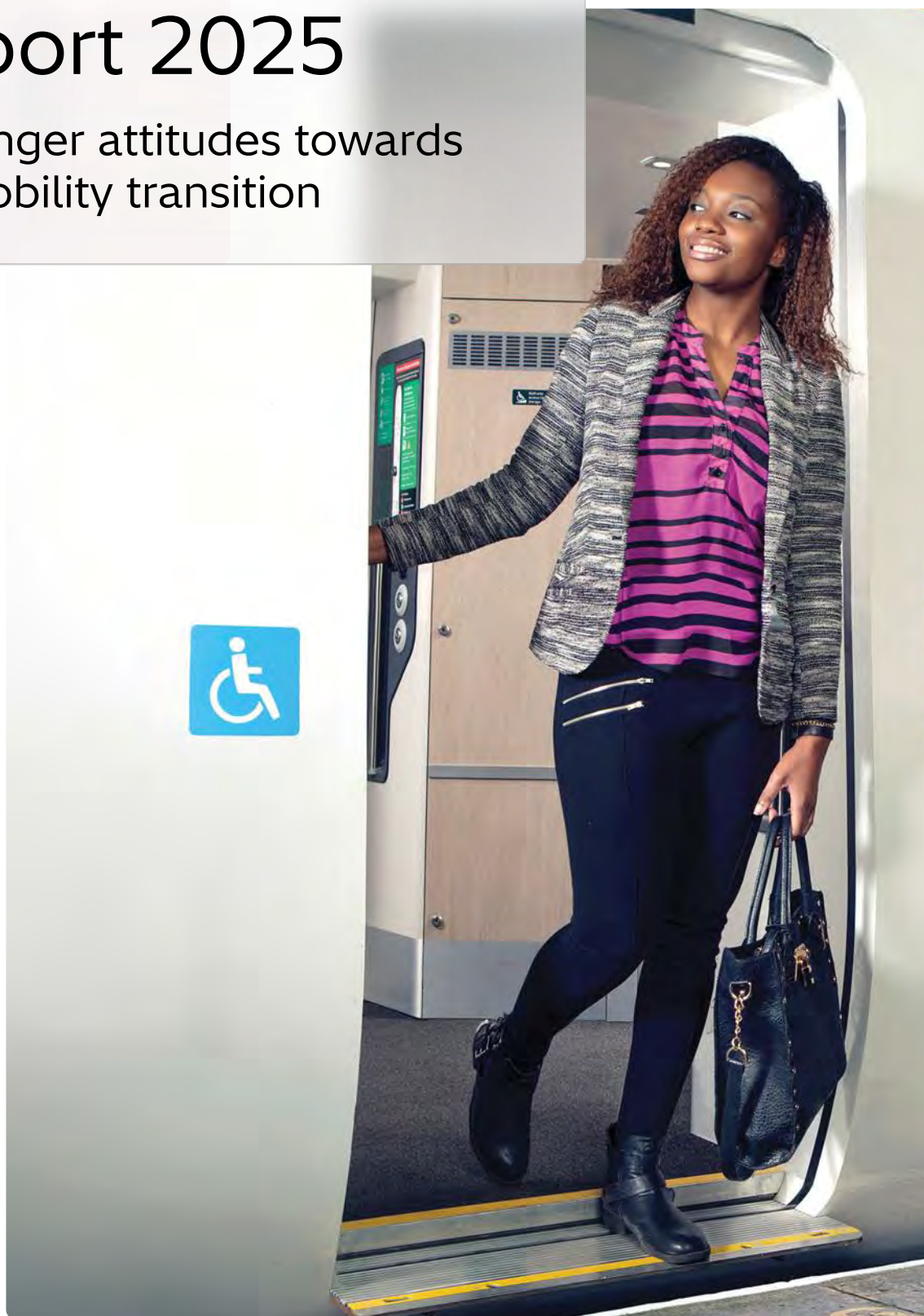
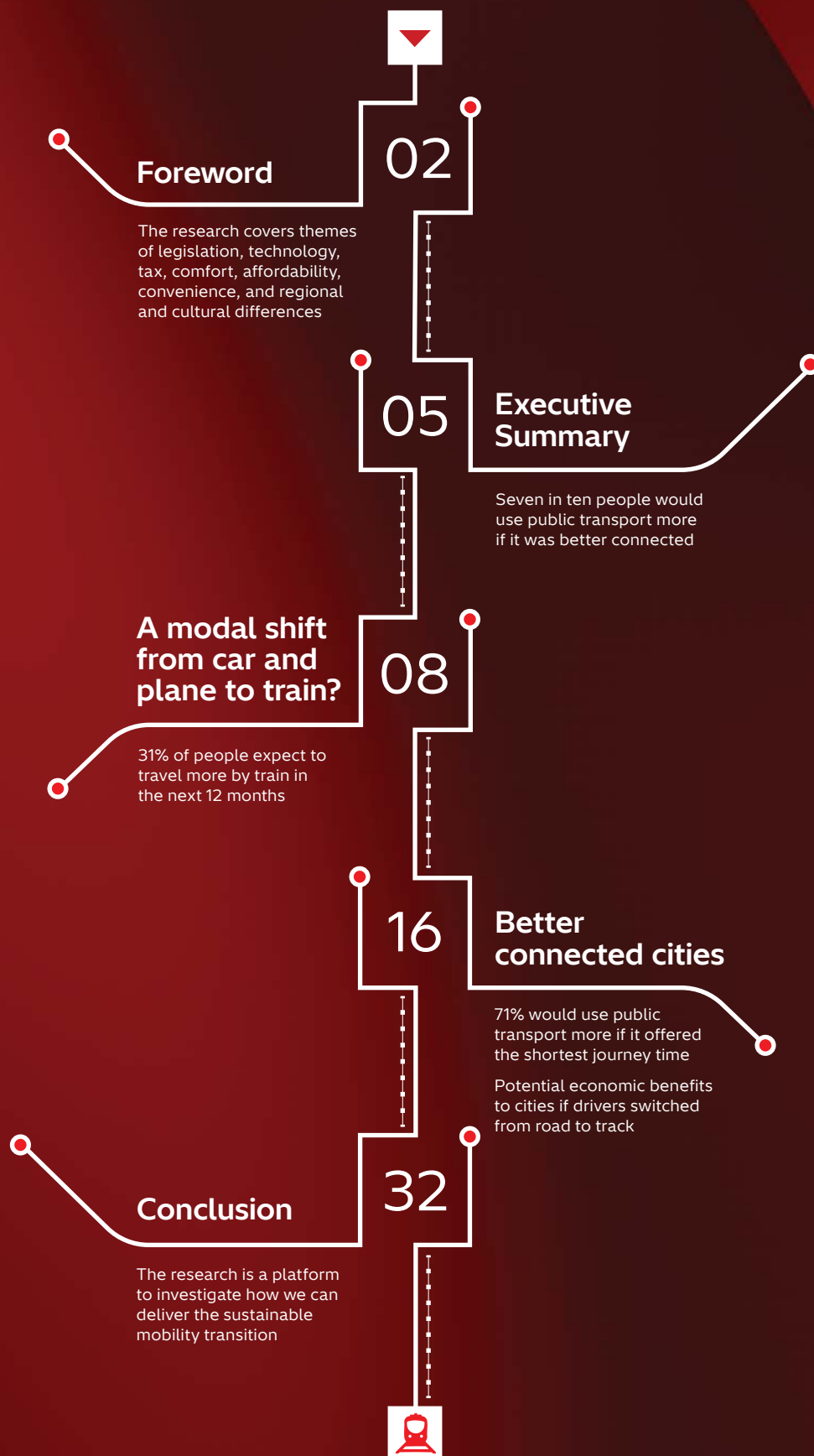


Better Connected Report 2025

Passenger attitudes towards
the mobility transition





Foreword	02	The research covers themes of legislation, technology, tax, comfort, affordability, convenience, and regional and cultural differences
	05	Executive Summary
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Giuseppe Marino
Group CEO, Hitachi Rail

*Using the evidence
and our experience
to deliver the
sustainable mobility
transition*

Foreword

The mobility industry is undergoing a profound transformation, shaped by rapid urbanization, growing environmental concerns, evolving passenger expectations and continued technological advancement. In this changing context, rail has a unique opportunity to become the backbone of a highly accessible, increasingly efficient, low-carbon and passenger-centric mobility ecosystem.

To better anticipate how attitudes and behaviours are evolving, we conducted a survey of over 11,000 passengers across 9 countries. The insights gathered provide a rich and timely insight into how rail can respond to future needs by becoming more sustainable, more integrated and more aligned with what really matters to passengers.

A key takeaway is the crucial role of digitalization in the mobility of the future. Digital technologies are redefining how passengers interact with transport services - with seamless journey planning, real-time updates, smart ticketing and personalized travel experiences. These technologies enhance the efficiency, safety and resilience of rail infrastructure, helping operators and authorities better adapt to changing demand and manage resources more effectively.

We trust this report will offer you valuable insights into the emerging trends shaping rail mobility across the world. We believe it can inspire new ideas, foster collaboration and support the transition to smarter, cleaner and more inclusive transport systems.



Giuseppe Marino
Group CEO, Hitachi Rail





Executive summary

This study draws on the perspectives of people across a strategic selection of cities and countries to understand their attitudes to travel. It explores what drives peoples' transport decisions within cities, and when it comes to longer distance travel, how rail can compete with and overtake car and plane travel as the transport mode of choice.

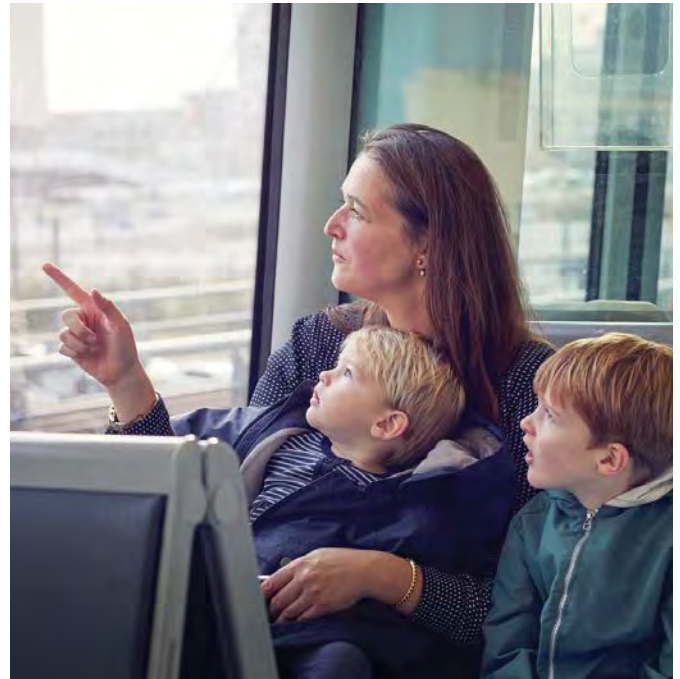
The study was undertaken by leading consumer research company Savanta ComRes and comprises the opinions of over 11,000 people spread across a mixture of countries – the US, UK, France, Italy, Germany and Spain – and key global cities – Washington DC, Toronto, London, Paris, Berlin, Copenhagen and Dubai.

The selected countries and cities incorporate a wide range of geographic, economic and transport infrastructure dynamics. They capture the European markets where high-speed rail is both increasingly supported by legislation and growing in passenger demand; but also the views of people based in places where car, train, bus, cycling or walking dominates how people travel. The study builds on two previous research reports published by Hitachi Rail in 2023 and 2024 and also investigates how attitudes have changed over the past two years.

A modal shift from car and plane to train

Currently, around one-third of people used a train in their most recent long-distance journey (judged as at least 2.5 hours). This of course varies significantly from place to place, reflecting existing infrastructure among other things, and is as high as 46% in Italy (vs 40% by car and 12% by plane) and as low as 8% in the US.

The report explores what motivates how people choose to travel, finding that speed of travel, convenience and 'avoiding hassle' were notably influential for taking the train. This was particularly important for older passengers for whom direct connections appeal, while younger people placed more emphasis on the flexibility of booking and on-board comfort.



Our research also tests how to motivate 'switchers' – those that currently travel by car or plane but are open to travelling by train.

For these potential 'switchers', speed and direct travel were the two most influential factors to promote a change. But this does vary by country, for example in Germany an extra emphasis is placed on reliability, while in France, one-third of respondents listed attractive ticket promotions as being a particularly important factor.

Typically, one of the best indicators for predicting change is to explore what people expect to happen in the future. We found that around one-third of people expect to travel more by train in the next 12 months. For anticipated travel in the next five years, this rises to over 40% of people across countries and almost 50% for those based in cities. By contrast, plane travel is set to stagnate with people neither expecting to use it more or less.

Despite these promising signs of growing demand, the data also underlines the likely barriers to increasing rail travel. Inconvenient routes and the need for multiple changes (particularly prevalent in Italy and Germany), as well as overcrowding (important in the UK), are the factors most likely to put them off making a long-distance train journey.

And while the sustainability of train travel is also a key reason for the industry to continue to grow, it is not a decisive factor for passengers. When asked to identify the most important factors for how to make a long-distance journey, cost and time taken were both over three times as influential as environmental concerns.

Executive summary

Legislating for a modal shift?

In Europe, governments and policymakers are increasingly focused on how to support the sustainable mobility transition with legislative action. Notably in France in 2023 legislation has been introduced to ban short-haul flights where high speed rail alternatives exist, and similar legislation is being delivered in Spain in its current parliamentary term.

Our research finds strong support for these types of policies in Europe – as high as 72% in Italy – but opinions are more divided in North America. In France, where legislation has already been introduced, and Spain, where at time of writing it is expected to, there is also strong support for further legislation (56% and 63% respectively).

Globally there is also support for increasing air taxes to fund more rail alternatives, pointing the way to a potential funding stream to support the mobility transition.

Better connected cities

By 2030 it is estimated that 70% of the world's population will live in cities. That is approximately 6 billion people; and people that live in cities are already more likely to be public transport users. Therefore, understanding the levers for driving the mobility transition must focus here.

Our choice of research city strikes a balance between the megalopolis and the smart city, and from the cities where driving still predominates through to cities where public transport is the key mode of travel. For example, in London and Paris over two-thirds of people choose to take public transport to commute to work, vs only around one-third in Washington DC and Toronto.

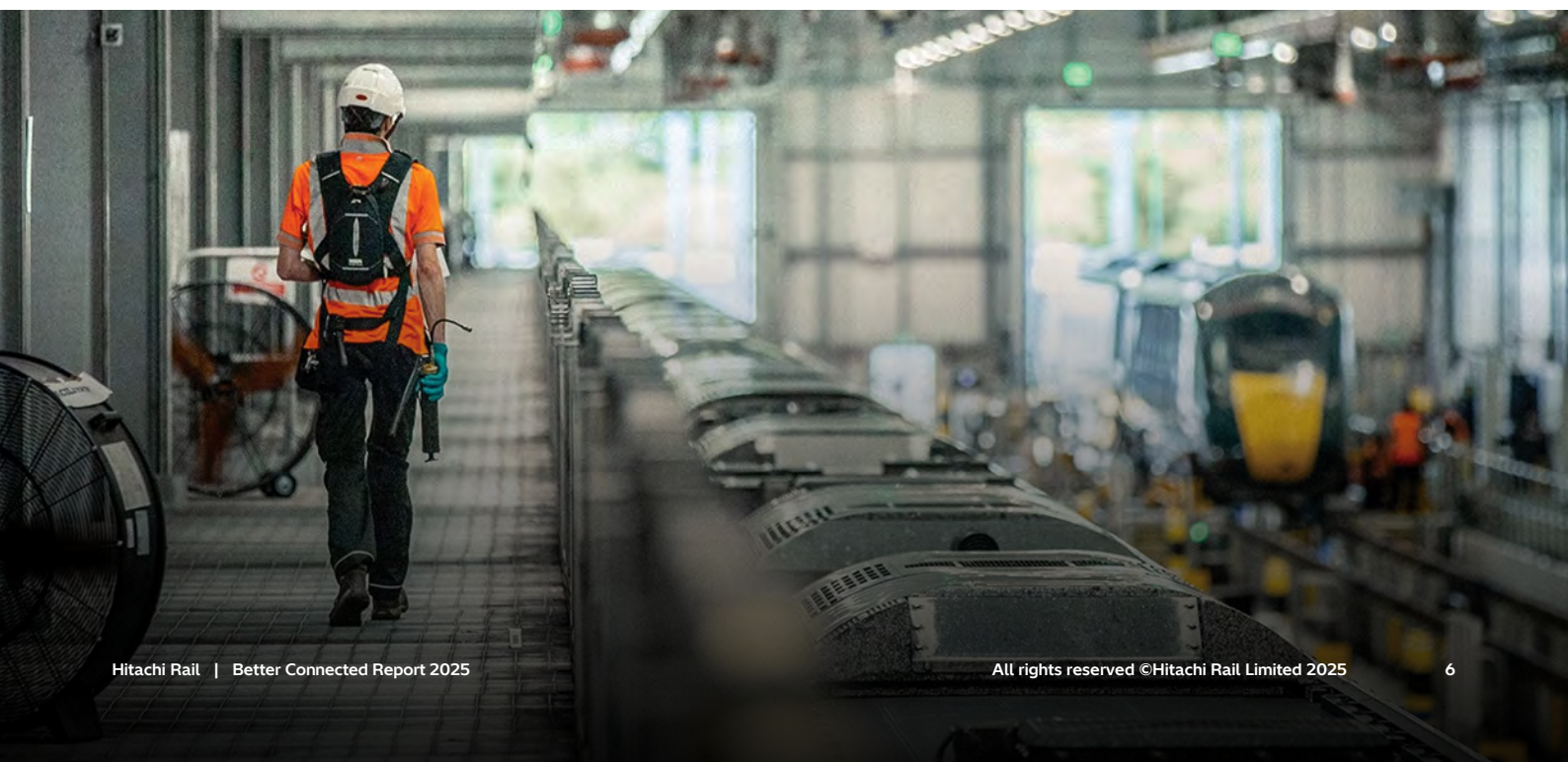
That said, the willingness to use public transport isn't exclusively based on infrastructure. In some cities where the public transport infrastructure is world class, usage isn't, and in others the opposite is true. Understanding why is of critical importance to policymakers, so we created public transport readiness score to understand exactly how ready each city is for public transport usage and found some interesting results. For example, London and Berlin both score well above the average in their readiness scores, yet around half the population still prefer to drive, suggesting that fundamental infrastructure is not the critical lever in moving Londoners or Berliners to public transport.

Beyond infrastructure, what factors encourage these differences? What is it that motivates people to use their public transport systems?

Cost and convenience are strongly cited, but flexibility and reliability are important too. On the reverse, when barriers are tested, people most often cite crowding, noise and reliability. The type of barriers to using public transport also vary substantially by place – in America, safety is much more important – and by age.

In contrast, over seven in ten people would use public transport more if it were better connected; and this is as high as six in ten for those people that do not currently favour public transport. When asked to explain 'better connected', people place emphasis on fast and flexible journeys with strong first and last mile connections.

The appetite for 'better connected' transport is clear, and over half of those surveyed noted they would choose to use such a system more even if it cost more – as high as almost two-thirds in Italy and Spain. Around half of all people also support the introduction or increase of road user charges to fund better connected public transport.



Executive summary

Autonomous transport

Through advanced digital communication and signalling technology, the rail industry is able to automate the operation of rail services, and this is especially prevalent in urban settings. Automation can support trains to safely run at closer intervals and greater speed, increasing capacity on lines and helping to provide much of what our research shows people value in their public transport: speed; reliability and comfort (by reducing crowding).

Automation is however, an understandably sensitive topic, touching on perceptions around safety and also regarding wider social and societal issues.

Our research explored how people perceive such technology, and it is notable that in cities people support its benefits, with 60% believing they would be either safer or just as safe on an automated service. The results are more even at a country wide level, with people split between choosing whether automated or human operated services are safer.

Perhaps unsurprisingly, there is a substantial age dimension in our research on this topic as well, with those under 34 being three times more likely to think automated transport is safer than those over 55.

A platform for delivering what passengers need

Our new research shines a light on some of the most pressing topics that the public transport sector must grapple with in the coming years.

This study offers policymakers, operators and the wider transport industry insights into how we can most effectively deliver the green transport shift that is needed globally.

Over

40%

of people across all countries
and almost

50%

of those based in cities
expect to travel more by train
in the next 12 months

A modal shift from car
and plane to train?

01

An aerial photograph of a high-speed train crossing a long stone viaduct over a dense forest. The train is dark blue and white, moving from the bottom right towards the top left. The forest below is lush with green and yellow trees, suggesting autumn. In the background, there are rolling green hills under a clear sky.

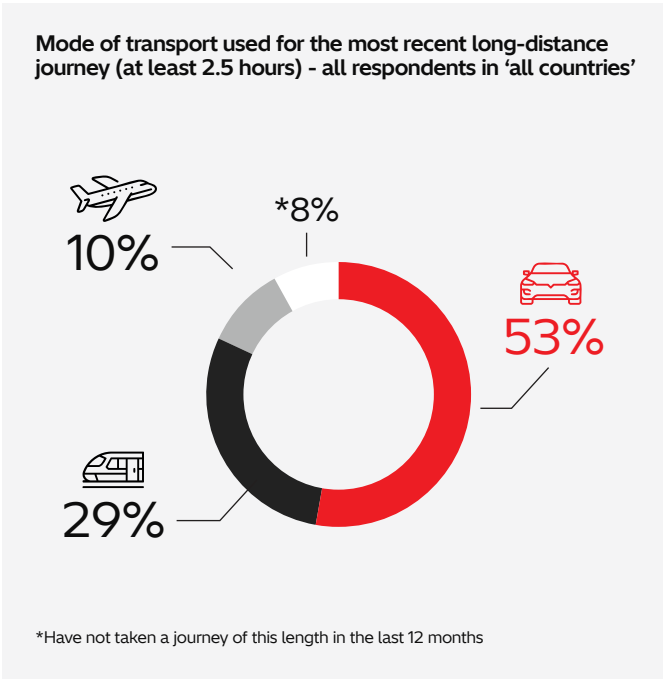
*“It's clear that we
need to step up our
efforts to reach
net-zero emissions.”*

Wopke Hoekstra

European Commissioner for Climate,
Net Zero and Clean Growth

A modal shift from car and plane to train?

The sustainable mobility transition can only happen with a modal shift from higher polluting transport such as cars and planes, to sustainable travel. An important part of this shift must take place via long-distance rail journeys. Our research provides a snapshot of how people currently travel between cities, explores expectations in the coming years, and tests what will motivate people to switch.



Demand for trains is increasing

Around half of long-distance journeys (at least 2.5 hours long) are currently made by car, with rail accounting for just under one-third (29%). This varies substantially by market however. In Italy, for example, almost half of long-distance journeys (46%) are made by train, versus only 8% across the US.

It's a vast difference, and yet one that will elicit little surprise, reflecting as it does America's long-established car culture and resulting infrastructure differences between the markets. The solution to the sustainable transport shift is unlikely to be one-size-fits-all.

Our data shows that **31% expect to travel more by train in the next 12 months**, while just 12% expect to travel less. For plane travel, the pattern is reversed. While 19% expect to travel more, 23% expect to travel less, giving a net negative score for plane travel.

Connectivity vs car culture

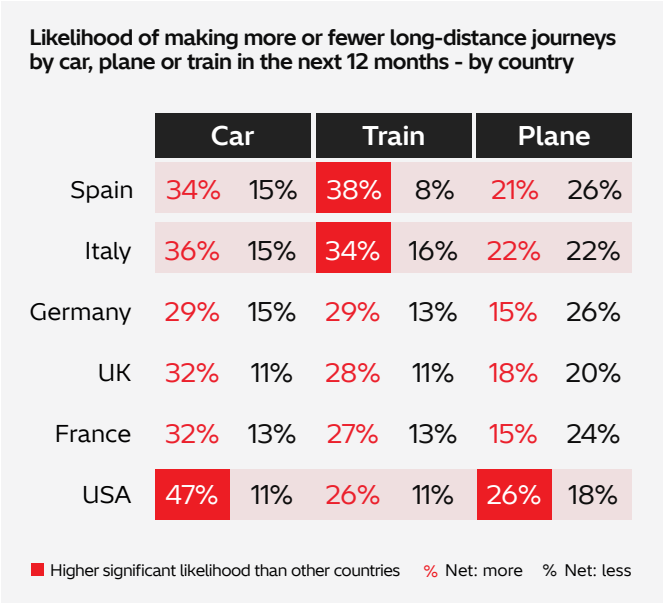
City connectivity data from Loughborough University in the UK, shows that the most connected cities in Europe are by far the most likely to use public transport on intercity journeys. Less so in North America where highly connected cities like Washington DC and Toronto are still much less likely to see people travelling in and out of them by public transport.

Our data endorses the fact that much greater investment is needed to move the needle in North America relative to Europe, not just to provide a strong incentive to use rail travel, but also to influence the 'hearts and minds' of US and Canadian travellers.

	Connectivity score (1=best, 12=worst)	Percentage of population likely to use public transport for journeys between cities
London	1	56%
Paris	2	66%
Dubai	2	51%
Toronto	3	26%
Berlin	4	47%
Washington DC	4	23%
Copenhagen	6	45%

Source: Globalisation & World Cities, Loughborough University

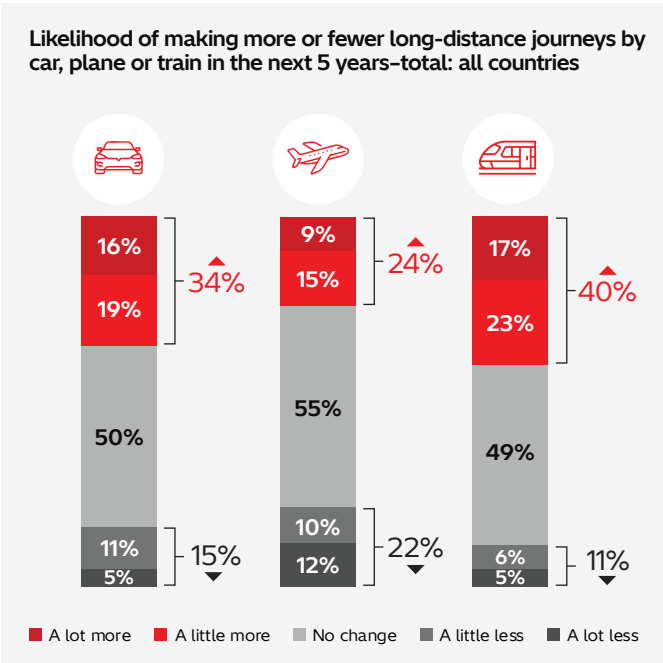
A modal shift from car and plane to train?



The EU anticipates that high speed rail will double in capacity in member states between 2020 and 2030 . This is backed up by our data on future travel habits. Looking at expected travel in the next five years, people think they will increase their travel by train (40%), more than by car (34%) or plane (24%).

When people’s expectations to travel less by certain modes of transport are accounted for, there is an overall score of net 29% for rail; net 19% for car; and net 2% for plane travel.

This reveals an appetite for a modal shift to rail. It is also notable that when compared to our findings for the same question in 2024, **there has been a 5% increase in people anticipating that they will travel more by train.**



At a country level, **Spaniards and Italians** are the most likely to expect to make long-distance rail journeys more by rail over the next 12 months. Nearly half of **Americans** say the same for cars and a quarter for planes.

In Washington DC the increase is more substantial, doubling from 19 to 40% expecting to travel more by train, potentially reflecting ongoing significant upgrades to the city Metro system.

Policymakers might ask whether demand for more high speed rail will be reflected in greater rail usage. The simple answer, based on our experience delivering high speed rail in markets such as Japan, Italy, Spain and the UK is simple: yes. In Italy, where Hitachi Rail delivered its first very high speed ETR 1000 over ten years ago, high speed rail has seen passenger growth of 517% - rising from 6.5m to 40m passenger journeys per year (Trenitalia, 2019). Fast, reliable services gave Italians the chance to travel easily between major economic centres, for example 75% of Rome-Milan journeys are now by train, with passengers quadrupling in a decade.

Spain holds the second-largest high-speed rail network in the world in terms of kilometres. In 2024, the number of high-speed rail passengers in Spain surged by 22.8%, reaching 39.01 million, according to the passenger transport statistics published by the National Statistics Institute (INE). Over the past decade, high-speed rail usage in Spain has grown almost a 300%, driven not only by the expansion of the network but also by the first phase of market liberalisation, which has allowed new operators to enter the sector. This opening of the market has also enabled our ETR1000 trains to play a key role in connecting regions across Spain, enhancing national cohesion and facilitating the daily mobility of millions of people.

Convenience is key

We explored motivating factors for and barriers to making long distance journeys by train. When asked to imagine a hypothetical long distance travel scenario, respondents said **cost was the single most important factor in determining mode of transport**. Cost was followed by length of journey, convenience and comfort, all selected by over half of people. By contrast, environmental impact was considered as a factor by just under one-fifth of people. In this sense, while the sustainability of rail is a crucial outcome, it is not a priority message for growing rail usage. To use rail more, people need to believe it delivers a cost-effective, convenient and comfortable method of transport.

A modal shift from car and plane to train?

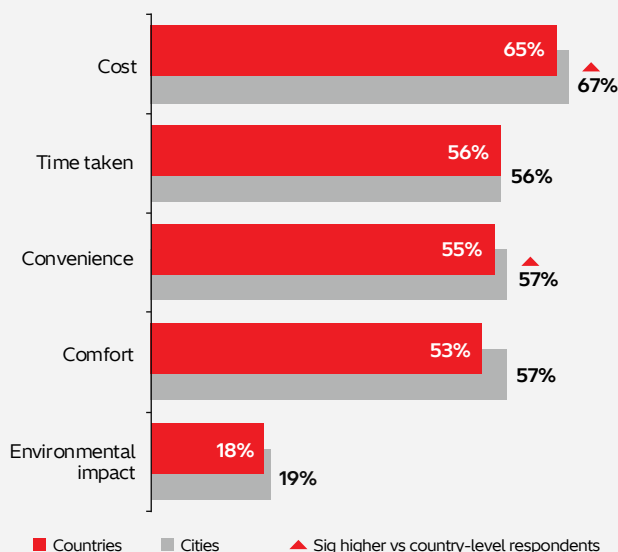
Air quality: a policy lever?

The above data is based on a collated average, but understandably cities with poor sustainability scores are more prominently represented in the number of people seeing sustainability as an important factor in the growth of public transport.

Breathable air has numerous, obvious, benefits, but not all cities can count on it. Areas with high scores on the Air Quality Index – meaning poor air quality – correlated neatly with our data, showing demand for better environmental standards from transport.

Dubai typically has a poor air quality score – often over 100 – compared to, say, London with scores typically not exceeding 50. That difference is noticeable without any special equipment to a person on the street. Tellingly, Dubai has the second highest proportion of people within our city group citing a desire to reduce their carbon emissions, compared with London (the joint-second lowest).

Factors considered when deciding whether to travel by car, plane or train - all respondents - ranked by level of importance in 'all countries'



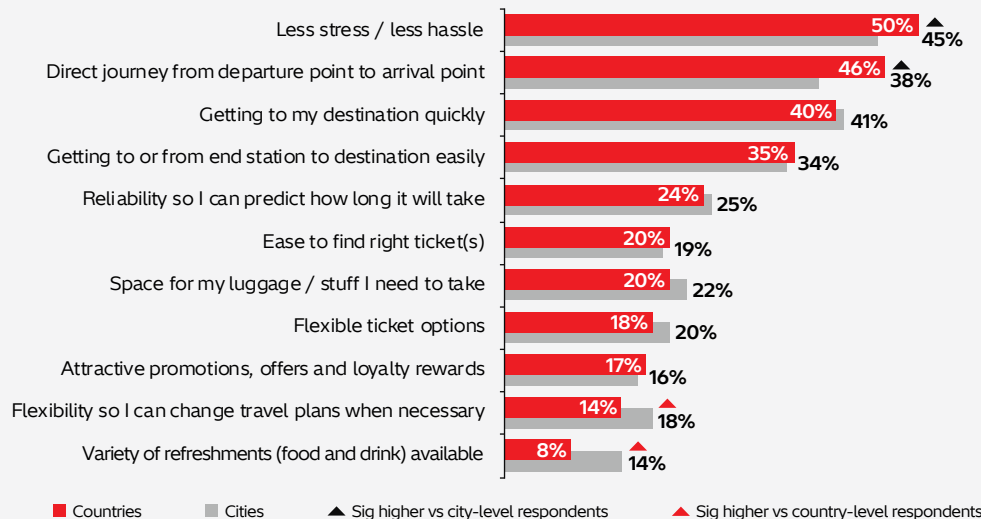
Top reasons for taking the train for a long-distance journey - ranked by 'all countries'

Respondents in all countries choose trains because of less stress

50%

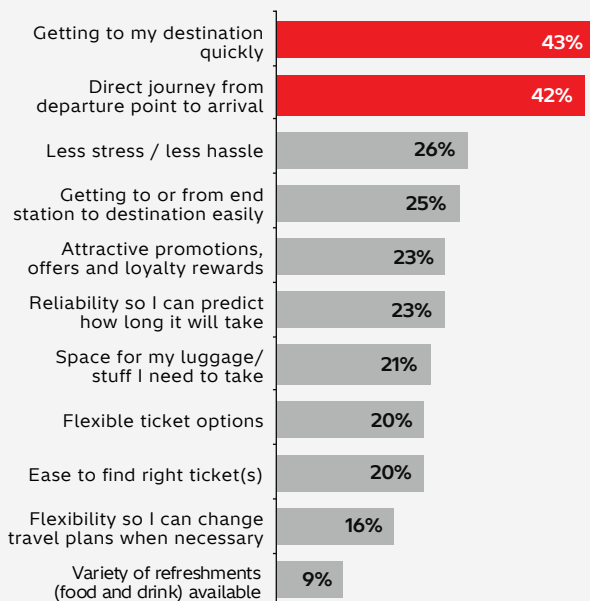
Respondents in all cities choose trains because of direct journey convenience

38%

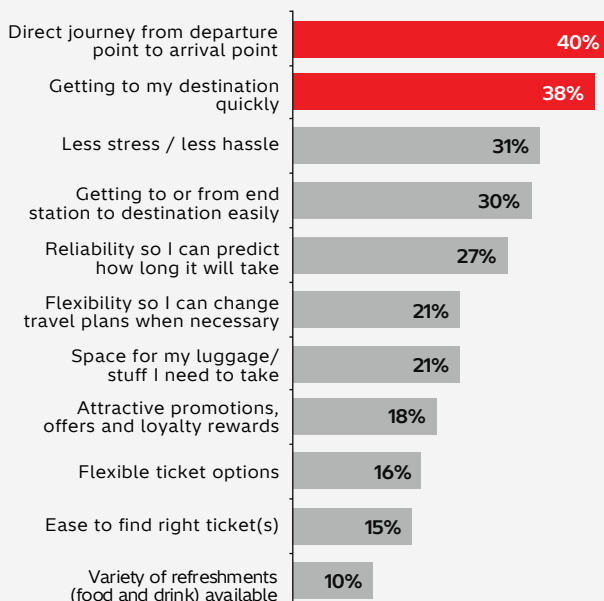


A modal shift from car and plane to train?

Top reasons to consider train instead of plane – ranked by 'all countries'



Top reasons to consider train instead of car – ranked by 'all countries'



The primary factors influencing the choice to travel long-distance by rail are 'less stress', direct journeys and speed. Broken down demographically, those aged 55+ were most likely to prioritise direct connections, while under-35s prioritise ease of ticket booking and onboard comfort.

For people who prefer plane travel for long distance journeys, reaching the destination quickly (43%) and direct journeys (42%) were by far the most important factors for swapping to train travel.

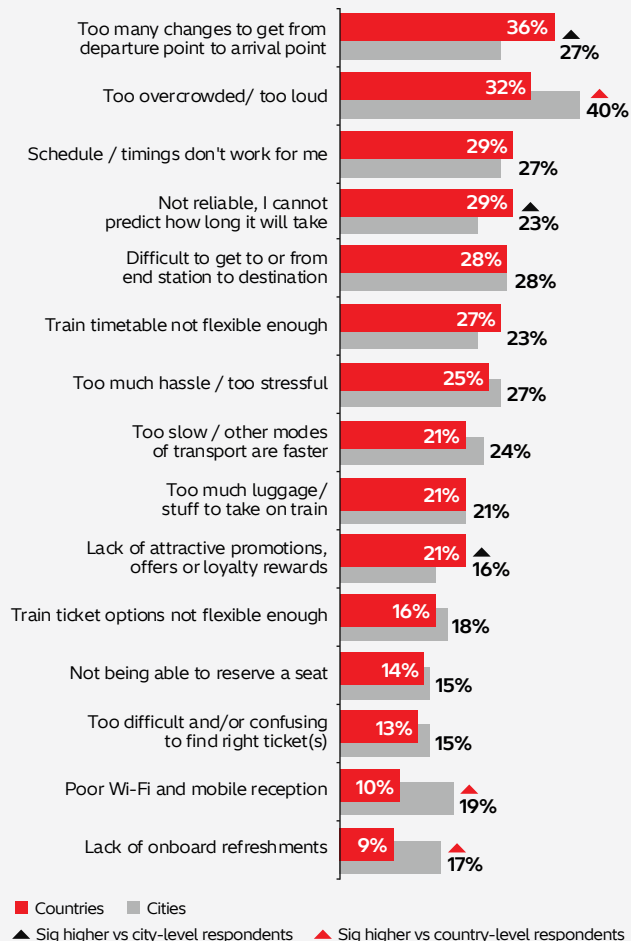
With less stress prioritised by just one-in-four. There is a similar picture for those opting for car travel, with direct journeys ranked most important (40%) followed by speed (38%), less stress (31%) and getting to and from end station easily (30%).

Regarding barriers to train travel, those who plan to travel less by train cited the need to make too many changes throughout their journeys, while in cities overcrowding was the most referenced reason for avoiding long distance train travel.

Funding for the modal shift?

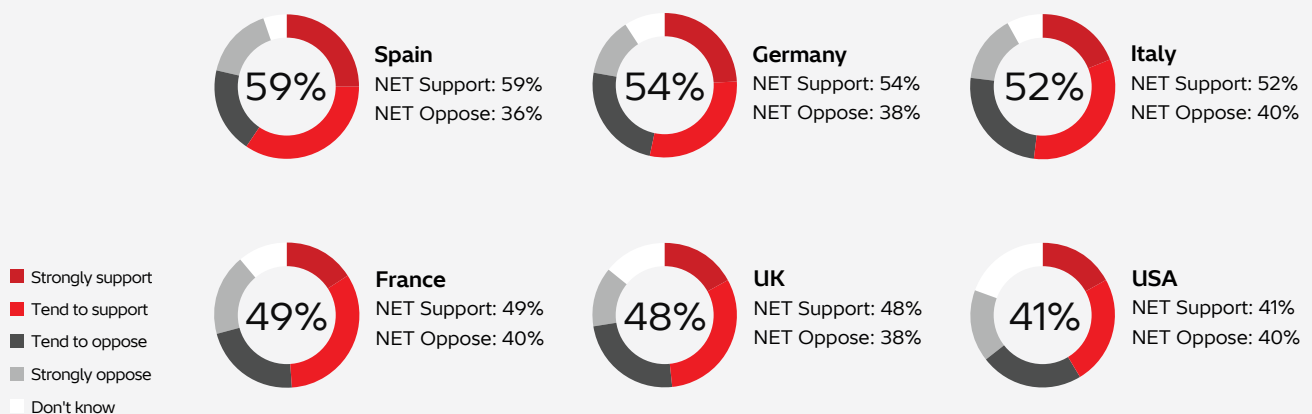
Having identified a clear appetite for growing long-distance train travel, a key question is how to fund and support the delivery of new rail infrastructure. At both a country and city level there is support across Europe to increase air taxes to fund public transport, although this is slightly lower than in our research in 2024. The picture is a little less clear in North America, with respondents split on the issue.

Barriers to travel long-distance by train more in the future - all who expect to travel by train less in the next 12mos. or 5 yrs

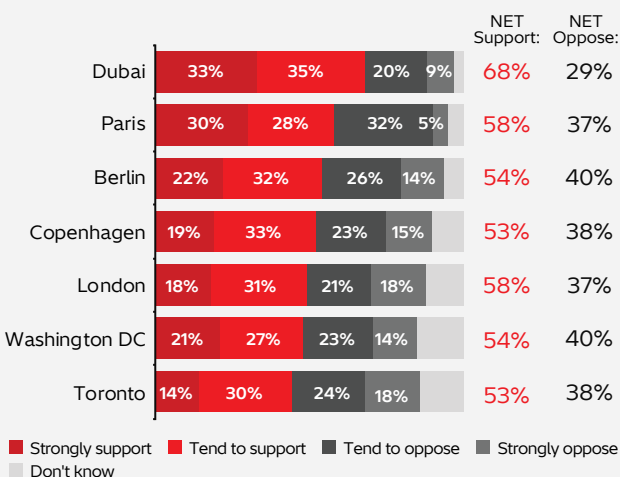




Support for and opposition to increased air taxes to fund better connected and more affordable rail travel - all respondents by individual country - ranked by 'net: support'



Support for and opposition to increased air taxes to fund better connected and more affordable rail travel - all respondents by individual city - ranked by 'net: support'



Following legislation to ban short-haul flights where high-speed rail alternatives exist in France and potentially also Spain, the role of policymakers in the mobility transition has entered public discourse. Our research finds major support for such policies in both countries where legislation has already been enacted, with twice as many people supporting the legislation than those that oppose it. Both countries show a willingness to go further, with 63% supporting additional legislation in Spain and 56% in France.

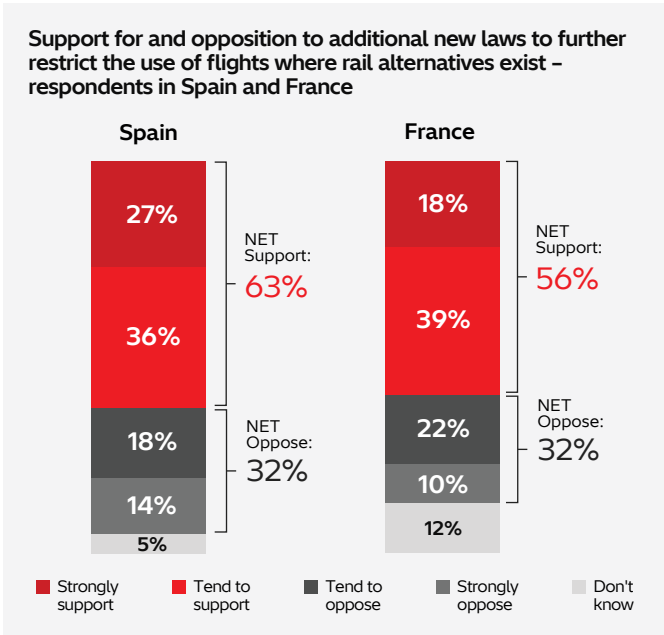
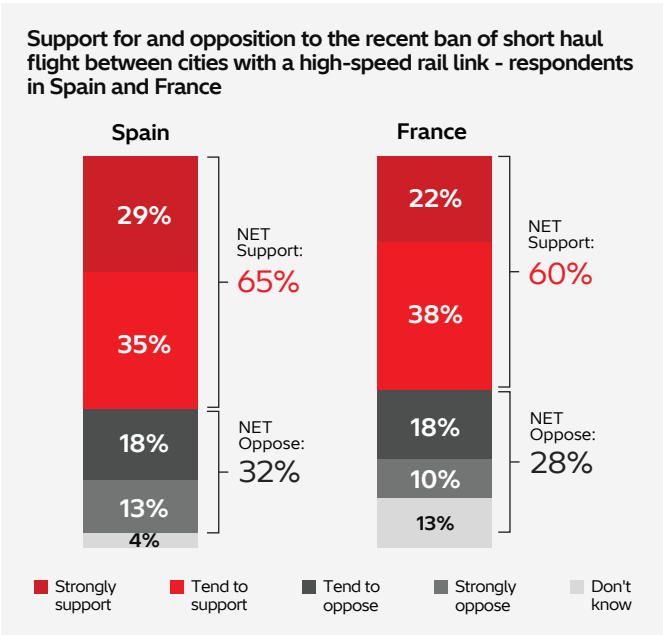
31%

people expect to travel more by train in the next 12 months

63%

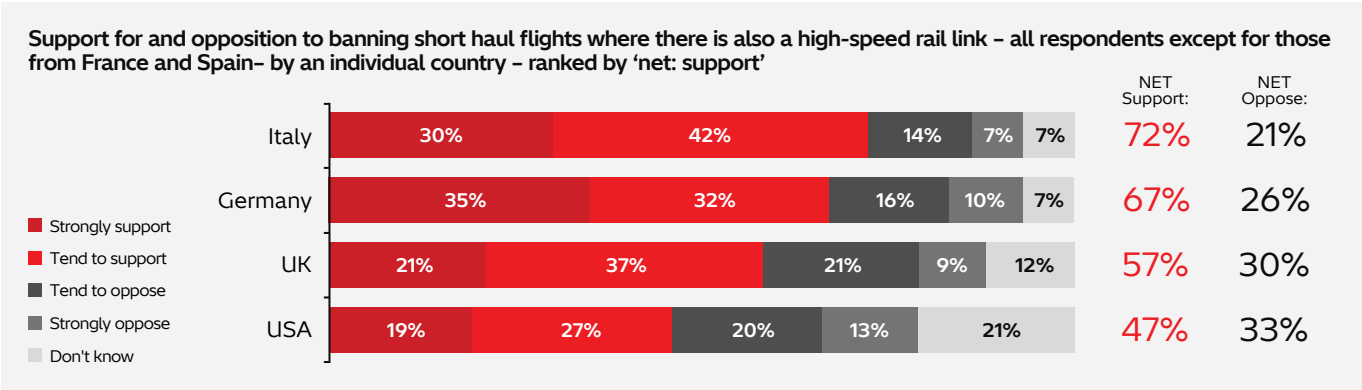
Spaniards support additional legislation to ban short-haul flights where high-speed rail alternatives exist

A modal shift from car and plane to train?



Support for legislative action is in evidence beyond the countries where it has already been enacted. Our data reveals that Italy, Germany and the UK all show substantial support for such a policy.

In Italy, three times more respondents back the legislation than oppose it. There is majority support for banning short-haul flights where high-speed rail is available in all countries except the US.



High Speed

Can high speed rail displace planes?

Italy and Japan are prime examples of the shift from aviation to rail in intercity transport. In Italy, our ETR1000 has become the preferred mode of travel between Milan and Rome, leading to a significant decline in internal flights over the past decade, thanks to substantial investments in the high-speed rail network. Similarly, Japan's iconic shinkansen bullet train continues to be a popular choice for travellers.

Hitachi Rail's extensive experience in delivering high-speed, intercity, and commuter trains is playing a crucial role in connecting cities worldwide. With a growing global footprint in digital signalling systems, Hitachi Rail is enhancing the share of journeys made by public transport. In Spain, our rail, telecommunications and supervision systems, plus service teams, are at work across 2,800kms of the 4,000kms of the network.

Better
connected cities

02



By 2030 it is estimated that 68% of the world's population will live in cities - approximately 6 billion people.

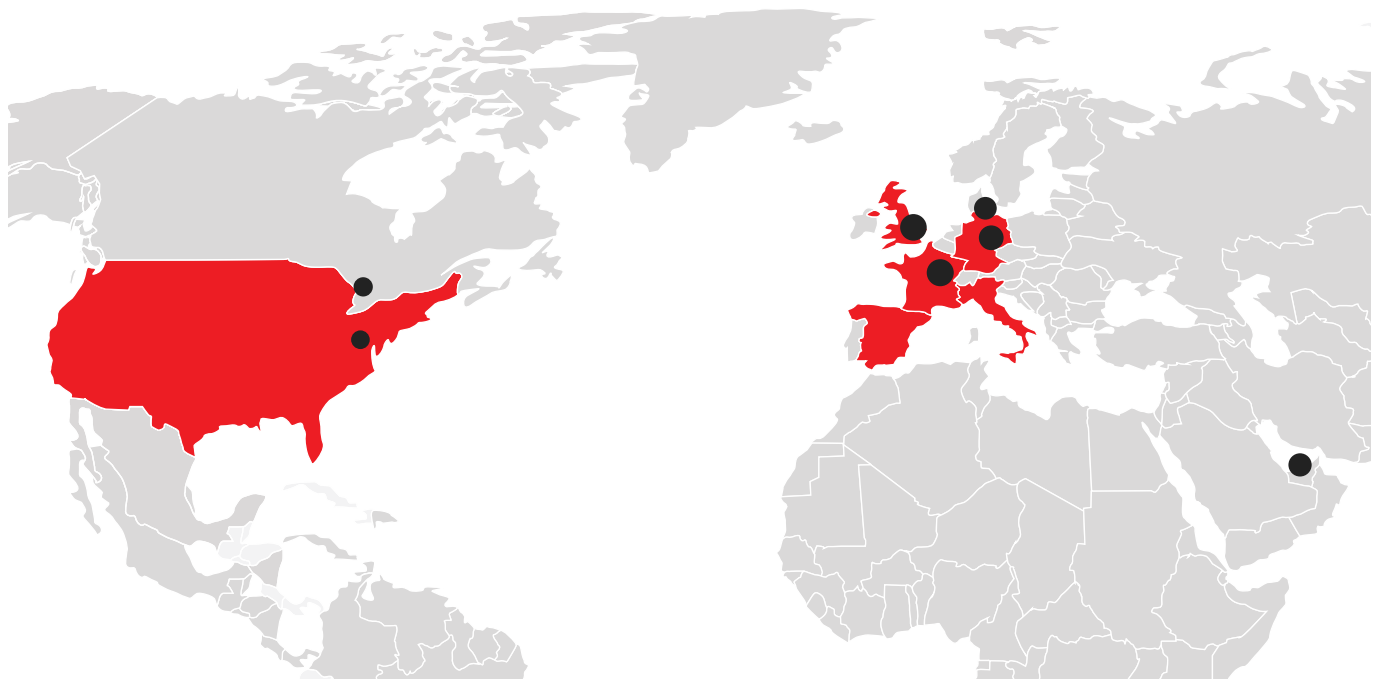
Better connected cities

By 2050 it is estimated that 68% of the world's population will live in cities: approximately 6 billion people¹. Understanding how people use and value their public transport systems in urban spaces is key to growing sustainable mobility.

The reality on the ground

Across all cities in the study, around half of people use public transport as part of their commute to education or work. The figure does however vary significantly from city to city, with over two-thirds of people using public transport in London compared to one-third in Washington DC.

Mode of public transport varies too, with over half of Parisians using the metro for their commute versus just 12% in Toronto; and while roughly one-third of people commute by bicycle in Copenhagen, one-in-ten now incorporate e-scooters or scooters into how they travel in Berlin.



Public transport commuters
all cities:

49%

Public transport commuters
all countries:

30%

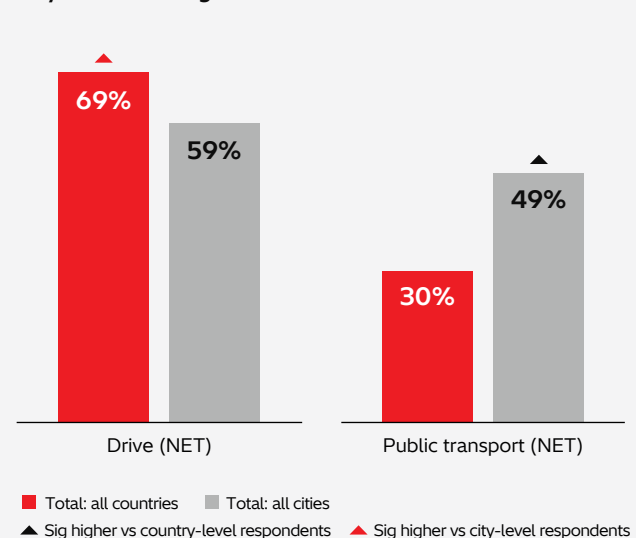
Age trends

The use of public transport for commuting decreases with age, ranging 46% of 18-34s to 37% of 35-54s and 29% of 55+. By comparison use of a car is flat across these age groups (over six in ten drive for commute in each group).

Compared to 2023

City commuting by public transport has generally gone down. Paris and Washington DC are the only cities that saw the opposite, while the share of commuters in London has not changed. Commuting by car has generally not changed since last year.

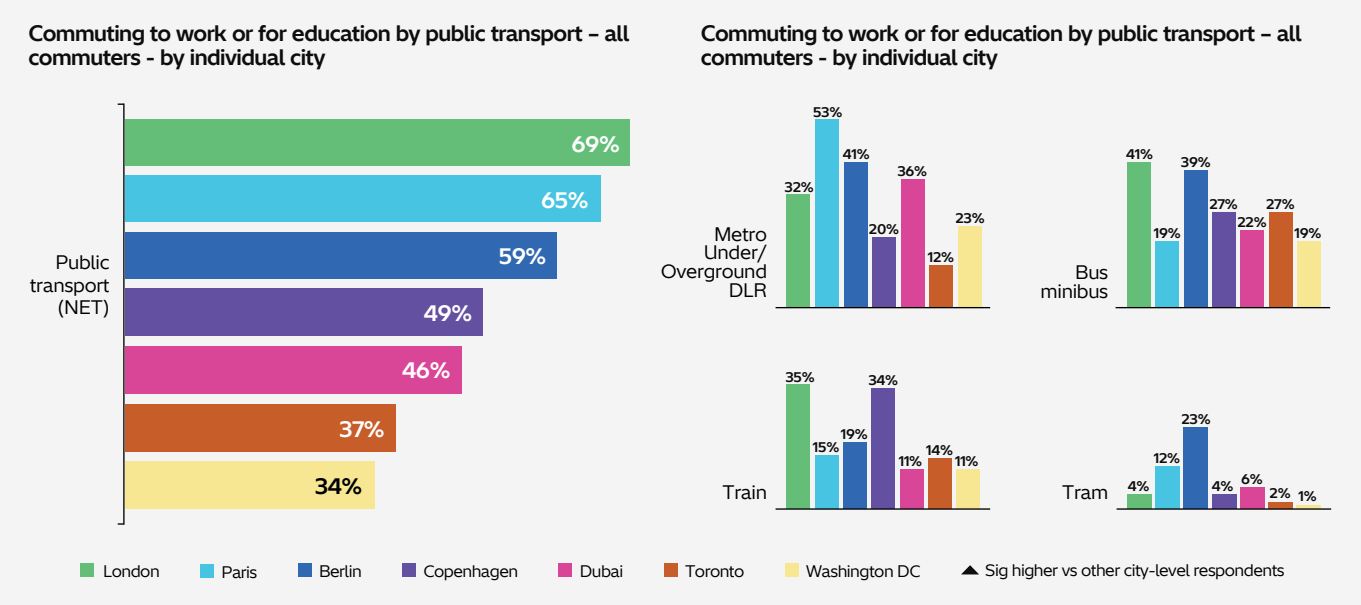
Ways of commuting to work or for education – all commuters



¹ United Nations report 2018, 68% of the world population projected to live in urban areas by 2050, says UN | United Nations

Better connected cities

Metro is by far the most common transport mode for commuting in Paris, other cities commute via a more multi-modal mix.



What do people want from their transport?

Firmly in line with our research in 2023 and 2024, cost, convenience (speed, schedules and frequency) and comfort are primary factors influencing how people travel in cities. But this varies in terms of both demography and place.

For example, convenience and accessible stations are a clear priority for over-55s, whereas those aged 18-34 are most likely to value onboard comfort and sustainability. Equally, while affordability is likely to be the key concern in European cities, convenience dominates decision making in the North American cities.



Faster journeys

Three-quarters of people would use public transport more often if they knew the journey times were shorter.



Access is key

Reliability (71%), ease of use (70%) and frequency (69%) are also major contributors to making public transport more attractive.

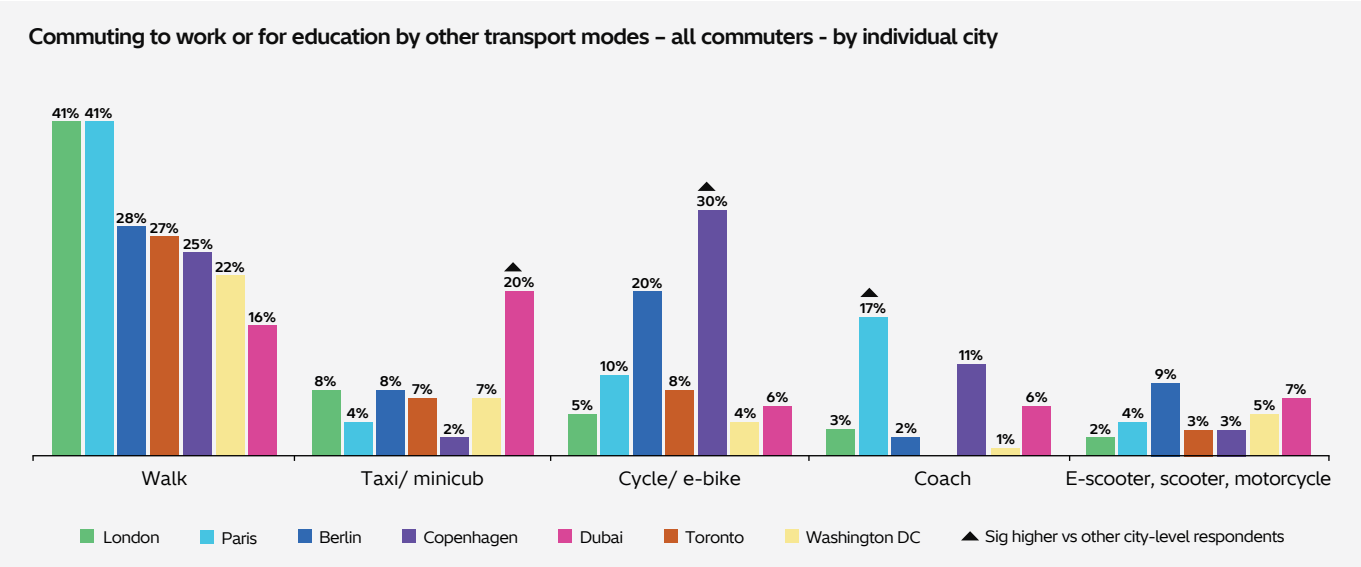


About the money

Affordability was fifth on the list of reasons to switch from cars and planes, with 68% pointing to lowering cost as a motivation to switch.

Better connected cities

Londoners and Parisians are the most likely to walk, while Copenhagen residents prefer cycling. Taking a taxi or minicab for commute dominates in Dubai.



Urban

Can digitalisation improve the passenger experience?

Digital automation has proven to be successful in metro systems worldwide. New innovations are helping operators reduce energy and costs while optimizing timetables. One such innovation, Green CBTC from Hitachi Rail, can reduce energy costs by up to 15%.

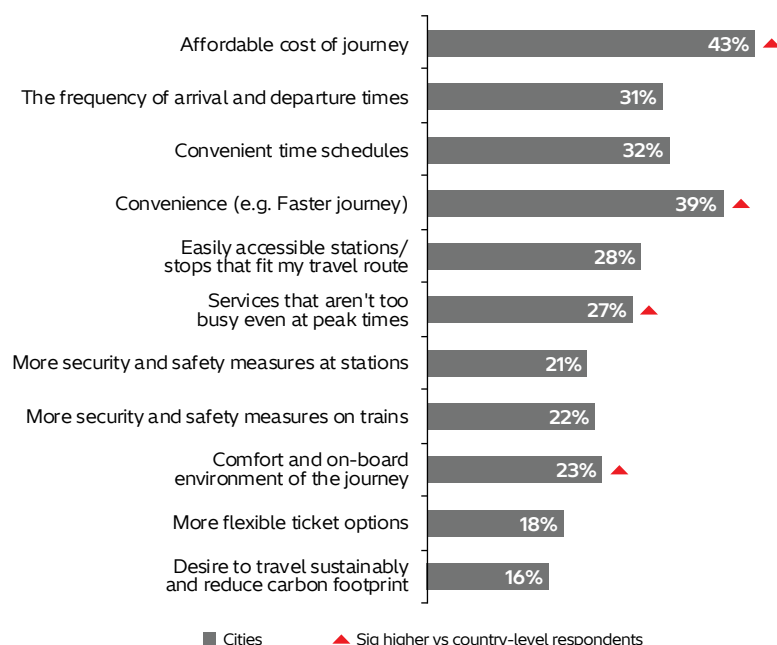
Since energy is the number one operating cost for transportation operators, reducing energy is not only beneficial for the environment but also for taxpayers and ticket holders. The system learns the optimal way for a train to accelerate, decelerate, and cruise across the rail network, all while meeting the vital timetable requirements set by operators.

This ensures strong reliability and availability of services for passengers, and lower operating costs for operators.



At a country level frequency and a convenient schedule are priorities, while city dwellers also prioritise speed and general experience.

Factors most likely to encourage public transport use - all respondents – ranked by importance in ‘all countries’

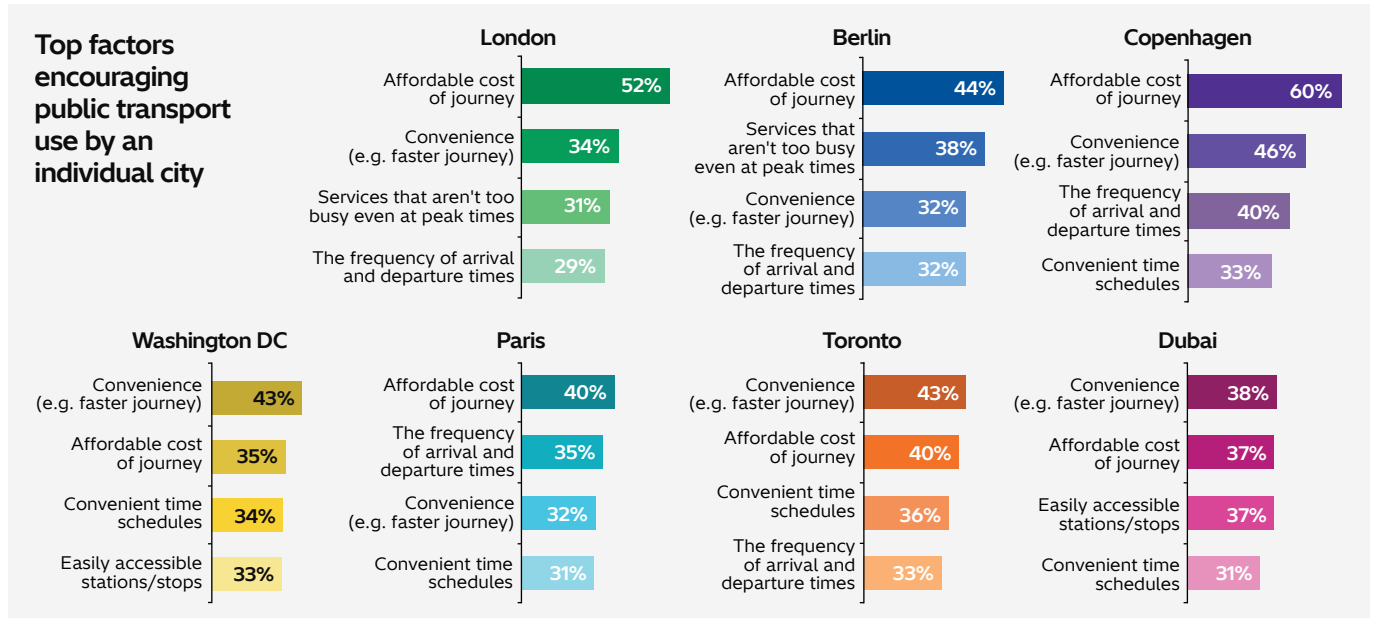


Affordability is the leading factor in determining how people travel, but there are some significant variations across age groups

For instance, convenient and frequent timetables, and accessible stations that fit travel journey are the most important factors for over 55s, whereas onboard comfort and sustainability are most likely to be valued by younger people (aged 18-34).

Better connected cities

Residents in Copenhagen are the most likely to prioritize affordability, frequency and speed, Berliners less crowded services and Dubai residents easily accessible stations.



Our research also reflects that motivations for transport choices are complex and mixed. While cost was the most important factor for using public transport, people equally noted they would use public transport more if they knew it offered a shorter journey time (75%), with frequency (69%), reliability (71%) and ease of use (70%) – all ranking higher than affordability (68%).

Across age groups, the youngest respondents (18-34s) are the most likely to show agreement with the majority of statements.

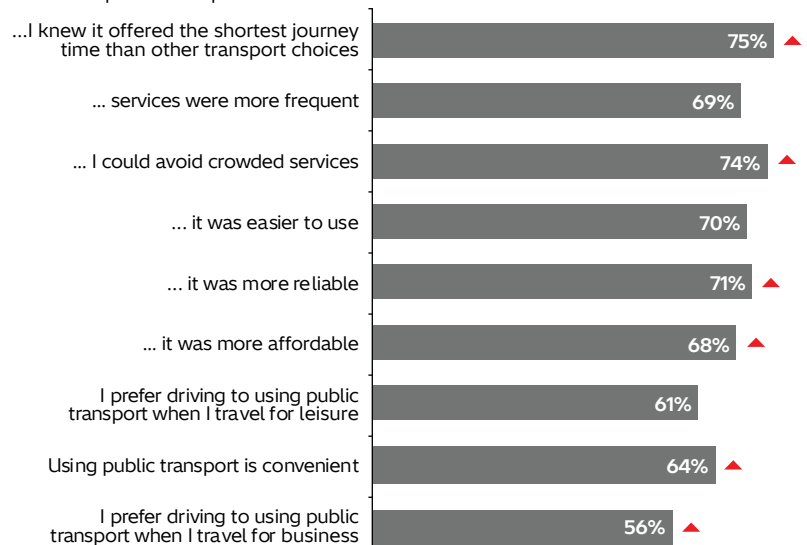
Urban dwellers would generally use public transport more if its performance improved generally.

71%

agree that they would use public transport more if they knew it offered the shortest journey time than other transport choices

Public transport statements - all respondents - ranked by any agree in 'all countries'

I would use public transport more if...



■ Cities

▲ Sig higher vs country-level respondents



Cost Optimisation

Can software optimise how railways run?

Running railways effectively and efficiently every day is an extremely complex challenge for operators, who also bear significant cost pressure as passengers and governments look to optimise spending on public transport.

At the same time, the amount of operational data from railways has increased substantially over the last decade – albeit trapped in silos and difficult to action.

Now, this data can be utilized to optimize maintenance activities and energy consumption, which typically account for 50% of the cost of running a railway.

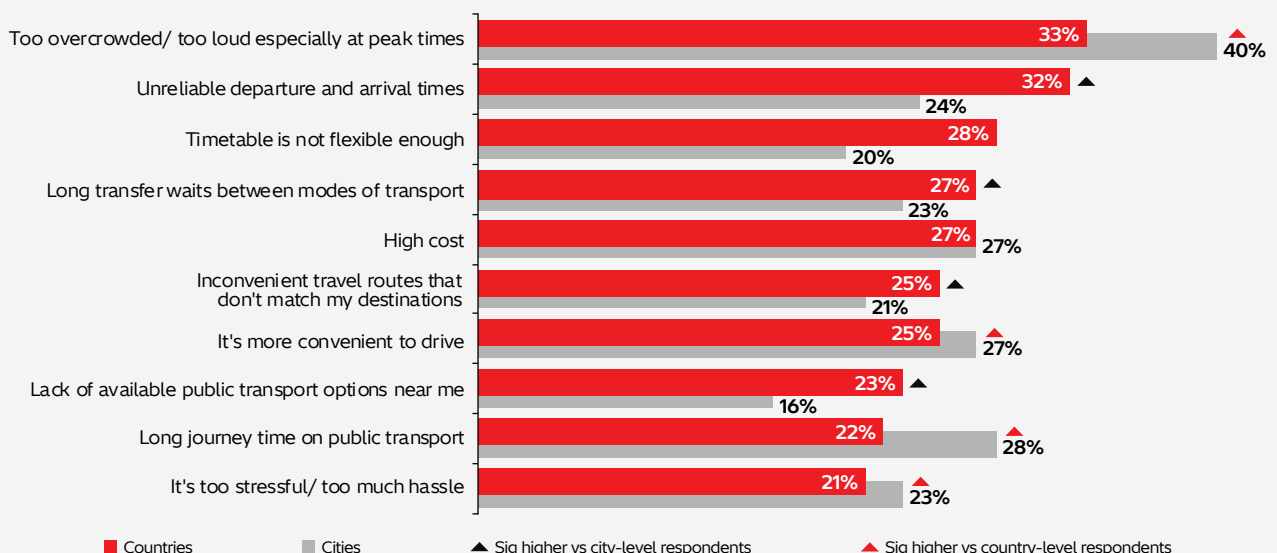
That's why Hitachi Rail created HMAX, a digital asset management platform for the entire railway. HMAX helps operators predict issues, optimize their network, and transform operations across fleets of trains, signaling systems, and infrastructure.

By implementing solutions like HMAX, operators can achieve significant savings over the lifetime of their assets. These savings can then be used to reduce government subsidies or reinvested into providing better services for passengers.

When it comes to perceived barriers to using public transport, overcrowding is the single most important factor, highlighted by two-in-five users and one-in-three non-users of public transport. Across European cities, overcrowding is clearly perceived as the most significant barrier, selected by half of people in Paris and just under half in Berlin and London.

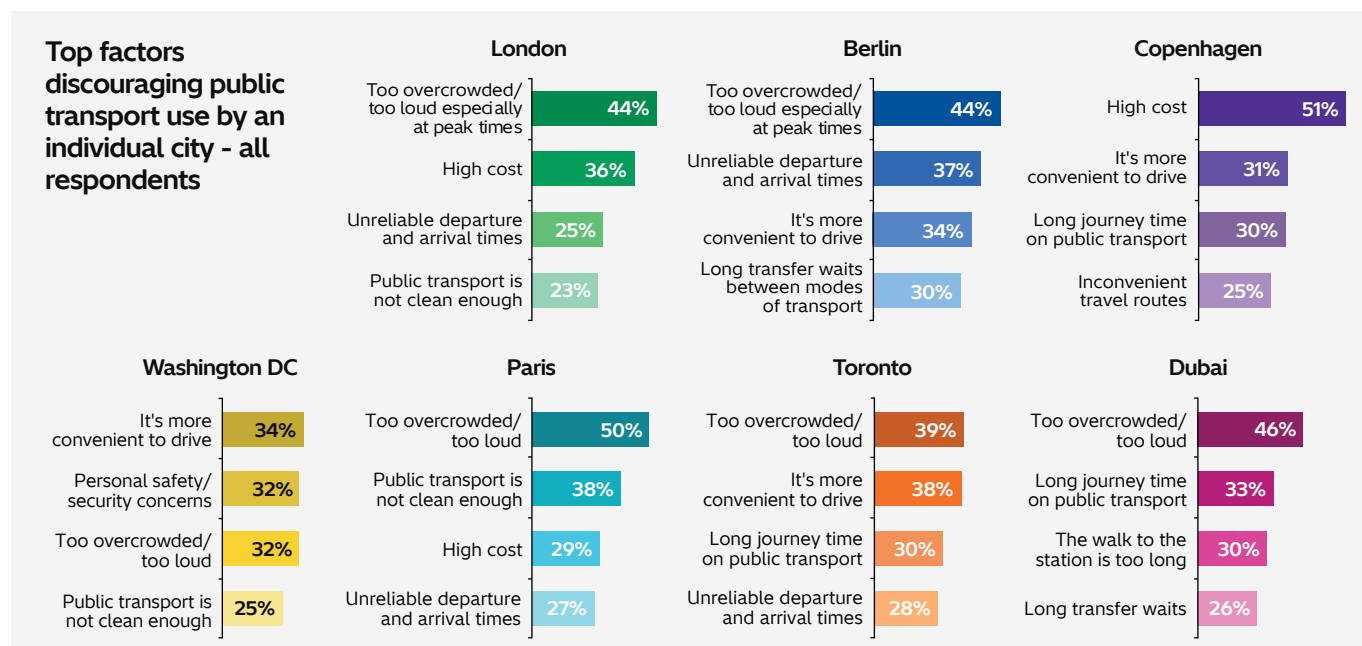
While cost is seen as the number one factor for influencing how people choose to travel, it is less important as a barrier, highlighted by only one-in-four people, a similar number to those citing length of journey and inconvenience compared to driving. This suggest that in many places, and for many people, the cost of public transport is appropriate.

Top 10 factors most likely to discourage public transport use - all respondents - ranked by importance in 'all countries'



Better connected cities

Inflexible timetables are the biggest barrier for Toronto residents, and a lack of nearby public transport options for people living in Dubai.



Why complex change isn't always necessary

When it comes to convincing people to pick public transport over cars and planes, complex changes are not always needed in the first instance. There are a few areas of change that could present low-hanging fruit to help improve journeys in ways that don't require large-scale change but that nevertheless mean a lot to individual commuters.

What are the fastest and cheapest ways to help people make the change to public transport through high-level policy reforms?

The customer experience of transport

Customers are increasingly influenced by onboard experiences. Factors such as hygiene, comfort and Wi-Fi access make a huge difference, especially to people in Europe, according to the research. By investing – comparatively small – amounts into better facilities and cleaner, more hygienic touch points, public transport can improve its reputation for comfort and convenience. This is an important influence on between 19 and 30% of travellers, depending on city.

The flexibility of ticketing

Flexible ticket options would encourage 12-to-20% of city dwellers to use public transport more often. This could potentially come in the form of better season ticket offers, more options for off-peak travel or tickets with fewer time constraints, giving customers more freedom and less stress.

The security in and around transport

Safety and security are areas where people perceive planes and cars to have the upper hand over public transport. It's telling, then, that better safety measures could encourage between up to almost a third of people to use public transport – this is especially true in the US (28%), where in many cities train travel lags car trips by a significant margin.

Better connected cities

Public transport readiness, quantified

The willingness and openness to public transport of a given population isn't exclusively based on the quality of infrastructure (although infrastructure is a significant influence). In some cities public transport infrastructure is world class, but usage isn't and in others the opposite is true, with less developed infrastructure nevertheless attracting high proportions of travellers.

Understanding this equation is of critical importance to policymakers: if public transport readiness is high, but usage lower, then awareness, information and other influences (like security) must top the agenda. Where infrastructure isn't as strong, but usage is high, there are gains to be made by improving infrastructure because the population is ready to take to the train if only it can be made convenient enough.

	Public transport readiness score	Public transport readiness rank (1=best, 12=worst)	Respondents who prefer using public transport when travelling for business
Dubai	-0.6856	7	70%
Washington DC	-0.2417	5	62%
Toronto	-0.2419	6	59%
Copenhagen	0.1009	4	52%
Berlin	0.4678	3	50%
London	0.6476	2	46%
Paris	0.7990	1	39%

To create a Public Transport Readiness (PTR) score, we combined three key metrics from different data sources:

- Percentage of people living close to mass rapid transit (Institute for Transportation and Development Policy)
- Average price of a ticket for public transport (World Atlas)
- Average number of hours lost to road congestion per driver, per year (Inrix Global)

Cities where people live close to mass rapid transit stops, have relatively low public transport ticket prices and high traffic congestion as an alternative will score highest in their public transport readiness, and those for whom driving is a more practical option will score lower.

The resulting index provides some interesting results. The top and bottom of the PTR scores make sense: Paris scores highest for readiness, and has the lowest proportion of residents who prefer driving. The exact opposite is true of Dubai. However in the middle we find cities like Toronto, where public transport readiness is low, despite the number of drivers being comparable with cities like Copenhagen or Berlin, suggesting that infrastructure improvements could go a long way to helping people make the shift.

On the other hand, London and Berlin both score well above the average in their readiness scores, yet around half the population still prefer to drive, suggesting that fundamental infrastructure is not the critical lever in moving Londoners or Berliners to public transport.

Better Connected

Can we make it easier for passengers to use multiple modes of transport?

There are now more ways for passengers to pay for public transport tickets than ever before. However, in many cities, the ticketing landscape remains complex, especially when using multiple modes of transportation. Passengers want to ensure they are paying the best price and that the process is easy to use. Hitachi Rail offers a range of payment solutions for cities like Paris, Copenhagen, Genova, and more.

Passengers can choose to pay via mobile, an app, handsfree using Bluetooth, a payment card, or a traditional ticket, giving them access to any mode of transportation they prefer. For operators, Hitachi Rail's TransCity platform simplifies payment transactions and algorithms across multiple modes, ensuring fast and accurate revenue collection.



Better connected cities

Paying the price for low public transport adoption

The typical US driver loses 43 hours to traffic congestion each year, equivalent to a full work week, according to figures from INRIX, which results in \$771-worth of time lost. The same study estimated that between 2013 and 2030, the total cumulative cost of congestion will be £307 billion.

In the UK, drivers lost on average 61 hours commuting to work in 2024, up 11% on the previous year. The average German, meanwhile, lost 43 hours in traffic jams, equal to €470 per driver.

With some extrapolation it's possible to understand the huge potential economic benefits to cities and employers if drivers switched from road to track. Only a comparatively small shift in each city would likely create a large economic benefit through clearer roads – money which could be invested in improving transport infrastructure.

Hypothetically, if we took the percentage of travellers from our study who would move to public transport if it were more affordable, and reduced the costs of congestion by the same proportion, the potential benefits quickly stack up. In London that reduction in congestion could – in theory – release almost £3 billion in economic value per year; in Washington more than \$1.5 billion; or over half a billion euros annually in Berlin. In reality, if all those travellers switched to public transport it may well eliminate congestion entirely. Although only theoretical in this example, the impact of cheaper public transport on economic growth would appear game-changing.

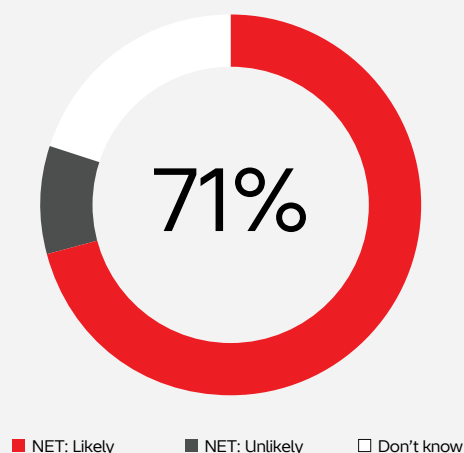
Is there a demand for better connected transport systems?

Our research finds high levels of support for 'better connected' transport, up two percentage points on last year's research to 71%. The increased interest in using better connected transport is notable in London (77% vs 71% in 2024) and in Washington D.C (67% vs 56% in 2024). At a country-wide level, when directly compared to travelling by car, it is perhaps unsurprising that a 'better connected' system is most appealing to Spanish and Italian people, since shorter journey times and more frequent and less crowded services are the key drivers to higher public transport usage in these countries.

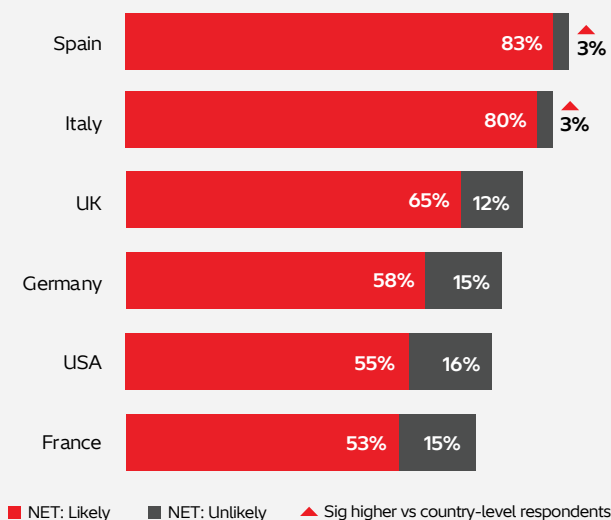
What do we mean by 'better connected'?

A 'better connected' public transport system is one where all elements of transport, such as trams, metros, trains, buses, bicycles, e-scooters, taxis, and parking, are planned and work together. This facilitates easier connections between public transport types, frequent and faster journeys, clear information, a viable alternative routes to cars, less overcrowding and fewer delays.

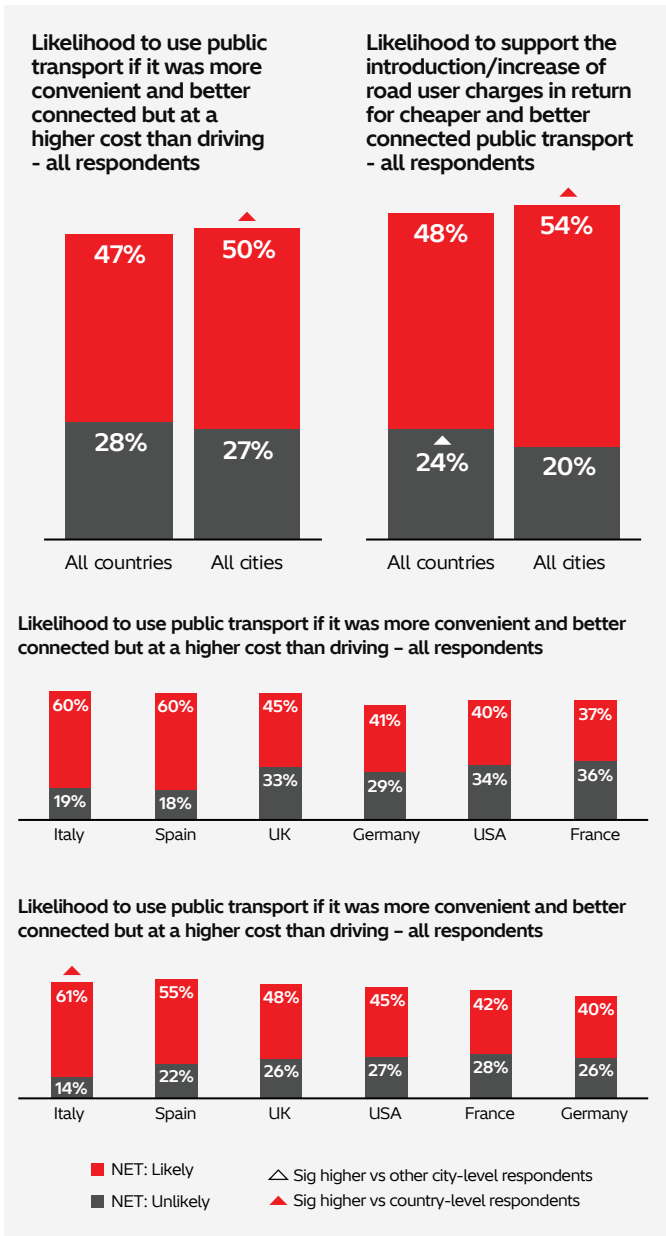
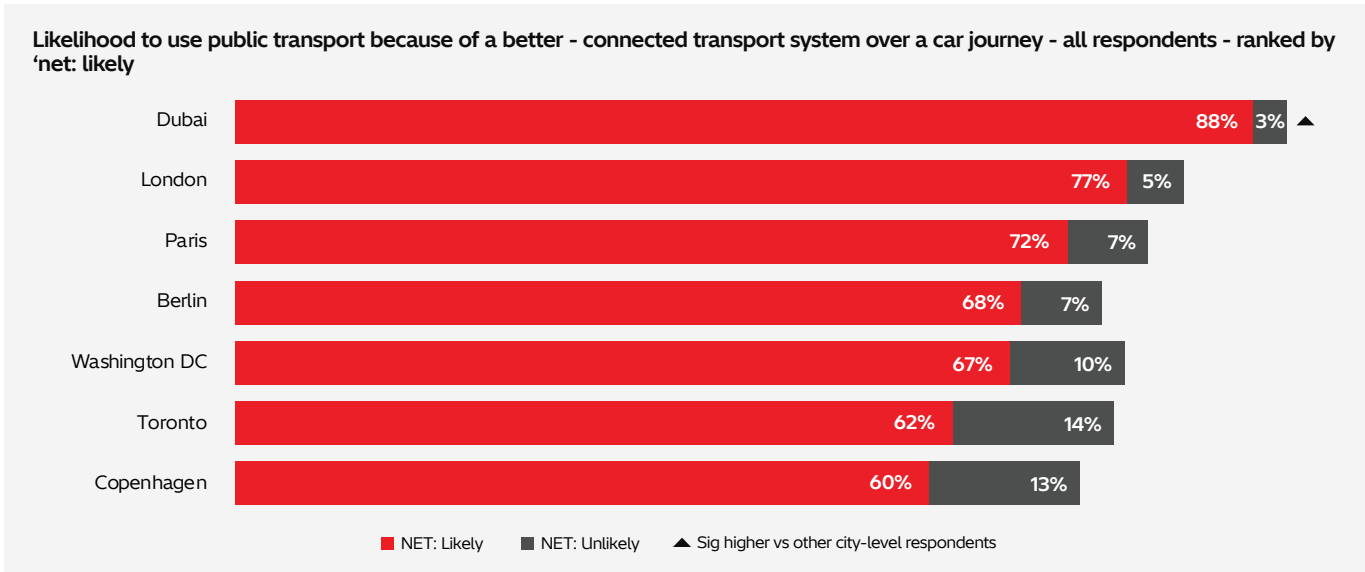
Likelihood to use public transport because of a better-connected transport system over a car journey
- all respondents - all cities



Likelihood to use public transport because of a better-connected transport system over a car journey
- all respondents - ranked by 'net: likely'



Better connected cities



A 'better connected' transport system, even if it comes with cost trade-offs, is still very well-received

When cost is introduced as a factor, twice as many people would use a better connected transport system that was more expensive compared to the number who would use it less because of the cost increase. This rises to over three times as many people on Spain and Italy. Further, there's clear support for the introduction or increase of road user charges to fund a better connected transport system.

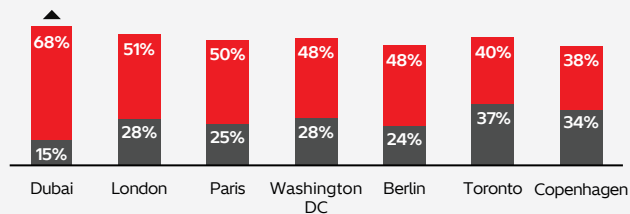


A 'better connected' public transport system is one where all elements are planned and work together.

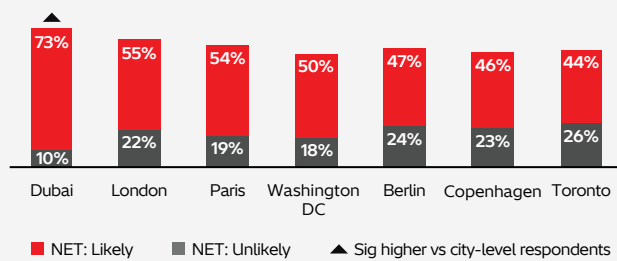
Better connected cities

Across all markets people are prepared to pay more for better connected transport.

Likelihood to use public transport if it was more convenient and better connected but at a higher cost than driving – all respondents



Likelihood to support the introduction / increase of road user charges in return for cheaper and better connected public transport – all respondents



■ NET: Likely ■ NET: Unlikely ▲ Sig higher vs city-level respondents

Changing attitudes in North America?

The size of North America, combined with its infrastructure and cultural attitudes, means that North Americans engage very differently with public transport compared to Europeans. Nonetheless, the research finds 24% of people commute to work using public transport in the US, rising to 34% in Washington DC and 37% in Toronto. Faster journeys, convenient schedules and affordability are the three factors most likely to encourage greater public transport usage. On the other hand, inconvenience, safety concerns and overcrowding are the biggest perceived barriers.

In the US, some 55% would use public transport more if it were better connected, rising to 62% in Toronto and 67% in DC. Almost twice as many people in DC (48% vs 28%) would use a better connected system more even if it cost more. This splits more evenly across the US to 40% vs. 30%.

There is also substantial support for greater funding of public transport in North America, with almost three times more people backing it (57% in favour, 20% against). This rises to almost four times as many people in Washington DC, with 62% in favour and 17% against.





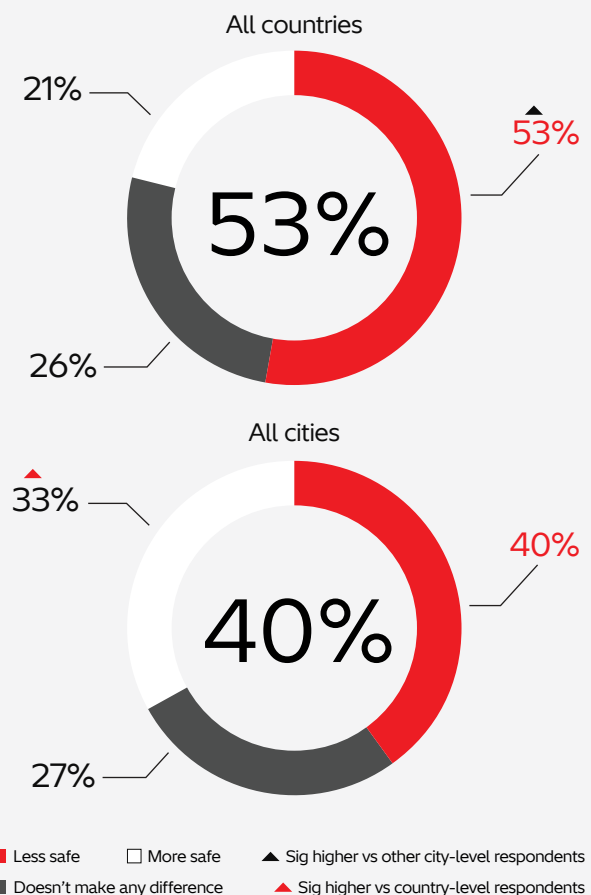
What role for autonomous technology?

Autonomous rail systems, delivered through advanced digital communication and signalling technology, such as Communication Based Train Control, are increasingly deployed in urban settings around the world.

Hitachi Rail has a track record of delivering the autonomous metro in Copenhagen for more than 20 years, with similar solutions in Rome, Milan, Lima and Honolulu. Autonomous trains can run safely at closer intervals and greater speeds, increasing capacity on lines and helping to provide the reliability and comfort (via reduced crowding) our research shows can attract customers. Such solutions support greater flexibility, making it easier to run services 24-7, as is the case for the Copenhagen Metro.

Respondents aged 18-34 are significantly more likely to say that being on automated trains would make them feel safer

Perceptions of safety regarding the introduction of automated train services without a human driver – all respondents





How people perceive this as a way to deliver better connected systems is an important factor in its potential take-up and delivery. Broadly, people living in cities – so more likely to already benefit from such a solution – are more receptive to automated train services, with 60% either believing them to be safer or perceiving no difference. At the country level just over half believe that automated rail services would make their journey less safe.

There is considerable nuance in how people interact with automation, however, with those aged 18-to-34 three times more likely to see automation as enhancing safety (38%) than those over 55 (13%). Equally, in Dubai, over 60% believe automated rail would be safer, but only 22% say the same in Toronto.

At a country level, Americans are the most likely to say that automated train services would make them feel less safe than human-run services.

Perceptions of safety regarding the introduction of automated train services – all respondents – ranked by ‘ by an individual country

	More safe	No difference	Less safe
Italy	26%	27%	47%
Spain	24%	19%	57%
USA	23%	27%	50%
Germany	20%	27%	53%
UK	19%	29%	52%
USA	15%	27%	58%

■ Figure indicate higher significant likelihood than other countries

In all cities, residents would feel less safe on train services without a human driver except for Dubai where the sentiment is positive and Copenhagen which is more neutral.

Perceptions of safety regarding the introduction of automated train services – all respondents – by an individual city

	More safe	No difference	Less safe
Dubai	60%	17%	24%
Berlin	30%	22%	48%
Washington DC	29%	27%	44%
Paris	26%	28%	46%
London	25%	28%	47%
Copenhagen	24%	41%	35%
Toronto	22%	30%	48%

■ Figure indicate higher significant likelihood than other cities

Conclusion

03



To be fit for the future,
public transport
infrastructure must
adapt to the challenges
of tomorrow.

Conclusion

This report explores current and anticipated travel habits, and what push-and-pull factors will encourage the continued growth of long distance and urban public transport.

The research is a platform for policymakers and the transport industry to investigate how we can deliver the sustainable mobility transition. We know meeting global decarbonisation targets relies on such a transition, so it is invaluable to understand how a modal shift can happen.

Rail is the future

In Europe, our research underlines the growing success of high-speed rail, highlighting its increasing role in long distance journeys. It is also clear people believe this form of travel will continue to grow, while plane travel is expected to stagnate. For potential 'switchers', speed and directness are the most important factors in their assessment of plane of car travel, informing their decision to opt for rail in future.

The role of policymakers is a growing dimension in the high-speed rail debate, with clear support for bans on short-haul flights where long-distance high-speed rail options exist. In France, where such legislation already exists, and Spain, where it could soon be implemented, there is demand for policymakers to go further.

Connectivity is key

Within urban areas, we identify critical factors such as overcrowding, convenience and cost as the key determinants to public transport usage. But there is also a clear appetite for better connected transport services; people say they would use it more even if it cost more.

Autonomous technology such as CBTC signalling enhances the capacity and speed of rail solutions. For the first time we have also sought to understand how people view these solutions. Overall, the majority believe autonomous technology will make rail no less safe than with a human driver, but it is also clear that there is more work to be done to grow public confidence.

Cleaner, faster, better

There are numerous factors at play here, all falling under the umbrella of a modal transition to better, cleaner and more appropriate transport solutions that emit less carbon and help the world meet ambitious sustainability targets.

To be fit for the future, public transport infrastructure must adapt to the challenges of not just today, but tomorrow too. That means incorporating the findings of this report into better transport solutions, making them faster, cleaner, more useful and more convenient than ever before. That way, people making the switch will do so not just because of their conscience, but for an experience that exceeds their expectations.



Learn more about Hitachi Rail's solutions
for the Mobility Transition

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