

avenir analysis

Urban Public Transport – the Discovery of Slowness

An Analysis of Speed in Switzerland's ten Largest Cities

A new study by Avenir Suisse shows that in Swiss cities, public transport takes you from A to B at an average speed of 8.3 km/h. In other words, you can often travel much faster by bike or e-scooter. What's more, the much-acclaimed Swiss public transport system will get you to your destination only marginally faster than its counterpart in German and Austrian cities. This modest speed reflects the difficult compromises faced by Switzerland's urban public transport systems.

What You Should Know

Methodology

Based on over 100,000 transport connections in Google Maps, we compared how quickly you can get from door to door by public transport in urban areas. We looked at the total duration of a connection, including all walking distances to and from the public transport stops.

Analyses

We graded the public transport speed according to distance, and statistically recorded the length of the walking routes, number of transfers, and waiting times. Cities in Germany and Austria were also taken into account to classify the Swiss results.

Results

On comparable routes, St. Gallen has the highest public transport speed at 9.3 km/h and Geneva the lowest at 7.2 km/h (see figure). During rush hour, however, the top-ranked St. Gallen, Biel, and Lucerne are more likely to slow down compared to larger cities with designated bus and tram lanes.

In Swiss cities, many commuters choose to use public transport. It is punctual, safe and reasonably clean. But strictly speaking, it is not fast. It comes out as just 0.5 km/h faster than the public transport in German and Austrian cities on comparable routes, and does not even reach twice the average walking speed.

Urban public transport systems are forced to make compromises. A denser network of stops will shorten walking distances but also reduce the travel speed of the transport mode. This is the concession Swiss cities take on board, making it more worthwhile, in terms of speed, to use public transport in this country than in Germany and Austria. It follows that Swiss cities take the lead, especially over shorter and medium distances. On longer routes, public transport in German and Austrian cities is as fast if not faster. There are also a greater number of transfers in Switzerland than in our German-speaking neighboring countries. However, the waiting time for each change is much shorter in Switzerland.

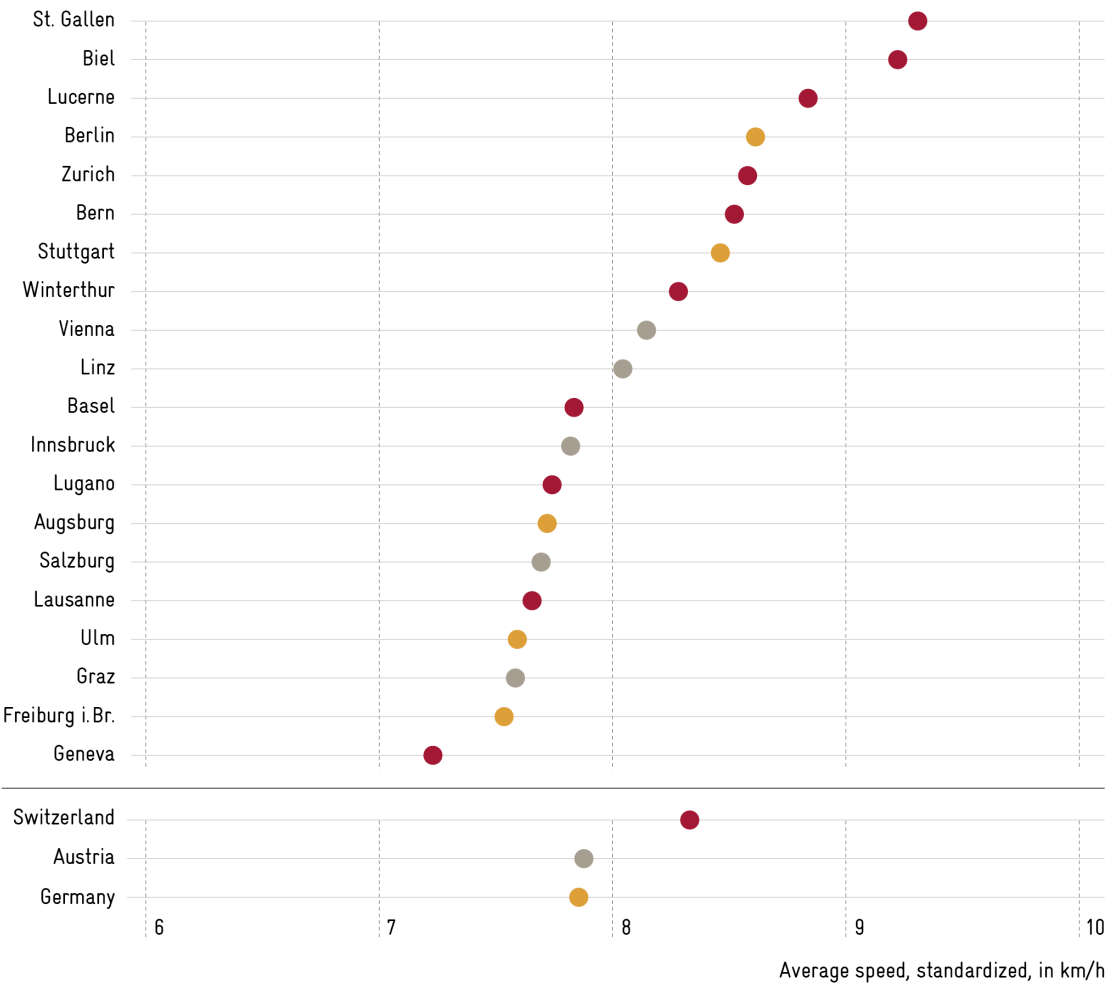
St. Gallen and Biel have the fastest public transport systems. They are the best at mastering the compromise between the density of the public transport network and the transfer frequency. The

seven cities in German-speaking regions of Switzerland have higher speeds than the three cities in the French and Italian-speaking regions.

These overall low speeds in urban public transport show that it is well worth taking possible future means of transport into account in today's planning of mobility systems. It could be that there are smarter mobility solutions that iron out these compromises better, cheaper, ecologically, and at least as sustainably.

Standardized Average Speed in the 20 Cities

The figure shows the standardized average speed of public transport for the 20 cities we studied. To provide a fair comparison between the different cities, the route length profile has been standardized for all cities. Otherwise larger cities with longer connections would have an advantage, as the public transport modes achieve higher speeds.



Source: Own calculations

Avenir Suisse

avenir analysis: “Urban Public Transport – the Discovery of Slowness”, Lukas Rühli and Eveline Hutter, 13 pages + 23 pages (methodology and data), available online from 15 August 2024, 5 am at www.avenir-suisse.ch.

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