



Barometer of mobile Internet connections in Italia

01/01/2023 - 31/12/2023



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**nPerf Network
assessment**

Expert in the telecom network optimization

nPerf is an independent French company based in Lyon (France). For over a decade, nPerf has been a trusted partner for both fixed and mobile operators, providing comprehensive network testing solutions and analysis. Our mission is to accurately measure, evaluate, and enhance the understanding of Internet connectivity around the world.



300k+ tests daily
worldwide.



26Md+ coverage
scans in total.



3k+ servers all
around the world.

Test your Internet connection with nPerf!

nPerf allows you to test the quality of your fixed, mobile, or Wi-Fi Internet connections up to 10 Gb/s!
Download our app or visit our website!



2. Executive Summary



The subscribers of Vodafone enjoyed the best mobile Internet performances in Italia during 2023.

Cellular Internet connections in Italia

	Fastweb	Iliad	TIM	Vodafone	Wind Tre
▼ Download brite (Mb/s)	88.61	48.56	64.75	112.93	67.84
▲ Upload brite (Mb/s)	14.09	9.35	14.10	19.61	13.55
◀▶ Latency (ms)	56.30	51.59	44.74	39.91	45.00
🌐 Web browsing (%)	68.01	66.99	69.17	74.94	71.51
🎥 Youtube streaming (%)	81.80	82.72	80.95	84.31	83.26
nPerf Score (nPoints)	79 967	71 410	79 124	94 540	81 834

Source : nperf.com



Best mobile Internet performance
in 2023









Source : nperf.com



Source : nperf.com

The subscribers of Vodafone enjoyed the best 5G mobile connections in Italia during 2023.

5G mobile connections in Italia

	Fastweb	Iliad	TIM	Vodafone	Wind Tre
 Download bitrates (Mb/s)	154.57	85.33	214.38	282.40	139.46
 Upload bitrates (Mb/s)	20.37	14.31	28.95	35.49	20.91
 Latency (ms)	54.76	45.00	38.31	36.23	43.48
 Web browsing (%)	73.63	73.59	78.36	81.18	77.69
 Youtube streaming (%)	84.55	86.21	84.71	87.64	84.14
 nPerf Score (nPoints)	93 965	87 714	108 130	117 819	97 960

Source : nperf.com

Vodafone affirms his leadership

Vodafone leads Italy's mobile network in 2023, excelling in the total market with a noteworthy download speed of 112.93 Mb/s and an upload speed of 19.61 Mb/s. Its comprehensive performance, combined with solid browsing and streaming capabilities, cements its top position.

5G Focus: Vodafone's advanced strides

In the 5G segment, Vodafone's pioneering role is evident with a download speed of 282.4 Mb/s, showcasing its commitment to next-generation network technology.

TIM: high-performance contender

TIM demonstrates significant strength with a download speed of 64.77 Mb/s and an upload speed of 14.1 Mb/s in the total market. In the 5G sector, it impresses with a download speed of 214.38 Mb/s, indicating robust future-ready capabilities.

Wind Tre: consistent performer

Wind Tre IT shows reliable performance with download and upload speeds of 67.84 Mb/s and 13.55 Mb/s, respectively, in the total market.

Fastweb: stable with room for growth

Fastweb maintains steady service in the total market, with a download speed of 88.72 Mb/s and an upload speed of 14.11 Mb/s. Its 5G download speed of 154.57 Mb/s points to promising advancements in high-speed connectivity.

Iliad: lagging slightly behind

Iliad maintains a consistent mobile performance with a download speed of 48.56 Mb/s and an upload speed of 9.35 Mb/s but remains behind competition.

Conclusion and Future Trends

Looking towards 2024, Italy's mobile network landscape, led by Vodafone, is poised for continued growth and enhancement in 5G technology. It promises to provide users with faster connectivity and improved network performance, signaling a year of significant technological evolution in the Italian mobile market.

4. Methodology



nPerf provides a **free tool to assess Internet connection quality** via its website and mobile apps (Android, iOS). Daily, thousands of people rely on nPerf for speed tests in their country, contributing to a comprehensive crowdsourced database covering all operators.

The study employs a strong filtering method to reflect real customer experiences on a specific network (mobile or fixed line). Measures are taken to prevent probes and measurement robots from affecting the results.

For mobile connections, we assess:

▼ Download bitrate :

Indicates the amount of data your connection can receive in one second from the nPerf server. The highest the measured value, the best is the bitrate of your connection.

▲ Upload bitrate :

Indicates the amount of data your connection can send in one second from the nPerf server. The highest the measured value, the best is the bitrate of your connection.

◄► Latency (ping) :

It indicated the delay a small packet of data requires to make a round-trip from your computer to the nPerf server. The shorter the delay, the most reactive your connection is. The main is the minimum value.

🌐 Browsing performance :

The browsing test assesses the load time of the fully loaded pages, including images, JavaScript, CSS, and fonts, for the five most popular sites. This indicator reflects the user's perceived quality of the Internet network.

📺 Streaming performance :

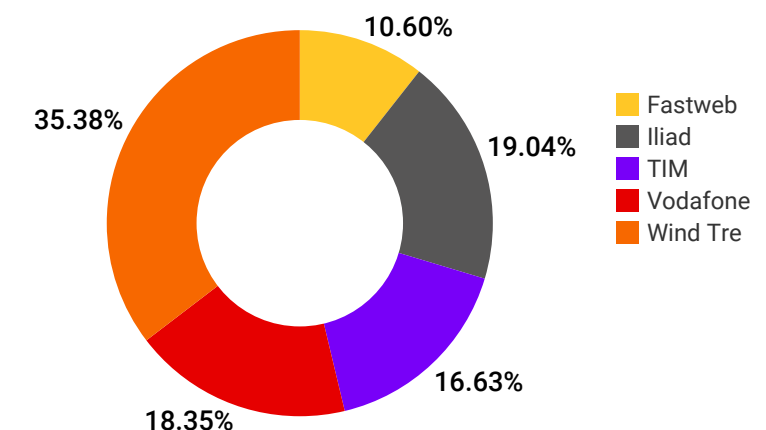
The video streaming test gauges the load time of a fully loaded video in three resolutions on YouTube, considering stalls during playback. This indicator reflects the user's perceived quality of the Internet network.

Statistical precision is crucial in accurately determining winners. At nPerf, we prioritize test quality, precise reporting, and transparency. Analyzing a large volume of tests in this study, we've achieved 2 % precision for absolute values and 1 point for percentage-based results, highlighting the reliability and accuracy of our data.

For a more comprehensive understanding of the user experience, our report features test results during both Busy hours (6 PM to 11 PM) and Idle hours (the rest of the day). Busy hours, marked by network strain, can impact user experience through congestion. This approach helps in understanding how network performance fluctuates throughout the day.

We only include national Internet service providers with test share above 5% share. The chart below shows the overall test distribution for each service provider.

Overall distribution of the tests per provider (ISPs Share)



Source : nperf.com



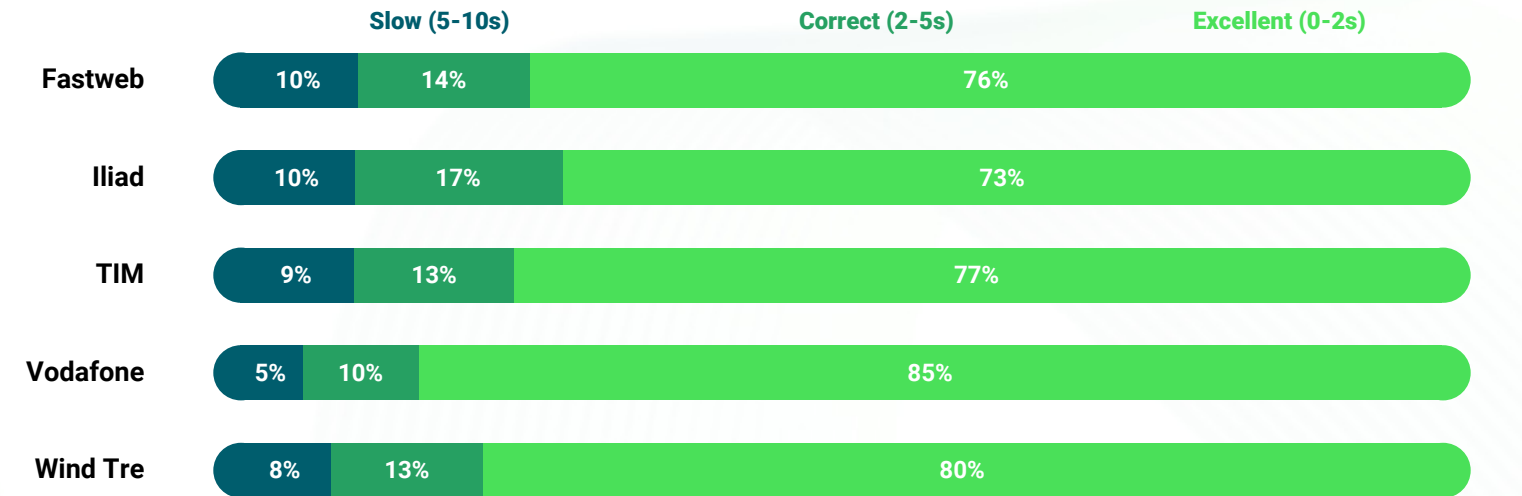
Browsing Performance rate (average)



Source : nperf.com

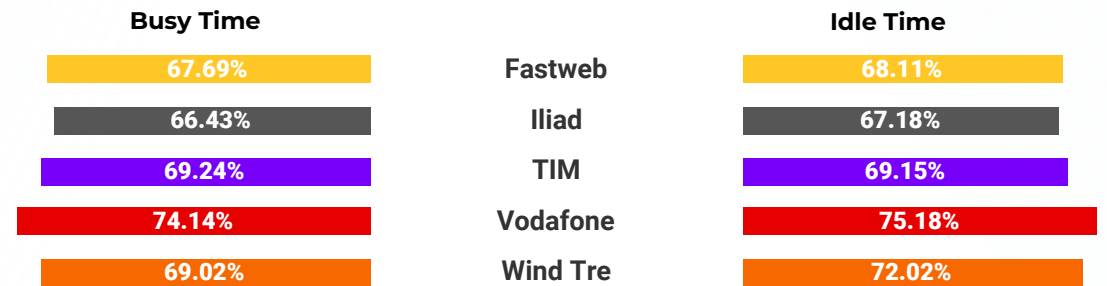
The subscribers of Vodafone enjoyed the best mobile Internet browsing performance in 2023.

Browsing Performance results ventilation (average)



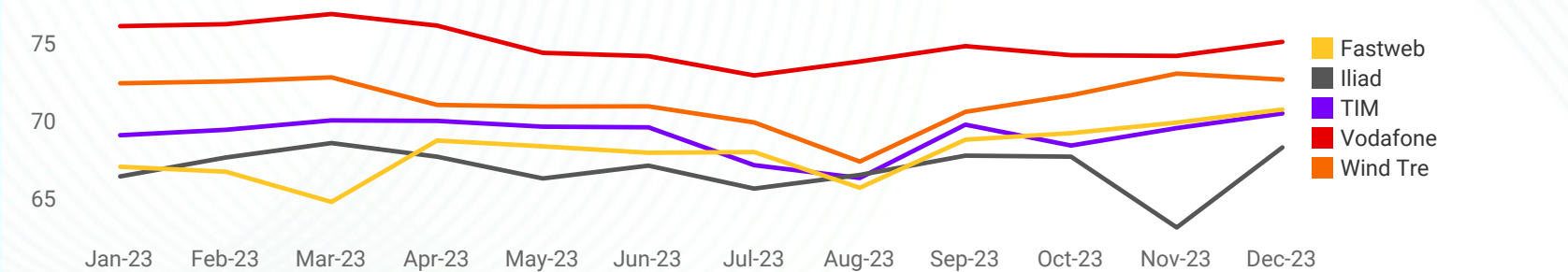
Source : nperf.com

Browsing Performance rate (average)



Source : nperf.com

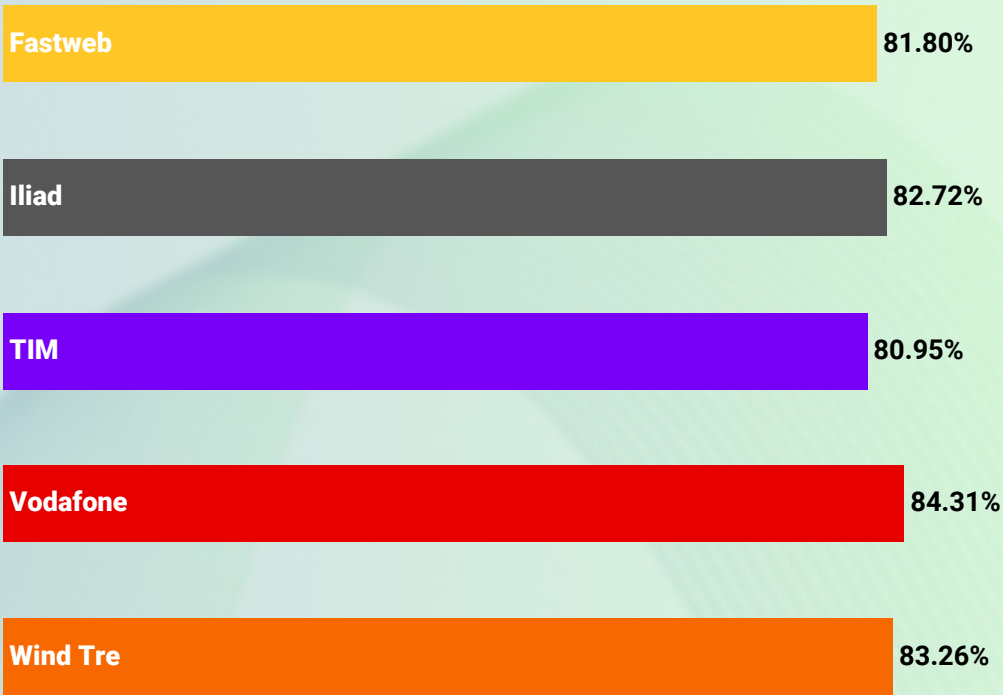
Browsing performance rate (average) evolution over the year



Source : nperf.com



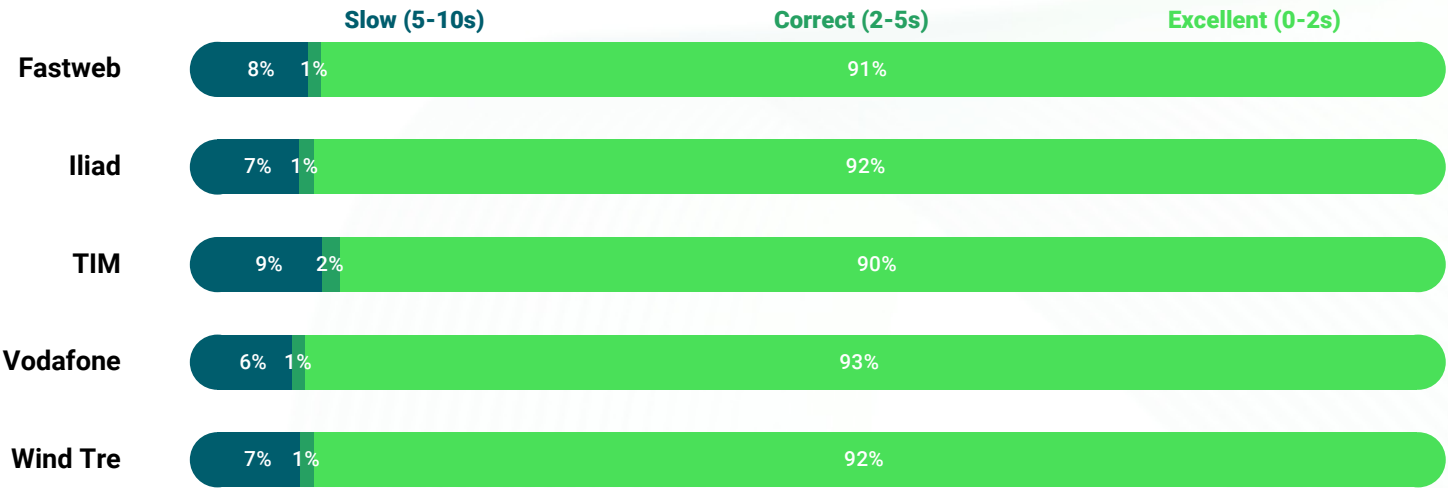
Streaming Performance rate (average)



Source : nperf.com

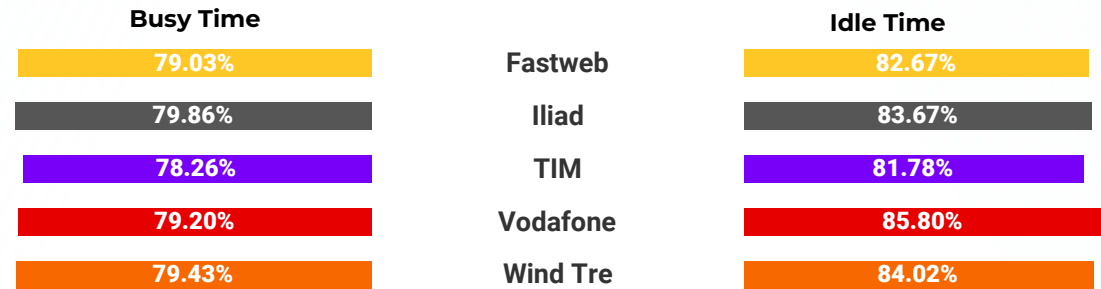
The subscribers of Vodafone enjoyed the best mobile Internet Streaming performance in 2023.

Streaming Performance results ventilation (average)



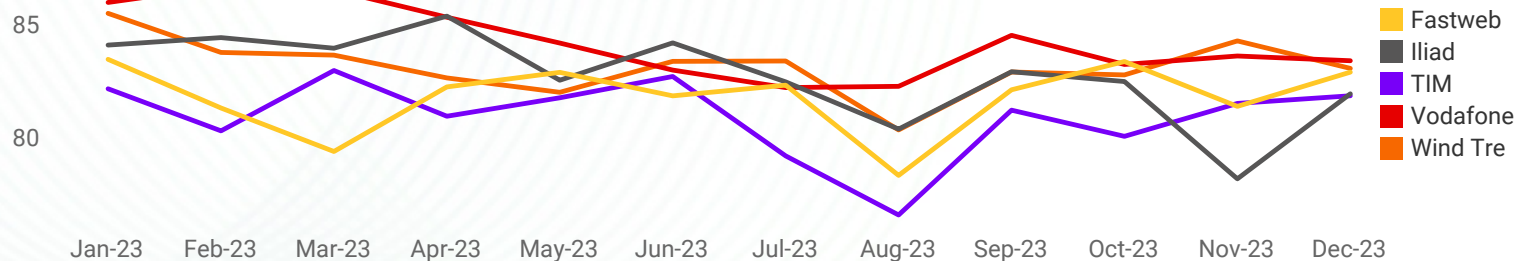
Source : nperf.com

Streaming Performance rate (average)



Source : nperf.com

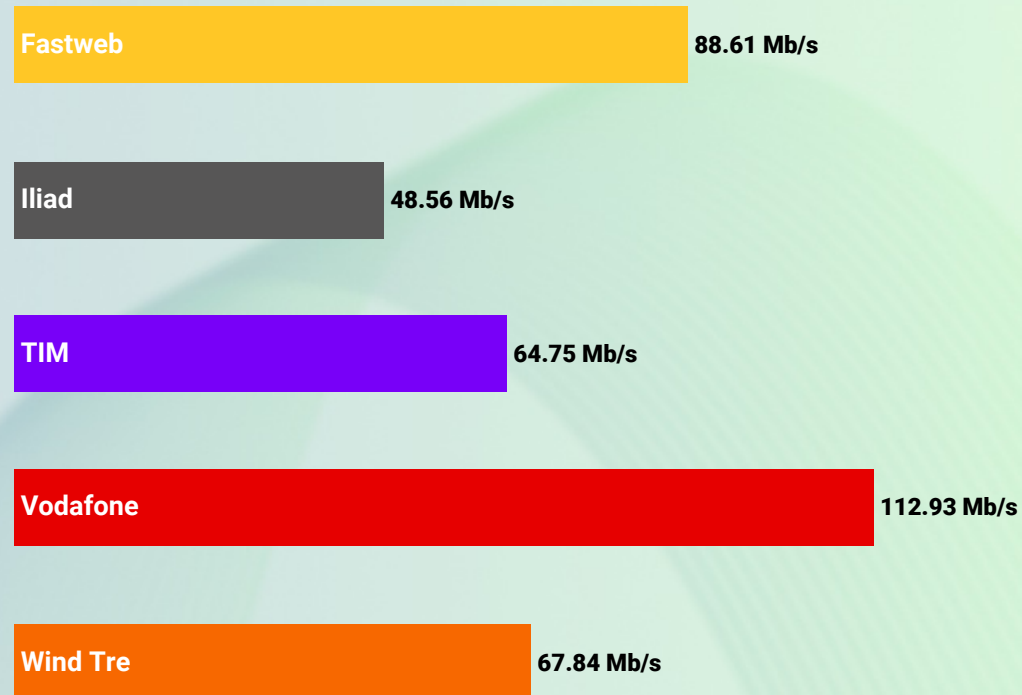
Streaming performance rate (average) evolution over the year



Source : nperf.com



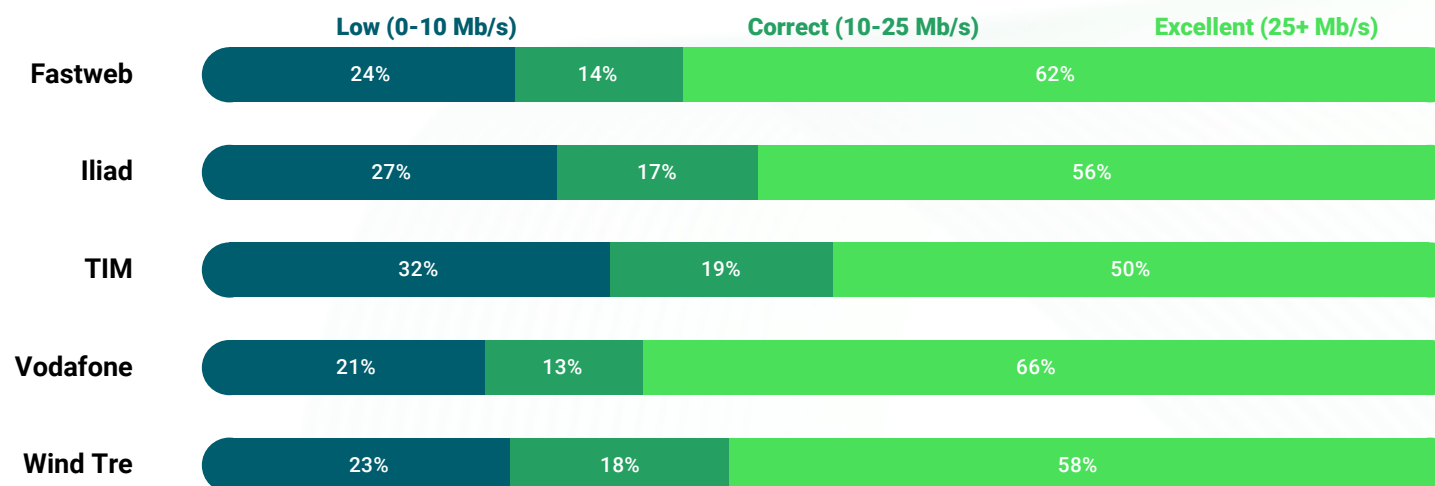
Download Speed (average)



Source : nperf.com

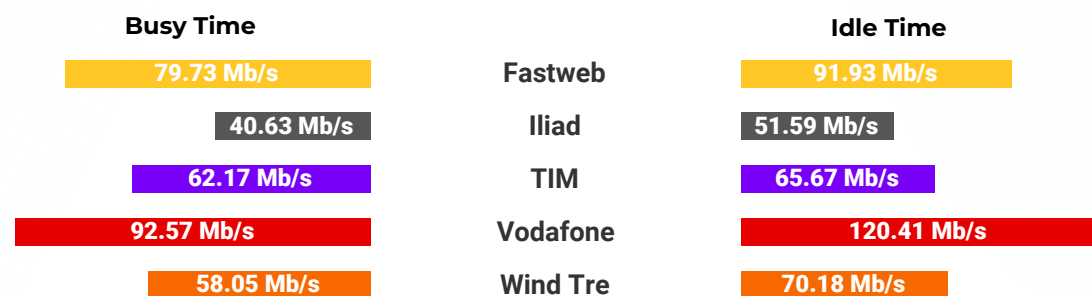
The subscribers of Vodafone enjoyed the best average mobile Internet download speed in 2023.

Download Speed results ventilation (average)



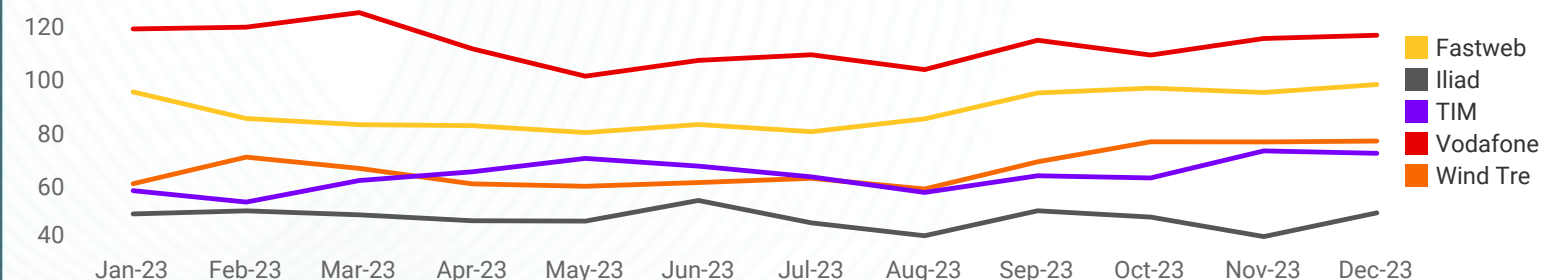
Source : nperf.com

Download Speed (average)



Source : nperf.com

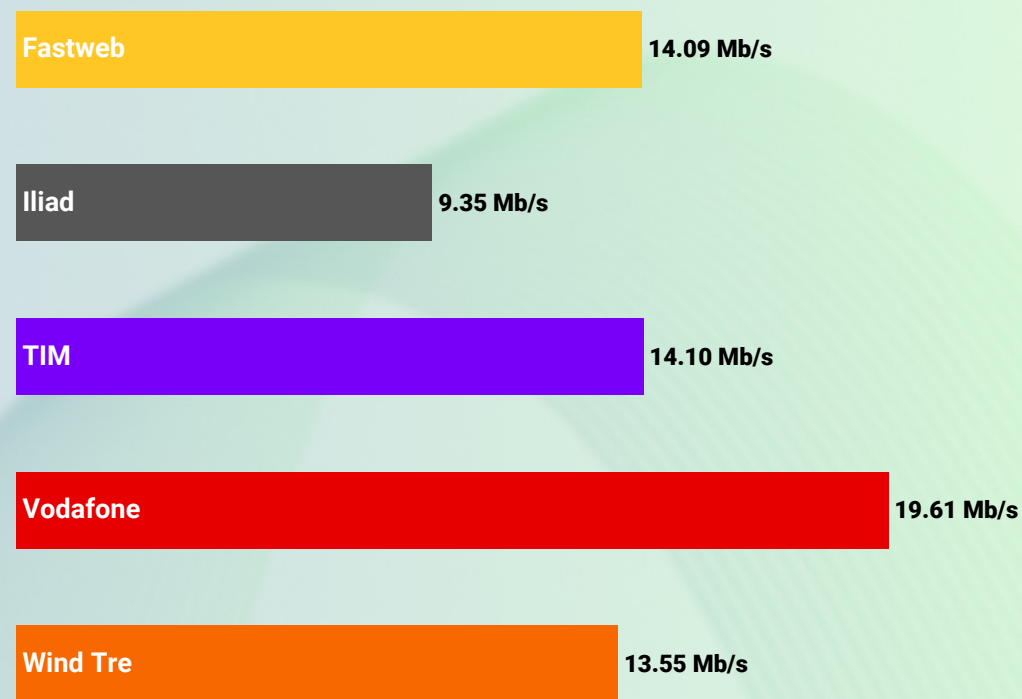
Download Speed evolution over the year (average)



Source : nperf.com



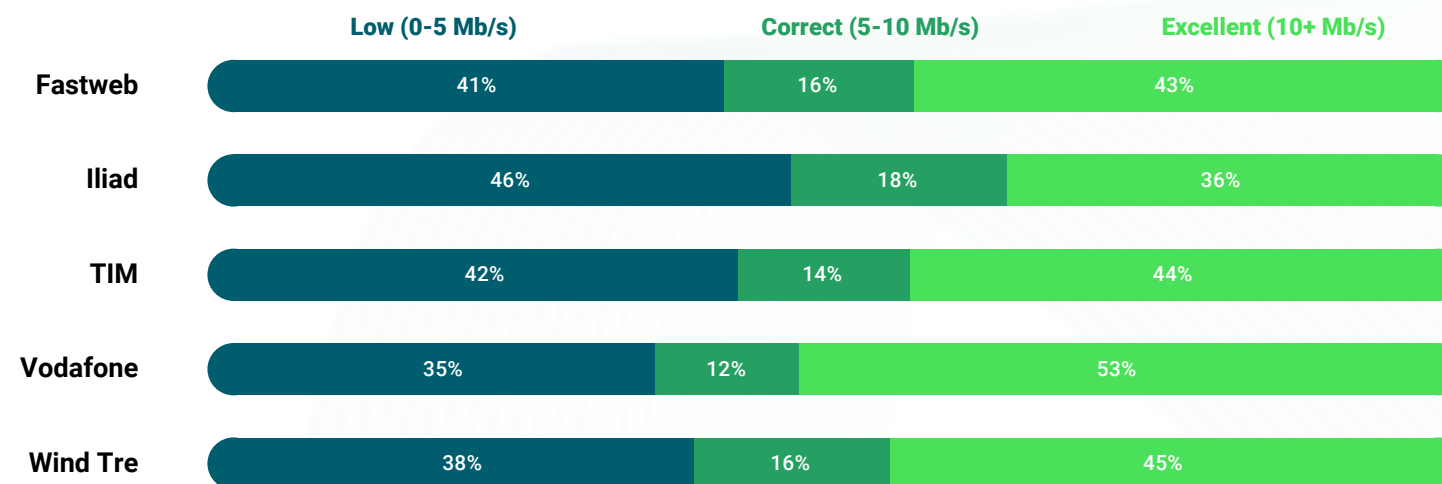
Upload Speed (average)



Source : nperf.com

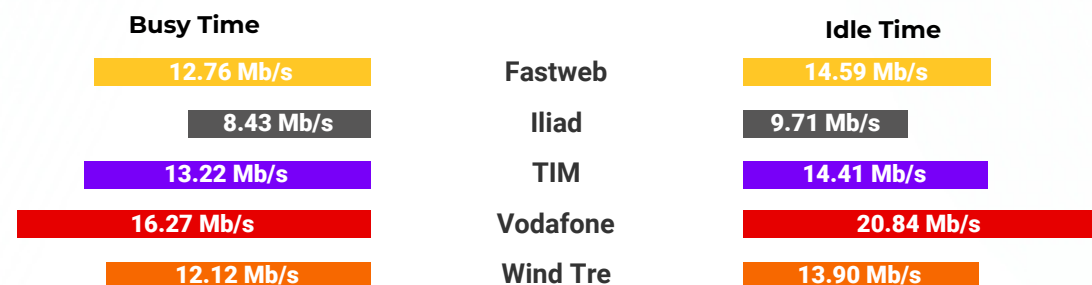
The subscribers of Vodafone enjoyed the best average mobile Internet upload speed in 2023.

Upload Speed results ventilation (average)



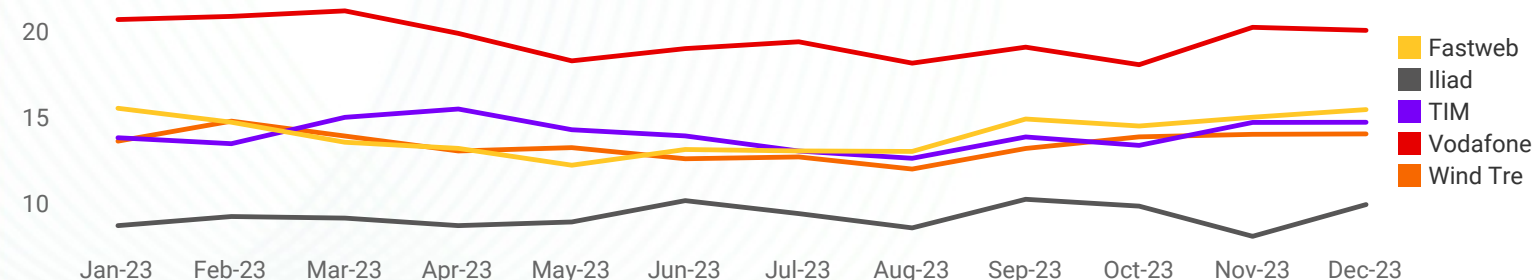
Source : nperf.com

Upload Speed (average)



Source : nperf.com

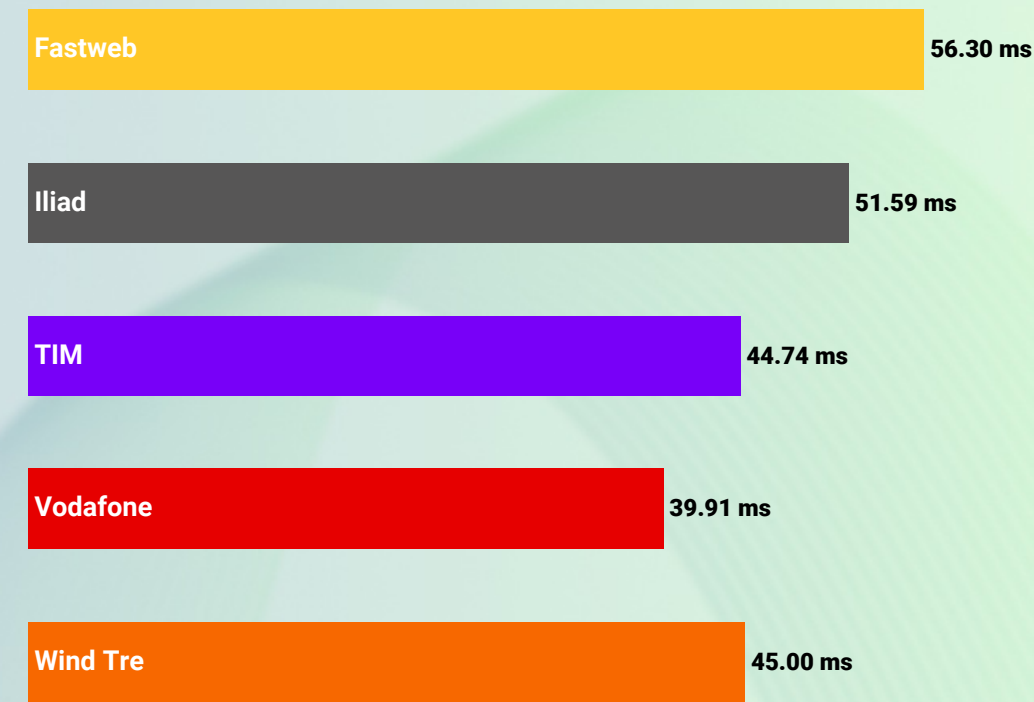
Upload Speed evolution over the year (average)



Source : nperf.com



Latency Speed (average)



Source : nperf.com

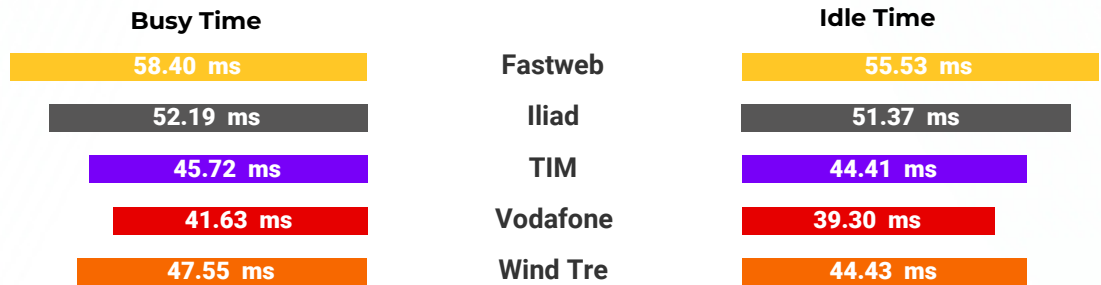
The subscribers of Vodafone enjoyed the best average mobile Internet latency speed in 2023.

Latency Speed results ventilation (average)



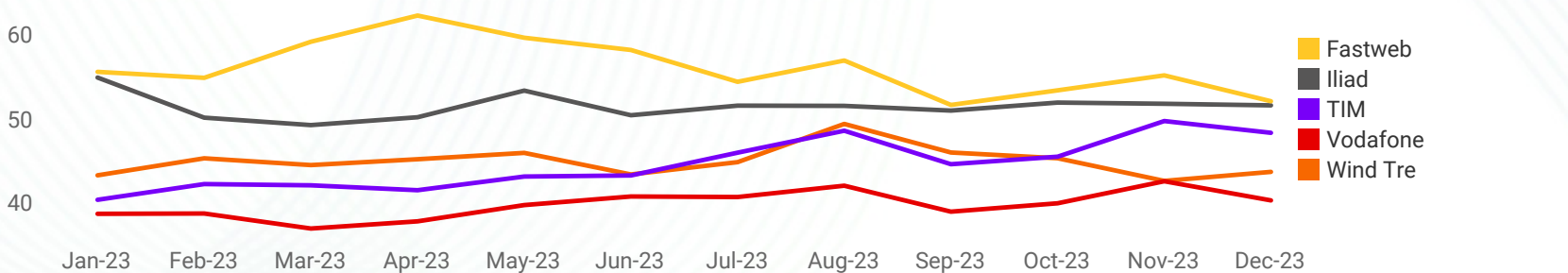
Source : nperf.com

Latency Speed (average)



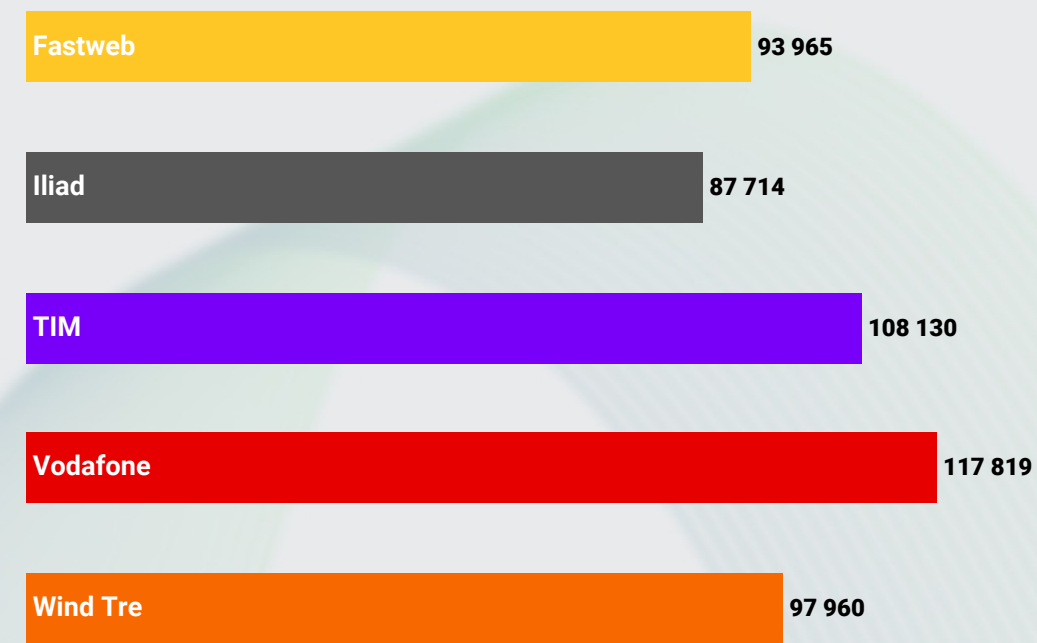
Source : nperf.com

Latency Speed evolution over the year (average)



Source : nperf.com

5G nPerf score (average)

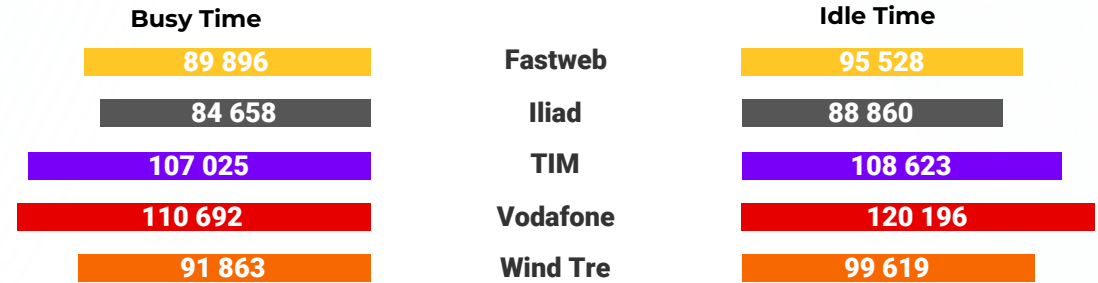


Source : nperf.com

The subscribers of Vodafone enjoyed the best 5G mobile connections in Italia during 2023.

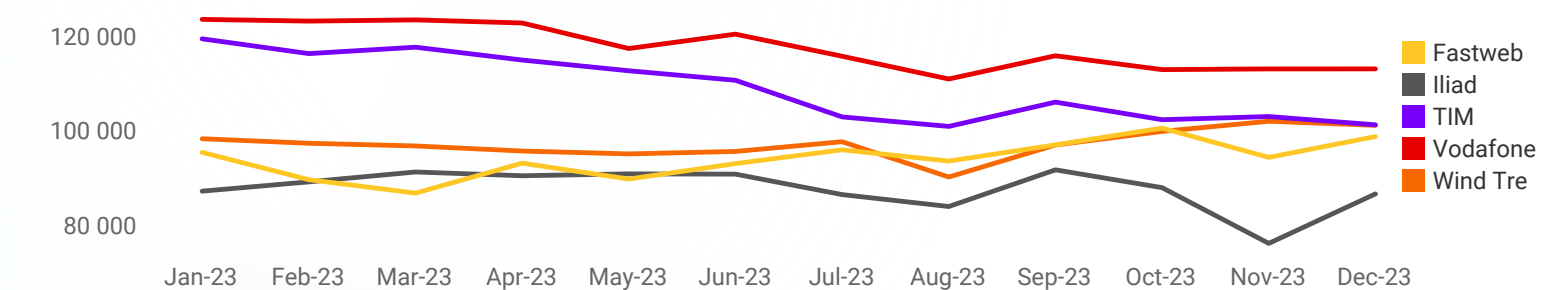
Source : nperf.com

5G nPerf score (average)



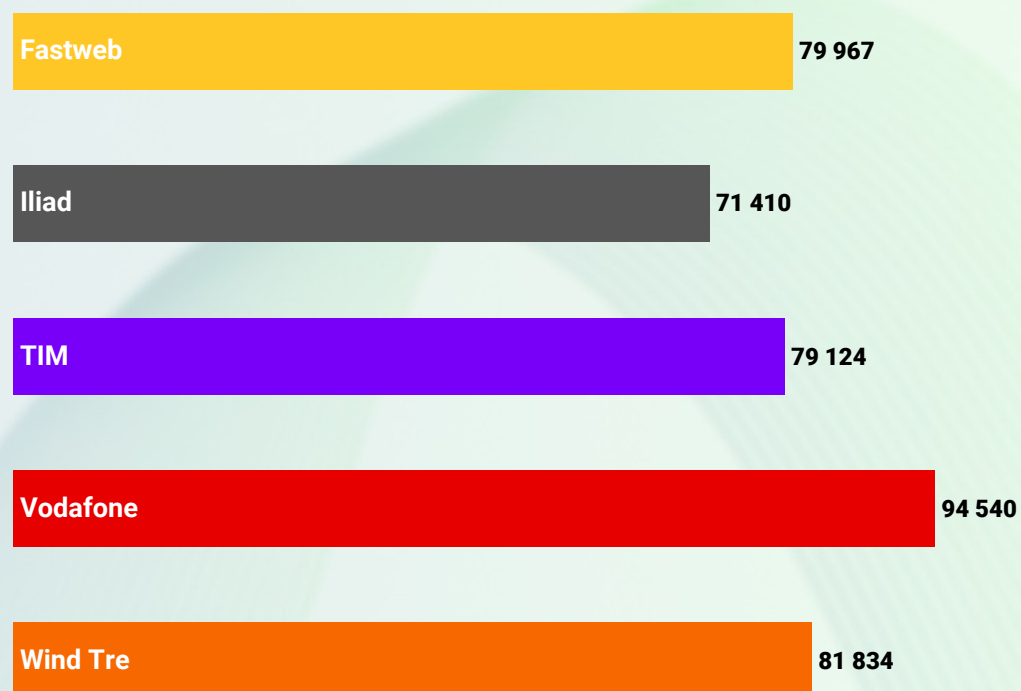
Source : nperf.com

nPerf score evolution over the year (average)



Source : nperf.com

nPerf Score (nPoints)



Source : nperf.com

The subscribers of Vodafone enjoyed the best mobile Internet performances in Italia during 2023.

The nperf score takes into account the measured bitrates, the latency and the Qoe tests. The value of the points for the rates and the latency is calculated on a logarithmic scale, to better represent the perception of the user.

Thus, this score reflects the overall quality of the connection experienced by the user.

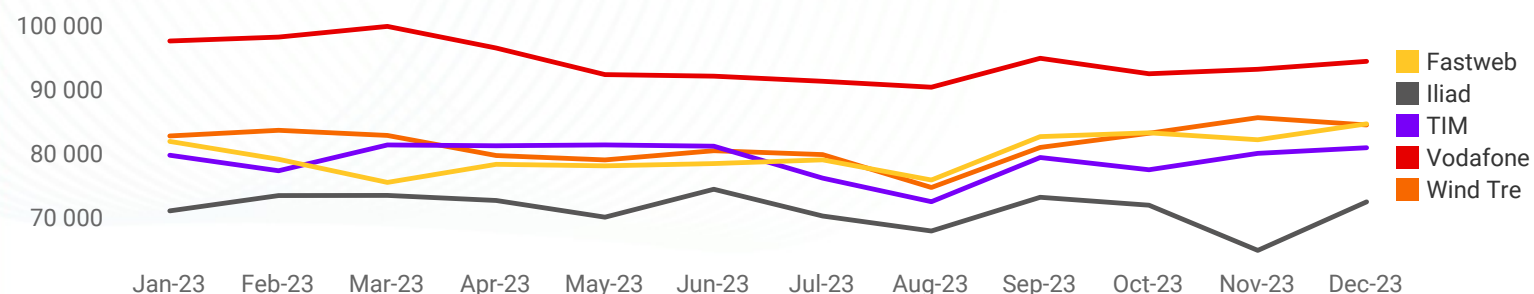
Source : nperf.com

Best mobile Internet performance in 2023



Source : nperf.com

nPerf score evolution over the year (average)



Source : nperf.com

