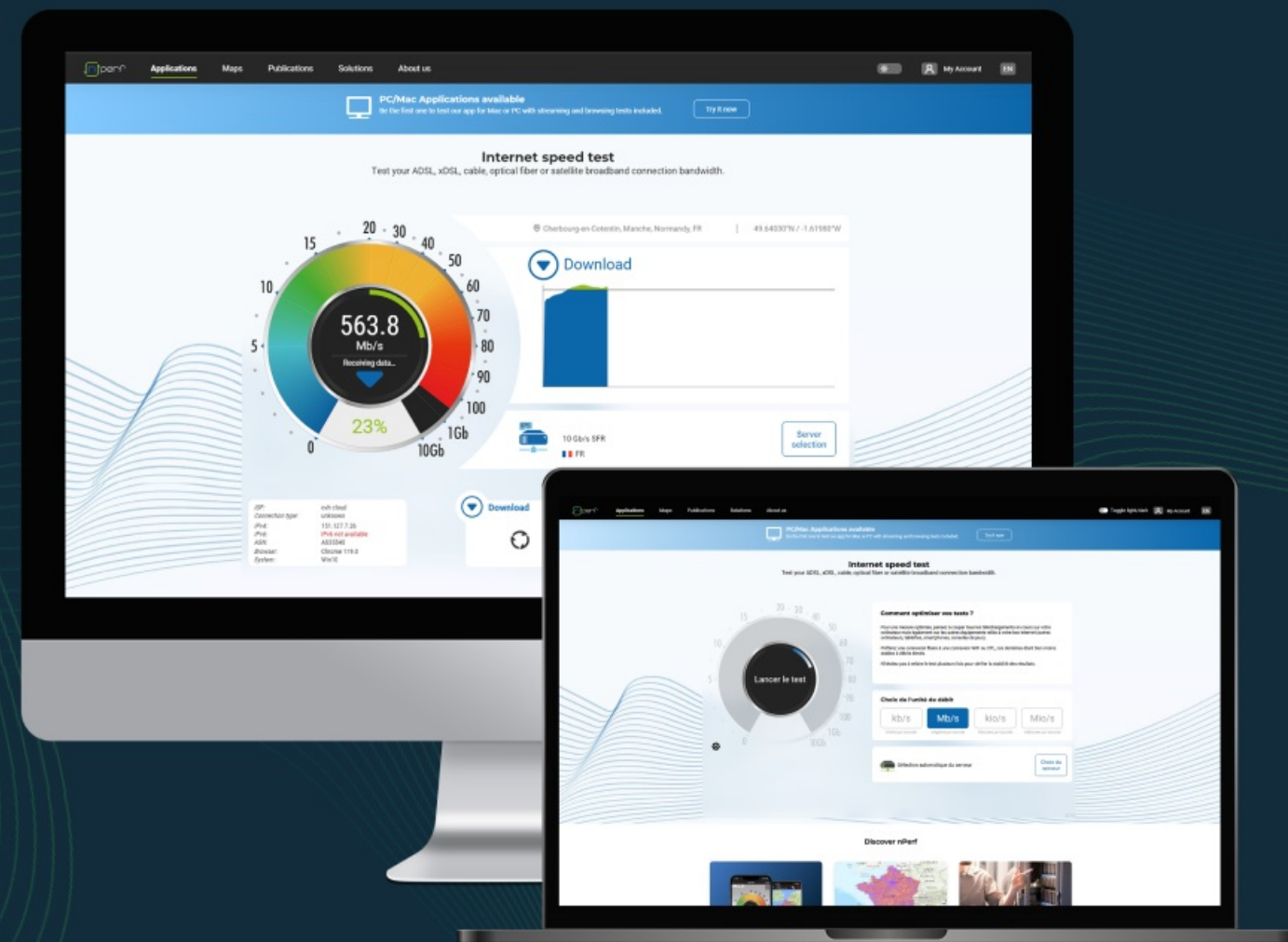




Barometer of fixed Internet Connections in Estonia.

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.

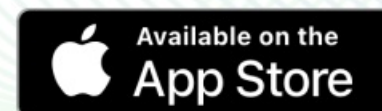
 **300k+** tests daily worldwide.

 **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!
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2. Executive Summary



The subscribers of Infonet enjoyed the best broadband performances in Estonia during 2023.

Fixed Internet connections in Estonia

	Elisa	Infonet	Tele2	Telia
▼ Download bitrates (Mb/s)	89.38	88.41	42.48	78.04
▲ Upload bitrates (Mb/s)	38.78	84.42	19.07	49.28
◀▶ Latency (ms)	39.69	16.20	72.93	33.25
🌐 Web browsing (%)	65.60	67.82	57.15	64.27
📺 Youtube streaming (%)	87.71	94.15	82.26	84.20
nPerf Score (nPoints)	92 379	115 725	65 637	91 700

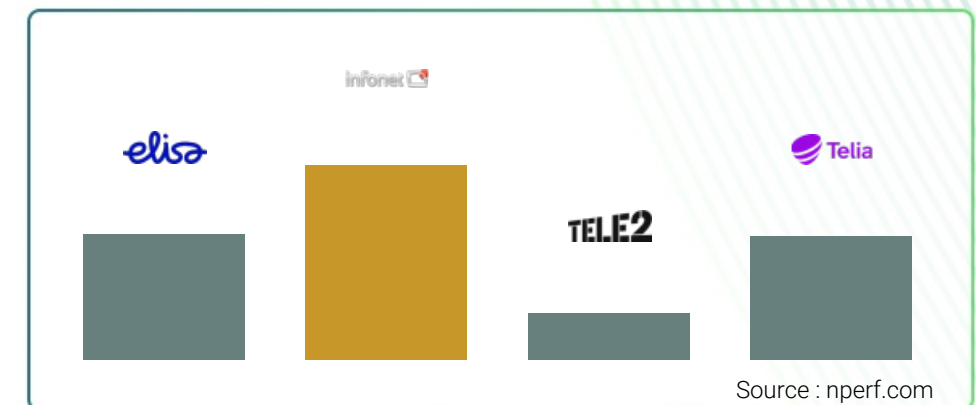
Source : nperf.com



Best fixed Internet performance in 2023



Source : nperf.com



Source : nperf.com

Estonia's fixed Internet market is characterized by its dynamic competitive landscape, where Internet Service Providers (ISPs) are closely evaluated based on key performance indicators such as download and upload bitrates, latency, web browsing success rates, YouTube streaming performance, and overall nPerf scores. These metrics are instrumental in assessing the ISPs' capability to deliver high-quality and reliable Internet services.

Infonet: Undisputed leader with exceptional connectivity

Infonet stands out in the Estonian fixed Internet market with an impressive nPerf score of 115,725 nPoints, highlighting its superior quality of service.

The ISP offers an excellent download bitrate of 88.41 Mb/s, coupled with an exceptional upload bitrate of 84.42 Mb/s, which is particularly beneficial for download-intensive activities like online gaming, online, video conferencing and content creation. With a remarkably low latency of 16.2ms, Infonet ensures a seamless and responsive online experience. The ISP also excels in web browsing and YouTube streaming, with success rates of 67.82% and 94.15% respectively, demonstrating its commitment to providing an optimal Internet experience.

Elisa: A robust competitor with balanced services

Elisa offers a robust service offering with a download speed of 89.38 Mb/s and an upstream speed of 38.78 Mb/s. The ISP latency of 39.69 ms allows for a smooth Internet experience, complemented by a rate of web browsing success of 65.6% and YouTube streaming performance of 87.71%. With an nPerf score of 92,379 nPoints, Elisa demonstrates its strong position in the market, effectively meeting a wide range of Internet usage needs.

Telia: A desire to stay on the market

Telia maintains a strong presence in the Estonian internet market with a download bitrate of 78.04 Mb/s and an impressive upload bitrate of 49.28 Mb/s. ISP latency stands at 33.25 ms, facilitating a responsive browsing and streaming experience. Telia's web browsing and YouTube streaming success rates are 64.27% and 84.2% respectively, indicating reliable service delivery. An nPerf score of 91,700 nPoints highlights Telia's commitment to quality and customer satisfaction.

Tele2: Room for Improvement

Tele2, while trailing behind the leading ISPs in terms of speed and efficiency, still offers essential internet services with a download bitrate of 42.48 Mb/s and an upload speed of 19.07 Mb/s. The ISP's higher latency of 72.93 ms may affect real-time applications, reflected in its lower web browsing and YouTube streaming success rates of 57.15% and 82.26% respectively. With an nPerf score of 65,637 nPoints, Tele2 has potential areas for enhancement to better compete in the market.

Conclusion

Analysis of the Estonian fixed Internet market highlights the leadership of Infonet, which stands out with its exceptional download speeds, low latency and superior streaming performance. Elisa and Telia offer competitive and reliable services, targeting a wide range of Internet users with their balanced performance profiles. Tele2, despite lagging behind in some areas, provides fundamental Internet services, which reflects a competitive and diverse market environment.

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 fixed 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 :

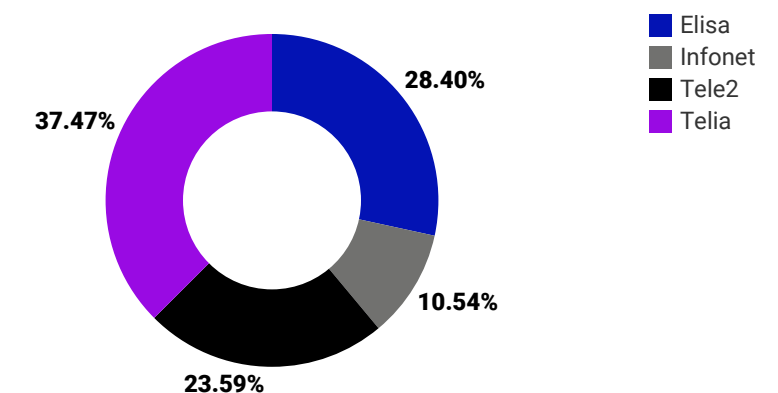
The video streaming test gauges the load time of a fully loaded video in three resolutions on YouTube, considering stalls during playback. This indicator reflects the user's perceived quality of the Internet network.

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 3 % 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.

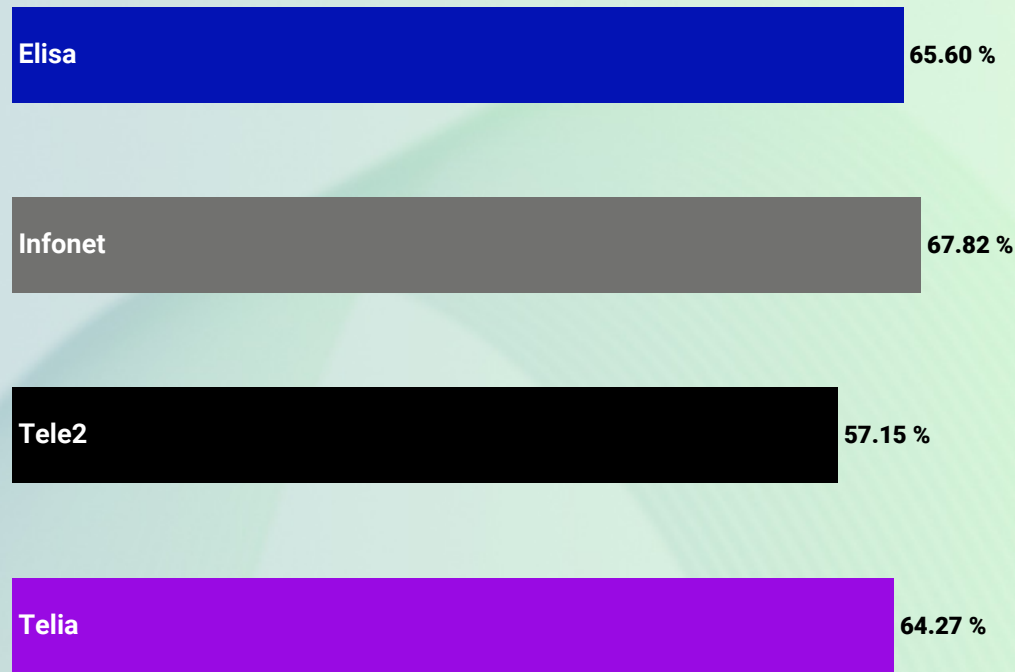
Overall distribution of the tests per provider (ISPs Share)



Source : nperf.com



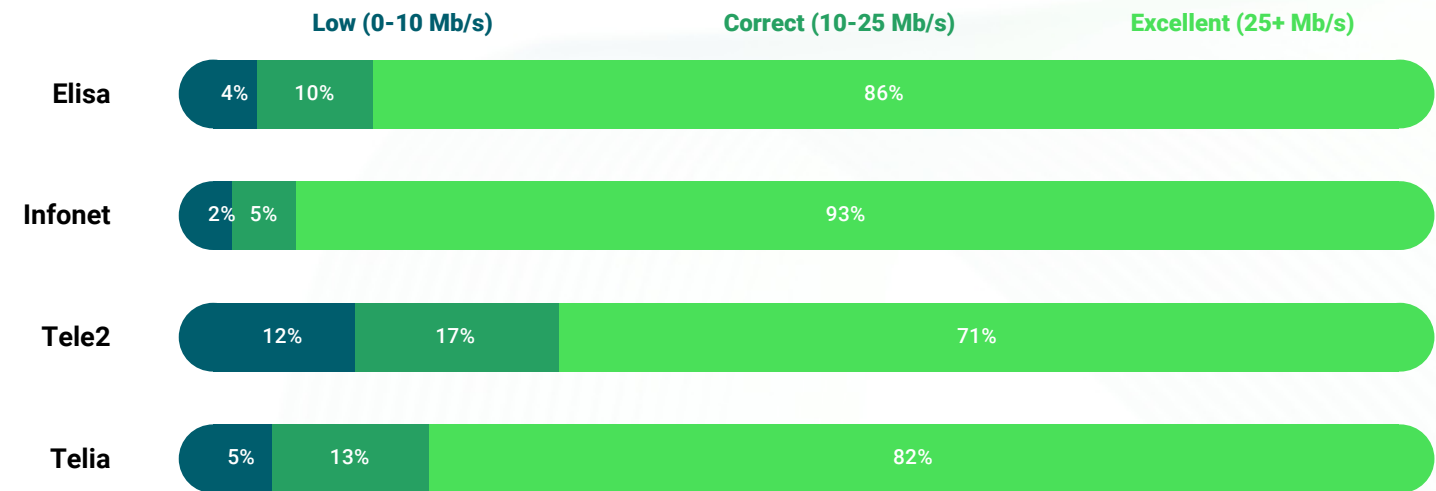
Browsing Performance rate (average)



Source : nperf.com

The subscribers of Infonet enjoyed the best fixed Internet browsing performance in 2023.

Browsing Performance results ventilation (average)



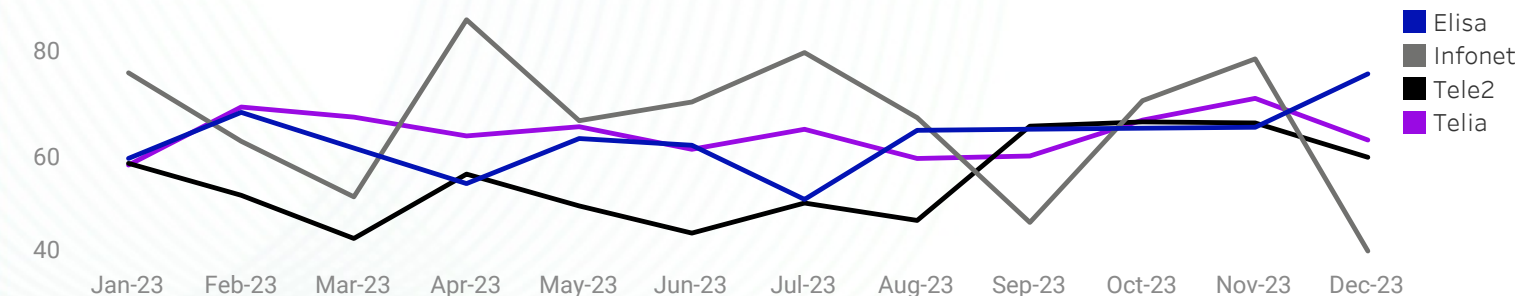
Source : nperf.com

Browsing Performance rate (average)



Source : nperf.com

Browsing performance rate (average) evolution over the year



Source : nperf.com



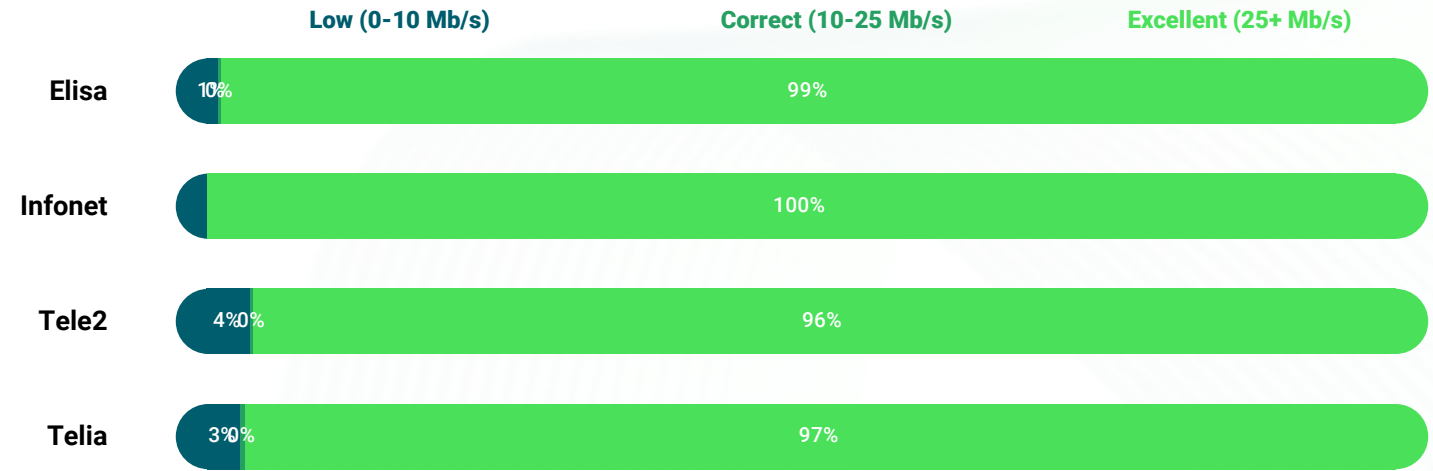
Streaming Performance rate (average)



Source : nperf.com

Pas de leader

Streaming Performance results ventilation (average)



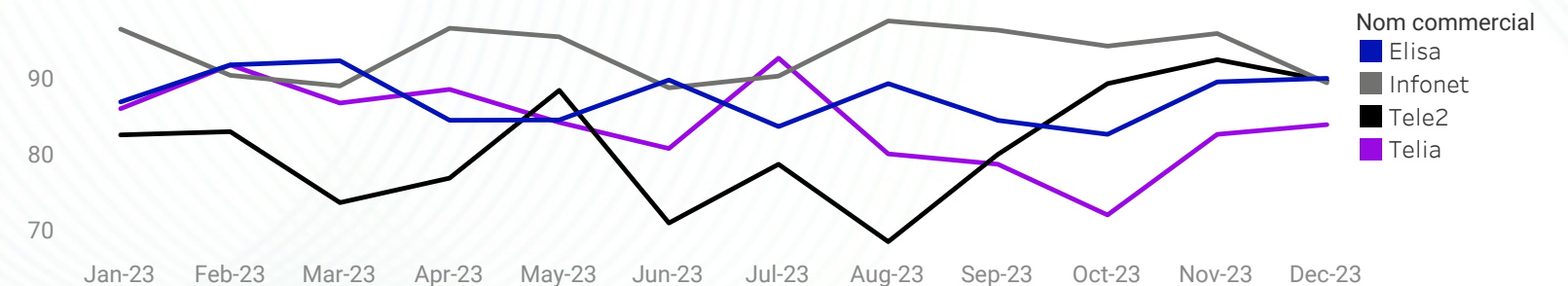
Source : nperf.com

Streaming Performance rate (average)



Source : nperf.com

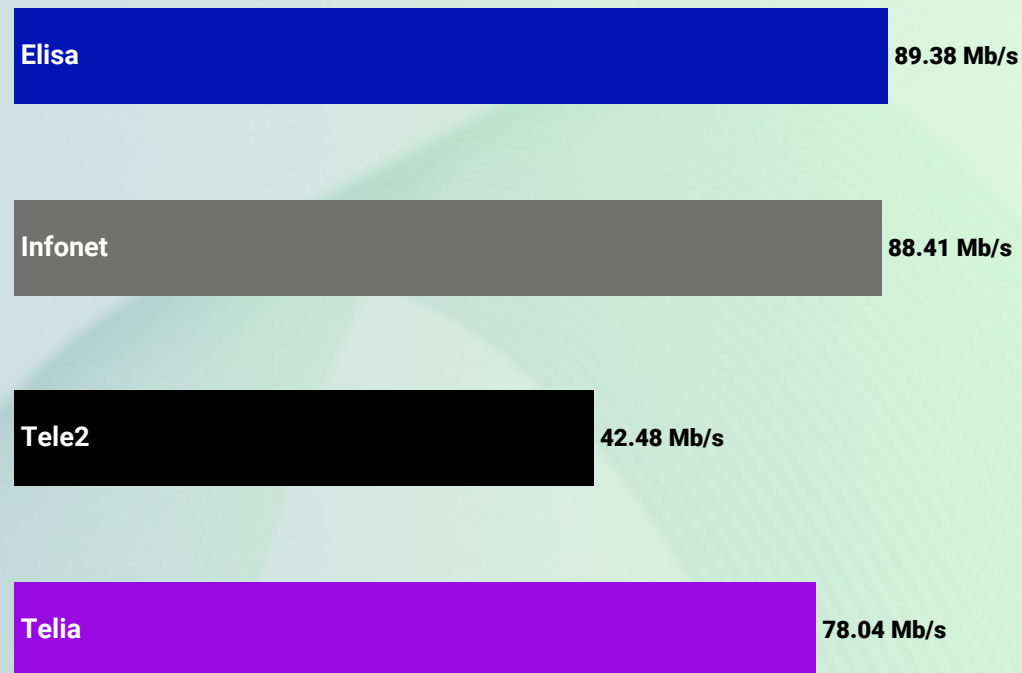
Streaming performance rate (average) evolution over the year



Source : nperf.com



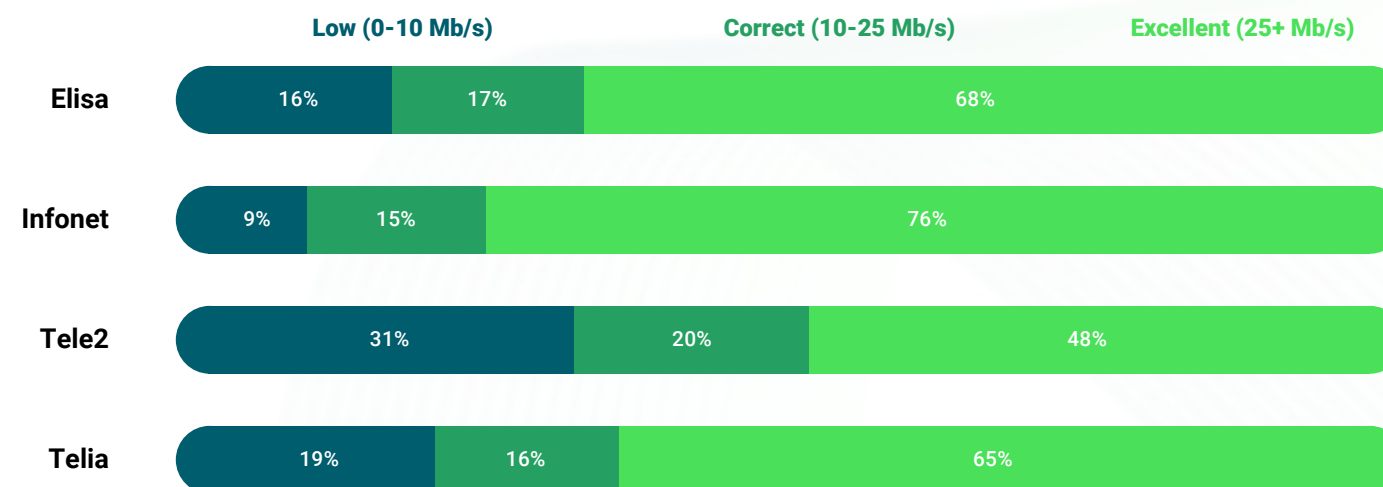
Download Speed (average)



Source : nperf.com

The subscribers of Elisa and Infonet enjoyed the best average broadband download speed in 2023.

Download Speed results ventilation (average)



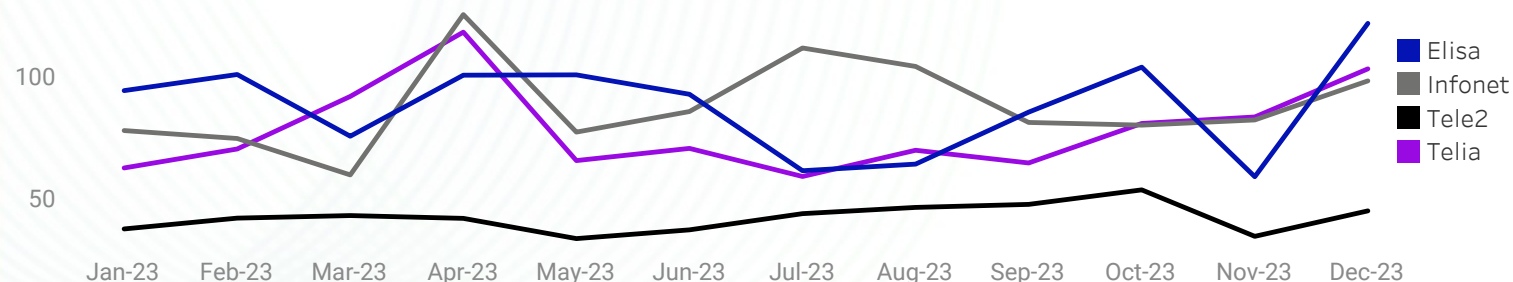
Source : nperf.com

Download Speed (average)



Source : nperf.com

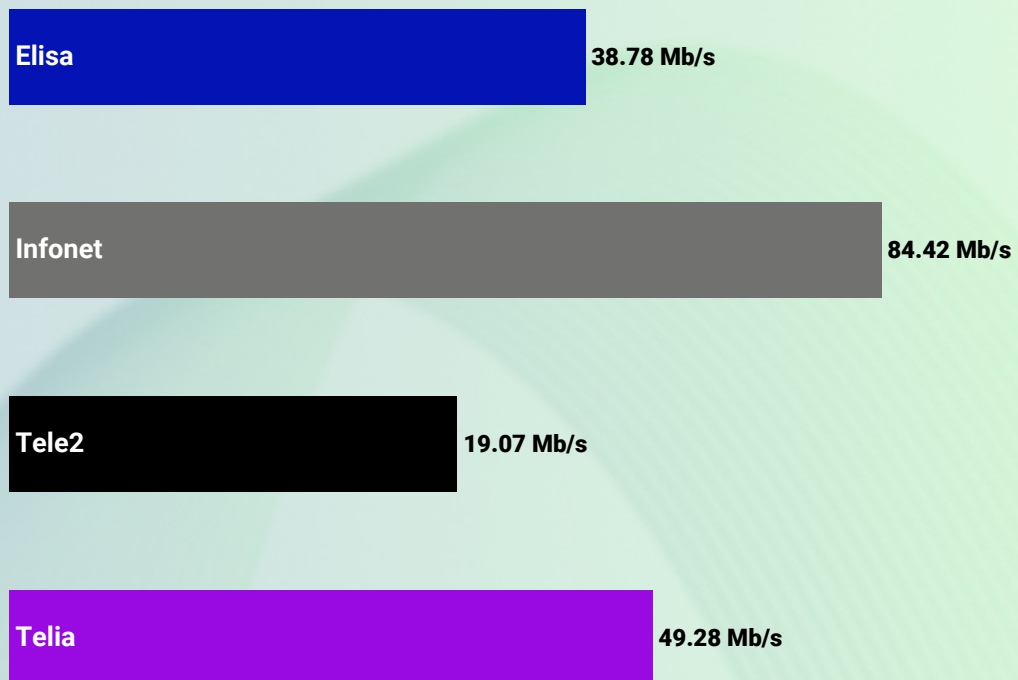
Download Speed evolution over the year (average)



Source : nperf.com



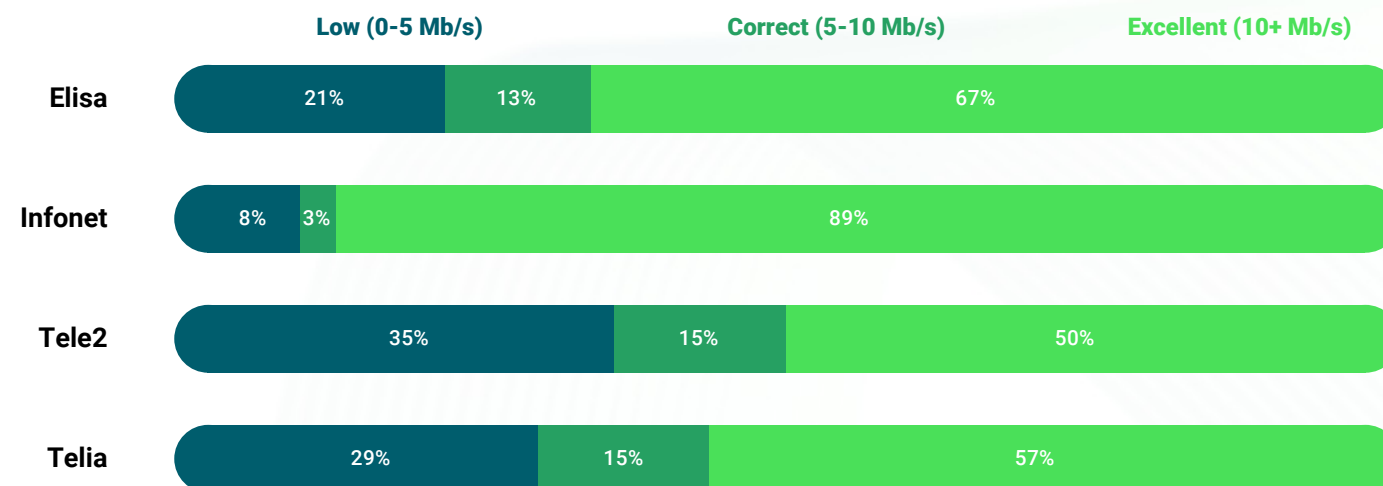
Upload Speed (average)



Source : nperf.com

The subscribers of Infonet enjoyed the best average broadband upload speed in 2023.

Upload Speed results ventilation (average)



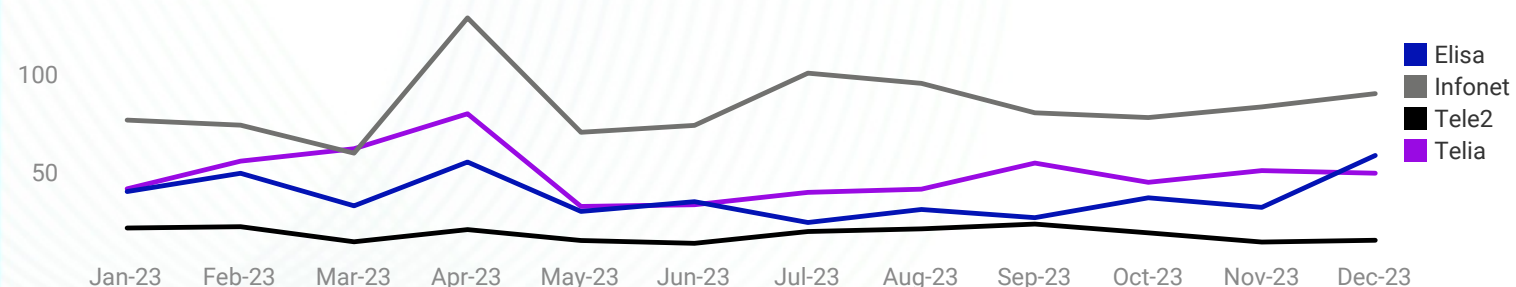
Source : nperf.com

Upload Speed (average)



Source : nperf.com

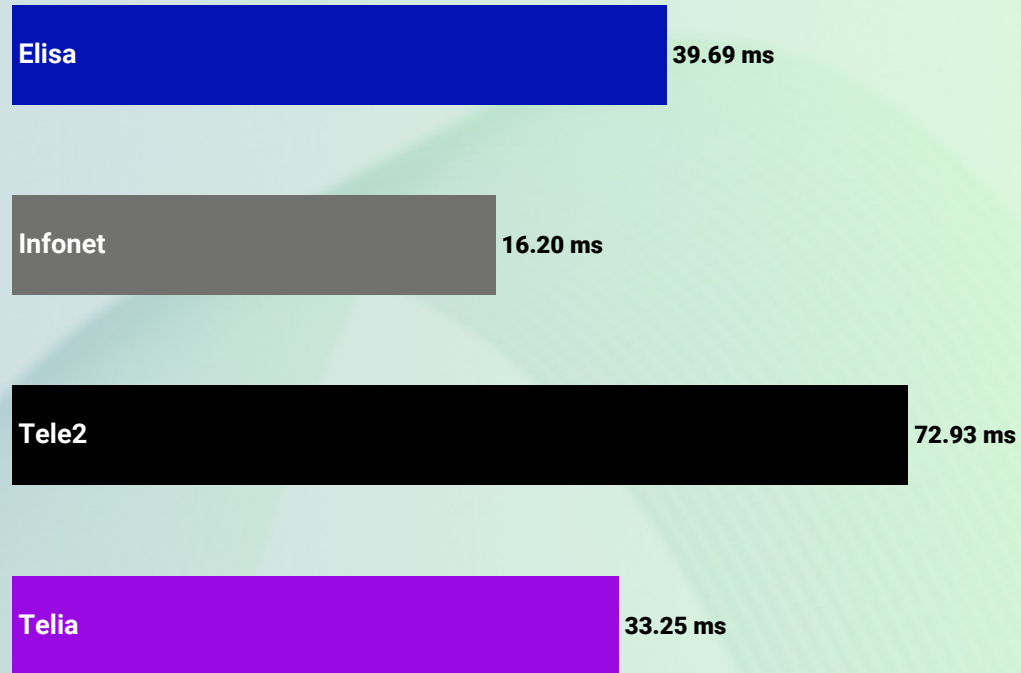
Upload Speed evolution over the year (average)



Source : nperf.com



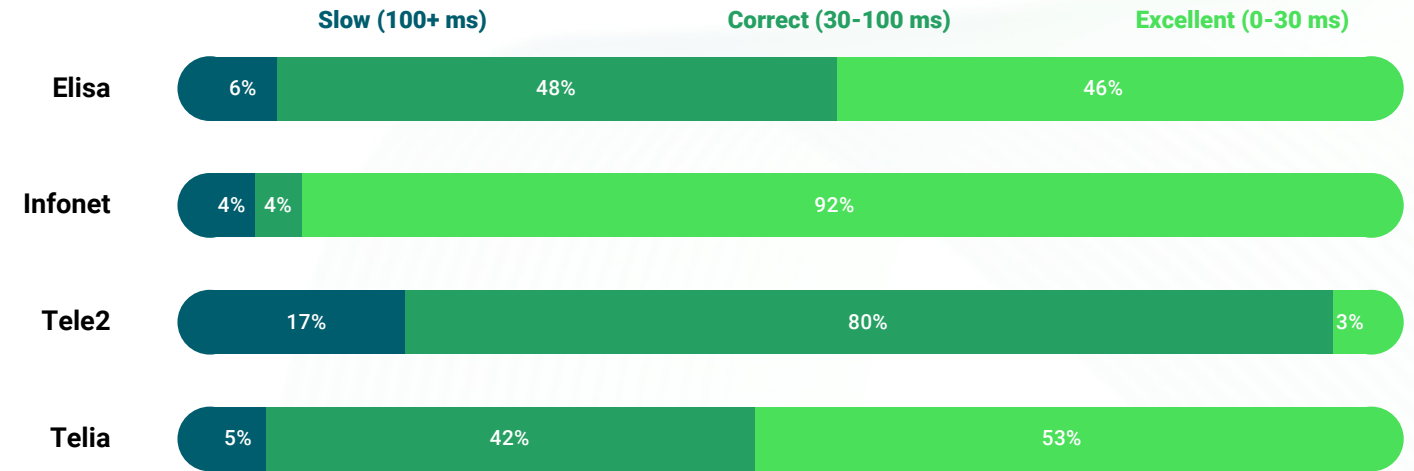
Latency Speed (average)



Source : nperf.com

The subscribers of Infonet enjoyed the best average broadband latency in 2023.

Latency Speed results ventilation (average)



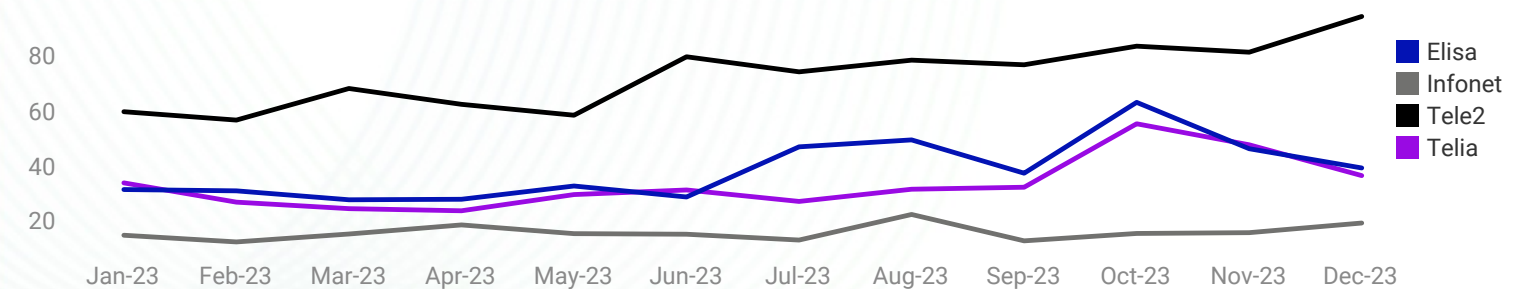
Source : nperf.com

Latency Speed (average)



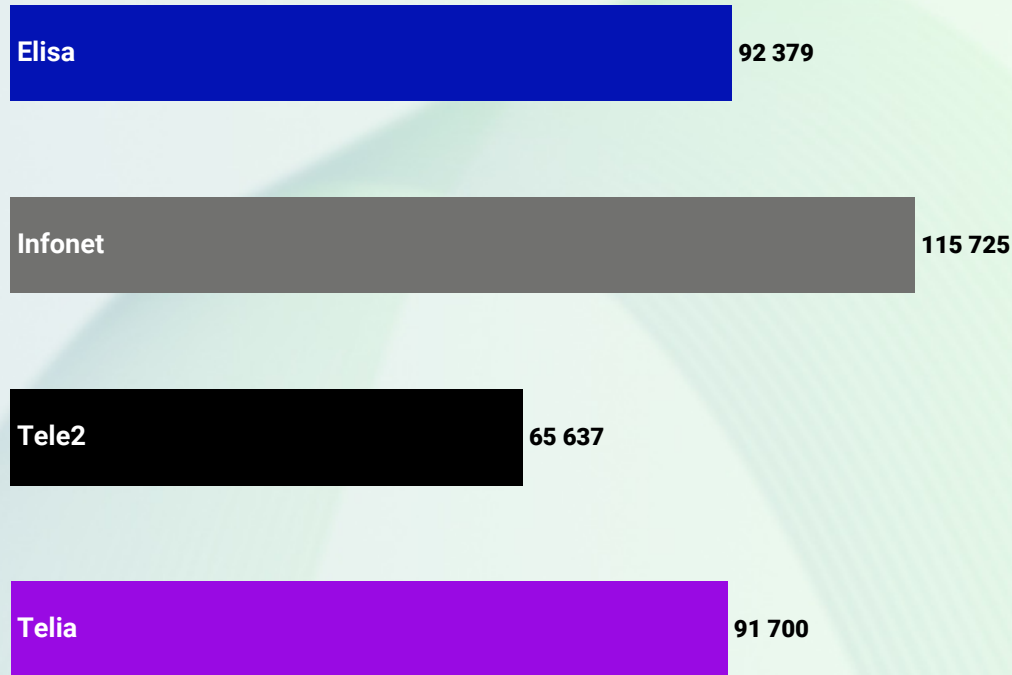
Source : nperf.com

Average latency Speed evolution over the year



Source : nperf.com

nPerf Score (nPoints)



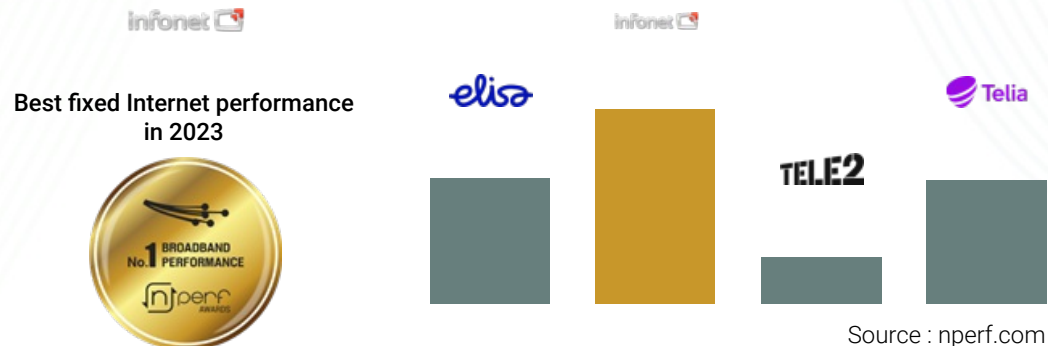
Source : nperf.com

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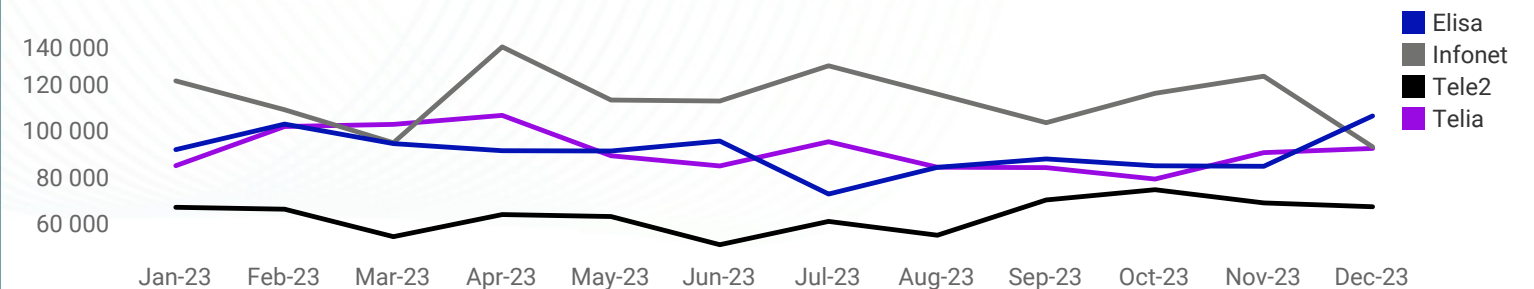
The nperf score takes into account the measured bitrates and the latency. The value of the points for the rates and the latency is calculated on a logarithmic scale, to better represent the perception of the user.

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

Source : nperf.com



nPerf score evolution over the year (average)



Source : nperf.com



We qualify your connection