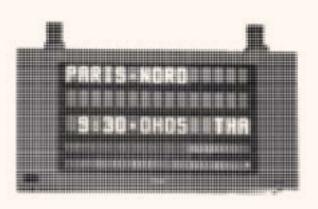
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How collective action can build pride in rail and boost sustainable travel



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Executive summary



The race to hit 2050 UK and European targets for net-zero emissions is on. To reach it, the most significant change that can be made is to reconsider how we choose to travel.

Transport is the single largest contributor to UK domestic greenhouse gas emissions, at 24% of the total.¹ As rail emits between 70–86% less than cars and planes, it can make a major contribution to reducing this priority area.² But two-thirds (66%) of the population are unaware of the scientific findings that changing their transport habits is the number one way to reduce their carbon footprint.³ Creating a mass movement from car and air to rail should be a national mission.

It is a mission Trainline believes in and so in October 2022 it launched *I came by train*: a collective movement to help make rail famous for being a more sustainable option – drawing interest from stakeholders across government and industry.

This paper, developed with the support of GlobeScan, a leading independent insights and advisory consultancy, explores what it will take to change consumer understanding and habits to encourage more people to choose rail in the UK and beyond.

It draws on a newly developed *Reasonable by Rail* database, analysing more than 250,000 routes across the UK to highlight those that are faster or cheaper than flying or driving.⁴ This has been supplemented by a nationally representative 'Pride in Rail' public sentiment tracker of 2,500 UK adults. Finally, a panel of experts from across the travel and transport industry have contributed rich insights.

Let's make rail famous as the sustainable choice that's great for travellers.



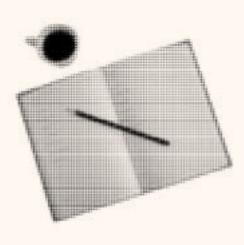
The key findings are:

- When comparing the cheapest available train tickets, 75% of train routes were either faster or cheaper than driving, even without a railcard.⁵
- High footfall 'hero routes' identified as significantly cheaper and faster by rail over car
 are 'Glasgow to Lake District', 'Bradford to London', 'Edinburgh to Newcastle' and
 'Manchester to Glasgow', where up to £24 can be saved vs. taking the car. Meanwhile,
 London to Manchester is a great route to save time and money by taking the train over
 the plane.⁶
- Almost half of the population (47%) feel a sense of guilt and eco-anxiety about their negative impact on the environment. However, when asked about the top actions to take to be more environmentally friendly, the top most commonly picked were 'switching to renewable energy' (20% of people) and 'recycling more' (16% of people), when reducing car and plane use has a much bigger impact.

The overall goal is to bring industry, government and tech together in a sustainability working group to tackle the most compelling issues or opportunities we face to modal shift. A series of initial steps are recommended to start the mission of making rail famous for being a more sustainable option.

"The climate emergency is a race we are losing, but it is a race we can win."

- UN Secretary-General António Guterres



Recommendations:

- Make the Reasonable by Rail database open-access to industry and travel retailers in order to encourage promotion of 'hero routes' via campaigns, signposting and local engagement activity.
- For the rail industry to collaborate on simple, industry-wide consumer messaging to encourage understanding of the easy ways to make a positive impact on our carbon footprints.
- Connect rail and travel booking companies to workshop tech solutions to ensure trains, not just planes and cars, are hero-ed when people plan and book their travel.
- Collaborate on a digital 'green' railcard, pulling on our and other industries to offer discounts and incentives that help people make more sustainable travel choices.

If you want to find out more and get involved in accelerating this change, please email lcamebytrain@thetrainline.com – we are bringing together industry voices to find the best ways forward, together.

Foreword from Jools Townsend, CEO, Community Rail Network



75% of train routes are already faster or cheaper than driving when booking the cheapest tickets.

The climate and cost-of-living crises pose acute and intertwined challenges for individuals and families, our local communities, and at a national and global level.

People are increasingly recognising that we can't keep having more and more cars on our roads, and the pollution, congestion, noise and danger this inflicts on our communities is plain to see. There's growing appetite for greener travel, ensuring everyone can get around and access the opportunities they want without having to own a car, and making sure that this is affordable, convenient and pleasant for all. Why shouldn't our journeys be enjoyable, as well as productive and green: the polar opposite to sitting in (and adding to) traffic, worrying about parking, clogging up our street spaces, while spewing out fumes?

Rail – as the backbone of a sustainable and inclusive transport system – can be at the vanguard of a better way forward, collaborating and connecting with walking, wheeling and cycling, buses and trams, community transport and shared mobility.

The average UK train journey emits 70% less CO₂ than going by car and 86% less than flying, and rail is getting greener all the time.⁹ 75% of train routes are already faster or cheaper than driving if booking the cheapest available tickets, even without a railcard, and the industry is working with local communities to enable and inspire more people to get on board.¹⁰





In community rail, we engage families, young people, older people, diverse groups facing disadvantage or exclusion, and wide-ranging local partners, and through this we understand there are often barriers to people using rail and travelling more sustainably. Although a great start, it's not so simple as persuading people to make better travel choices: we need to work with people in an empowering way, breaking down barriers, and ensuring people's views and voices are heard. It's also very much about bringing people together and creating a sense of ownership towards and pride in our railways, stations and connected greener travel network.

That's why I am delighted to be part of this *I came by train* initiative, to inspire more joined-up thinking and working, to break down barriers, raise awareness and to show how rail is a major part of the solution to the environmental and socio-economic crises we face.

This report offers important food for thought on ways the rail industry can engage with communities, existing and potential passengers and partners across transport and government at different levels to support modal shift and lead the way to a greener and inclusive transport future. It discusses how we can listen to the voices of prospective passengers and what they want and need from their railways, how we can make rail more integrated and convenient, how we can learn from experience in other countries and projects around the UK led by the rail industry or local communities and how we can build a positive movement for change. We hope you'll add your voice to the debate and join us on this exciting journey.



Introduction

When you need to travel, taking the train is one of the easiest ways to reduce your carbon footprint. It can be the cleaner, faster and cheaper option. Research shows that living without a car and taking fewer flights are the two most impactful choices people can make to lower their carbon footprint and make more positive choices for the planet.¹¹

The impact is so significant that even smaller, individual actions – such as switching just one plane or car journey per year to rail – can have an outsize impact when people do it together. Since October 2022, the *I came by train* movement launched by Trainline has explored this message and how these small changes can make a big difference to our personal carbon footprint, the planet and future generations.



of adults have considered switching car or air journeys to rail to reduce their carbon footprint, but did not follow through.



For the many millions who take the train each week, hopping onboard feels like a no-brainer. However, 38% of adults have not considered switching car or air journeys to rail to reduce their carbon footprint, and another 19% have considered, but not followed through, so this paper looks at obstacles and opportunities surrounding modal shift in order to:¹²

- Gain a deeper read of current customer attitudes and beliefs when it comes to rail in the cost-of-living crisis
- Discover easy-win routes (journeys that are cleaner, faster and/or cheaper than cars and planes)
- Learn how we can enable and support greener travel behaviours,
 making rail a more natural choice and regular habit for getting around
- Absorb international lessons: what's Europe doing to attract a rail audience that the UK industry can learn from
- Discover how rail is being surfaced to customers in travel retail sites.





There's no denying that 2022 was a highly challenging year for rail, which has had an impact on customer trust and confidence.

These are issues that all players in the industry must resolve, and it is in both the industry's and society's collective interest that this happens rapidly. From that point, we can double down on rail's invaluable position as a network that can make a considerable impact on the environment, and ensure it is recognised as something worth celebrating and investing in.

The paper aims to bring together like minds within the industry to tackle some of the most compelling issues and opportunities we face in unlocking mass modal shift.

The average UK train journey emits 70% less CO₂ than travelling by car and 86% less than flying¹³



People, their attitudes and beliefs when it comes to rail



The good news is that there is a strong foundation of positive attitudes for rail to build on, especially among younger (18–30) age groups. Most UK adults (59%) already know that choosing rail will make a positive difference to our climate, and half (50%) are proud of travelling by train because it is more environmentally friendly. Young people are also keener to take the train for environmental reasons.¹⁴

While many people know rail is better for the climate, not many realise that it is one of the easiest ways to reduce carbon footprints. As shown in the chart below, though scientific reviews show that reducing car and plane travel are the number 1 and 2 top actions to reduce carbon footprint, 66% of the UK population think that other actions like recycling more and choosing renewable energy will have a bigger environmental impact. Understanding this better can help encourage even more people to take action.

Perceptions of environmentally friendliness of actions

Actual impact: What people think is important: Percent who pick each issue as the biggest impact Rank of these actions action they can take to become more environmentally by biggest reduction friendly, 202215 in carbon footprint¹⁶ Switching to renewable energy, e.g., 4th 20% powered by solar panels, wind farms, etc. Recycling more and reducing waste, e.g., 16% 60th re-using bags, avoiding plastic packaging Living without 14% 1st a car Taking one fewer long-haul flight 2nd** 12% per year (over 6 hours) Turning off light switches, gadgets population picked **52**nd 11% and appliances when not in use non-transport options as the no.1 Green home improvements, e.g., 10% 6th biggest impact insulation, double-glazing, heat pumps action they could Eating less meat, 7th (vegan) take, showing a eggs and dairy perception gap 16th (vegetarian) compared with the Taking one fewer short-haul flight scientific research.

per year (under 3 hours)

^{**}This dataset did not differentiate length of flight – only had "One fewer flight" which ranked second.

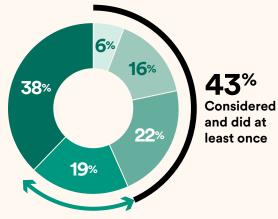
Between November 2021 and December 2022, according to the latest Pride in Rail tracker 43% of UK adults have made the switch to train at least once to reduce their carbon footprint.¹⁷

The research shows how 19% of us would consider doing the same, but have not done it yet. This attitude-to-action gap is when we intend to make a change, but we can't overcome the barriers we face. The final 38% of the population haven't considered switching, perhaps because they don't understand the environmental benefit or they don't feel compelled to do so through a complex range of social and environmental factors. For example, there may not be active travel or bus connections to the station, or perhaps trains aren't frequent enough. Maybe there's a lack of onwards travel at the other end, or accessibility hasn't been considered for people with disabilities using the trains.

The two largest barriers and contributors to the attitudeto-action gap – or let's be honest, chasm – to choosing rail however, are perceptions around price and speed.¹⁹

"I'm becoming more aware of sustainability and the planet, and carbon emissions. Over the last year, I've made some changes, I recycle more... I don't look for 'least carbon emissions'. It's not something I factor into my travel right now. It's not a huge priority."

Likelihood of travelling by train instead of another mode of transport to reduce the carbon footprint of the journey.



Attitude-to-action gap

- Yes, I have considered doing this and did it regularly
- Yes, I have considered doing this and did it a few times
- Yes, I have considered doing this and did it on one occasion
- Yes, I have considered doing this, but have not done it yet
- No, I have not considered doing this



Thought-starter: Encouraging behavioural change and how we could apply it to rail

While as an industry we won't overcome all the structural barriers to rail overnight, we can build greater pride and awareness around the environmental impact around rail, empowering people to consider taking small steps for collective greater impact.

Rail can take inspiration from other change campaigns across different sectors. A good example is how the meat-free sector has driven incremental behavioural change by introducing initiatives like Meat Free Monday and Veganuary – a challenge where people can try a vegan diet for a month.²¹

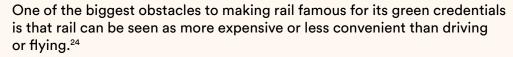
These campaigns aren't about the gains of an individual brand, or about forcing anyone to give up meat permanently, just like *I came by train* isn't about shaming anyone to give up flying. It's about showcasing the impact that we, as individuals, can have on the planet by making small changes. Six months after Veganuary in 2021, 82% of those who signed up to the movement and were not vegan beforehand said they continued with lower meat consumption after the challenge ended.²²

The potential exists for a similar transformation when it comes to the rail sector. 'Switching just one plane journey or car journey a year to rail' is the key call to action in the *I came by train* campaign. From surveying 2,500 people, we found that those who have seen and remember the campaign are much more interested in switching a journey from air or car to rail than those who do not recall the advert.²³

Working across industry to agree on a set of simple key messages with this easily actionable call to action could drive greater comprehension and impact for cross-sector advertising.



Addressing the two biggest perceived barriers of price and speed



Fundamentally, the industry needs to take pride in the fact that rail is almost always cleaner, and often faster and/or cheaper, especially as 51% rate 'value for money' as highly important when booking holidays.²⁵

While the UK is facing economic instability with high inflation and a cost-of-living crisis, how can we pioneer a change of perception about pricing and speed? How can we highlight hidden costs in terms of speed and value of other forms of transport, such as taxis to the airport, car insurance and fuel?

"My bills in general are going up, and my energy has doubled at this point... I look for deals, like split tickets, or hitching a ride with a friend who is driving. I need to save money. I don't think the cost of living will go down any time soon... Train travel – it's always been my favourite way to travel, but it's getting expensive."

(Sylvie, 27)26

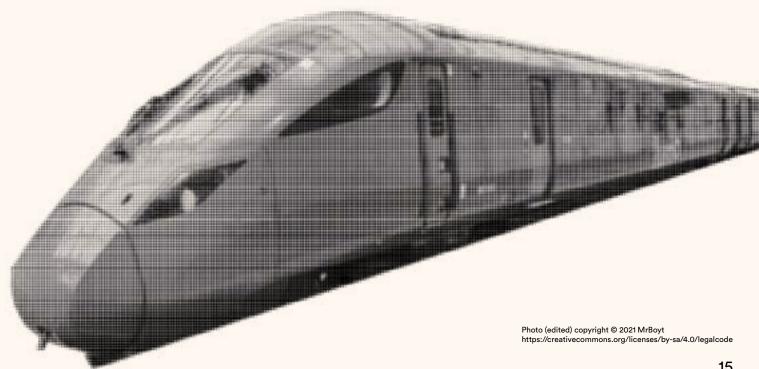


One way to tackle both cost and perception is through growing the sector with new and innovative offerings. For example, 2022 saw the arrival of Lumo, a new train provider running electric trains down the UK's east coast between Edinburgh and London. The introduction of Lumo, combined with another existing open-access operator in Grand Central, and the primary incumbent operator LNER, meant increased competition. This has delivered better value for the customer and the marketing has raised awareness of this attractive route.

Lumo's research shows that rail has overtaken aviation as the primary mode of transport between London and Edinburgh, growing from 33% market share in 2019 to 56% in 2022.27

In December 2022, the rail regulator approved another new open-access operator, Grand Union, from south Wales to London.²⁸

Trainline has developed a *Reasonable by Rail* database.²⁹ The information showcases routes that were faster and/or cheaper by train vs an average petrol car. It's a crucial resource that can be pivotal to changing public and industry sentiment about the benefits they can gain from rail.





Reasonable by Rail database – price and convenience

Key findings

- When comparing the cheapest available train tickets, 75% of UK train routes were either faster or cheaper than driving, even without a railcard.³⁰
- Based on average price across all routes, 64% of train trips were faster and/or cheaper than driving if you use a railcard.³¹

Trainline analysed more than 250,000 routes across the UK and highlighted train routes that were faster and/or cheaper than flying or driving.³² Information around these routes can form the backbone of future campaigns and messaging to really hammer the message home that rail can be cheaper and faster.

Trainline calculated the journey length and cost of travel between the origin and destination by train and car. For trains, this was based on real journeys using Trainline booking data from the past year that focuses on the average (median) cost.





of train routes are faster and/or cheaper than driving, when booking the cheapest tickets.



Using the methodology stated in *Appendix A*, results show that when comparing the cheapest available train tickets, 75% of train routes are either faster and/or cheaper than driving, even without a railcard. These were calculated using the lowest possible price.³³

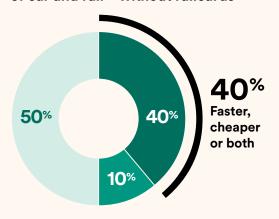
Looking at the average price, rather than the cheapest available, without a railcard 40% of routes were cheaper and/or faster by train than by driving.

These results show that train travel could offer a cheaper, cleaner and faster alternative. However, the results also show that there is room to improve and become the service commuters and leisure travellers need.

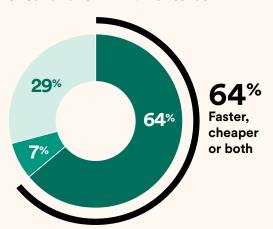
The full methodology can be found in Appendix A.



Comparing the average cost and speed of car and rail – without railcards



Comparing the average cost and speed of car and rail – with railcards



Of more than 65,000 possible routes where we have enough historical data where a railcard discount has been applied, we found that 64% of them were either faster and/or cheaper by train than car and another 7% that were similar in speed and cost.³⁴

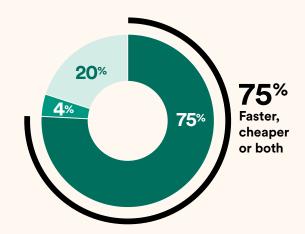
Cheapest ticket analysis

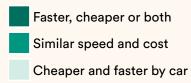
The below is not part of *Reasonable by Rail* methodology, but instead shows the affordability if customers choose to purchase the cheapest ticket available (often months in advance).

Methodology:

- Journeys taken over the last six months (to exclude older price hikes)
- Excluding railcards
- Excluding the cheapest 1% to avoid data issues.

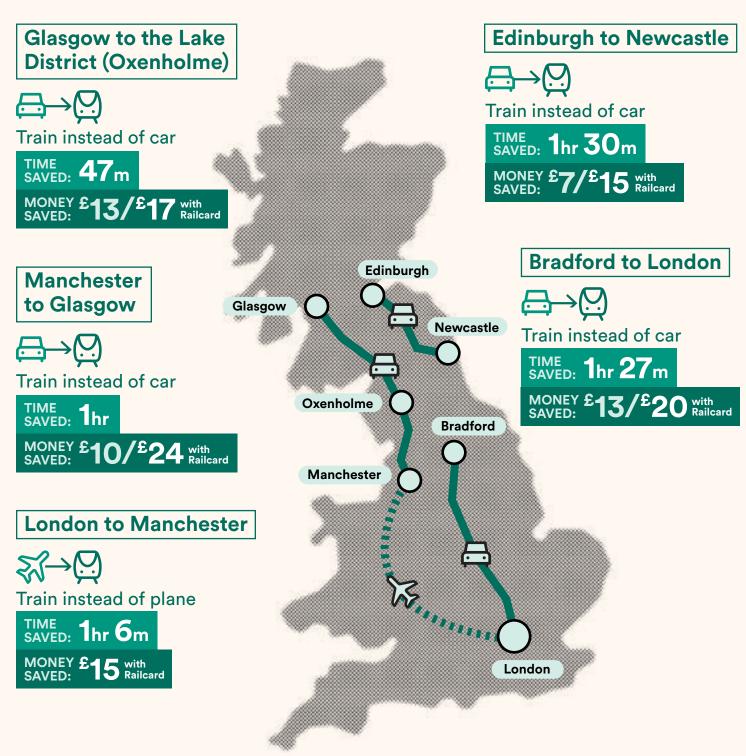
When looking at the cheapest rail tickets, what's the comparison between cost and speed of car and rail?





Industry hero routes³⁵

There are several 'hero routes' we can champion to encourage a modal shift. These journeys are popular routes and offer significant time and cost savings. Our calculations below are all based on our *Reasonable by Rail* methodology – see *Appendix A* for more details.



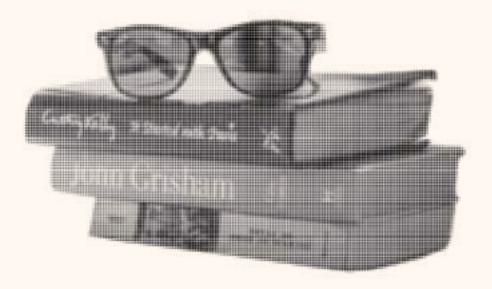
"We introduced a slow travel policy to encourage the use of lower-carbon transport for holidays. We give every employee up to two additional days a year to use to travel a holiday journey by rail [or other non-flying transport] that would normally be done by flying, helping to reposition train travel from being just about getting from A to B, to being part of the adventure."

- David Lourie, Managing Partner, Good Business

The *Reasonable by Rail* database focuses on where the industry can make the most meaningful change.³⁶ These findings provide an opportunity to narrow the attitude-to-action gap even further.

Some trips, especially from the UK to EU can take longer by train, so leisure travellers may be weighing up whether to fly, drive or travel by rail. That's why it's important that employers consider making adjustments too, to support employees trying to make better choices for themselves and the planet. This could include encouraging businesses to add extra leave days if colleagues use the train to go on holiday, as pioneered by the Climate Perks scheme.³⁷







Rail benefits go beyond speed and price

Trainline's Pride in Rail data shows that three of the top five benefits people associate with train travel focus on the experience itself. Over seven in ten people in the UK associate train travel with being 'enjoyable' (71%), 'relaxing' (75%) and 'good for watching the scenery' (81%).³⁸

Being able to travel directly from point A to point B with less stress and fewer security check-ins can help both business and leisure travellers. Widespread, free Wi-Fi on trains and high-speed links between major UK business centres is particularly helpful for those travelling for work. How might we do more to highlight and celebrate these benefits, which are vital considerations for time-poor customers?

We know that taking the train isn't always cheaper or faster, but it's almost almost always greener.

"People are used to minimising journey time and seeing this as a 'necessary evil' in their leisure trips, when stuck with driving duty, traffic or airport check-ins. Rail is unique as the freedom to relax on board means people can socialise on the journey, so we can celebrate train travel as part of the leisure activity."

-George Davies, Sustainability Director, RSSB

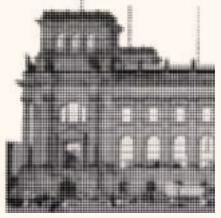


Thought-starter: Celebrating Reasonable by Rail routes

- Use a set of key *Reasonable by Rail*⁵⁹ routes as a starting place to highlight and drive consideration of travelling by train as a better alternative, showcased across industry communications and the tech platforms people use to book.
- Generate campaigns that celebrate cheaper and faster 'hero routes'.⁴⁰
- Consider championing a scheme to support employers in rewarding employees either financially or in an annual leave allowance who choose to travel further afield sustainably.
- Support local engagement activities to position the train as greener and more community friendly.



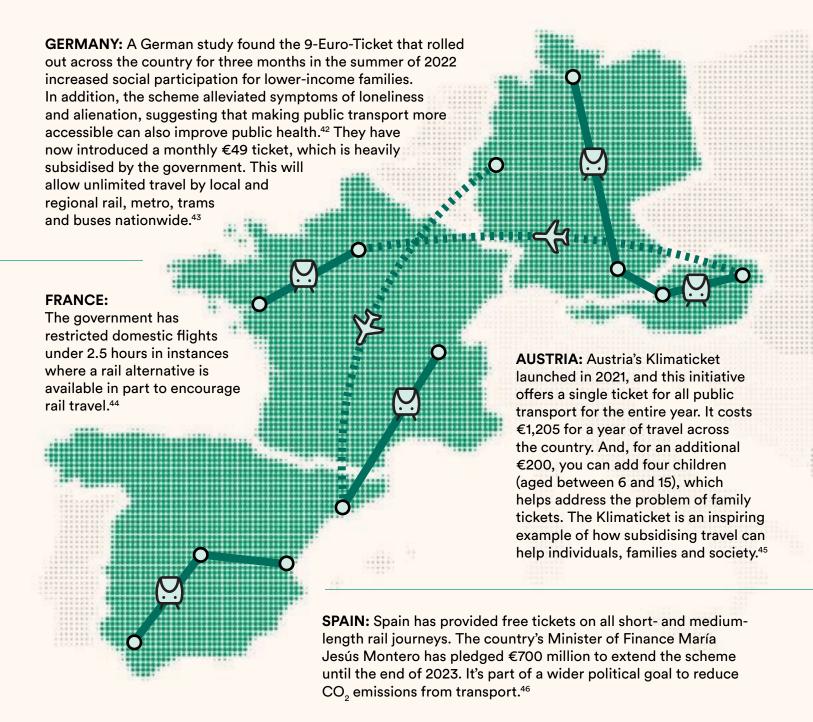
Lessons from European collaborations between rail and government



Air travel receives significant subsidies but creates a high cost for society in terms of environmental impact.⁴¹ We've seen momentum for change close to home where action has been taken by European governments to make more sustainable transport more affordable and more accessible. We can take inspiration from some of these changes – they're certainly not all applicable to the UK, but they show positive and encouraging sentiment towards green travel.

"Public transport really should be seen as a public good. And we think that it should be funded as such."

Silviya Barrett, Director of Policy and Research,
 Campaign for Better Transport





Thought-starter: Advocating for government partnerships

- Explore innovative new approaches to funding and investment in greener travel.
- Tap into the learnings from Europe to demonstrate the benefit and value of these schemes.



It's time for rail to shine online



90% of people gather information and inspiration for leisure travel by researching online.⁴⁷ When considering leisure travel like holidays or longer journeys, cars and planes still take the top spot as the most desired mode of transport.⁴⁸

Travel habits can be challenging to break, especially when sustainable options aren't surfaced as prominently on some of the most popular travel sites, like Google Maps or booking.com. On Google Maps, the default travel suggestion is car, whereas Booking.com features flight and car choices, including taxi discounts for airport transfers.

However, there are small but definite improvements across the travel booking industry where rail is becoming more visible in online bookings and a smoother experience overall, especially in Germany, Spain and Italy.

TUI Group, a German leisure, travel and tourism company, now features rail options in addition to short-haul flights as part of their city break packages to Copenhagen, Prague, Vienna, Venice, Milan and Florence.⁴⁹ We've also seen adoptions from companies like Uber, which has added choices for customers to book longer-distance ground travel by integrating their platform with Omio which lets users book train and coach travel.⁵⁰

Rail alternatives have recently been introduced in KAYAK's search tool.51

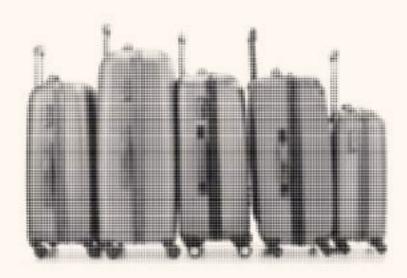
Trainline strives to make online bookings straightforward and easy-to-use, building confidence with consumers by providing easy-to-claim refunds and delay repay.





Google is now showing train schedules and ticket prices that help travellers compare types of transport.⁵² This functionality lets travellers quickly buy tickets by directly linking to partner websites to complete bookings.

These additions are something to celebrate, as the industry is beginning to understand there is a consumer appetite for more sustainable travel options. Cleaner travel that's fast and cost-effective is in demand. We need to meet that demand and listen to calls to support the transition to greener transportation.



There is strong evidence of the growing appetite for sustainable travel options from business travellers. Rail operators and ticket retailers can work with corporate rail travel management companies (TMCs), to tap into growing demand from corporate clients who prefer not to fly for short distances.

In January 2023, Trainline surveyed over 1,000 business travellers and found:53

- 67% of business travellers were concerned about the carbon footprint of their travel in 2022.
- 71% agreed they would like to travel more by lower-carbon modes of transport such as rail, where possible.
- 78% said sustainability would be important for them in 2023 when considering modes of travel for business trips.





Thought-starter: How might we encourage championing rail from the start of the user search experience?

- Connect rail and travel booking companies to workshop tech solutions to ensure sustainable modes of transport are shown when people plan and book their travel.
- Collective lobbying for making it a policy to add carbon emission for all travel methods on booking platforms.
- Work together with travel management companies to make rail a prominent and seamless part of their offering to business travellers.



Think local: promoting rail as an integral part of the local end-to-end experience

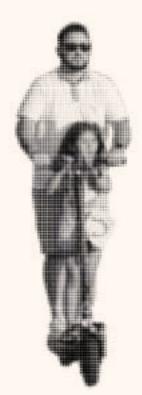
"The connectivity of the railway with the rest of the transport system wasn't considered when it was first constructed. So, there is a huge opportunity for new thinking about how we integrate rail into the wider transport network, and that includes everything from buses to bikes."

- Charlotte Bryett, Environment & Energy lead, Avanti West Coast

The perception of rail being less convenient than other forms of transport is reputationally damaging. Behavioural nudges on platforms that people plan and book their travel can highlight the simplicity of rail travel when combined with walking, cycling, e-scooters and other shared greener mobility options. This can help travellers who might be considering switching overcome any perception that rail is complicated.

"I think there are all sorts of opportunities for the rail industry to work more collaboratively with communities to make sure that we're really drilling down to local needs and opportunities for change and improvements. And working with people to make this change together."

- Jools Townsend, CEO, Community Rail Network



There are great examples of how this is building traction independently across the travel industry:

- GOHI is an app that lets customers plan and book rail, bus, car hire, car club, taxi, ferry, e-bike, folding bike and air options across Scotland's Highlands and Islands region, all on one platform.⁵⁴
- LNER is launching a journey planner that includes a range of ways to get to and from stations. It will let people pay for complete journeys in one ticket instead of splitting it across different transport modes.
- Citymapper has launched its Citymapper Pass in London. It allows planning and paying for a range of transport modes (e.g., bus, tube, rail, black cabs, FREE NOW, Santander bikes, Lime e-bikes and scooters) all in one app-based subscription service and smart travel card.⁵⁵

"Integrated ticketing is a hugely attractive area for a lot of people because you haven't got the hassle. And it could be a multimodal – using train and e-scooter or private hire car all in one journey. But that only works if each one of those sections of the journey are available and not going to be disrupted."

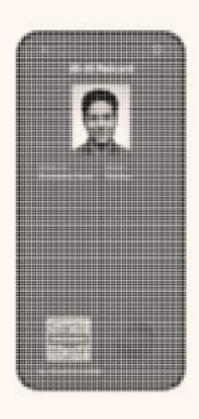
- George Davies, Director of Sustainability, RSSB



Thought-starter: How to drive end-to-end solutions at scale – Co-create solutions with communities

- Engage with communities to understand what better-connected services they need and what their ideal solutions would look like.
- Bring together transport providers and booking platforms to workshop tech solutions together that promote a more seamless door-todestination travel experience.
- Lobby or drive funding of local infrastructure improvements such as bicycle storage space at stations, access to e-scooter rental schemes or better bus connections to and from stations.





The potential for railcards to drive behaviour change

Railcards are a great way to encourage customers to choose rail – they also make taking the train significantly more affordable. Railcards are successful in their own right but could be re-branded or developed to amp up the pride factor when it comes to repeat travel by rail. In particular, we could, as a sustainability working group, champion a green railcard that provides the user with one-third off the price of train travel, and further incentives the more trips they take.

The green railcard could be unlocked if you have already taken five trains in a year, and would result in a similar saving to one of the sector's already-established railcard options. It's both a nudge and reward for customers, and we think it will help motivate the significant proportion of UK adults who do not qualify for existing railcards to switch to trains. Making cleaner journeys cheaper is critical to close the attitude-to-action gap.

Railcards are one of the best ways we can cultivate change. A green railcard that we can develop as an Alliance will help to cement their climate action claims externally, as well as providing people with an incentive to hop onboard rather than drive or fly.



Thought-starter: Collective action to drive more love for rail through railcards and schemes

 Working as an industry on a green railcard, pulling on other industries to offer discounts and incentives that celebrate the intention of sustainable travel choices.



Conclusion – Big impact from small changes



The climate crisis doesn't have to result in apathy. Instead, we can help to reframe it as an opportunity for us all to protect the world we rely on.

We're already seeing changes across the rail industry. Google Search is now surfacing train which is a huge win, and the Trainline app shows how much CO₂ is saved when customers book a ticket. Meanwhile, it's becoming easier than ever before to book bikes on trains, boosting choice and improving end-to-end journeys. But there is more to do to actively transform the way people think and travel.





Recommendations for what we can do

- Make the Reasonable by Rail database open-access within 12 months
 to industry and travel retailers in order to encourage promotion of 'hero
 routes' via campaigns, signposting and local engagement activity.
- For the rail industry to collaborate on simple, industry-wide consumer messaging to drive understanding of the easy ways to make a positive impact on your carbon footprint.
- Connect rail and travel booking companies to workshop tech solutions to ensure trains, not just planes and cars, are hero-ed when people plan and book their travel.
- Collaborate on a digital 'green' railcard, pulling rail and other industries to offer discounts and incentives that help people make sustainable travel choices.
- Finally, and perhaps most importantly, coming together as a working group, bringing together sector experience and knowledge and collectively working to help make rail famous for being more sustainable. Small behavioural nudges, backed by industry commitment to make this easier for travellers, can lead to significant and vital changes in consumer habits that stick.

If you want to find out more and get involved in accelerating this change, please email lcamebytrain@thetrainline.com – we are bringing together industry voices to find the best ways forward, together.

"Alone we can do so little; together we can do so much."

-Helen Keller

Appendix A: Reasonable by Rail methodology

Trainline wanted to understand in detail what the benefit of travel by rail vs petrol car (the UK's most common car fuel) and plane is. To do this, Trainline analysed more than 250,000 routes across the UK and highlighted train routes that were faster and/or cheaper than driving. It is hoped that information around these routes will form the backbone of future campaigns and messaging, to really hammer the message home that rail can be cheaper and/or faster than car/plane.

This appendix sets out, at a high level, the methodology we used when carrying out this analysis.

This compares station-to-station travel as there is no consistent source for travel to/from stations to final destinations. Analysis focuses on routes that were appropriate to switch, excluding journeys that can be completed by other sustainable travel, specifically, walking (less than a 30-minute walk) or cycling (less than a 50-minute cycle ride). It also excludes journeys over five hours as these are rare and distort the data.

Methodology for rail:

- Analysts explored booking data from Trainline over the past year (September 2021 October 2022), including hundreds of thousands of individual bookings and over 250,000 individual routes in the UK.
- This is excluding buses, coaches, first class and youth tickets. We are focusing on single-passenger travel.

Time taken:

- Used the median time for all train trips between the two destinations.
- We are splitting night trains out as a separate entity and only using the night train duration where appropriate.

Train frequency:

 We ranked routes with the number of direct trains per day as well as number of trains per day.

Cost:

- We used the median price over the past year of a single one-way journey, for one adult (with no railcard or discount applied) travelling between two destinations.
- We excluded ticket booking fees and ticket delivery prices as these are not universal.

Cheapest price methodology:

- Looking at data between May 7 November 7, 2022 to take rail price fare rises into consideration (because there have been rail price increases since March 2022).
- Splitting out railcards and 'full-price tickets'.
- Removing the top 1% of prices to reduce data anomalies.
- Fare prices are expected to fluctuate year on year, so it is important to be mindful of this when considering average and cheapest fare prices.

Methodology for car:

Time taken:

- We used the Google Matrix API to determine average driving duration – per their guidance, this is defined as "based on road network and average time-independent traffic conditions. Results for a given request may vary over time due to changes in the road network, updated average traffic conditions and the distributed nature of the service."
- Data was captured September 2022 October 2022
- We allowed for 15 minutes rest and refuel for every 2 hours of driving, based on safety guidance and realistic habits, see recommendation: "The length of your break on a road trip should be a minimum of 15 minutes for every two hours of driving".⁵⁶
 - To illustrate, for journeys below 2 hours, no break is added.
 For journeys over 2 hours, a 15 min break is added for every 2 full hours of driving. If it is a 4-hour journey, we would add 30 minutes onto the journey for a break.

Cost:

- Based on the petrol cost per mile for the UK, 17p/m,⁵⁷ based on the average engine size in the UK of 1,650CC in Q4 2022.⁵⁸
- Included variable costs related to the wear and tear on the vehicle on a per-km basis. This was calculated as A divided by B (details of A and B set out below).
 This enabled us to account for the length of journey when calculating associated costs.
 - A = the average annual cost per year of:
 - (i) depreciation in value of the vehicle (£1,104);59
 - (ii) repairs and servicing of the vehicle (£210); and (iii) motoring fines (£4)
 - B = average distance travelled per year: (based on the average milage in the UK of 7,600 miles = 12,231 km).

This produced the following a total cost/km of £0.0365/km:

- Depreciation: (£1,104 / 12,231 = £0.09/km) * 0.18 (to account for the % of new car sales vs used car sales) = £0.02/km.⁶⁰
- Repairs and servicing, based on average full service cost for a medium car: £210 / 12,231 = £0.02/km.⁶¹
- Motoring fines: £4 / 12,231 = £0.0003/km (note this one is negligible, so has not had impact on the data).⁶²
- The cost of parking was included on a per-trip basis –
 measured by the wasted time and fuel in searching for
 a parking spot, not to mention the cost of parking,
 overpaying for the only available parking and parking fines.
 This is £733 divided by average number of trips per year:
 380 = £1.92 in parking per trip.⁶³
- ULEZ and congestion charges in London, toll charges and insurance costs are not included in the calculations.

Methodology for plane:

We have only looked in depth at one UK flight path 'London to Manchester'.

Time taken:

- Used the quickest flight time between airports, including 90 minutes check in for domestic flights – 2 hours recommended as standard, but often people leave less.
- We included the time to travel to the airport to make comparable with the city centre travel for train and car and since airports are rarely close for those travelling from them, unlike private cars and train station networks. We have used the time by car as the mode of transport.
- This was searched manually for each airport, using a combination of KAYAK⁶⁴, Skyscanner⁶⁵ and Google Flights⁶⁶.
 Data was captured between October 12 26, 2022 comparing the average prices as well as cross-checking three different booking horizons (6 days, 21 days and 37 days in advance).

Cost:

- Costs do not include the cost of getting to the airport (as currently difficult to calculate, but they can be significant) and assume no upgrades or checked baggage, which add significant costs.
- Average cost based on the average price of all flights selected by users in KAYAK's search results between October 12 – 26, 2022.⁶⁷
- Note as a price comparison, money-saving platform, this will be a low estimate of actual costs paid on average, but without access to a master dataset of actual costs paid, this was a good start.
- Parking at the airport was not included as part of the cost.

Further details available on request.

Appendix B: Voices from the industry

Creating change at an industry scale means building on the core findings of this report and going beyond to find further ways of driving impact. In that spirit, we share some of the other powerful ideas and insights which the experts who contributed mentioned, to inspire further action.

The traveller appetite to be part of the solution

"Across Europe, between 70% and 85% of people now say they want to travel more sustainably than they have done so far, but many cannot find ways to do it."

- Albert Salman, President, Green Destinations
- "Travellers coming out of the pandemic want to be part of the solution. And if you can build a product that allows them to do that without feeling that they have to do anything different, it's a win-win for everyone."
- Paula Vlamings, Chief Impact Officer, Tourism Cares

Affordability

- "The price and the pre-planning are among the main barriers. The less you pre-plan, the more you'll pay [...] So it tends to be people with access to good facilities that get the best prices. But we have many under-used trains, so we can help people see how affordable travelling by train can be."
- Luke Richardson, Environmental Project Manager, LNER

Turning rail stations into smart, safe and comfortable community spaces

- "We should be designing spaces to meet the needs of everyone, [...] recognising that space is valuable for us as more than just car parking spaces, but as spots where we can create a comfortable dwelling spot for people to meet, for people to linger. Stations must encourage a shift from car ownership to rail journeys by facilitating seamless connections with active, public and shared transport through their design."
- Ross Miller, Shared Transport and Rail Integration Manager, CoMoUK

Creating joined-up solutions

"Rail does not work, cannot work in isolation. There are very few journeys where rail offers a door-to-door service. Thinking about sustainability and modal shift for rail to compete with the private car, which is what it's got to do, it's got to be working in synergy with the other sustainable transport modes. So we've got to have a complete alternative that works together. "

- Jools Townsend, CEO, Community Rail Network
- "Electric vehicles will be an important part of how we reduce emissions and there is a big opportunity to join this up with rail. For instance, by offering and promoting charging spots for those parking at railway stations, making them visible on apps that show where chargers are like Bonnet and the Octopus Electric Universe."
- James Standing, Client Development Director, Auto Trader

Innovation and service design to further enhance experiences

- "There are many exciting innovations that create new solutions for travellers to make journeys more appealing and smoother. For example, real-time information on crowding, adaptable train interiors to make space for bikes, luggage or busier commuting times and virtual reality applications to help plan trips. These are showcased through RIA's Unlocking Innovation programme, and what we need to do now is to roll them out on the network, so people see the better experiences and change their perceptions about rail travel."
- Milda Manomaityte, Innovation Director, Railway Industry Association (RIA)
- "Pre-pandemic, we were investing huge amounts of money in delivering small additional capacity gains to deal with growing peak. Post-pandemic, if we think that we can manage with a smaller peak, then can we economise on some of the capacity investments that we were going to make and put that into providing a more even and better-quality rail service that meets other needs other than the commute."
- Professor Greg Marsden, Professor,
 Institute for Transport Studies, University of Leeds

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- 4 The full Reasonable by Rail methodology can be found in the Appendix A
- 5 Cheapest available price analysis, within Reasonable by Rail database
- 6 The full Reasonable by Rail methodology can be found in the Appendix A
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- 31 Calculated based on the Reasonable by Rail methodology set out in the Appendix A
- 32 The full Reasonable by Rail methodology can be found in the Appendix A. Analysis focuses on routes that were appropriate to switch, excluding journeys that can be completed by other sustainable travel, i.e., walking (less than a 30-minute walk) or cycling (less than a 50-minute cycle ride). Also excludes journeys over 5 hours as these are rare and distort the data
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- 34 Calculated based on the Reasonable by Rail methodology set out in the Appendix A
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