

## Methodology

### Stress-free Travel: The Most Convenient European Capital Airports

The ranking of airports in Europe that offer a stress-free and convenient travel experience was determined by examining all European capital cities. If a capital city had more than one airport, the main international airport, defined as the one with the largest number of international flights, was selected.

To create the ranking of the most convenient airports in Europe, all airports were analysed according to 17 factors that were grouped into four data-clusters: **connectivity**, **facilities**, **entertainment** and **stress**. These were then weighted according to the level of influence airport operators can exert on each data cluster. Since “facilities” and “entertainment” can be determined by airport operators, they were deemed important data clusters when determining the level of convenience, weighing 40 percent each of the final score. However, airport operators have less influence on “stress” and “connectivity,” so both data clusters contribute to only 10 percent of the final score, since the punctuality of airlines, the geographical location and the availability of public transit options to reach the airport, for instance, cannot be controlled by the managing body of the airport.

### Research factors and sources

#### Data cluster one: Connectivity (10%)

- **Distance:** The linear distance in kilometres between the capital’s main train station and the airport was determined using [Google Maps](#).
- **Public transport:** The number of public transit options connecting the main airport to the city centre was sourced from the official information provided by airport operators. Shuttle services were not included unless there were no other public transit options available. Taxis were also not considered when determining this factor. All sources can be found in detail in the table on page six.

#### Data cluster two: Facilities (40%)

- **Hotels:** The number of hotels and accommodation options located after the security checkpoint was sourced from the official information provided by airport operators and from the [Sleeping in Airports](#) guide. Hotels located in the immediate vicinity of the airport were not considered when determining this factor. All sources can be found in detail in the table on page six.
- **Showers:** The availability of public restrooms with showers was sourced from the official information provided by airport operators and from the [Sleeping in Airports](#)

guide. Only the presence (1) or absence (0) of washrooms with showers in the analysed airports were determined, as their number was not deemed relevant for this study. All sources can be found in detail in the table on page six.

- **Smoking areas:** The availability of areas where smoking is permitted was sourced from [Airport Smokers](#). Only the presence (1) or absence (0) of smoking areas in the studied airports was determined, as their number was not deemed relevant for the purpose of this study. All sources can be found in detail in the table on page six.

- **Airport lounges:** The number of airport lounges were sourced from the official information provided by airport operators. Airport lounges are defined as the business lounges of airlines and of airport operators, as well as other private spaces that can be reserved. All sources can be found in detail in the table on page six.

- **Rest and relaxation areas:** The availability of areas in which passengers in transit can rest and relax was sourced from the official information provided by airport operators. Only the presence (1) or absence (0) of rest and relaxation areas in the studied airports was determined, as their number was not deemed relevant for the purpose of this study. All sources can be found in detail in the table on page six.

- **Public charging stations:** The availability of publicly accessible charging stations, or workstations with several electrical multi-outlets, that allow passengers to conveniently charge their electronic devices. Single wall outlets throughout the airports were not taken into account. Only the presence (1) or absence (0) of public charging stations in the analysed airports was determined, as their number was not deemed relevant for the purpose of this study. All sources can be found in detail in the table on page six.

- **Pharmacy:** The availability of shops selling medicine. Only the presence (1) or absence (0) of a pharmacy in the analysed airports was determined, as their number was not deemed relevant for the purpose of this study. All sources can be found in detail in the table on page six.

### **Data cluster three: Entertainment (40%)**

- **Number of shops:** The number of shops located on the premises and in the terminals of the airport was sourced from the official information provided by airport operators. All sources can be found in detail in the table on page six.

- **Number of restaurants and bars:** The number of facilities that sell food and beverages, such as restaurants, bistros, bars and cafés, on the premises and in the terminals of the airport was sourced from the official information provided by airport operators. All sources can be found in detail in the table on page six.

- **Children play areas:** The availability of areas specifically designed for children to

play in was sourced from the official information provided by airport operators. Only the presence (1) or absence (0) of children’s play areas in the analysed airports was determined, as their number was not deemed relevant for the purpose of this study. All sources can be found in detail in the table on page six.

#### **Data cluster four: Stress (10%)**

- **Number of air passengers (millions):** The average number of daily air passengers was calculated from data on the number of annual passengers per airport, which was then divided by the 365 days in a year. All sources can be found in detail in the table on page six.

- **Travel congestion:** The percentage of the additional time it takes to travel to the airport from the main train station by car when traffic is at a standstill, compared to the time it would take in uncongested conditions. It was sourced from [TomTom’s Traffic Index 2018](#).

As Armenia, Azerbaijan, Belarus, Croatia, Malta and Montenegro were not included in TomTom’s Index, traffic congestion was calculated manually. [Google Maps](#) was used to determine the travel time from the main train station to the airport, departing on 01.10.2018 at 8.00 am, assumed to be rush hour. Then, the travel time of the same journey on the same day in uncongested conditions was determined. The results were taken from two time spans: the longer one was deemed representative of when traffic is at a standstill, while the shorter one of when traffic is flowing.

Then, the calculation of the percentage of the additional time it takes to travel to the airport from the main train station by car when traffic is at a standstill, compared to the time it would take in uncongested conditions, was carried out by applying the following formula:

$$Travel\ congestion = 100 - \left( \frac{Shortest\ possible\ travel\ time}{Longest\ possible\ travel\ time} \right) \div 100$$

- **Average taxi price:** The price per kilometre for a taxi ride charging a normal tariff was sourced from [Numbeo](#).

- **Flight punctuality:** The percentage of all flights of the respective national airlines that departed or arrived on-time was calculated using the data from the “[Airlines On-Time Performance Report 2019](#)” by the flight data analysis firm OAG. An average percentage per country was calculated based on data from all the respective national airlines for the period of October 2019, November 2019 and December 2019. It is to be noted that a flight is considered punctual if it departs or arrives no more than 15 minutes later than the scheduled time.

- **Flight cancellations:** The percentage of all flights of the respective national airlines that were cancelled was calculated using the data from the “[Airlines](#)”

[On-Time Performance Report 2019](#)” by the flight data analysis firm OAG. An average percentage per country was calculated based on data from all the respective national airlines for the period of October 2019, November 2019 and December 2019.

## Scoring

The result of each factor was standardised on a scale from 0 to 100. While the country with the best results per factor received a score of 100, the country with the worst results received a score of 0. Subsequently, all the results per factor were summed per country, to obtain the score per data-cluster, which was then also standardised on a scale from 0 to 100. Each data-cluster score contributes to each country’s final score, based on their weighting. The data-clusters 1 and 4 contribute 10 percent each to the final result, while the data-clusters 2 and 3 each make 40 up percent of a country’s final score.

Finally, the final score was also standardised on a scale from 0 to 100. The most convenient airport received a score of 100, while the least convenient one received a score of 0.

The calculation was carried out by applying the following normalisation formula:

$$x_{new} = \frac{x - x_{min}}{x_{max} - x_{min}}$$

The research was conducted before the 6th of October 2020.

Scoring			Data-cluster 1: Connectivity (10%)				Data-cluster 2: Facilities (40%)										Data-cluster 3: Entertainment (40%)				Data-cluster 4: Stress (10%)						Total Rank Score 0-100														
Ranking	Destinations	International Airport	Distance	Score	Public Transport	Final Score for Connectivity	Number of Hotels	Score	Showers	Score	Smoking Areas	Score	Number of Airport Lounges	Score	Rest and Relaxation Areas	Score	Public Charging Station	Score	Pharmacies	Score	Final Score for Facilities	Number of Shops	Score	Number of Restaurants and Bars	Score	Children's Play Areas		Score	Final Score for Entertainment	Number of Air Passengers (daily)	Score	Travel Congestion	Score	Taxi Price per km (in €)	Score	Punctuality	Score	Flight cancellations	Score	Final Score for Stress	
1	Spain	Madrid Adolfo Suárez Madrid–Barajas Airport (MAD)	14.60	71.45	3	100.00	39.87	1	33.33	1	100.00	1	100.00	6	26.22	1	100.00	1	100.00	1	100.00	79.95	133	94.89	54	67.95	1	100.00	96.28	158,630	24.75	22%	89.47	1.10	67.38	78.69%	76.73	1.20%	88.26	63.25	100.00
2	Italy	Rome Leonardo Da Vinci–Fiumicino Airport (FCO)	23.98	43.29	2	50.00	48.90	2	66.67	1	100.00	1	100.00	5	21.05	1	100.00	1	100.00	1	100.00	83.96	140	100.00	50	62.82	1	100.00	96.27	117,808	51.90	39%	44.74	1.41	56.27	70.20%	65.27	1.69%	84.41	42.38	93.40
3	Netherlands	Amsterdam Amsterdam Airport Schiphol (AMS)	11.77	79.95	2	50.00	88.11	2	66.67	1	100.00	1	100.00	8	36.84	1	100.00	1	100.00	1	100.00	86.22	73	51.09	62	78.21	1	100.00	83.99	184,795	19.56	24%	84.21	2.35	22.58	79.01%	77.16	0.28%	92.47	61.80	90.40
4	Denmark	Copenhagen Copenhagen Airport Kastrup (CPH)	8.16	90.78	3	100.00	100.00	1	33.33	1	100.00	1	100.00	8	36.84	0	0.00	1	100.00	1	100.00	67.17	120	85.40	29	35.90	1	100.00	81.06	83,014	66.51	21%	92.11	2.01	34.77	95.93%	100.00	0.78%	92.47	74.55	87.00
5	Russia	Moscow Sheremetyevo Int. Airport (SVO)	26.50	35.73	2	50.00	44.93	3	100.00	1	100.00	1	100.00	18	89.47	0	0.00	0	0.00	1	100.00	69.92	103	72.99	79	100.00	1	100.00	100.00	125,480	48.68	56%	0.00	0.20	99.64	68.48%	62.95	3.18%	68.43	33.53	85.70
6	Finland	Helsinki Helsinki Airport (HEL)	16.61	65.42	2	50.00	60.50	3	100.00	1	100.00	1	100.00	4	15.79	1	100.00	1	100.00	1	100.00	87.97	54	37.23	29	35.90	1	100.00	63.42	66,986	77.45	20%	94.74	1.00	70.97	78.86%	78.96	1.98%	80.50	80.25	84.00
7	United Kingdom	London Heathrow Airport (LHR)	23.85	43.68	2	50.00	48.10	3	100.00	1	100.00	1	100.00	20	100.00	1	100.00	1	100.00	1	100.00	100.00	62	43.07	24	29.49	1	100.00	63.21	241,370	0.00	37%	50.00	2.98	0.00	78.24%	77.47	1.70%	83.28	63.90	78.70
8	Portugal	Lisbon Lisbon Portela Airport (LIS)	6.82	94.81	2	50.00	75.90	0	0.00	1	100.00	1	100.00	1	0.00	1	100.00	0	0.00	1	100.00	57.14	108	76.64	35	43.59	1	100.00	80.67	79,452	68.01	32%	63.16	0.47	89.96	48.05%	35.38	1.74%	82.88	56.60	75.10
9	Czech Republic	Prague Václav Havel Airport Prague (PRG)	12.34	78.23	3	100.00	93.42	1	33.33	1	100.00	0	0.00	7	31.58	1	100.00	1	100.00	1	100.00	66.42	44	29.93	32	39.74	1	100.00	62.15	46,027	82.05	27%	76.32	1.11	67.03	61.95%	54.14	0.42%	96.15	70.62	74.30
10	Germany	Berlin Berlin-Brandenburg (BER)	20.46	53.86	2	50.00	54.44	0	0.00	1	100.00	1	100.00	1	0.00	1	100.00	1	100.00	1	100.00	71.43	35	23.60	39	48.72	1	100.00	63.03	93,151	62.26	31	65.79	2.00	35.13	82.56%	81.95	2.71%	73.14	48.44	68.90
11	Austria	Vienna Vienna International Airport (VIE)	17.04	64.12	2	50.00	59.82	0	0.00	1	100.00	1	100.00	11	52.63	1	100.00	1	100.00	1	100.00	78.95	15	8.76	20	24.36	1	100.00	48.76	82,192	66.86	27%	76.32	1.42	55.91	80.16%	78.71	0.73%	92.98	68.73	68.70
12	Belgium	Brussels Brussels Zaventem Airport (BRU)	13.84	82.44	2	50.00	69.42	0	0.00	1	100.00	1	100.00	6	26.32	0	0.00	1	100.00	1	100.00	66.90	45	30.66	34	42.31	1	100.00	63.36	71,233	71.46	37%	50.00	1.95	36.92	78.98%	77.12	0.39%	96.39	53.70	66.00
13	France	Paris Charles de Gaulle Airport (CDG)	22.33	48.24	2	50.00	51.49	1	33.33	1	100.00	1	100.00	7	31.58	1	100.00	1	100.00	1	100.00	80.70	55	34.96	24	29.49	1	100.00	61.34	208,767	13.69	36%	52.63	1.35	58.42	65.00%	59.25	9.01%	9.90	0.00	65.90
14	Greece	Athens Eleftherios Venizelos Int. Airport (ATH)	20.92	52.48	3	100.00	79.92	0	0.00	1	100.00	1	100.00	6	26.32	0	0.00	1	100.00	1	100.00	60.90	50	34.21	14	16.67	1	100.00	55.30	66,137	73.60	40%	42.11	0.74	80.29	75.42%	72.32	1.06%	89.70	63.79	64.30
15	Ireland	Dublin Dublin Airport (DUB)	8.83	88.77	1	0.00	46.53	0	0.00	1	100.00	1	100.00	4	15.79	1	100.00	1	100.00	0	0.00	59.40	30	19.71	40	50.00	1	100.00	62.17	86,301	65.13	45%	28.95	1.35	58.42	83.28%	82.92	0.51%	95.22	53.22	61.10
16	Sweden	Stockholm Arlanda Airport (ARN)	26.23	6.51	2	50.00	29.62	0	0.00	1	100.00	1	100.00	5	21.05	0	0.00	1	100.00	1	100.00	60.15	32	21.17	35	43.59	1	100.00	60.35	73,425	70.54	26%	78.95	1.31	59.86	82.10%	81.33	2.98%	70.40	64.98	59.70
17	Latvia	Riga Riga International Airport (RIX)	9.32	87.30	1	0.00	45.76	0	0.00	1	100.00	1	100.00	2	5.26	0	0.00	1	100.00	1	100.00	57.89	21	13.14	18	21.79	1	100.00	49.43	21,370	92.41	24%	84.21	0.64	83.87	83.90%	83.76	0.43%	95.99	95.56	98.90
18	Hungary	Budapest Ferenc Liszt Int. Airport (BUD)	14.40	72.05	2	50.00	63.97	0	0.00	0	0.00	1	100.00	5	21.05	0	0.00	1	100.00	1	100.00	45.86	40	27.01	20	24.36	1	100.00	55.45	44,384	82.74	35%	55.26	0.90	74.55	84.63%	84.75	0.37%	96.66	77.68	55.50
19	Poland	Warsaw Chopin Airport (WAW)	7.26	93.49	2	50.00	75.21	0	0.00	1	100.00	1	100.00	5	21.05	0	0.00	1	100.00	0	0.00	45.86	26	16.79	19	23.08	1	100.00	51.23	32,603	87.69	39%	44.74	0.57	86.38	78.97%	77.10	1.17%	88.63	74.04	54.20
20	Norway	Oslo Oslo Airport Gardermoen (OSL)	37.25	3.45	2	50.00	28.02	0	0.00	1	100.00	0	0.00	4	15.79	0	0.00	1	100.00	1	100.00	45.11	20	12.41	35	43.59	1	100.00	57.14	78,356	68.47	21%	92.11	1.42	55.91	84.10%	84.03	7.06%	29.53	82.99	47.40
21	Azerbaijan	Baku Heydar Aliyev International Airport (GYU)	19.62	56.38	1	0.00	29.55	0	0.00	0	0.00	1	100.00	5	21.05	1	100.00	1	100.00	0	0.00	45.86	8	3.65	11	12.82	1	100.00	42.66	12,055	96.32	36%	53.42	0.32	95.34	85.77%	86.28	0.13%	99.00	91.75	45.30
22	Bulgaria	Sofia Sofia International Airport (SOF)	7.35	93.22	2	50.00	75.07	0	0.00	0	0.00	1	100.00	1	0.00	0	0.00	1	100.00	1	100.00	42.86	5	1.46	3	2.56	1	100.00	38.11	19,178	93.33	35%	55.26	0.41	92.11	77.73%	75.44	3.03%	69.90	74.62	45.00
23	Malta	Valletta Malta International Airport (MLA)	5.09	100.00	1	0.00	52.42	0	0.00	0	0.00	1	100.00	2	5.26	0	0.00	1	100.00	1	100.00	43.61	12	6.57	12	14.10	1	100.00	44.20	20,000	92.98	46%	27.63	2.00	35.13	72.93%	68.96	0.10%	99.33	50.66	42.30
24	Turkey	Ankara Esenboga International Airport (ESB)	23.53	44.84	1	0.00	23.40	0	0.00	1	100.00	0	0.00	2	5.26	0	0.00	1	100.00	1	100.00	43.61	5	1.46	11	12.82	1	100.00	41.86	43,288	83.20	31%	65.79	0.46	90.32	84.91%	84.15	2.53%	74.92	79.39	40.90
25	Iceland	Reykjavik Keflavik International Airport (KEF)	38.40	0.00	1	0.00	0.00	0	0.00	1	100.00	1	100.00	1	0.00	0	0.00	1	100.00	0	0.00	42.86	9	4.38	9	10.26	1	100.00	41.98	26,849	90.10	18%	100.00	2.28	25.09	80.40%	79.04	2.33%	78.92	68.87	35.70
26	Belarus	Minsk Minsk National Airport (MSQ)	31.86	18.63	1	0.00	10.29	0	0.00	1	100.00	1	100.00	2	5.26	1	100.00	1	100.00	1	100.00	72.18	5	1.46	3	2.56	0	0.00	1.47	6,027	98.85	31%	64.74	0.25	97.85	88.73%	90.28	0.03%	100.00	100.00	35.20
27	Romania	Bucharest Henri Coandă Int. Airport (OTP)	13.91	73.52	2	50.00	64.74	0	0.00	0	0.00	1	100.00	6	26.32	0	0.00	1	100.00	1	100.00	46.62	14	8.03	16	19.23	0	0.00	9.99	37,808	85.50	48%	21.05	0.42	91.76	79.85%	78.30	0.13%	99.00	70.59	29.20
28	Armenia	Yerevan Yevan Zvartnots Int. Airport (EVN)	9.16	87.78	1	0.00	46.01	0	0.00	1	100.00	1	100.00	1	0.00	0	0.00	0	0.00	0	0.00	28.57	3	0.00	2	1.28	0	0.00	0.47	7,945	98.04	47%	24.47	0.19	100.00	21.93%	0.00	10.00%	0.00	11.44	2.10</

