journey is typically shaped by two moments: the most difficult or emotionally charged point, and how they felt at the end. For people walking, wheeling and cycling, confidence depends on continuity. Routes need to be understandable not only in sections, but as complete journeys. A point of frustration, a break in the route, or the need to fall back on alternative routing or information can define the whole network experience as unreliable, even if most of the journey was clear, safe and well designed.



Networks should be defined by journey needs
Active travel networks are often defined by infrastructure, rather than the journeys people need to make. Because high-quality cycle infrastructure is fragmented, the network is often treated as incomplete too. Routes are added where infrastructure exists or where supporting policies such as safer routes to school, leaving gaps in how people understand where they can go and how places connect. Walking and wheeling show that networks can be understood differently. With good information, streets and paths form part of a legible network, helping people make better use of what is there. A cycle network does not have to wait for perfect infrastructure before it can be defined. Wayfinding can make existing routes visible and usable now, while also showing where future infrastructure is most needed.



Cognitive effort is placed on the individual, not the system
Fragmented networks place significant cognitive load on the person making the journey. Instead of being supported, people have to interpret, filter and piece together information for themselves. They have to work out where the route goes, whether it continues, what it is called, how it connects, and whether it is suitable for their journey. This effort increases as journeys become more complex, which has a disproportionate effect on disabled people, older people, less confident users and people making everyday local trips without prior knowledge of the area. When the system asks too much of the individual, active travel stops feeling simple, reliable or worth attempting.

Problem three

Fragmented and missing guidance

People’s experiences reflect a systemic failure on how active travel wayfinding is planned, designed, implemented and maintained across the UK.



Missing guidance
Over 25 documents reference different behavioural principles and wayfinding approaches. The majority focus on engineering solutions to developing networks.

Active travel infrastructure, including directional, behavioural and network information, is delivered by a mix of around 1,000 local public and private organisations. Each local planning team currently has to decipher 25 separate documents that relate in some way to providing information. It is a complex landscape of overlapping standards, legal requirement and missing guidance.

The guidance can also still fall short of defining active travel wayfinding as a coherent, end-to-end system. They do not address all scenarios, lack a consistent framework and are not clearly aligned with the Highway Code, TSRGD, or Public Rights of Way (PROW) legislation. Critical questions remain unresolved:

- Where should information appear?
- How can it support a full journey?
- How does active travel interlink with other transport modes?
- How are people reassured when uncertain?

Responsibility for the public’s experience is distributed across multiple organisations and policy regimes.

Each addresses specific modes, routes,

areas or regulatory requirements. They rarely align with how people actually travel. No unified framework exists to guide people from origin to destination across a network.

Within this fragmented and opaque system, uncertainty is often resolved locally through ad-hoc or risk-averse interpretation. Planners frequently default to statutory regulation, particularly TSRGD and the Traffic Signs Manual. These are essential documents, but they are often treated as default standards even where they do not provide a complete user-centred wayfinding response, or are not legally necessary.

This ‘default mode’ is most apparent in the signing of shared-use paths, where TSRGD signs are often used even when not legally required, and usually without additional information that would aid understanding.

Local authorities and agencies responsible for signage can also apply information in their own styles to support their own local projects and objectives. As a result signs and road markings vary in design, placement and content leaving public confused and uncertain how they are expected to behave and to navigate.

Shared routes expose a guidance gap

Shared walking, wheeling and cycling routes will continue to shape how most people experience active travel in the UK for the foreseeable future.

The current situation presents a wide range of layouts, designs, priorities and messages. Sometimes walking and cycling are physically separated; sometimes they are divided by a line; sometimes they are fully shared; and sometimes direction, priority or behaviour is indicated inconsistently.

The designs respond to engineering criteria and local conditions and preferences, but that logic is usually opaque to the people using them, and over longer distances, even relatively legible paths can be harder to understand if information is not repeated or explained.

This is particularly true for pedestrians. Their speed, attention and mindset are different from cyclists, and they typical fail to notice or respond to markings in the same way. The growing use of ebikes will widen the behavioural gap between the modes making shared use routes potential conflict zones. Yet the system rarely reflects these differences.



Problem four

A broken model of patchwork funding

Current funding models marginalise active travel wayfinding, preventing local authorities from planning and maintaining it as essential infrastructure that can be effective.

A well-designed bike lane that no one trusts, can find or is aware of, produces zero demand.

The effectiveness of active travel wayfinding is undermined by current approaches to funding, which typically focus on the delivery of physical infrastructure. New routes, junctions and public realm improvements are prioritised because they are tangible, visible and easier to define within capital programmes.

Wayfinding, by contrast, is less tangible, and is rarely identified as a core component of capital programmes. Although critical to the usability of infrastructure, wayfinding is often treated as supplementary or discretionary, and therefore not explicitly written into strategies, investment programmes or business cases.

Because of this, wayfinding is regularly excluded from early funding decisions and added late in the process, after budgets are already constrained. Where funding is available, it is often piecemeal, short-term or tied to specific routes or initiatives, rather than supporting people’s whole journeys or creating a coherent network-wide approach. This late inclusion limits critical thinking: wayfinding becomes a cost to absorb, rather than a system to design.

When infrastructure-led projects are delivered in this way, poor wayfinding can reinforce barriers even where the physical route has been improved.

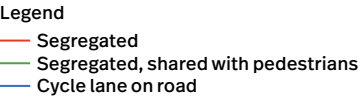
Wayfinding also requires maintenance, as an operational expense. Signs that are obscured by overgrowth, sun-faded, damaged or vandalised, or contain out-of-date information, undermine trust in active travel networks. Once trust is lost, people are less likely to rely on wayfinding, defaulting to habit, memory, third-party digital tools or avoidance. Poor maintenance reinforces inequality and further limits the usability of the network.

Without a clear mandate and dedicated funding, wayfinding competes unsuccessfully with other priorities. Where it is not embedded in strategies, such as CWIS, or written into funding criteria from the outset, it is consistently deprioritised, regardless of its importance to user experience, confidence and uptake.

Patchwork funding creates a fragmented network



Fractured cycle infrastructure
A segregated cycle network is not yet built. There are many gaps and fractures. Performance is limited until they are all joined-up. Until this occurs what can be done to create a network that functions for today?



How to tackle these problems

A system that works for people

Achieving meaningful change in active travel means developing systems that meet the needs of people and their real journeys, rather than organisational boundaries.

A target to increase active travel journeys by 29% across the UK presents a significant challenge and will require both cultural and organisational change.⁸

It means focusing on everyday journeys — the humble short trip — and on people who are currently inactive or socially excluded.

It requires a new approach that begins with how people experience movement, navigation and place; prioritises legibility, confidence and ease of use; helps people understand where they are, where they can go and how to get there; and enables both planned and spontaneous journeys.

The following section highlights the core principles of what a national active travel wayfinding system needs to do. This is followed by the four core elements of the system.

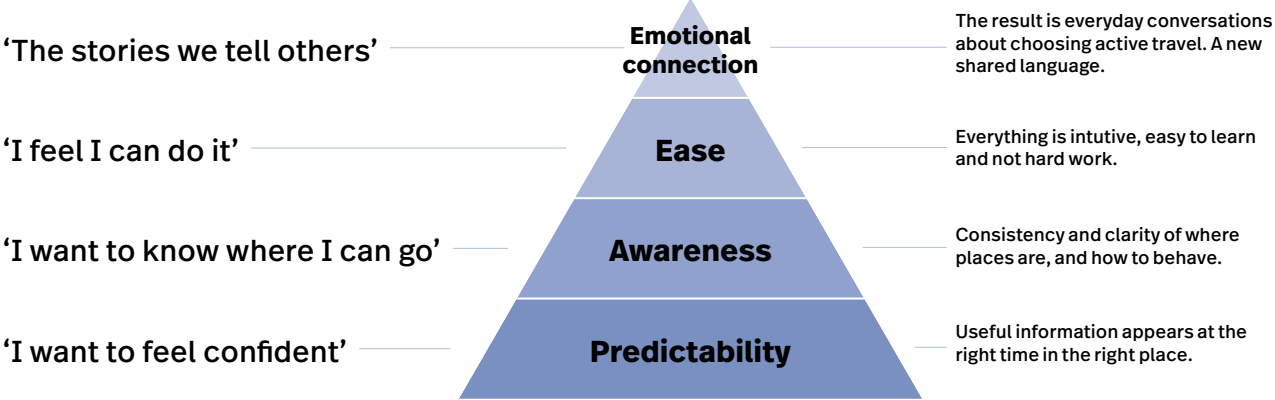
System principles

Built around how people move and make decisions

Encouraging more people to choose active travel requires an understanding of how people think, move and make decisions: Understanding that is grounded in neuroscience and behavioural research.

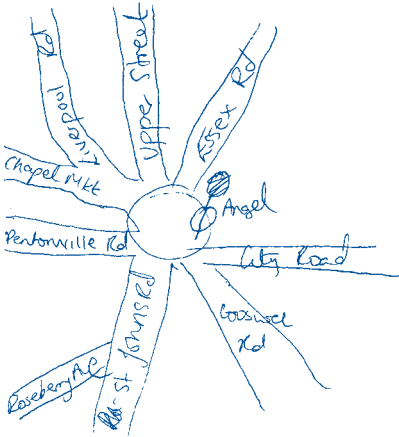
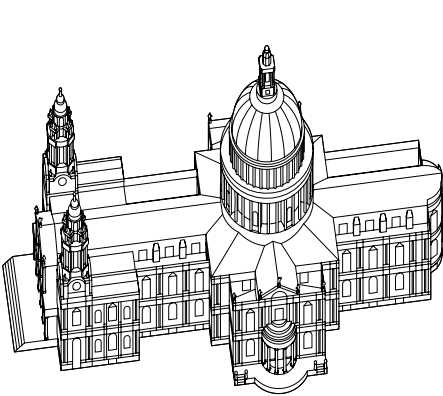
Behaviour change model

Wayfinding hierarchy of needs



Neuroscience and behavioural research

Across the UK, millions of people undertake active travel journeys. This involves billions of micro-decision points and memories. Understanding how people think and behave, how our thought processes both limit and enable choices, will be most effective. There are many insights, some very recently discovered. These three observations of how the human mind functions point to how to design a system that will positively change behaviour.



Thinking, fast & slow

The brain has two core ways of thinking: ‘fast’ and ‘slow’.⁹ Fast thinking is intuitive. It allows us to act using learned behaviours and environment cues. For example, when we see a handle on a door, we know instinctively it needs to be turned. On the other hand, slow thinking is analytical, it uses a different part of the brain to consider what is going on. It can be very effective but it is much more mentally intensive, and ‘slow’. Many of the public’s current problems with the status quo can be connected to messages and information that requires analysis, ‘slow’ thinking, to work it out. Slow thinking requires analysis and takes energy, time and effort, which we avoid. Systems that require deliberate analysis increase cognitive load and make active travel feel harder and less attractive. The lesson for active travel systems is that by reducing friction and supporting intuitive choices, people feel that walking, wheeling and cycling is the easy and obvious option. The UK Road Sign system is an example of designs that effectively taps into ‘fast’ thinking.

Navigation is primarily visual

Humans depend strongly on visual cues to interpret environments and anticipate movement. When visual information is unclear or inconsistent, navigation becomes more effortful and less reliable. For people with visual impairments, unclear or inconsistent visual information can make navigation significantly harder. Studies of spatial cognition demonstrate that navigation relies not only on location coding but also on recognising landmarks, sightlines and visual structure, to maintain orientation and confidence. Wayfinding systems must maintain visual clarity, clear sightlines, recognisable landmarks, spatial hierarchy and consistent visual cues, enabling people to orient themselves quickly and move with confidence. A national active travel wayfinding system must consider visual clarity as one part of a wider inclusive approach to orientation, reassurance and movement. For blind people, tactile cues, audible information, memory, assistance, environmental consistency and digital tools will be equally important.

Mental maps

Research shows that ‘place cells’ in the hippocampus play an important role in how the brain understands places and routes. As we move through places, we create mental maps that help us remember where we are, where we have been and how different areas connect. These mental maps are strengthened by clear, memorable and repeated cues. This means some places are easier to understand, remember and explore than others. Strong landmarks, memorable junctions, clear views and consistent naming all help people build stronger mental maps. Poor or confusing experiences can also be remembered, making places feel harder to navigate and making people less likely to explore further. Physical environments can change slowly and are expensive to alter. Wayfinding and Awareness Systems help by explaining how areas and routes fit together. They reinforce memory through clear hierarchy, consistent naming, recognisable landmarks, visual continuity and clear mapping.

System principles

Work for people of all abilities

It is the right of every person to have complete and autonomous access to the public realm. We have a responsibility to design for all people irrespective of their abilities.

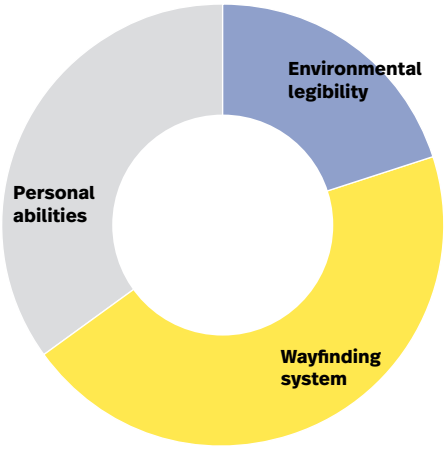
Many people want to walk, wheel or cycle more, but don't because the threshold for participation feels too high. Their decision to travel is shaped by perceived effort, confidence and familiarity, and by the presence, or absence, of reassurance at key moments on a journey.

The threshold for participation varies depending on people's abilities and confidence, and it is the responsibility of the system to lower the threshold, to work for everyone irrespective of their physical or cognitive ability, gender, age, language, location, ethnicity, wealth or access to online or digital tools.

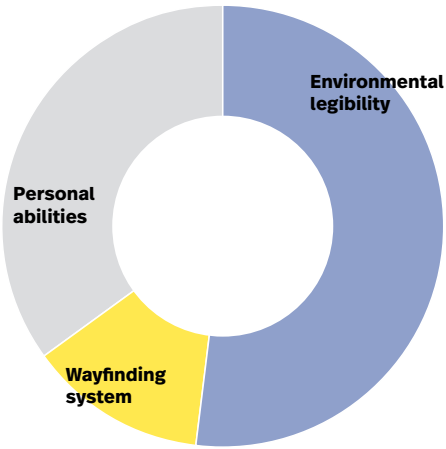
For the roughly 10% of people with severe disabilities, exclusion from design effectively means exclusion from the environment itself – making inclusion essential. For a further 40% of the population, including older adults and those with less severe impairments, inclusive design significantly improves quality of life, enabling greater participation in community life. Ultimately, when systems are thoughtfully planned and designed, they benefit everyone.

When systems work well, people rely less on habit and local knowledge, feel confident trying unfamiliar routes, and for those everyday journeys, people will have the ability to choose sustainable and active travel modes.

Three factors contribute to how well a person can navigate an environment. For any given personal ability, the scale and cost of wayfinding increases as route legibility decreases.



Poorly designed, illegible routes require more signs to support journeys and better behaviours. They cost more to implement and maintain over time. Many parts of the existing network fall into this definition.



Well designed, intuitive routes require less signs to support legibility. They cost less to implement and maintain over time.

There is no typical user

How well someone can navigate an environment is shaped by the interaction of three factors: the inherent legibility of the environment, individuals abilities and knowledge, and the clarity of the wayfinding system. These factors do not operate independently; when one is weak, greater demands are placed on the others.

People differ widely in their physical ability, confidence, familiarity with an area, language, sensory perception and cognitive capacity. There is no typical pedestrian, wheeling person or cyclist. These differences are not marginal; they are a defining characteristic of how environments are experienced. A route that feels intuitive and straightforward to one person may feel confusing, inaccessible or unsafe to another.

For people with lower confidence, limited familiarity, reduced mobility, sensory impairments or increased cognitive load, the absence of clear, high-quality compensatory information can be decisive. In these circumstances, wayfinding must do more to explain, reassure and support navigation in order to provide an equitable experience. It can be the difference between exploration and avoidance, or between attempting a journey and staying at home.

The threshold for participating varies depending on people's abilities and confidence. It is the responsibility of the system to lower the threshold.



Responding to abilities

Confidence levels are not fixed. They change with familiarity, experience and trust of routes and information. The system must help people become more confident over time.



Level 1 Hesitant	Level 2 Beginner	Level 3 Developing	Level 4 Confident	Level 5 Independent
There may be many barriers to active travel, including uncertainty, lack of familiarity, limited access, or concern about safety and comfort.	The beginner tries to make more journeys, but prefers simpler, familiar and more predictable routes.	As confidence grows, people begin to travel further, try a wider range of journeys and rely less on others.	The confident user is comfortable making everyday journeys and travels with increasing independence.	The independent user is comfortable travelling and navigating in most situations and across most journey types.
At this stage, people may avoid some journeys or rely on others to guide them.	They may be less confident making decisions on the move or travelling through unfamiliar places.	They are more willing to explore, but may still need help understanding how routes connect and how to move through more complex environments.	They are able to navigate more confidently, but still benefit from support when moving quickly, making decisions at key points, or entering less familiar areas.	They can usually adapt easily to different routes and conditions.
Clear and visible information can help make active travel feel more possible and approachable.	They need support throughout their journey, with clear information that helps them find local destinations and reassures them about their route choices.	They need support in finding, following and joining up routes for different parts of a journey.	They need quick, well-placed information and reassurance when exploring new places.	Even so, they still benefit from support when navigating unfamiliar areas or encountering unexpected changes.

System principles

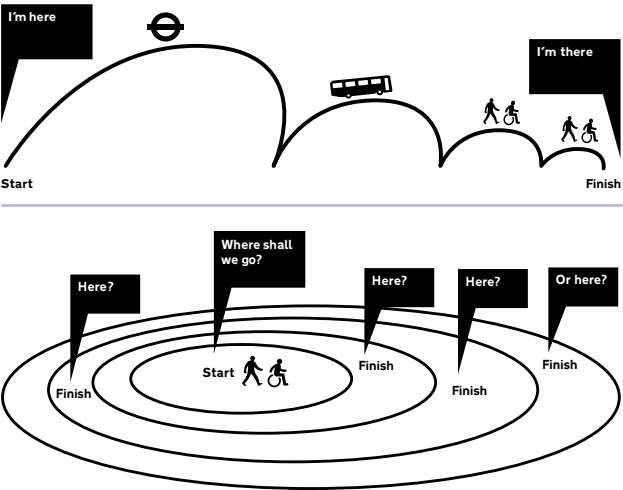
Support different active travel modes

Walking, wheeling and cycling involve different speeds, behaviours and information needs. A single approach cannot serve all modes effectively.

Legible London identified two types of pedestrians, ‘striders’ and ‘strollers’, to assess the different ways in which pedestrians valued information.

Striders prioritise time over environmental quality, while strollers prefer nicer environments and are less concerned with time (they may not even have a destination).

People change between being a strider or a stroller depending on their priorities – their plans for the day, stage of journey or even the weather.



Walking, wheeling and cycling are often grouped together as active travel, but they place very different demands on wayfinding and information systems. People move at different speeds, have different fields of vision, and have very different capacities to stop, look, interpret and recover from uncertainty. As a result, the type, placement and timing of information that is helpful for one mode is often ineffective, or even counterproductive, for another.

Pedestrians and people wheeling typically move more slowly and can pause to orient themselves. Wayfinding for these users needs to support frequent decision-making, provide reassurance at short intervals, and help people understand how places connect at a local scale.

Cycling places particularly complex demands on wayfinding because it is an agile mode. Cyclists move fluidly between different environments and speeds within a single journey, shifting between pedestrian-scale spaces, shared environments, dedicated cycle routes and vehicular carriageways. Each of these conditions places different demands on how information is best provided, interpreted and acted upon.

This means that information systems will function better when tailored to the speed of movement. Research and development phases of work will look into improving factors such as:

- Clarify priorities and expected behaviours.
- Align information with pace and movement.
- Support smooth transitions across environments.
- Reduce ambiguity between people.

Understanding these factors will inform and influence how information is best designed to perform.

Cycle pendulum

Cycling is an agile mode. Cyclists are able to use footways and pedestrian streets when dismounted. They use shared surface, cycle paths and the main road carriageway when cycling.

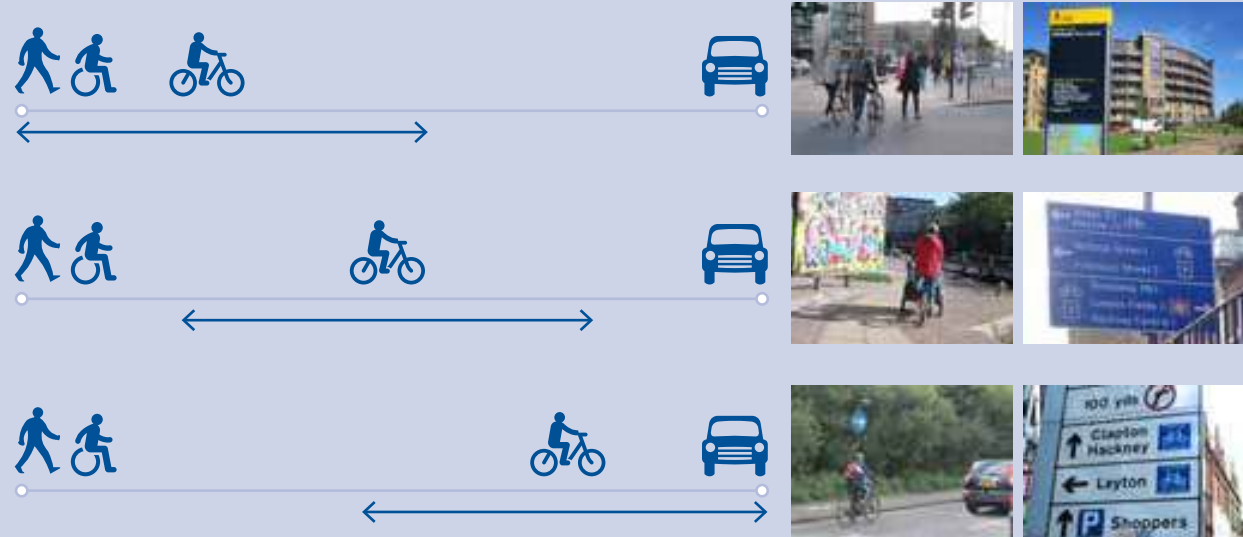
Varying states mean that cyclists can, and do, access wayfinding information designed for other modes – either pedestrians or car drivers.

At the ‘pedestrian level’, usually at the start, end or resting points of a journey, cyclists can interrogate and scrutinise information – tapping into thinking slow.

At the ‘vehicular level’, while on fast roads, cyclists require intuitive access to information which can be understood at a glance – thinking fast.

In between, cyclists need information designed for their own mode and scale, that can provide nudges towards their destination, and which can be seen at the various states of cycling speed.

Cyclists vary in their confidence depending on their level of experience or knowledge, and this confidence in turn affects how they behave, which routes they use and how they need to receive wayfinding.



Early prototypes

The first pilots are starting to show how walking, wheeling and cycling focused messages can be displayed together and separately. These examples are first prototypes and are limited by the current regulatory framework.



System principles

Consistent at scale

Local authorities and delivery partners need frameworks that reduce ambiguity, enable consistency and support long-term up-keep.

The quality of people’s experience is inseparable from the organisations that plan, deliver and maintain wayfinding. Even well-designed schemes will fail if they cannot be implemented consistently, maintained over time, or supported within the constraints under which organisations operate.

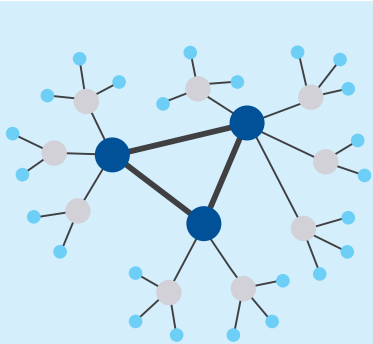
This is true for active travel. Teams must deliver quickly, often with limited budgets, fragmented funding and varying expertise. Wayfinding is rarely a core specialism within local authorities or delivery partners, yet it requires coordination across highways, planning, public realm, accessibility, transport strategy and maintenance. Without consistent tools and frameworks, organisations default to one-off decisions, reinvent approaches, or rely on familiar solutions.

Scalability is critical. Wayfinding is rarely delivered as a single intervention, but incrementally over multiple years, funding rounds and teams. A system must be introduced in one place and connect seamlessly with future interventions, potentially delivered by others. Without this, delivery becomes fragmented and early investment is undermined.

A system must reduce risk, as well as effort. Consistency saves time and cost by reducing repeated design work, simplifying procurement and enabling reuse. Clear, evidence-based principles provide a defensible basis for decisions, reducing uncertainty for funders and delivery teams. Organisations also need confidence that investment will deliver outcomes for uptake, inclusion and safety.

Institutional confidence is equally important. In the absence of clear guidance for walking, wheeling and cycling, organisations default to motor traffic frameworks. This risk-averse behaviour limits innovation and leads to poor outcomes. A supported, government-endorsed system enables organisations to move beyond these defaults while reducing exposure to challenge.

Maintenance is the final, often overlooked requirement. Wayfinding must endure – adapting to change, remaining legible and easy to update. Systems that date quickly, require bespoke fixes or depend on specialist knowledge are unlikely to be sustained. When maintenance fails, trust in the network erodes and the benefits of investment are lost.



Scale by Design
The new standard will be designed at the outset to be easy to deliver. It will be aligned to the capabilities of UK local governments and other delivery agencies, and built for consistent implementation.

- Design-led Approach to scaling**
- **Cost efficiency:** Platform-based approach to reduce unit costs.
 - **Economies of scale:** Standardised procurement – one design, multiple pre-approved suppliers, controlled costs and delivery.
 - **Economies of networks:** National network of local networks that connect together and allow implementation to happen in parts and yet form a coherent whole.
 - **Education and enablement:** A playbook to up-skill existing teams to be able to implement high quality connected projects.
 - **Economies of knowledge:** A community to build capability across local authorities, avoiding duplication and inconsistent outcomes.

- How this is achieved**
- Define a high-quality standard, developed iteratively using an innovative programme.
 - Establish a clear network structure that adapts to all morphologies.
 - Provide playbooks and toolkits tailored to local delivery capability.
 - Adopt a hub-and-spoke model for coordination and support.
 - Enable continuous communication and learning: education, exceptions management, updates, improvement.
 - Allow controlled local adaptation, with best practice feeding back into the standard.

National Sponsors x10
Organisations with UK wide objectives. Most importantly the UK governments responsible for walking, wheeling and cycling. Also related departments that will benefit from increased active travel. These include DfT, ATE, TS, TfW, DfI & TfL.

PROBLEM
Major targets have been set, yet publishing isolated guidance is not generating effective results.

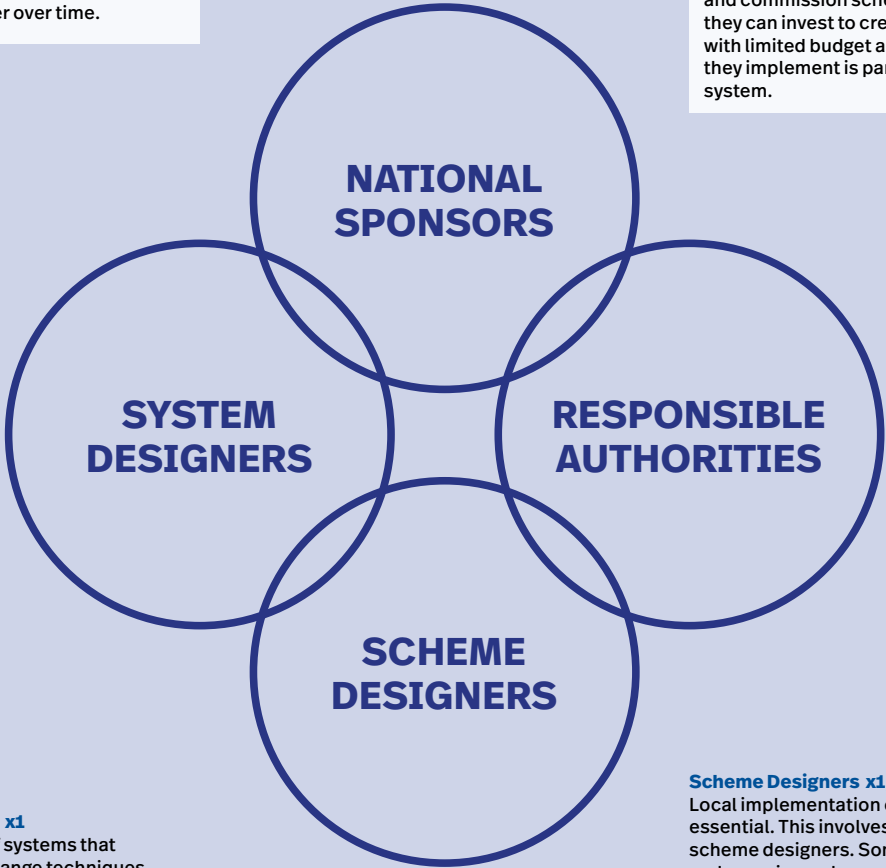
SOLUTION
Establish a national programme that is user-driven and enables all parties to create effective schemes that build a national quality standard that connects together over time.

Responsible Authorities x100’s
Bodies responsible for public spaces, where people walk and cycle. Largely UK Local Authorities, but also including landowners, trusts, transport organisations and developers.

E.g.: 397 Local Authorities, 15 Combined Authorities, Multiple landowners, trusts and developers.

PROBLEM
Authorities don’t know what guidance to follow.

SOLUTION
One playbook of clear and thorough guidance and tools on how to plan and commission schemes. Means they can invest to create most impact with limited budget and whatever they implement is part of a connected system.



System Designers x1
One-off creators of systems that apply behaviour change techniques to create structures that can make multiple schemes effective. This involves innovation, research, testing and establishing design standards and methods for effective guidance.

E.g.: Wayfinding, service design, active travel, accessibility and research experts.

PROBLEM
Designing national systems has been piecemeal. This role hasn’t really existed since 1964.

SOLUTION
Establish the system designer role, to develop a holistic, user-led system, designed to scale across 100’s of authorities and 1000’s of scheme designers. One high-quality system that connects together.

Scheme Designers x1,000’s
Local implementation of schemes is essential. This involves a wide array of scheme designers. Some are qualified and experienced, many are dealing with these issues for the first time. Scheme designers can be expert consultants to in-house seconded teams/individuals.

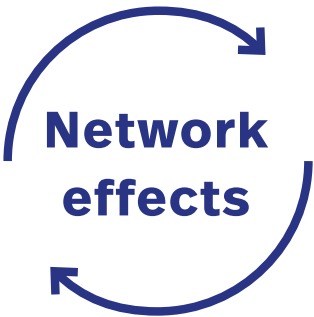
E.g.: Transport planners, Urban design teams, Engineering consultants, Visitor experience consultants, Cycling scheme consultants, etc.

PROBLEM
Scheme designers are often missing tools and skills, so work is untested, ineffective and innovation is duplicated.

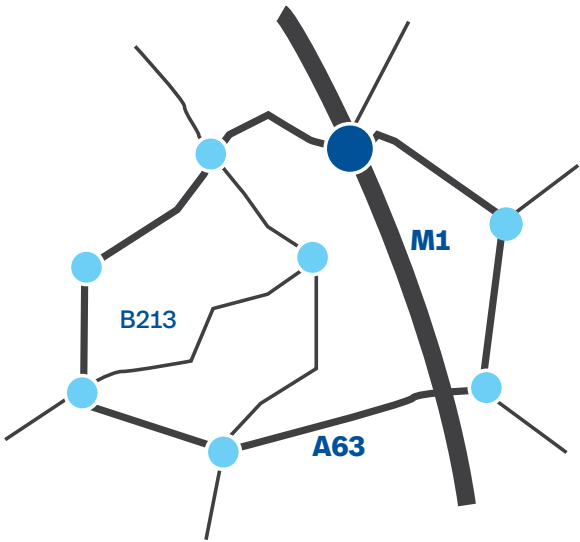
SOLUTION
A well designed toolkit of elements, guidance, tools and quality assessments to enable partially skilled teams to design quality schemes. Along with use of nationally sourced cost-reduction elements.

System principles

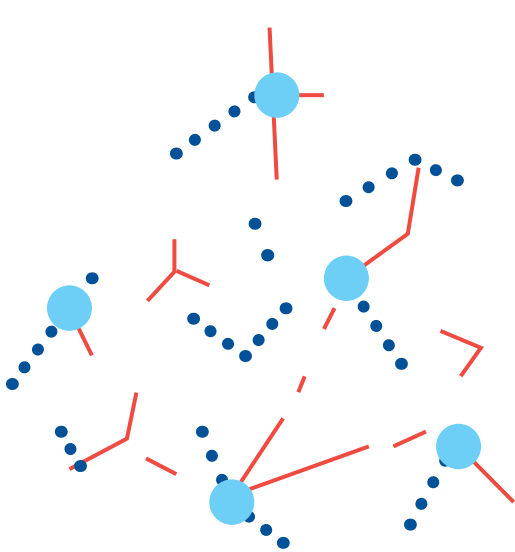
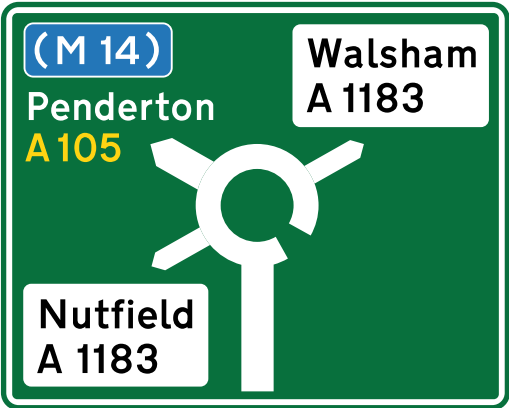
Designed to unlock network effects



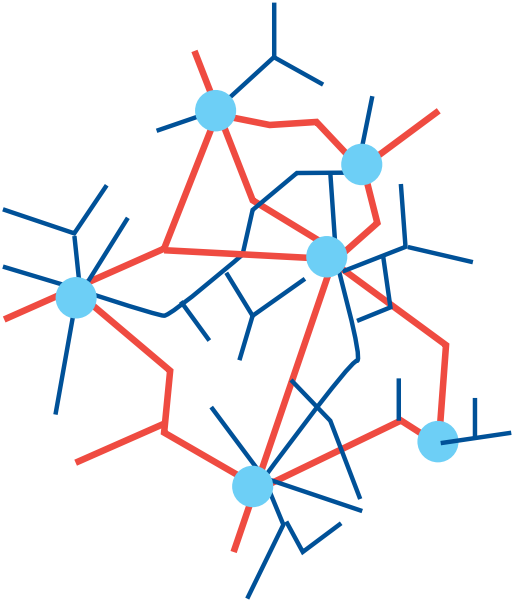
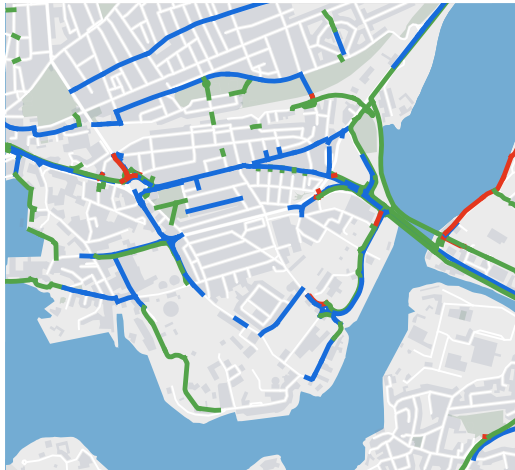
When networks are coherent and legible, individual interventions reinforce each other. Small changes accumulate into transformational impact.



Road system is a connected network
A network’s value, efficiency and usefulness is enhanced by interconnectedness and reduced friction, and limited by its weakest link.
A transport system functions as a network, where greater connectivity between nodes, and lower friction in using them, drives increased use.
The Road System is a highly predictable interconnected network, enhanced with a set of standard behaviours and codes. It behaves like a digital network, just like the way the internet (TCP/IP) connects all computers. The only negative of network effects is being too successful, such as M25 congestion.



Active travel is currently fractured
Compared with the UK’s road system, active travel pathways are disconnected and difficult to use.
Investments in infrastructure are not yet connected as a coherent network, creating fractured routes. Differences in behavioural expectations create uncertainty for the public, creating friction.
When a network is difficult to understand or use, its value is reduced. This situation can be changed.



Pathways Project creates a connected network
Positive network effects come about when connections are easy to understand, easy to use and reinforced through repeated experience. The more people recognise and use a network, the more valuable it becomes.
Pathways is not a replacement for infrastructure planning, nor does it determine which routes should be built first. Its vision is to establish a national wayfinding approach for a network of local networks: locally delivered, but connected through shared network logic, naming, coding, behavioural information and wayfinding principles.
Local urban and rural networks, safer routes linking schools, and Public Rights of Way, would operate as part of a coherent national system. It would also reveal where existing routes are disconnected, where information is missing, and where future infrastructure investment would have greatest value.
It should be supported by a campaign to harmonise behaviour, so that everyone understands how they are expected to behave.
The opportunity with the Pathways Project is to achieve this by considering first the needs of people who benefit most from greater clarity, confidence and reduced uncertainty: women, children, disabled people and older people.

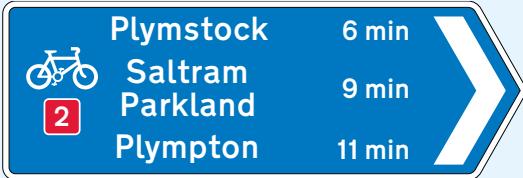
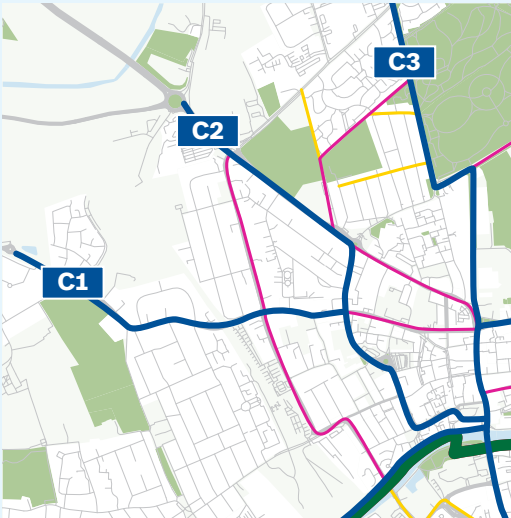
The Pathways Vision

A unified ecosystem

Establishing consistent standards across the UK will help educate the public about expected behaviours and improve awareness of routes and destinations. At the same time, it will provide a framework that enables councils to plan and deliver services in a coordinated, and ultimately integrated, way. A standardised system will also allow networks to be developed in stages, ensuring that each component aligns and works effectively as part of a coherent whole.

Network System

Coherent, continuous and legible networks of routes that connect people to places, and to each other.



National standards for a network of local routes. Coded and planned walking, wheeling and cycling networks. Agreed and systemised database of directions used by everyone consistently. Agreed units of measurement.



Pathways is a unified ecosystem of four systems that address the gaps in how active travel networks are currently planned, designed and delivered.

Note
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Behavioural System

Clear rules that support better behaviour, making routes and places more accessible and inclusive.

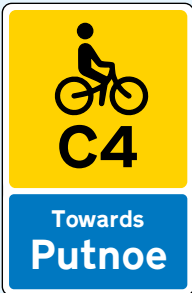


Set expectations for consistent behaviour, aligned with the Highway Code. Solutions derived from neuroscience and a design-led approach: testing and trialling to create effectiveness.



Awareness System

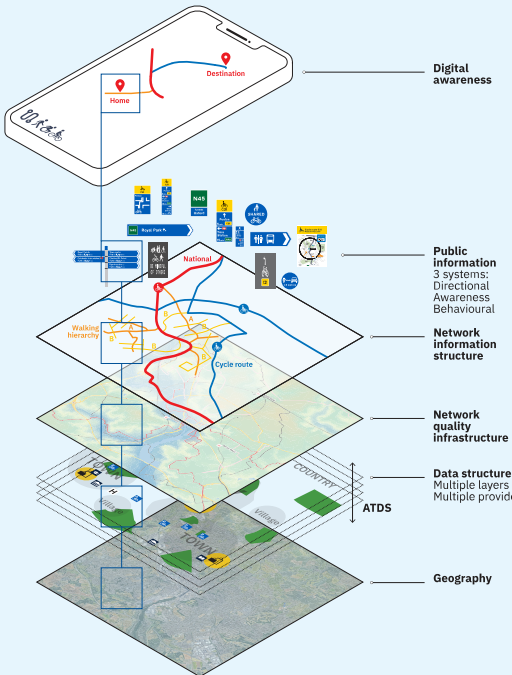
A clear voice that helps people build strong mental maps of active travel opportunities – routes, networks and places.



Raise everyone's awareness of active travel routes and destinations. Providing directions and maps. Physically and digitally connecting transport hubs with places people can go.

Data System

A structure that underpins a cost-effective delivery of consistent information across the UK.



Underpinned by an active travel data specification. Enables organisations to collate data cost effectively. It will enable innovation in industry and empower publishers to share valuable active travel information more widely.

The Pathways Vision

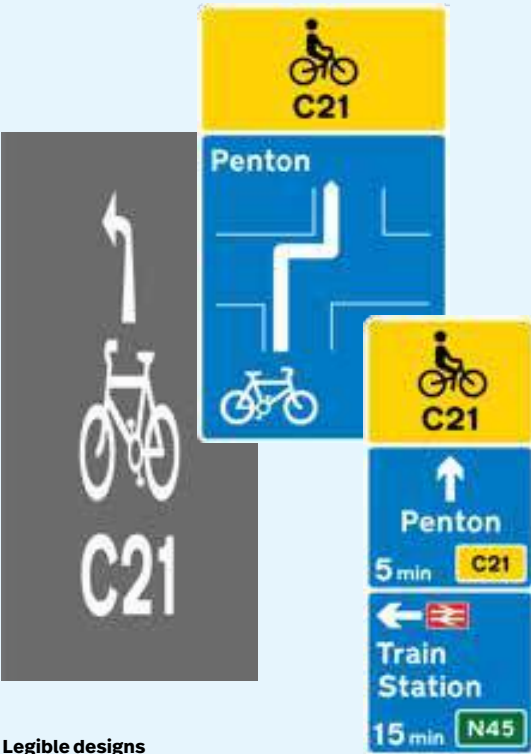
The Network System

The Network System is the underlying structure

that makes active travel legible, predictable and usable at scale. A single Network System will operate at strategic, regional and local scales for walking, wheeling and cycling.

It defines how routes are prioritised and organised, how they connect to each other and to destinations, and how people can move confidently without relying on prior knowledge. It connects towns, neighbourhoods, schools and local centres, supporting 'local to local' journeys. Curating routes into a coherent hierarchy, can turn fragmented physical infrastructure into a readable whole, enabling both planned and spontaneous journeys.

A planned Network System creates continuity over time. It allows routes to be implemented incrementally, while still functioning as part of a larger, joined-up system. This is essential for local authorities delivering projects across multiple years, funding rounds and teams. A clear network framework reduces ambiguity for users and risk for organisations, ensuring that every new intervention strengthens the overall system rather than adding further fragmentation.



Legible designs
An agreed typology of items, icons and codes that the public can easily learn. This requires consistent and intuitive designs.

How is this delivered?

Network density and structure can be planned to be repeatable throughout the country.

Pathways Project will create an auto-generated network tool, powered by local information and aligned with national active travel data standards. This would be for ATE, DfT or relevant national bodies to lead and fund, with Pathways providing the wayfinding, naming, coding and network-legibility principles that help make local networks more consistent and easier to use.

The tool would help local authorities improve network planning, connect routes across boundaries, identify opportunities and support reporting. It would support ATE in developing a clearer national network approach: a network of local networks for the UK.

This means fledgling networks can be implemented now, supporting the case for improved infrastructure over time.

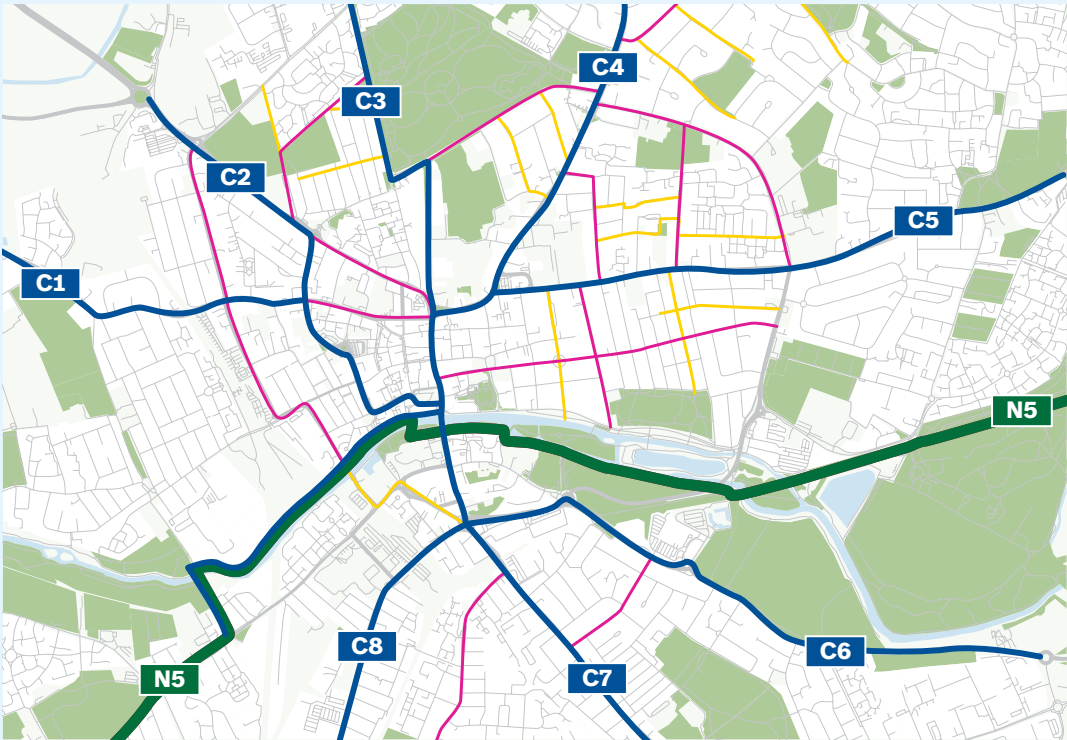
With a defined network structure, even piecemeal implementation becomes part of building a coherent whole.



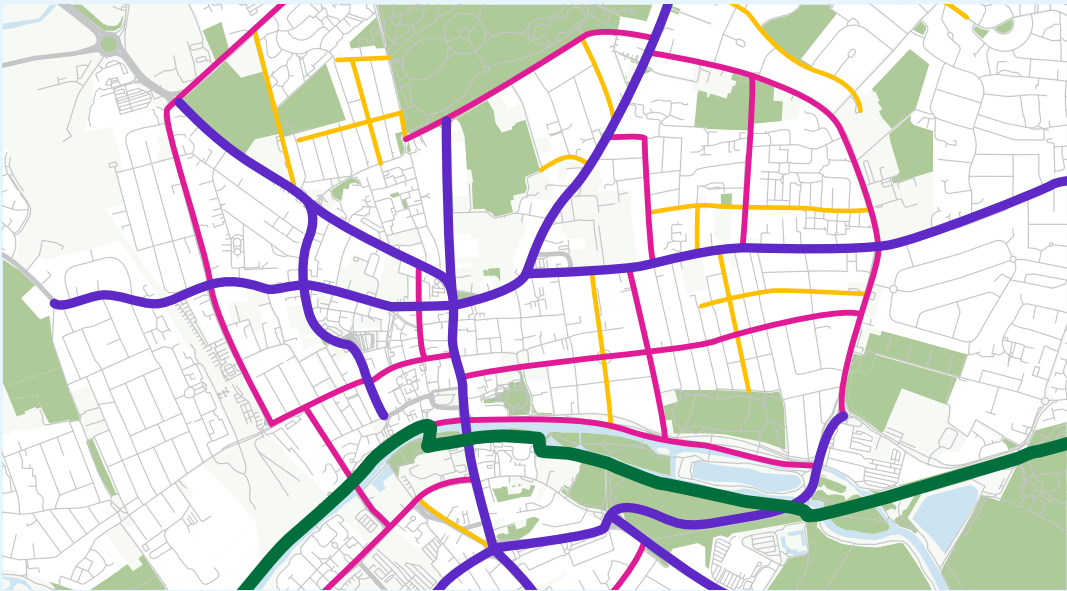
Standardised
Agreed directional content and names, units of measurement and legibility standards.



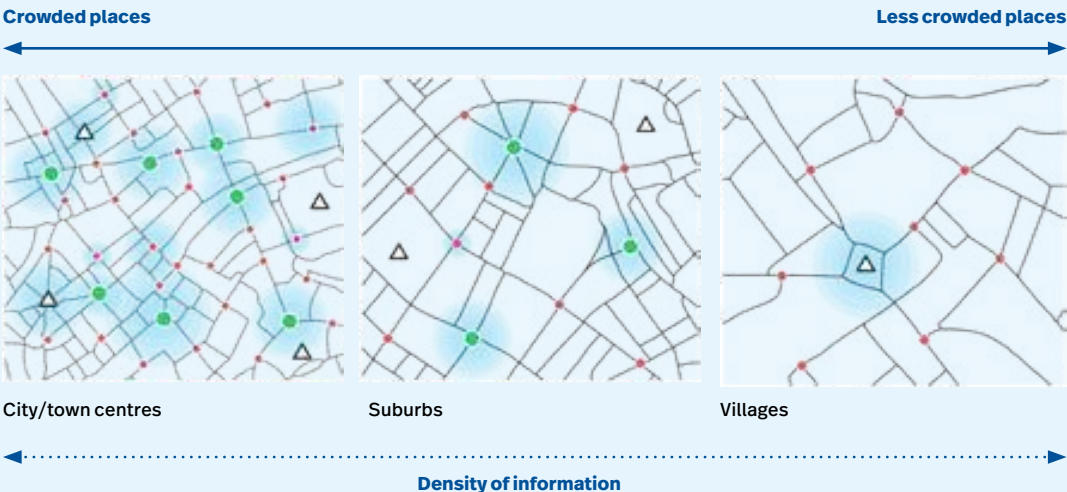
Local branding
Many aspects of the system are standardised. Local character and uniqueness can still be expressed.



Local cycle networks
Growing networks of coded cycle routes provides ability to navigate without checking a map.



Local walking and wheeling networks
A network of supported routes that connect amenities and integrate transport infrastructure. Overlays the cycle network.



Different densities
These networks adapt to the urban form and street density.

Density of destinations
Maps
Directional signs
Landmarks

The Pathways Vision

The Awareness System

The Awareness System makes the network visible and meaningful by showing people what is possible. It is the local area guide, highlighting and organising the area’s destinations, amenities and attractions, to create a unified experience.

It communicates what an area has to offer to the public through various mediums, and suggests potential journeys they can take as part of the local experience. It helps visitors build knowledge about the area, and adds to the existing knowledge of residents. Awareness information builds mental maps of places, supports orientation, and expands people’s sense of reach beyond the routes they already know.

Awareness is particularly important for people who are less confident, less familiar, or returning to active travel after a long absence. By highlighting local destinations, distances and connections, the Awareness System lowers the threshold to participation and encourages exploration. It supports local economies, social connection and tourism, while reinforcing the value of walking, wheeling and cycling as practical, everyday choices rather than specialist activities.

Note
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How is this delivered?
Highly visual and well coordinated elements outlined here have always been seen as expensive and ‘nice-to-have’. These are actually essential to engage the public and better explain options to generate active travel.

Pathways Project will devise mapping and diagram standards and a range of automated production tools, that are connected to network, live and local data to deliver useful, high quality results. The majority of the system is automated, machine learning driven and designed to be easily produced by local teams.



Creating pictures
Maps and diagrams raise awareness of local amenities, transport interchanges and route networks. Delivered as simplified pictures as well as accurate maps.



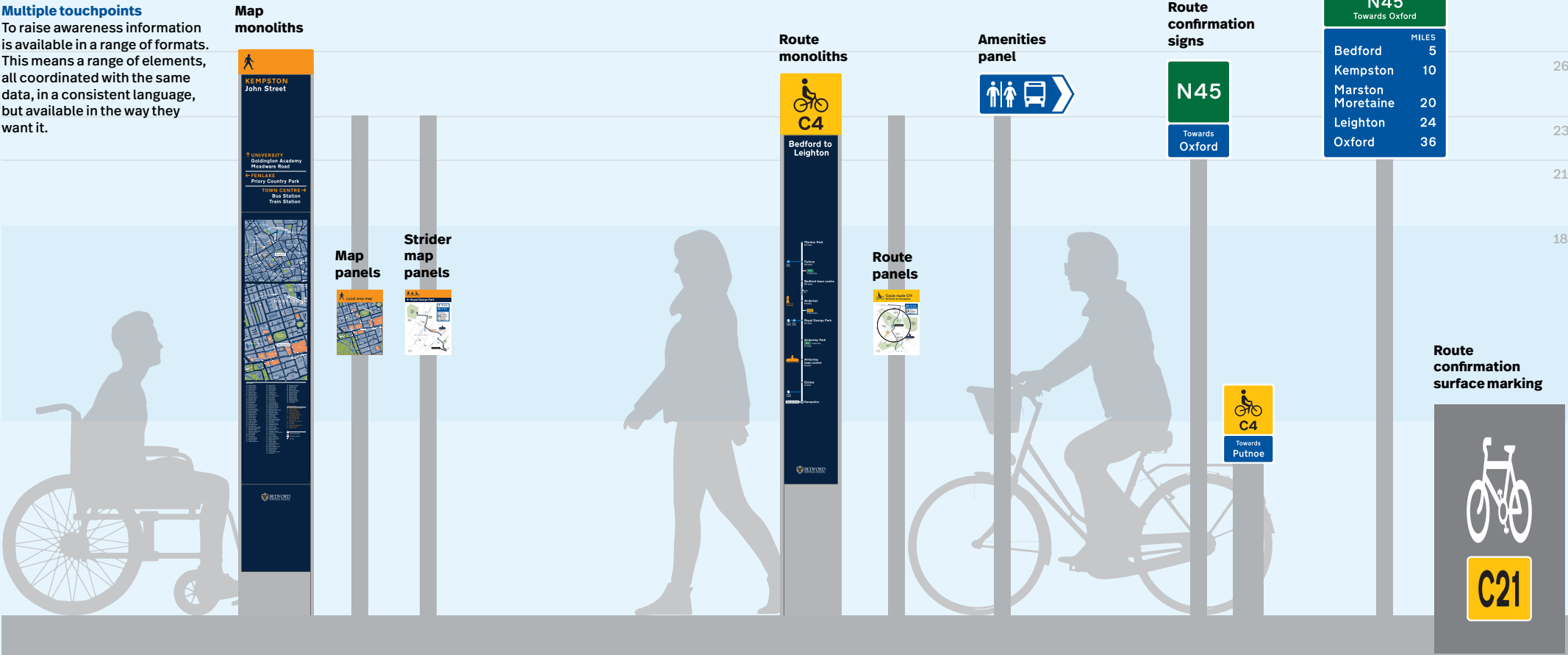
Supporting routes
Sections of networks are enhanced by route diagrams. These are easy to read and enable planning onward travel.



Engagement
When information is relevantly located, up-to-date and beautifully presented, it engages the public and changes behaviour.



People’s pockets
Awareness starts at home, checking a website, using a mapping application or browsing a leaflet. This is all a part of the Awareness System.



The Pathways Vision

The Behavioural System

Feeling unsafe is one of the main barriers preventing people, particularly older and less confident users, from choosing active travel.^{10,11,12} Perceptions of safety are shaped not only by infrastructure, but by how people behave towards each other. Research consistently shows that conflict on shared routes often arises from a lack of clarity about expectations, priorities and appropriate behaviour.¹³

The Behavioural System establishes clear, shared expectations for how streets and paths are used. It communicates the rules, norms and priorities that guide behaviour for people walking, wheeling and cycling. It helps users understand who can go where, how to move through shared spaces, and what behaviours are expected when people interact.

By reducing ambiguity, the system removes the need for individuals to interpret situations themselves. Clear and consistent behavioural cues support intuitive understanding, improving interactions between modes and enabling people to feel more confident navigating unfamiliar environments.

Rather than relying solely on regulation or enforcement, the Behavioural System uses clear communication and environmental signals to support cooperative behaviour. It should align with the Highway Code, while helping translate rules and expectations into information that is visible, intuitive and useful in real-world active travel environments.

This enables different modes to coexist safely and comfortably, reduces conflict at key moments, and improves overall perceptions of safety, making active travel feel more accessible to a wider range of people.

Common sense monitor

Everything that the public is expected to understand has to be obvious and intuitive. It has to make sense. This principle is well understood in vehicular guidance: anything that is confusing or nonsensical damages public trust.

Pathways should apply the same test to active travel behaviour, building on research and testing already undertaken, and using public research, pilot trials and evaluation to build the evidence base needed to support DfT, ATE and devolved administrations in considering future changes to guidance, standards or regulation.

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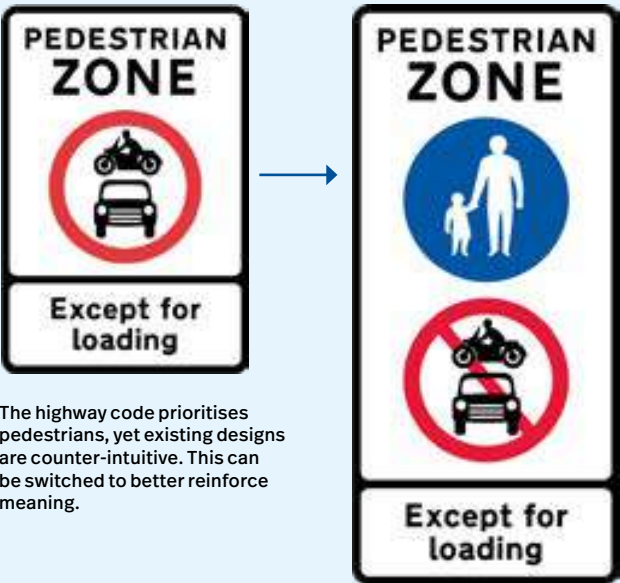
How is this delivered?

Testing with the public is needed to identify the messages, signs and cues that best support consistent and cooperative behaviour.

Pathways should build on the research already undertaken, then use pilot locations to test how people understand and respond to different behavioural information.

This would include trialling behavioural messages, cues and signs in real active travel pilots, testing understanding with a wide range of users, including disabled people, older people, children and less confident users, including bilingual examples, identifying concept signs that are not currently prescribed in TSRGD.

Further trialling, evaluation, consultation and approval would be required before wider implementation. The aim is to make expected behaviours clearer, more consistent and easier to understand wherever people encounter the active travel network.



The highway code prioritises pedestrians, yet existing designs are counter-intuitive. This can be switched to better reinforce meaning.

Thinking fast

UK's new road signs launched in 1964 on the right. The designer Margaret Calvert subtly and intuitively accentuated the danger of a slippery surface. Small design decisions can be highly effective.



Concept designs to initiate a programme of research and development. This will involve engaging and testing with disabled people and designing ways to improve behaviour by setting clear expectations.



42%
Understood



100%
Understood

Research shows two signs that establish behavioural expectations are poorly understood. Initial experiments show how small changes can dramatically improve effectiveness.



33%
Understood



98%
Understood

The Pathways Vision

The Data System

The Data System provides the invisible structure that enables consistent wayfinding across places and platforms, and over time. Rather than treating each sign, map or intervention as standalone, it defines a shared framework for how routes, destinations, naming, coding and information are organised.

Consistency across multiple touchpoints, physical signage, digital tools, printed maps and communications, is only possible when information is structured as a system rather than delivered piecemeal.

A common structure for information reduces duplication, lowers delivery costs and supports long-term maintenance. It allows delivery partners to implement projects incrementally, in the confidence that it will be consistent with projects across the region and country, all while contributing to a coherent national network.

Active

Travel

Data

Specification

- Active travel modes**

Walking, wheeling and cycling. Along the side of highways and on pathways and trails.

Movement

Navigating these routes requires knowledge, both for pathways curators, and for users.

Data sources

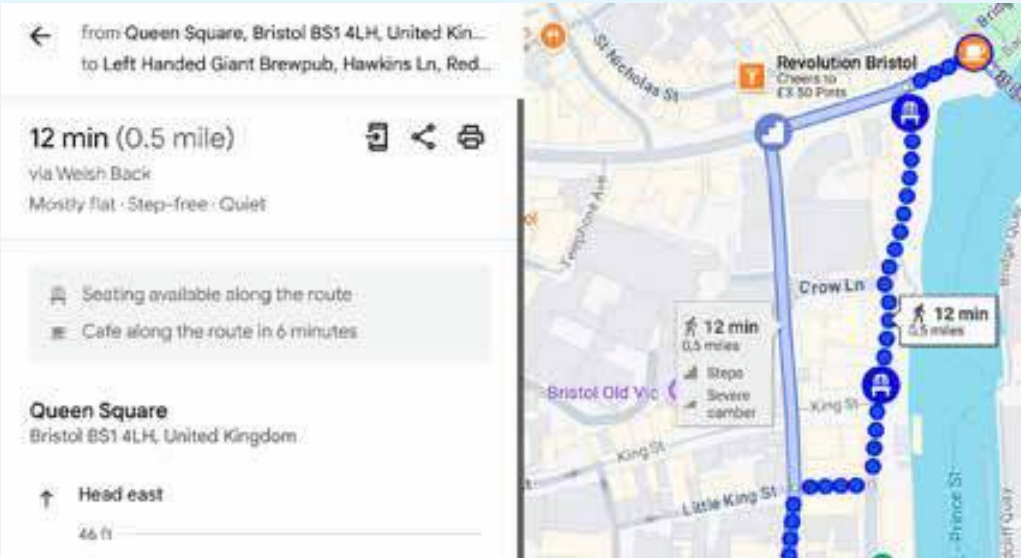
Multiple data collectors. An agreed standard shares and cross-references data and builds a thorough picture of the UK's pathways.

Consistency

Agreed terminology and standards allow everyone to share, update and use pathways: planners, navigation systems, global mapping platforms.

Accessibility benefits

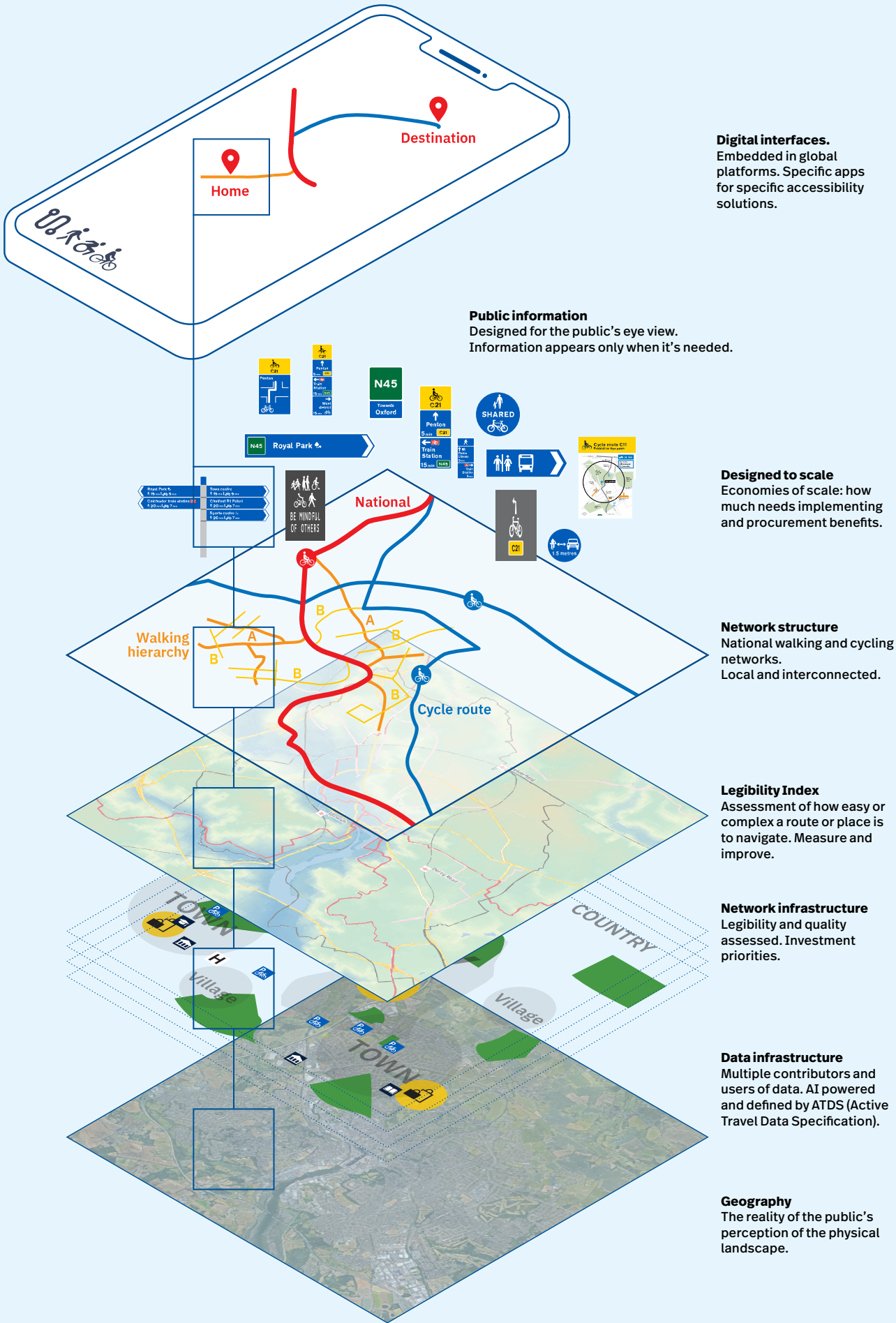
By coordinating and sharing micro geographic details, innovative services can flourish. In this example Google Maps is enhanced by being able to indicate alternative routes that are step-free and have places to rest.



How is this delivered?

Standardisation will be achieved from two perspectives. Technically, we need a standard that is expansive and extensible. Politically, it will require a coalition of a majority of relevant organisations to drive adoption.

This starts with experiments and prototype standards to explore the possibilities, requirements and gaps, supported by the formation of a growing group of supporters.



How to achieve this vision

Three year innovation plan

The programme sets out a high-level three-year plan. It outlines the phases, workstreams and milestones required to develop, test and implement a national wayfinding system for walking, wheeling and cycling.

An effective programme to deliver this transformational change will take two to three years and should move quickly from vision to evidence. It would be delivered through four parallel workstreams: governance, R&D, systemisation and piloting. These workstreams would develop together, achieving clear outputs across four phases: innovation and prototyping, piloting, refining and full launch preparation. Maintaining momentum will be critical. The sooner a coherent wayfinding system is developed and tested, the sooner local authorities can reduce duplicated effort, avoid repeated reinvention and unlock greater value from active travel investment.

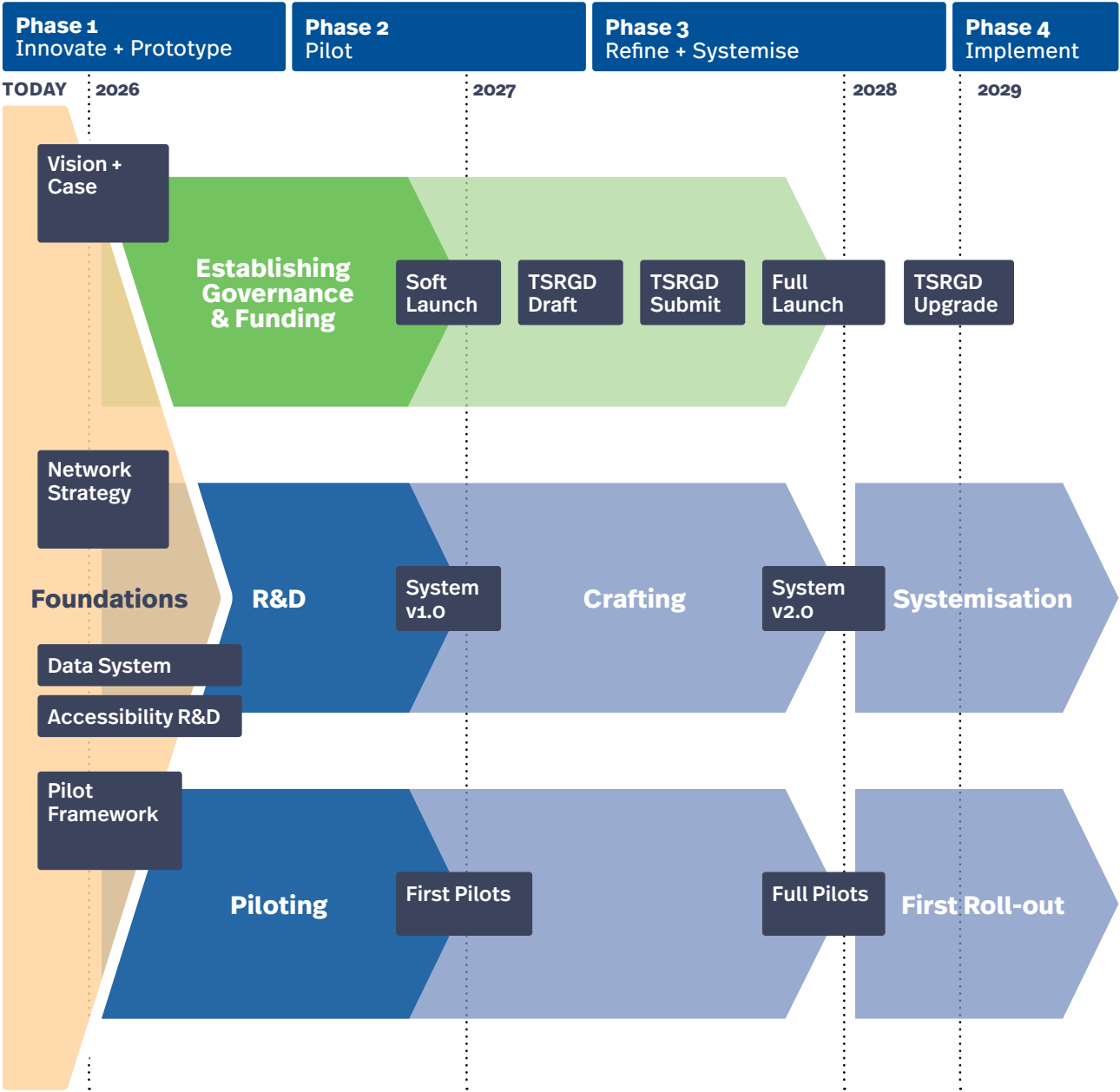
Governance and funding This study is a first step towards establishing the Pathways Project as a fully supported and structured government initiative. A governance board, funding and coordination will be needed to establish programme goals and oversee performance and decision making. The project involves a large number of stakeholders, not least the public, so a communications programme will deliver launches, updates and engage communities of interest.

Research and development The R&D programme seeks to understand the core issues faced by the public and to invent, test and define the solution. This is best achieved by working with the public, involving them in the creation and testing ideas, specifically working with groups who are often underserved by active travel provision. User testing should include disabled

and neurodivergent people from the outset, including people with mobility impairments, visual impairments, cognitive impairments, sensory impairments and different access needs. Engagement should be designed to be accessible, with appropriate formats, locations, support, expenses and participation methods.

Systemisation Effective solutions that perform in prototypes and pilots can then be systemised. This involves the creation of toolkits and a playbooks: the ‘how to do it’ manual. This will advise both local authorities and the wide range of transport and urban experts who can create and deliver hundreds of local schemes. These can be in-house or tendered. This will need to be held together by a ‘Pathways System Authority’ that can maintain the integrity of the system, respond to exceptions and needs for change, continue to research improvements and provide funding metrics, and decision making processes to advise government on the most effective way to support roll-out.

Piloting Throughout this process, solutions are increasingly trialled in real-life situations, working for the public and responding to local character, unique differences and other initiatives and changes already under way. The piloting programme will make the ‘optimum system’ clearer, evidenced-based and ready to scale.



Innovation and agile processes This programme is devised to be innovative from the outset. This starts with research, trialling and testing solutions that can then be systemised and re-applied throughout the country. It will enable all local authorities, house builders and landowners to deliver a high-quality, coherent national standard in locally appropriate ways. The programme is designed around innovative agile methods of working. UX design and agile principles of unrelenting customer focus can easily be applied to ‘soft infrastructure’ that guides people, and manages behaviour.

Agile embraces change. Regular reviews, retrospectives and iterative development mean risks surface earlier, issues are corrected faster and teams refine the product based on real-world evidence – not assumptions. Benefits are realised sooner reducing wasted effort and avoiding heavy investment in solutions that may not meet people’s real needs.

How to achieve this vision

Design a scalable system: The Pathways Playbook

Delivering active travel to a consistently high standard across the UK requires skills and smart tools, supported by governance and funding frameworks.

With over 400 local authorities, and no consistent wayfinding guidance, each authority is effectively starting from scratch. This leads to repeated mistakes, wasted investment, and limited impact.

Addressing this requires two things: a clear, proven guide for delivery through the Pathways Playbook; and better access to expertise, so schemes are delivered effectively and outcomes can be measured using a Legibility Index.

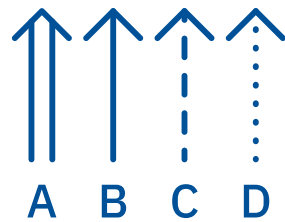
Scaling one system to enable all authorities to deliver high quality results is therefore, an important national challenge.

Pathways is a national system that only needs to be designed once, but delivered effectively multiple times in a wide variety of locations. It must work across all peoples needs and contexts, while remaining simple to use. It can also be locally adaptable, reflecting place and community without losing system integrity.

Developing this requires a structured innovation programme to design, test and validate solutions for different settings. This is followed by systemisation: toolkits and a playbooks that enable consistent, scalable delivery by local authorities and practitioners.

Initial progress is underway: a prototype Toolkit is being tested across eight pilots. Further funding is now required to fully commit to R&D, expand public engagement, develop tools and playbooks, and establish the long-term model for governance, funding and national scale.

The Playbook could also sit alongside TSRGD in the way the Traffic Signs Manual does now: not replacing the legal framework, but providing practical guidance on how active travel wayfinding should be planned, designed and delivered consistently in real-world settings.



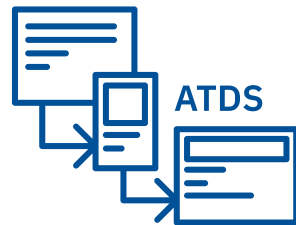
National Network Standard
Defines how routes are structured and connected within a clear hierarchy, ensuring continuity, coherence and alignment so local schemes contribute to a legible national network.



National Design Standard
Sets the visual language and information rules for wayfinding, including typography, colour and placement, ensuring consistency, legibility and accessibility.



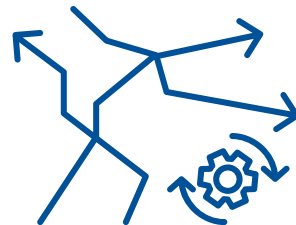
National Behavioural Standard
Clarifies expectations between people walking, wheeling and cycling, supporting safer, more predictable and cooperative interactions.



National Data Standard
Establishes how routes, destinations and coding are structured and maintained, enabling consistent information across signage, mapping and digital systems.



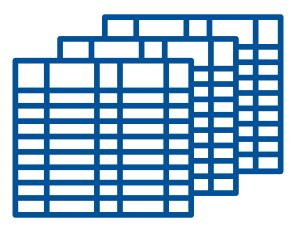
Guidance for Bilingual Signage and Information
Provide guidance for bilingual information. How they should be aligned with national and local policy, and data standards.



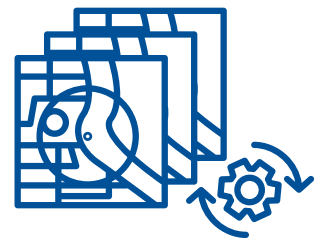
Local AI / Automated Planning Assistant
Translates standards and data into practical plans, helping identify routes, messaging and sign placement while reducing manual effort and complexity.



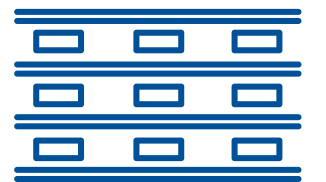
Automated Sign Layout Tool
Generates sign content and layouts automatically, improving consistency, reducing errors and speeding up delivery.



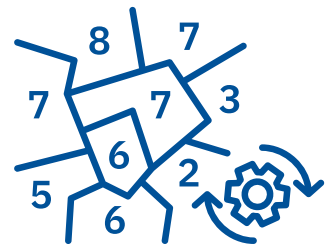
Localised Destination and Route Database
Provides a structured, locally informed and approved dataset of routes and destinations, supporting accurate mapping, signage and planning decisions.



Automated Mapping Creator
Produces maps directly from data using consistent design rules, ensuring alignment across digital, print and physical formats.



Public Information Campaign Framework
Coordinates messaging to build awareness, confidence and behaviour change, supporting long-term network use.



Local Legibility Index
Measures how easy places are to navigate, helping prioritise investment and track improvements over time.

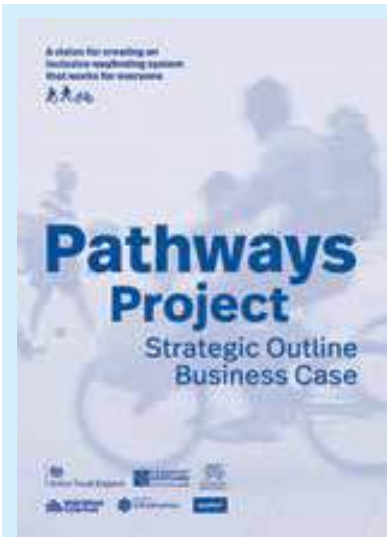


Pathways System Authority
Body to oversee standards, governance, guidance and tools. Maintains system integrity and manages evolution.

What impact will this have

The economic case

The Strategic Outline Business Case identifies a strong case for intervention. The economic value of efficiency savings are more than double the economic cost of standardisation. The wider economic value for the UK of increasing active travel is in the billions.



Steps to building the case

Aligned with HM Treasury’s Green Book, which sets out the structured framework for assessing the need, value and deliverability of public projects. The Pathways Project is supported by a Strategic Outline Business Case, published as a separate report.

The first two phases of the Pathways Project will deliver a range of Pilots that will be evaluated. Working from this data an Outline Business Case will be produced. This will be more grounded and precise.

The third phase will deliver a wider range of pilots to provide data for a Full Business Case. This will provide an evidence base for refining benefits in order to commit resources for national roll-out.

The Pathways Project has a strong context and need, centred on improving the quality and effectiveness of active travel wayfinding. Current provision is fragmented and inconsistent, with unclear design, poor positioning and maintenance of signage, and gaps in coverage that make routes difficult to understand and trust.

Existing guidance, including TSRGD and LTN 1/20, is often open to interpretation, leading to inefficiencies in delivery and variable standards in practice. This results in a system that does not fully support walking, wheeling and cycling, particularly for those who rely on clear and accessible information.

Pathways addresses these issues by establishing a coherent, standardised system for wayfinding design and delivery. It improves the visibility, legibility and consistency of signage, supported by expert-led design and user testing. A new Data System underpins both physical and digital wayfinding, enabling more accurate, route-specific information to be captured and shared.

This approach particularly benefits disabled users, providing greater confidence through clearer information about route conditions and accessibility. Overall, the project enables existing and future infrastructure to be used more effectively by making networks easier to understand, navigate and trust.

The Strategic Outline Business Case (SOBC) analysis presents a strongly positive economic case. It compares a baseline ‘business as usual’ scenario representing continuation of the current fragmented approach, with a ‘Do Something’ scenario delivering the Pathways Project.

An appraisal period of 30 years from 2030 to 2059, after creating the system, has been applied. The results are presented as a range of estimates to reflect uncertainties at this early stage.

Given the enabling nature of the programme, a two-tiered appraisal framework has been adopted.

In line with the Green Book, the SOBC provides decision makers with an early-stage ‘order of magnitude’ assessment. It assumes a further programme of research, development and piloting to gather detailed evidence regarding core assumptions, such as the time and effort spent by public officials and scheme designers on wayfinding, and the effectiveness of schemes to deliver behavioural change, which will be reported in an Outline Business Case.

Recorded impacts of wayfinding

6.5% 19% 17%

increase in children travelling actively

Similar effects are observed in other contexts. In Oxfordshire, a wayfinding intervention supporting school travel increased the share of children travelling actively from 76% to 81%.

increase in active travel to school

In Canberra, Australia, an Active Streets pilot recorded increases in active travel to school from 26% to 31%, and from school from 36% to 41%.

increase in walking

The Walk to Flyt Study in Hartsfield-Jackson Atlanta International Airport, showed people switched from train to walking when supported by journey time information and wayfinding.

Perceptions and confidence have a significant role in changing behaviour.

In Edmonton, Alberta and Vancouver, BC, a review of city-scale pedestrian wayfinding and mapping systems revealed:

61–67% said wayfinding would increase frequency of visits

57% said they would walk more if maps/signage were available

82% more likely to walk between places

Methodology: Wayfinding value model

Active travel depends on a combination of physical, cognitive and behavioural factors.

AT = ((A x S x C) + M) x NE

Active Travel = Accessibility x Safety x Certainty + Motivation x Network Effects

- Where:**
- **Accessibility** = Distance + Connectivity + Time.
 - **Safety** = Real + Perceived risk
 - **Certainty** = Predictability + Continuity
 - **Motivation** = Awareness, enjoyment, identity
 - **Network effects** = Social norms, new habits, widening awareness

If any of the first three parameters are barriers, active travel collapses. Example: If accessibility is too difficult for someone with a wheelchair, then active travel collapses for that person. These factors do not operate independently. While poor accessibility can restrict use, awareness and predictability can enable people to adapt. If people are aware of constraints in advance through predictable information, they can plan alternatives with confidence.

Infrastructure and demand only work if people feel: safe, confident, certain, informed and aware, and socially validated. **A perfect bike lane no one trusts or is aware of still produces zero demand.**

What impact will this have

The economic case

The case demonstrates that Pathways can unlock greater value from significant investment in active travel infrastructure, while improving the efficiency of scheme delivery through common standards.

Programme benefits, efficiencies and avoided cost

UK public and private bodies currently spend an estimated £40 million per year on public wayfinding-related projects. These are delivered with fragmented, non-standardised approaches. Evidence indicates large inefficiencies due to:

- Significant duplication in design and consultancy.
- Inconsistent and ineffective procurement and delivery.
- Limited cumulative or network effects.

Pathways is designed to deliver efficiencies and effectiveness by:

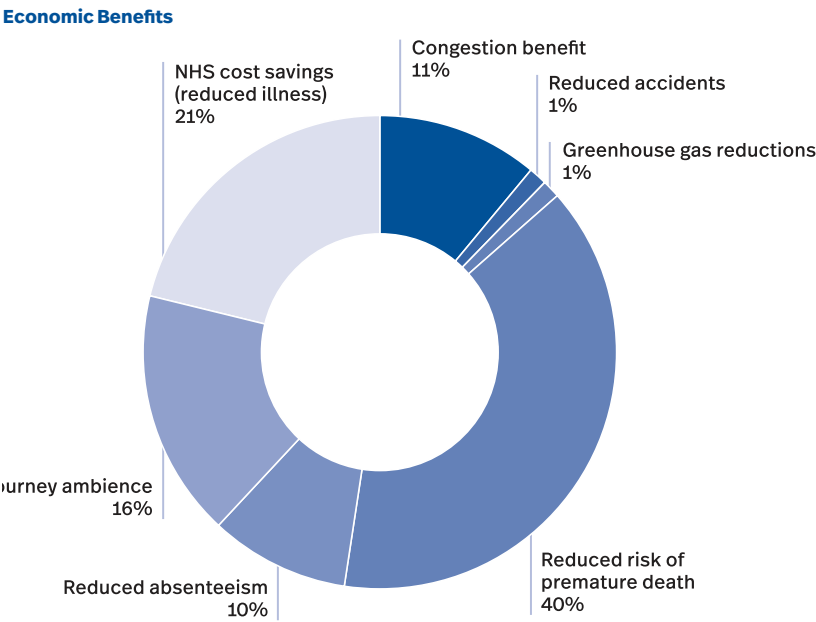
- Standardisation of design and delivery approaches, reducing duplication and rework.
- Reduced scheme development time and cost.
- Improved consistency and quality assurance.
- Reduced risk of regulatory change.
- Economies of scale that improve delivery, procurement and manufacturing efficiency.
- Maintenance and renewal costs reduced through greater consistency.

Evidence from comparable data standardisation and design programmes indicates that efficiency gains of up to 30% are achievable. The SOBC applies conservative assumptions of 5% for the low case, 10% for the medium case, and 15% for the high case.

Based on the estimated cost of the wayfinding installation over a 30-year appraisal period, this results in **total estimated efficiency savings of:**

- **£27.6m for the low case**
- **£55.0m for the medium case**
- **£82.4m for the high case**

In every scenario, direct savings exceed programme costs. The SOBC indicates that Pathways can repay its own cost in the long run, through operational efficiencies alone, while generating substantial additional wider economic benefits.



Wider economic impacts

The programme also generates substantial wider economic benefits through increased use of active travel networks.

These benefits arise primarily from improved health outcomes, including reduced premature mortality, lower absenteeism and NHS cost savings, alongside improvements in journey quality, reduced congestion and wider environmental and economic impacts.

Based on a 30-year appraisal period, **the total benefits are estimated at:**

- **£1.49bn for the low case**
- **£2.32bn for the medium case**
- **£3.22bn for the high case**

Given the programme’s direct costs totalling of £23.9m excluding the savings documented above, this corresponds to indicative Benefit–Cost Ratios of approximately 62:1 low case, to 135:1 high case.

These benefits, 60 to 130 times higher than the programme’s £23.9 million direct costs over the same period, are a strongly positive assessment because the focus of Pathways is on improving the performance of existing and future investment, rather than introducing significant new capital costs. Expenditure on wayfinding infrastructure is already embedded within current funding programmes, and Pathways introduces a low-cost system of standards and governance to improve how these investments perform.

The benefits are generated through modest changes in behaviour at a national scale. The model tests increases in active travel demand of 1.5% low case, 2.5% medium case, and 3.5% high case. Even these cautious uplifts create significant long-term value because of the scale of short local journeys undertaken each year across the UK.

Evidence from comparable schemes suggests that wayfinding can generate stronger impacts. For example, the introduction of Legible London was associated with a 5% increase in walking. This indicates that the SOBC assumptions are prudent rather than optimistic.

Precedents

Taken together, evidence from similar initiatives demonstrates that wayfinding is not a passive system. It is an active driver of behaviour that is capable of increasing participation, improving accessibility and enabling more people to use existing networks.

Nudging large numbers

The sheer scale of the number of short journeys that can be taken using active travel means that small increases have a big effect. A 5% increase in walking in London equates to one billion more walking journeys over the last five years.

Legible London

5%
increase in walking

58%
increase in stated preference

Post-implementation evaluation of Legible London found that the programme had ‘significantly improved pedestrians’ perceptions and satisfaction’, and that ‘signs and maps provided help to encourage more walking and make it easier to walk to new places.’ Observed data showed a 5% increase in pedestrian volumes around survey locations, while 58% of respondents stated that the system would encourage them to walk more often.

Economic appraisal assumptions

The economic modelling is based on an adapted version of Active Travel England’s AMAT tool.

The SOBC is designed to appraise the long-term economic impacts of projects, and assumes that Pathways is rolled out across the whole of the UK.

For Pathways, a 30-year appraisal period has been applied following the pilot stage, as is typical for large-scale and significant interventions. This means costs are considered for the pilot stage, and for the management and oversight of the programme during subsequent national roll-out.

All forecast figures in this section are expressed as Present Values, with an annual discount rate of 3.5% applied, in line with HM Treasury Green Book guidance.

The Benefit-Cost Ratios shown are indicative. They are significantly positive because the project is focused on improving the performance of existing and future investment, rather than introducing substantial new capital costs.

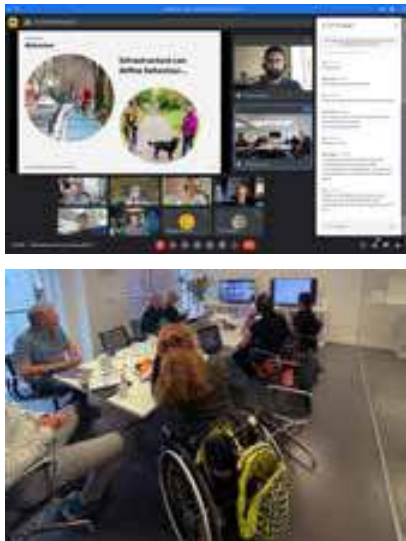
More detailed evidence on the time and effort currently spent by public officials and scheme designers on wayfinding can be gathered through the pilots.

Why this will be successful

Building blocks are in place

Over the last four years the concept of the Pathways

Project has been raised, explored and debated with 500 individuals from over 150 organisations throughout the UK. Challenges have been identified, initial research undertaken, prototype concepts developed and collaboration opportunities discussed. Many questions have been asked. The overwhelming feedback from these many discussions is that this is a real and present problem and that this is an ideal opportunity for transformation.



Feedback from local, regional and national representatives

“LTN1/20 isn’t helping us”

“This is a missing part of the jigsaw”

“It is likely to cost a lot less than hard infrastructure”

“We agree with piloting and user testing”

“We’d love to be part of the pilots”

“We can give you a platform to speak about this”

“We like that it is for all road users”

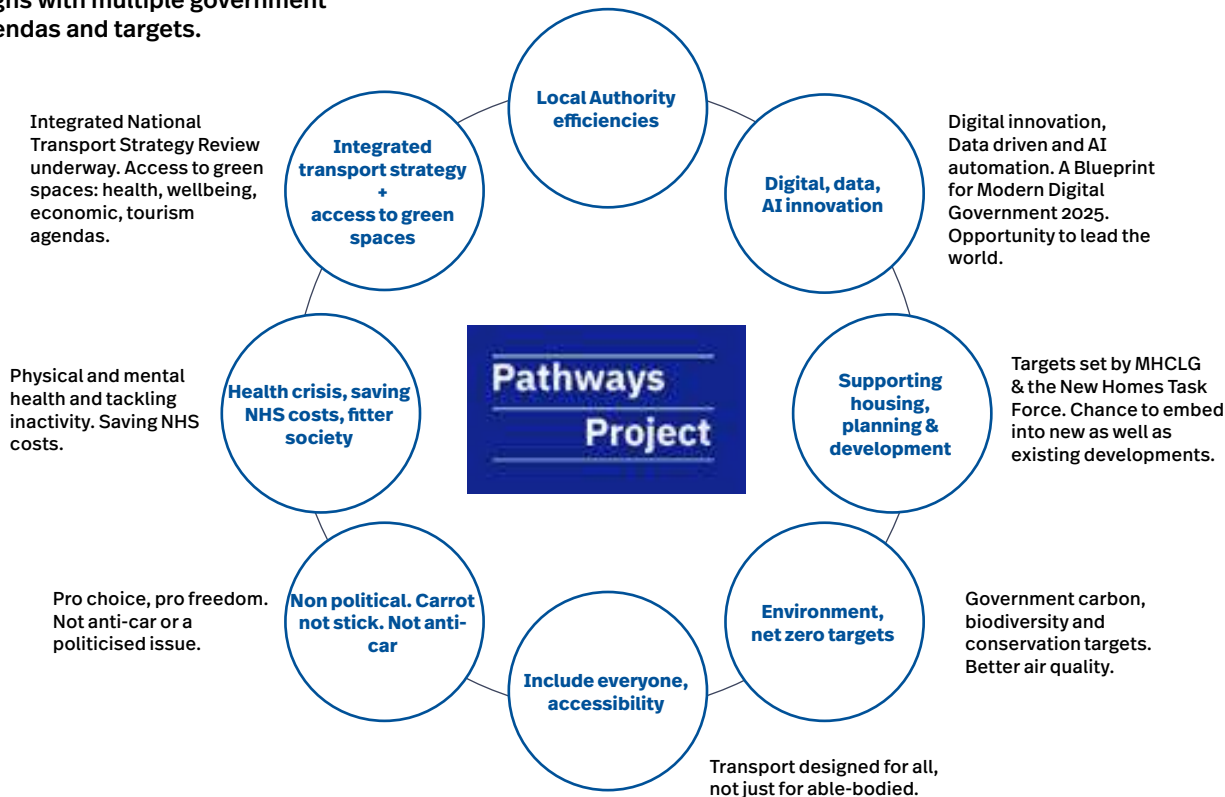
“We like that you are pushing ahead doing this”

“I get the history – 1963 and the 60 year gap”

Aligning with agendas

The goals of the Pathways Project aligns with multiple government agendas and targets.

Empower local governments to generate efficiency benefits. Stop reinventing the wheel. Fill the skills gap.



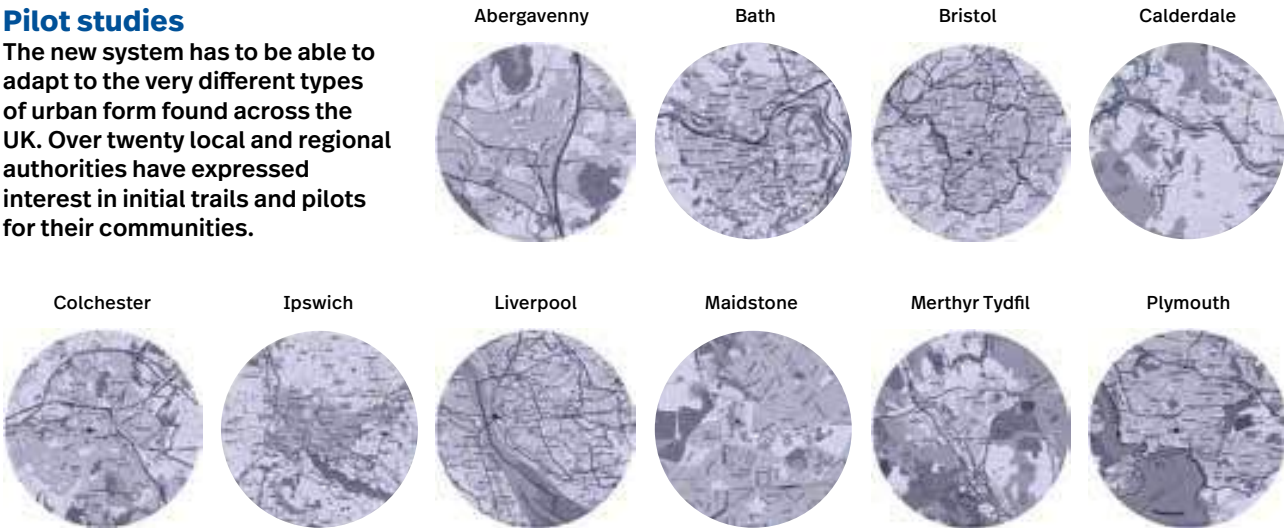
Pathways progress so far

Early funding has allowed the Pathways concept to move from principle into practical exploration, helping to show how a UK-wide system could be tested and developed. An early prototype system has been created, driven by research with older people and funded by the Design Age Institute. This showed how behaviour, if not properly understood and addressed, can restrict the freedom and confidence of older people. The prototype is not the solution, nor is it adopted guidance or government policy. It is the beginning of a needs-based approach to the issues that members of the public have identified. In parallel, a number of local authorities have commissioned initial pilot feasibility studies to explore how Pathways principles and concepts could be applied locally. These initiatives are ongoing, with local authorities keen to test the broader opportunities that a formally adopted Pathways approach could offer.



Pilot studies

The new system has to be able to adapt to the very different types of urban form found across the UK. Over twenty local and regional authorities have expressed interest in initial trails and pilots for their communities.



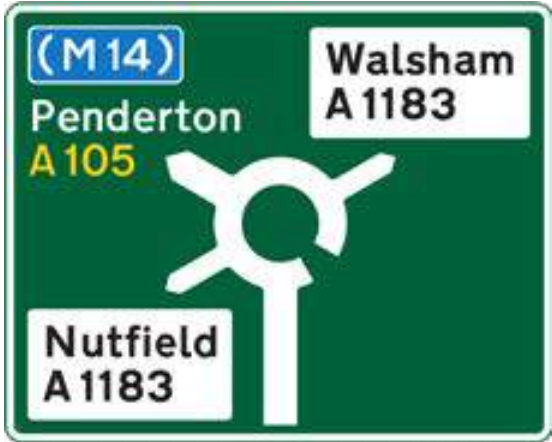
Why this will be successful

It has been done before

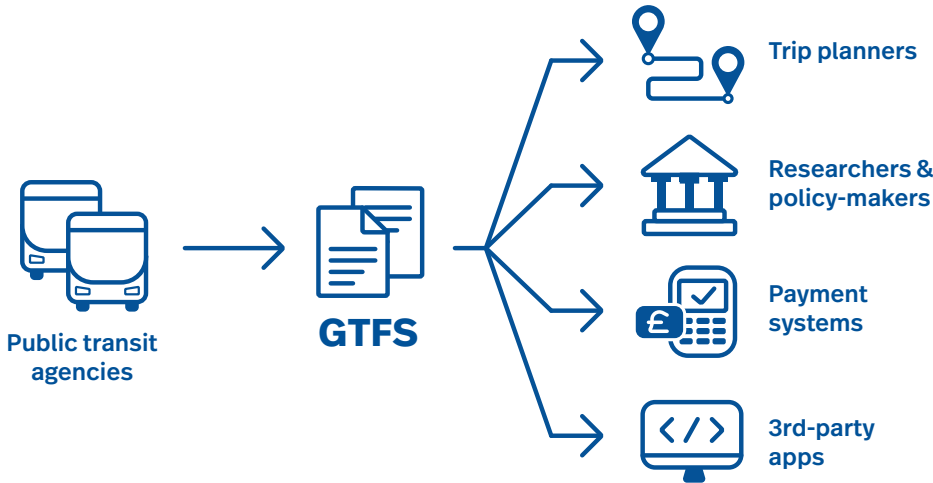
There are clear examples of similar national and international systems that have delivered significant positive impacts



UK's Road Sign System
Designed in 1963 by a team of designers, the system replaced a increasingly confusing word-led system. The UK adopted and developed the icon-led approach and created one of the best designed systems in the world. The system was designed by being tested with drivers. It has contributed to significant growth in road traffic.



General Transit Feed Specification
An open data format that public transport agencies use to publish schedules, routes, stops, and other geographic info in a standardised way, allowing apps like Google/Apple Maps to use it for trip planning and analysis. It was originally created by Google to standardise data. Now open-source and used globally.



Legible London
Central London had 36 different wayfinding system for pedestrians. Legible London was adopted by TfL and is now implemented throughout London. It is user-focused with unique heads-up five minute walking maps. It has created a global standard for city walking systems and contributed to a 5% increase in walking.



MARYLEBONE
St Christopher's Place

↑ **REGENT'S PARK**
Marylebone Village
Wallace Collection

← **PADDINGTON**
Portman Village

FITZROVIA →
Cavendish Square
Wigmore Hall

Street	Address	Phone	Website
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36. Baker Street	36 Baker Street	020 7638 0000	www.1bakerstreet.co.uk

City of Westminster

MAYOR OF LONDON

Transport for London

Thanks and acknowledgements

Thanks and Acknowledgements

The development team has engaged with a wide range of individuals and organisations over the past three years. This has helped evolve the solution, check thinking and unlock possibilities.

Thank you to everyone who has contributed time and thought towards the project goals.

Organisations

Active Travel England
Transport Scotland
Transport for Wales
Department for Transport
Welsh Government
AccessAble
Accessible Transport Policy
Commission
Active Travel Cafe
Association of Directors of Environment
Economy Planning & Transport
(ADEPT)
Active Partnerships Network
Activity Alliance
Bath & North East Somerset Council
Bath University
Bikeability
Bespoke Consulting
Bristol City Council
British Cycling
British Horse Society
British Standards Institution (BSI)
Calderdale Council
Canal and River Trust
Colchester City Council
Connected Places Catapult
Coventry City Council
Clarion Housing Group
Crown Estate
Cycle Streets
David Lock Associates
DataMap Wales
Design Council
Design Age Institute
Department for Environment Food &
Rural Affairs
Design Age Institute
Diagonal
Digital Task Force for Planning
Digital Twin Hub
East Suffolk Council
Essex County Council
Essex Pedal Power
Forestry England
Future Cities Catapult
Gloucester City Council
Google Maps
Greater Manchester Active Travel
Commissioner
Greater Manchester Combined
Authority
Great Western Railway
GM Ageing
GM Moving
Helen Hamlyn Centre for Design
HiTrans
Innovate UK
Ipswich Borough Council
Kent County Council
Leicester City Council
Living Streets
Liverpool City Council
Liverpool City Region Combined
Authority
Liverpool City Region Walking & Cycling
Commissioner
Local Government Association
Local Government Technical Advisers
Group
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Manchester City Council
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Ministry of Housing Communities &
Local Government
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NHS England
National Highways

National Parks
National PROW Managers group (ADEPT)
National Trust
National Centre for Accessible Travel
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New Local
Norfolk County Council
North East Combined Authority
North Northamptonshire Council
Open Data Institute
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Transport for All
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