EUROPEAN RAILWAY STATION INDEX 2024



REMAINS
NUMBER ONE;

These are challenging times for the European railway industry. Some of the top stations from earlier indices are handling the difficult situation well and top our rankings yet again—Zurich is still in first place, followed by Bern in second place (previously third) and Utrecht Centraal in third (previously fifth). Once in thirteenth place, Paris Gare du Nord has surged to the fourth on our list. Paris Gare de Lyon rose from ninth to joint fifth, sharing the spot with Paris Gare Montparnasse (eighteenth place in 2023). Vienna Main Station remains an excellent hub, though an increase in waiting times and delays has resulted in a slight decline in points, placing it in seventh place this year. Roma Termini is ranked eight, and Paris Gare Saint Lazare is ranked nine. Leipzig Main Station and London Bridge sit both in tenth place.

Unfortunately, otherwise excellent stations have been affected by the downturn. Previously in second place, Vienna Meidling has declined to spot number forty-two, primarily due to the effects of delays and waiting times, combined with the focus of this index on internal reporting and subsequent changes in score weighting. Berlin Main Station also declined from third to thirteenth due to similar reasons.

We did not include Puteaux La Defense and Birmingham New Street in the current edition, as both stations fell below the thirty million passengers yearly threshold required to be on the list. London Paddington, the second busiest British hub in 2024 with 59 million passengers, and London Saint Pancras International, with 33.3 million, join the index in their stead.

Different factors have amplified frustrations with railway systems since we last wrote our report. On July 26, 2024, unknown culprits <u>attempted</u> to sabotage the Paris Summer Olympics Opening Ceremony by damaging four TGV railway arteries to France's southwestern, northern, and eastern regions. This caused disruptions in stations like Gare du Nord and Montparnasse for followers of the Olympics and French holidaymakers on their annual summer break. A month earlier, on the 26th of June, 2024, Deutsche Bahn responded to <u>media reports</u> and <u>public criticism</u> by <u>apologizing</u> to football fans for overcrowded conditions and chaotic train schedules during the UEFA Euro 2024 Cup.

There is a general worry that problems run deeper than individual events that cause an influx of passengers. Proposed explanations behind Germany's rail woes vary. <u>Some</u> allege that Deutsche Bahn should have upgraded its lines and stations long ago and had made poor investment decisions. <u>Others</u> point out that the rail network had shrunk by around 15,000 kilometers over the



last seventy years, putting extra pressure on existing hubs. In Spain, Renfe's introduction of the S106 (popularly known as Avril) trains has not gone smoothly - only around <u>four in ten</u> new trains arrive on time, compared to 76% for Renfe's AVE, Avlo, Alvia, and Intercity services. In the United Kingdom, the new Labour Government condemned private ownership for high train ticket prices and poor performance. As such, plans are being drawn to let existing franchise contracts expire, renationalizing operators under the <u>Passenger Railways Services (Public Ownership) Bill</u>,

Considering these background conditions, we ranked fifty of Europe's busiest railway stations (measured in passenger volume) to help consumers enjoy the best possible experience on their next trip. We used several factors, ranging from tickets to the number of in-station services, accessibility options, free Wi-Fi, national and local railway coverage, and ride-sharing.

Our fifth annual edition of the index builds on our existing analysis using reports provided by national authorities, online statistics, station maps, real-time updates, and our own research. At the same time, we incorporated the constructive feedback we received for the previous edition of our study. We agree that the criterion of "international connections" did not fit all stations (many of which are nationally oriented), so we removed it from the present evaluation. We also confirmed and added amenities based on information missing from public reporting. In line with the definitions in our Sharing Economy Index, we renamed "Ridesharing" to "Ride Hailing", distinguishing it clearly from notions of carpooling and car sharing. We further clarified the "Connections and Local coverage" category into "Connections to/from Local Railway and National Coverage". In addition, we now calculate scores using in-program formulae to ensure we minimize reporting errors on our part. Lastly, we expanded the methodology section to explain why we chose the criteria that we did.

Please note that numbers like passenger volumes reflect the latest available information at the time of this report (August 2024). We have tried obtaining the information from the relevant operating companies but have sometimes received no reply.



OVERALL SCORE: TOP 10 RAILWAY STATIONS FOR PASSENGER CONVENIENCE IN EUROPE

COUNTRY	CITY	RAILWAY Station	TOTAL SCORE	RANKING
+	ZURICH	ZURICH HB	101	1
+	BERN	BERN RAILWAY STATION	94	12
	UTRECHT	UTRECH CENTRAAL	93.5	1 3
	PARIS	GARE DU NORD	91	4
	PARIS	GARE DE LYON	90	15
	PARIS	GARE MONTPARNASSE	90	4 5
	VIENNA	WIEN HAUPTBAHNHOF	89.5	17
	ROME	ROMA TERMINI	87.5	18
	PARIS	GARE SAINT-LAZARE	87	19
	LONDON	LONDON BRIDGE	85	10
	LEIPZIG	LEIPZIG HBF	85	110

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A broad observation is that passenger volumes continue to rise in the latest observations. Already one of the busiest stations in the world, Paris Gare du Nord's numbers jumped from around 211.698 million passengers over the previous interval to 226.768 million. Similarly, Zurich went from 131.728 million in our last entry to 153.154 million.

However, any generalization of the trend should be treated with caution due to inconsistencies in reporting. For instance, passenger volumes for Roma Termini and Milano Centrale seemingly declined year-on-year. What happened, though, was merely a change in reporting. Whereas Italian authorities had only reported general passenger numbers before, they recently contracted FS Italiane Group to conduct monthly traffic surveys at the two stations, producing more granular data. Other figures appear stagnant in the database because no new information has been forthcoming.

It is more prudent to examine developments on a case-by-case basis. A story of resilience emerges for the top contenders on our list. Waiting times and delays remain low for Zurich and Bern Main Stations, with only 1.28 minutes lost and 6.28% delays longer than five minutes for Zurich. On average, consumers spent virtually no time waiting, and only 1.71% of trains were delayed by more than five minutes for Bern.

These results lend credence to some of the earlier explanations for current issues. The Swiss system features a highly dense network (which we note as good coverage for Bern and satisfactory coverage for Zurich) and a healthy competitive market with more than 130 private operators (both are featured with a "Yes" for multiple firms operating at the station in the index). Bern and Zurich have thus been in the optimal position to expand their capacity and match the growing influx of passengers.

Dutch Railway operator Nederlandse Spoorwegen's promises to introduce <u>1,600 more trains</u> per week by 2025, an overall increase in frequency during rush hours and weekends, renovations to Amsterdam Centraal, and plans to prevent overcrowding at the station via the Airport Sprinter initiative already appear to be paying off - waiting times have slightly declined from 3 to 2.4 minutes while delays have mainly remained the same (16.5% now, compared to 16% in 2023).

Another resilience success story comes from France's stations, which quickly bounced back from the earlier sabotage attempt. All four of the Parisian hubs in the top ten (Gare du Nord, Gare de



Lyon, Montparnasse, and Saint-Lazare) have seen an increase in delays and waiting times but have managed to keep the disadvantages to a minimum via a combination of increased competition (Renfe offering its services through Gare de Lyon starting in 2023), and infrastructure overhauls (the Horizon 2024 project for Gare du Nord).

Unfortunately, German stations continue to face serious hurdles. If anything, the picture deteriorated this year, with some of the aftershocks of 2023 and the summer of 2024 only now becoming apparent. Of twenty-one German stations, only one made it into the top ten - Leipzig Main Station. The bottom three hubs are all German - Berlin Zoologischer Garten, Bremen Main Station, and Berlin Ostkreuz, respectively. Average waiting times have skyrocketed to 14.8 minutes, and 55.14% of all trips were later than five minutes in Berlin Main Station (an increase from nine minutes and 34% in 2023). Deutsche Bahn invested 7.6 billion euros in the "Strong Rail in Germany" initiative in 2023, promising to renovate forty central routes and station buildings and to digitize services. Future indices will be able to determine whether and when the efforts bear fruit.

Nevertheless, the highest recorded average delay in our database was for two British stations, London Waterloo and London Victoria, which registered a whopping 75.8% average delay for the interval we examined. The story supports the infrastructure explanation. More than 4,000 miles (or 6,437 kilometers) of tracks and 2,000 stations in Britain closed following the 1963 Beeching Report in an attempt to stabilize the now-defunct British Rail financially. After British Rail's privatization in 1997, responsibility for rail infrastructure (stations included) did not become a private matter. In reality, it remained in the hands of the British state under the Department of Transport through Network Rail Limited. Since then, supply has lagged behind the demand of 1.61 billion UK passenger journeys a year.

We remain skeptical that the planned nationalization addresses the fundamental supply-demand disconnect in British railways. More so, we are concerned that the <u>Operator of Last Resort</u>, a new department unit under the Department of Transport tasked with running the renationalized operators, will struggle with the renationalization. It is more the case that the policy will leave British consumers with far fewer choices.



IMPLICATIONS AND BENEFITS FOR CONSUMERS

There are several upsides to choosing one of the top five stations for arrival or departure, such as less time spent waiting for trains, more convenient operating hours for ticket booths, more ticket packages to choose from, more accessible entrances, platforms, and restrooms for people with disabilities, more shops, kiosks, restaurants, and first-class lounges, quicker connections to and from the station and better national coverage.

- The top 5 selections offer the best experience all around
- Northern and Central venues continue to dominate the upper bounds of the list, compared to Southern entries
- Scores improved across the board for ticket types, meaning consumers will find more tailored options than ever before
- Scores once again improved for accessibility concerning in-station information, elevators, escalators, platforms, and restrooms, suggesting further progress in accessibility
- Given the very high averages for delays and waiting times, consumers' frustrations are not isolated anecdotes but part of a general downward trend for stations

Research note: We strive to improve the quality of this index's underlying data every year and aim to refine its methodology further. We sometimes faced contradictory information and indicators measured differently by different stations. For instance, French authorities only count a train delay as anything later than 5 minutes, whereas British observers tend to label any train arriving after its assigned schedule as late. Some stations have up-to-date information; others just have data from previous years. Directly estimating railway network coverage is imperfect. We ask the index readers to acknowledge the difficulties in working with heterogeneous data and caution users to be aware of the underlying complications.

Furthermore, what makes a railway station "good" for each individual can have a distinct qualitative element. Please remember, then, that our assessments are strictly quantitative and non-normative. We are not passing moral judgment on a station's goodness and badness or downplaying personal experiences by ranking one station lower. We are simply highlighting measurable conclusions based on the data available at the time of this index.



OVERALL SCORE

#	Country	City	Railway Station	Total score	Rankings
1	Switzerland	Zürich	Zürich HB	101	1
2	Switzerland	Bern	Bern Railway Station	94	2
3	Netherlands	Utrecht	Utrecht Centraal	93.5	3
4	France	Paris	Gare du Nord	91	4
5	France	Paris	Gare de Lyon	90	5
6	France	Paris	Gare Montparnasse	90	5
7	Austria	Vienna	Wien Hauptbahnhof	89.5	7
8	Italy	Rome	Roma Termini	87.5	8
9	France	Paris	Gare Saint-Lazare	87	9
10	United Kingdom	London	London Bridge	85	10
11	Germany	Leipzig	Leipzig Hbf	85	10
12	Netherlands	Amsterdam	Amsterdam Centraal	84	12
13	Norway	Oslo	Oslo sentralstasjon	81.5	13
14	Germany	Berlin	Berlin Hbf	78	14
15	Germany	Berlin	Berlin Alexanderplatz	77.5	15
16	Germany	Cologne	Köln Hbf	76.5	16
17	United Kingdom	London	St. Pancras International	76	17
18	Germany	Berlin	Berlin Friedrichstraße	74	18
19	Spain	Madrid	Madrid Puerta de Atocha-Almudena Grandes	73.5	19
20	United Kingdom	London	London Liverpool Street	73	20
21	Italy	Naples	Napoli Centrale	73	20
22	United Kingdom	London	London Victoria	72.5	22
23	Germany	Hamburg	Hamburg Hbf	71.5	23
24	United Kingdom	London	Paddington	71.5	23
25	United Kingdom	London	London Euston	71.5	23
26	Germany	Frankfurt	Frankfurt Main Hbf	71	26
27	Germany	Munich	München Hbf	71	26
28	Germany	Hannover	Hannover Hbf	70.5	28
29	Germany	Essen	Essen Hbf	70	29
30	United Kingdom	London	London Waterloo	69	30
31	Germany	Stuttgart	Stuttgart Hbf	66	31
32	Germany	Düsseldorf	Düsseldorf Hbf	66	31
33	Finland	Helsinki	Helsinki Central Station	65.5	33



OVERALL SCORE

#	Country	City	Railway Station	Total score	Rankings
34	Italy	Bologna	Bologna Centrale	65.5	33
35	Italy	Milan	Milano Centrale	63.5	35
36	Germany	Munich	Munich East Station	63.5	35
37	Germany	Berlin	Berlin-Gesundbrunnen	62	37
38	Germany	Nuremberg	Nürnberg Hbf	60.5	38
39	Italy	Turin	Torino Porta Nuova	60.5	38
40	Germany	Hamburg	Hamburg-Altona	58.5	40
41	Germany	Berlin	Berlin Südkreuz	58	41
42	Austria	Vienna	Vienna Meidling	54.5	42
43	Germany	Munich	München-Pasing	52.5	43
44	Italy	Rome	Roma Tiburtina	52	44
45	France	Paris	Haussmann-Saint-Lazare	52	44
46	France	Paris	Châtelet-Les Halles	51	46
47	Italy	Florence	Firenze Santa Maria Novella	49.5	47
48	Germany	Berlin	Berlin Zoologischer Garten	47	48
49	Germany	Bremen	Bremen Hbf	45	49
50	Germany	Berlin	Berlin Ostkreuz	41	50

METHODOLOGY

The maximum score (bonus points included) is 118.

1. Passenger volumes (millions)

We use passenger numbers for the latest available years (2024 to 2020) to determine Europe's fifty busiest train stations. The figures indicate the railway industry's explosive (re)growth in recent years. In addition, the numbers highlight challenges with reporting over time, as some stations benefit from a meticulous statistical breakdown while others remain unchanged since 2020.

This section is purely descriptive and does not award any points.

Some commentators have questioned using passenger numbers to select train stations for the index. They claim that by doing so, we are mixing up different types of stations for the same purpose. Aren't we just lumping together giants like Gare du Nord and Roma Termini with small regional hubs?

However, the distinction breaks down once we consider that we used a very high threshold for passenger numbers in the index. After all, the cut-off point for the list is 30 million passengers per station. Even the "smallest" inclusions in our tally still represent the experience of tens of millions of travelers.

For instance, Bremen Main Station saw 53.655 million passengers per year. This total is close to the second busiest station in Britain (London Paddington, at 59.2 million) and represents almost double that of the most frequented hub in Poland (Wroclaw Glowny, at 29.4 million passengers in 2023).

We address other pertinent issues that were brought up regarding the types of stations (whether they are commuter versus tourism-focused and what the difference might entail) in the "Shops," "Restaurants," and "Lounges" categories below.

2. Operating hours (ticket offices)

The category nets a railway station a maximum of 9 points. Having offices open most of the day allows consumers to purchase the tickets they need when they need them. A physical booth is essential for those less accustomed to using apps. This is why we feature the schedules of SNCF, Deutsche Bahn, Trenitalia, or Renfe ticket offices, not simply their information desks.

Open 6 am - 6 pm = 3 points

Open 6 pm - 6 am = 6 points (0.5 points for every extra hour from 6 pm onward)



Uneven hours (like 19: 30, 22: 45) are rounded up – railways receive the full 0.5 points for the hour. In cases where ticket offices operate under different intervals, symmetrical openings will still receive the initial marks. For instance, if the ticket office opens at 7 am and closes at 3 pm, it will receive the full 3 points.

Where ticket offices had different schedules, we rated the dominant option open for the longest hours (if one option most passengers use is open until 8 p.m. and another until 9 p.m., we chose to award points based on the 9 p.m. option).

3. Type of tickets

Can earn a station up to 6 points. More ticket options mean more special offers and discounts that are convenient and affordable to more consumers.

Student tickets = 1 point

Elderly tickets starting at 60 years of age = 1 point; if the offer starts > 60 years = 0.5 points Children up to six years = 1 point; if the offer runs for children < 6 years only = 0.5 points Group offers = 1 point; if group option requires > 3 people = 0.5 points

Additional packages for military personnel = 1 point

Ticket options for individuals with disabilities = 1 point

4. Waiting times

Nets a railway venue a maximum of 10 points. Short waiting times minimize frustration and ensure a smoother journey.

- \leq 5 minutes = 10 points
- \leq 10 minutes = 5 points
- > 10 minutes = 0 points

Numbers represent averages based on websites like <u>Zugfinder</u> and <u>On Time Trains</u> over several observations. In the rare cases where such numbers were unavailable, we used the averages provided by rail authorities in each country instead.

5. Delayed trains

A station can get a maximum of 15 points in this category. A train is generally considered late if it does not arrive within 5 minutes of its schedule.

- ≤ 10% = 15 points
- > 10 minutes but < 20 minutes = 10 points
- > 20 minutes but < 40 minutes = 5 points



\geq 40 minutes = 0 points

Numbers represent averages based on websites like <u>Zugfinder</u> and <u>On Time Trains</u> over several observations. In the rare cases where such numbers were not available, we used the averages provided by rail authorities in each country instead.

Critics argued against including delays as a category since delays are not caused by train stations but by handling train traffic or other unrelated reasons (accidents, wilful sabotage, and seasonal conditions). However, setting aside the fact that the same company may be in charge of both aspects, delays affect the entire station supply chain. A high percentage of late trains translates into overcrowding, negatively impacting train station services in turn. Ticket offices, apps, and wi-fi are often overwhelmed by requests to find alternate routes and fares. Shops, restaurants, and lounges struggle to cater to the sudden influx of travelers. Delays consequently result in widespread effects independent of higher waiting times and the obstructions' point of origin, thus requiring a category of their own to capture consumer experience accurately.

6. In-station information

Can get a railway hub 5 points in total. Information screens and verbal announcements make it easier for consumers to navigate their way to their platform. Having both is especially important for people with disabilities.

Both written and verbal information is present = 5 points

Partial (only one of the categories is present, or station coverage is known to be incomplete) = 3 points

7. Elevators/Escalators

Can earn a railway station up to 10 points. The presence of both escalators and elevators allows passengers an easier transition to platforms.

Both escalators and elevators available = 10 points

Either escalators or elevators available only = 5 points

8. Wheelchair and restroom accessibility

Nets a maximum of 5 points. Traveling can be difficult, even under ideal conditions. But it can be downright impossible for a person in a wheelchair with no access ramps to the building, no way to travel around the station without assistance, or no restroom facilities adapted to their needs. Having as many of these services as possible is crucial for many consumers.

Both wheelchair and restroom accessibility = 5 points



Only one option present = 3 points

9. Shops/Kiosks

Earns a station up to 15 points. Numbers reflect shops currently available in each facility.

- \geq 50 shops = 15 points
- \geq 30 shops = 10 points
- \geq 15 shops = 5 points
- < 15 shops = 0 points

An objection we have received is that the database should exclude amenities like shops, restaurants, and lounges from the assessment. The argument rests on two types of stations corresponding to two different groups of consumers they are meant to serve. There are tourist destinations, and then there are commuter-focused stations. The former hubs function more like a leisure attraction for visitors, designed to entertain passers-by and newcomers with various amenities. By contrast, commuter-focused stations deliberately omit such features – regular travelers are only interested in getting to work or school on time and would rather not have to deal with a slew of shops on their way there.

One reply is that actual stations include a mix of commuters and tourists. Even in tourist hotspots like Roma Termini, 37% to 44% of passengers are regular commuters (the proportion varies from month to month throughout January to May). Conversely, though designed with commuters in mind, Berlin Gesundbrunnen is located near a series of the city's attractions, including the Berlin Wall Memorial.

Apart from the demographics involved, though, studies suggest that consumers of all types do their station shopping for a mix of reasons. One analysis of Utrecht Central Station revealed that 93.2% of respondents shopped at the hub. While most (58.7%) preferred food and beverages (58.7%), a significant minority (41.3%) were looking for convenience, leisure, or other types of products. Moreover, consumers shopped out of immediate necessity, long-term planning, and pleasure. Commuters do not just want to grab a meal on the way to work but also want to save time, reduce stress, and enjoy doing their shopping at the station.

Finally, and relatedly, any study must consider reverse causality – the supply of stores may simply have fallen behind the growing demand.

10. Restaurants/Takeaway

This category awards a station a maximum of 15 points. Similar reasons apply to restaurants - having something to eat at a restaurant or on the go can make the difference between an

enjoyable and a frustrating journey. More options increase positive passenger experience.

- \geq 30 restaurants = 15 points
- ≥ 20 restaurants = 10 points
- ≥ 10 restaurants = 5 points
- < 10 restaurants = 0 points

11. Lounges

Railway hubs can get the top score of 5 points for having more than one business lounge, meaning more passengers can relax and benefit from premium service on their trip. The same considerations for shops and restaurants apply to lounges.

> 1 business lounge = 5 points

1 business lounge = 3 points

0 business lounges = 0 points

12. Smartphone application

Smartphone apps allow consumers to search for information or buy tickets online easily. If an app covers that station, the station receives 2 points.

13. Free Wi-Fi

Sometimes, consumers need to look up their routes online while traveling. A free Wi-Fi service comes in handy for this service. The station receives 3 points if there is free Wi-Fi available.

14. Connections to/from the local railway and national coverage

This category awards a railway station a maximum of 8 points – 3 base marks and 5 bonus points. Traveling is all the more stressful without quick routes to and from the station; jumping from a train to a car and back again because a railway network does not cover that destination only adds fuel to the fire.

≥ 2 means of transportation (bus, tram, metro) = 3 points

While the first part of the category measures local coverage, bonus points were awarded based on geographical proximity as a rough proxy for coverage. We attempted to operationalize the variable using maps and the distance from the station north, south, east, and westwards. We acknowledge that this measure is imperfect. Suppose a station and its railway network are close to the northwestern sector, yet southwest or western corners are not covered. In that case, the method might still register the station as having good coverage, even though actual coverage to the southwest and west is poor. We assessed each situation to compensate for this downside and



marked coverage as "poor" or "good" by comparing it across railway hubs. Good coverage = 5 extra points

15. Competition - more than one railway company in the station

The category is worth 5 points. Only one railway company for that station leaves consumers with no choice for train fares. Subsidiaries are also counted as part of that railway company.

> 1 railway company = 5 points

1 railway company = 0 points

16. Ride Hailing

In line with our <u>Sharing Economy Index 2023</u>, we define ride-hailing as hiring a private driver and vehicle through a general platform. This platform constitutes a network companies provide, connecting consumers wanting to reach an agreed-upon destination to willing drivers. Unlike car sharing, the vehicle is not rented out to a client-driver for extended periods. Unlike carpooling, only one consumer uses the service.

If consumers can use apps like Uber, Bolt, and Lyft to travel to and from the station, the venue receives an extra 5 points.



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ABOUT THE CONSUMER CHOICE CENTER



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