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Both continuity and transformation describe the state of railway stations this year. Some of our strongest performers from previous indices continue to top our rankings - Zurich remains number one, and Berlin Central is in third place. In other respects, though, placements have changed radically since our last entry. Vienna's Central Station, a newcomer to our dataset, is now in second place. Bern, an older tenant, is joint-third with Berlin Central. Vienna Meidling, the other new addition, is joint-tenth with Oslo Central in the index. Once in second place, Munich has dropped to the twenty-second position. Because of its lower passenger numbers (18,995,020 through 2022), London's St. Pancras International did not make it into our top fifty.

Sadly, we tried but could not find sufficient information for Ukraine's Kyiv-Pasazhyrskyi. Nevertheless, the resilience of Ukrainian rail-ways in the face of Russian aggression (85% of trains ran on time in 2022 while under bombardment) continues to inspire us. We look forward to returning Kyiv and other entries to the dataset soon.

Several factors explain these changes. For one, post-Covid recovery remains challenging. Passenger numbers are quickly rising, with stations in the UK alone seeing a return to 95% of pre-Covid levels after global figures dropped by 70%). Consequently, there are more severe train delays and longer waiting times. Other reasons are particular to one country, like the German subsidy program, causing stations like Munich to have fallen in our tally. Russia's illegal invasion of Ukraine has led an estimated six million Ukrainian refugees to seek shelter in Europe from the war, further complicating railway congestion. Local conditions (a new service

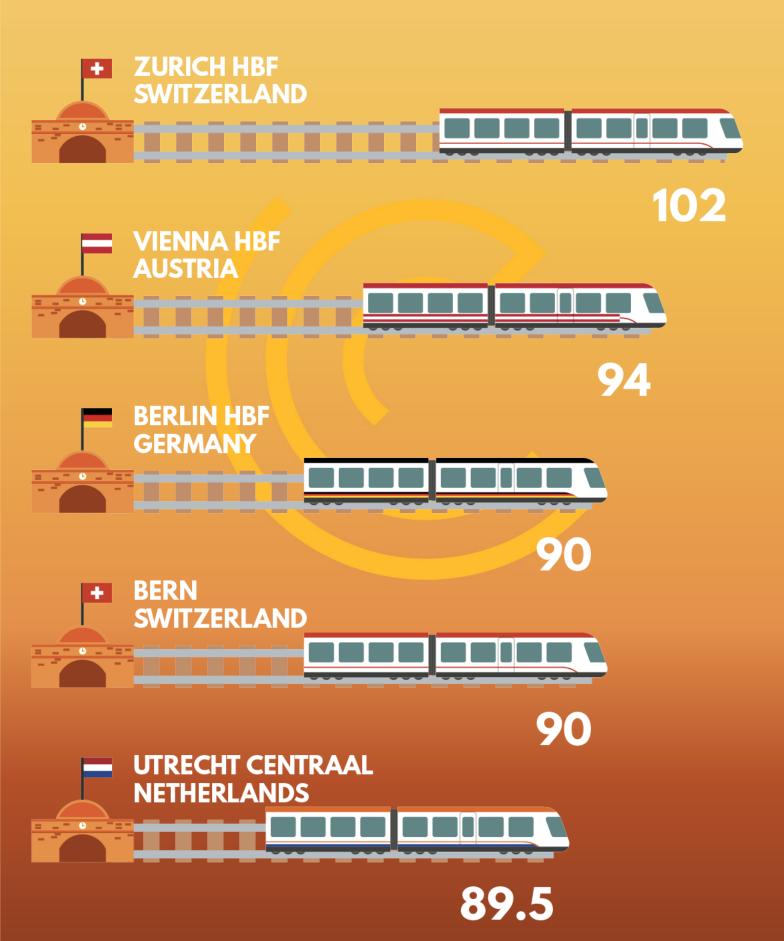
emerging, an older amenity discontinued) played a minor yet still significant role.

Considering these realities, we ranked fifty of Europe's largest rail-way stations (measured in passenger volume) to help consumers pick the best station for their next journey while enjoying the best possible experience. We used several factors ranging from tickets to the number of in-station services, accessibility options, transport connections, free Wi-Fi, railway coverage, and ride-sharing.

Our fourth annual edition of the European Railway Station Index builds on our existing analysis using reports provided by national authorities, online statistics, station maps, real-time updates, and our own research. Passenger volumes reflect the latest available information. Besides the new stations added and the ones removed, we tried our best to include the extensive feedback we received last time. We improved the dataset based on meta-studies of consumer expectations, refining measures of density and coverage and adding more variables that passengers prioritize, like ticket types, apps, waiting times, and percentage of trains delayed.



# Overall score: Top 5 Railway Stations for Passenger Convenience in Europe



A striking feature of the data is the lack of German railway stations in the top positions. Almost half (twenty-one) of all cases in the index are from Germany. However, only one (Berlin Central) made it into the top five, and two (Berlin Central, Frankfurt) are in the top ten. More are concentrated at the other end of our index - the six lowest-ranking venues (Essen, Berlin Ostkreuz, Berlin Zoologischer Garten, Munchen-Pasing, and Bremen) are all German. The scores for all these hubs were affected by severe train delays and waiting times. As of the time of this writing (21st of July), 39% of all trains were later than 5 minutes in Bremen.

The main culprit is Germany's railway subsidy program. Authorities meant to encourage trains instead of cars with a nine-euro ticket for all regional transport in 2022. What the subsidy has managed to do thus far, however, is increase the rate of rural train journeys dramatically past the capacity of smaller train stations (80 percent rise compared to 2019 pre-Covid levels in 2022) without lowering the number of car trips (the numbers for cars returned to pre-pandemic levels). The German federal government is now offering a more expensive forty-nine euro monthly pass to keep the passenger influx manageable. However, the damage to smaller stations and local commuters has already been done. Far from a positive example, the subsidy has led to more congestion, longer waiting times, and mounting frustration from German consumers.

As with our most <u>recent European Airport Index</u>, points have declined across the board, even though we have added more categories than ever. German subsidies and general problems with delays (45.5% of all trains postponed in <u>Birmingham New Street</u>, for ex-

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ample) are just one part of the problem. The other is the declining number of shops and restaurants. For instance, Gare du Nord used to have 34 shops but now has only 27 (a small number for Europe's largest station in terms of passenger volume).

### 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, easier access to entrances, platforms, and restrooms for people using a wheelchair, more shops, kiosks, restaurants, and first-class lounges, better coverage, easier connections to and from the station, and less hassle traveling to other countries by train.

- Top 5 selections offer the best experience all around
- Central and Northern venues continue to provide convenient European connections compared to Southern and Eastern hubs.
- Stations have made more of an effort to accommodate those who
  require wheelchair access and to post signs and directions for
  people with disabilities the scores for all stations improved in
  the category of accessibility.
- Consumers' recent frustrations with railway services are not <u>purely anecdotal</u> but part of an observable depreciation in quality for most stations under current conditions

**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 in-



dicators 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 upto-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.

#### **Overall score**

Rank	Railway Station	Points
1	Zurich Hbf	102
2	Vienna Hbf	94
3	Berlin Hbf	90
3	Bern	90
5	Utrecht Centraal	89.5
6	Frankfurt HBf	87
7	Napoli Centrale	86
8	Amsterdam Centraal	84.5
9	Gare du Lyon	82
10	Oslo central station	81
10	Vienna Meidling	81
12	Madrid Puerta de	80.5



Rank	Railway Station	Points
13	Gare du Nord	80
13	Leipzig Hbf	80
15	Gare Saint-Lazare	79
16	London Bridge	78
16	Roma Termini	78
18	Koln Hbf	77
18	Gare Montparnasse	77
18	Berlin Alexander-	77
21	London Liverpool	76
22	Munchen Hbf	75
22	Berlin Friedrich-	75
24	La Defense	74
25	London Victoria	73
26	Bologna Centrale	71
27	Hamburg Hbf	70
27	Hannover Hbf	70
29	Milano Centrale	68
29	London Waterloo	68
31	Roma Tiburtina	66
32	Nurnberg Hbf	65
32	Berlin Sudkreuz	65



Rank	Railway Station	Points
34	Hamburg-Altona	64
35	Torino Porta Nuova	61
35	<b>London Euston</b>	61
37	Stuttgart Hbf	60
37	Dusseldorf Hbf	60
37	Munich East Station	60
40	Firenze Santa Maria	58
41	Helsinki Central Sta-	<b>57.5</b>
42	Haussmann-Saint	<b>5</b> 7
43	Chatelet-Les Halles	56
43	Birmingham New	56
45	Essen Hbf	55
46	Berlin Ostkreuz	54
46	Berlin-Gesundbrun-	54
46	Berlin Zoologischer	54
49	Munchen-Pasing	52
50	Bremen Hbf	39



### Methodology

The maximum score (bonus points included) is 123.

#### 1. Operating hours (ticket offices)

The category gets 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 important for those less accustomed to using apps.

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 option open the longest hours (if one is open till 8 pm and another till 9 pm, we chose to award points based on the 9 pm one).

#### 2. 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

#### 3. Waiting times

Nets a railway venue a maximum score of 10 points. Short waiting times minimize frustration, decrease the chances of crowding, and ensure a smoother journey.

≤ 5 minutes = 10 points

≤ 10 minutes = 5 points

> 10 minutes = 0 points

#### 4. Delayed trains

A station can get a maximum of 15 points in this category. Delayed trains degrade the passenger experience by disrupting schedules and contributing to crowding.

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

≥ 40 minutes = 0 points

#### 5. 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

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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

#### 6. 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

#### 7. 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 much accommodation as possible is crucial for many consumers.

Both wheelchair and restroom accessibility = 5 points Only one option present = 3 points

#### 8. Shops/Kiosks

Earns a station up to 15 points. More open shops and kiosks result in more options for consumers. Numbers reflect shops currently available in each facility.

 $\geq$  50 shops = 15 points

≥ 30 shops = 10 points

 $\geq$  15 shops = 5 points



#### 9. Restaurants/takeaway

This category awards a station a maximum of 15 points. 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.

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

#### 10. 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.

- > 1 business lounge = 5 points
- 1 business lounge = 3 points
- o business lounges = o points

#### 11. Smartphone application

Smartphone apps make searching for and buying tickets whenever and wherever possible. If an app covers that station, the station receives 2 points.

#### 12. 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.



# 13. Connections to/from the local railway and local 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

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

#### 14. International coverage

A station can receive a total of 5 points for international coverage. Being able to travel across countries hassle-free is a must for international travelers.

We define international coverage as the number of countries one may reach directly without changing trains (in line with destination maps).

≥ 5 destinations = 5 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 Sharing

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



