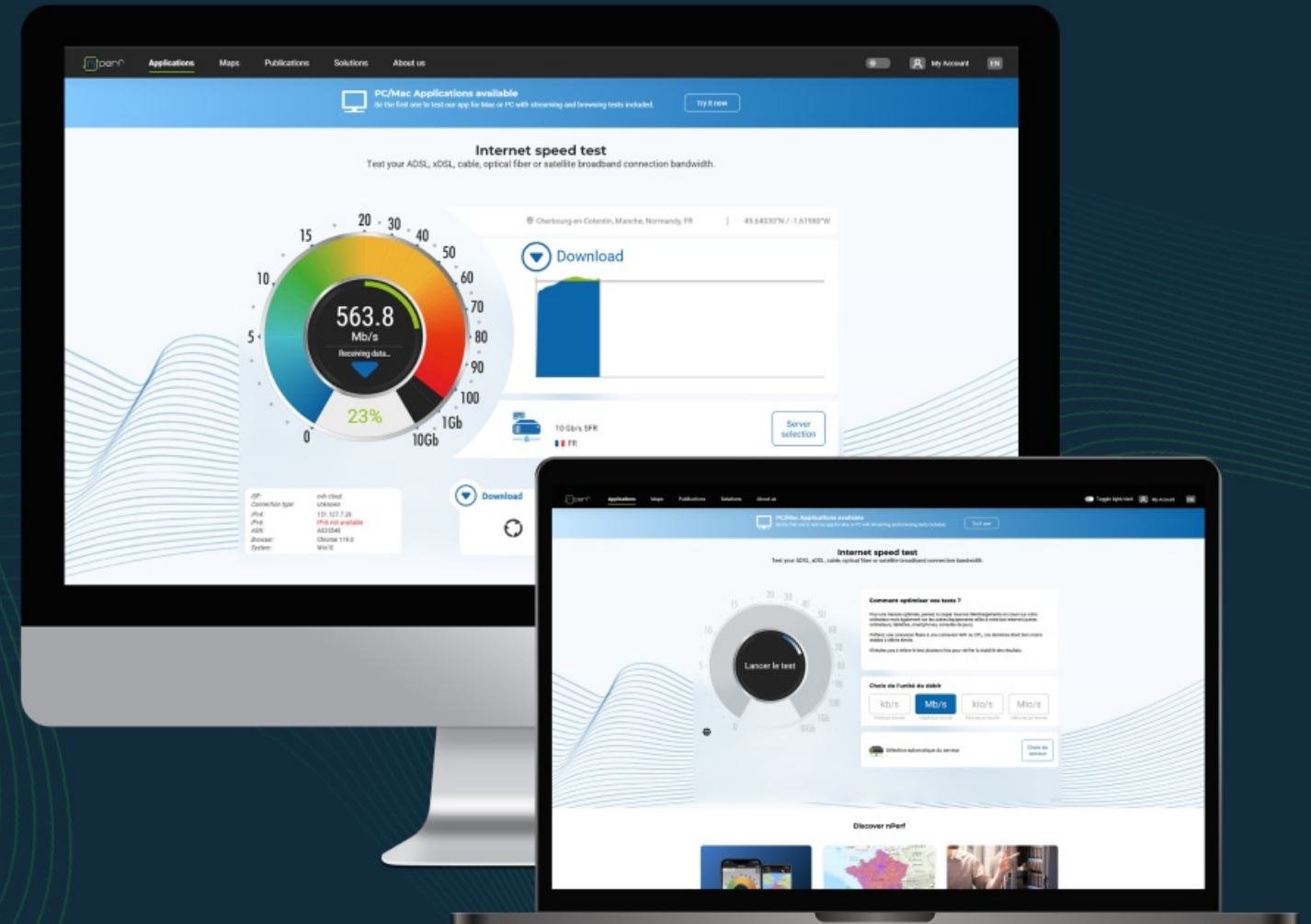


February 16, 2024



Barometer of fixed Internet Connections in Norway.

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.



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worldwide.



26Md+ coverage
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2. Executive Summary



The subscribers of Eninvest enjoyed the best broadband performances in Norway during 2023.

Fixed Internet connections in Norway

	Altibox	Eninvest	Global Connect	Telenor	Telia
▼ Download bitrates (Mb/s)	151.67	155.96	135.58	115.85	121.18
▲ Upload bitrates (Mb/s)	154.04	157.94	116.71	89.76	62.20
◀▶ Latency (ms)	33.72	9.48	67.46	99.38	38.05

nPerf Score (nPoints)	123 407	135 590	112 004	99 684	105 841
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Source : nperf.com



Best fixed Internet performance
in 2023



Source : nperf.com



Source : nperf.com

The Norwegian fixed broadband market showcases diverse performances among key Internet Service Providers (ISPs), with notable distinctions in download and upload speeds, latency, and overall service scores. Enivest leads the pack with the highest download and upload speeds, followed by Altibox, which also shows strong performance across metrics. Global Connect, Telenor, and Telia present varied results, with certain areas requiring improvement to enhance competitive standing.

Leading the pack: Enivest's superior speed and low latency

Enivest stands out with the highest download speed at 156 Mb/s and an upload speed of 158 Mb/s, combined with an exceptionally low latency of 9.48 ms. These top-tier results contribute to its high overall score of 135,590 nPoints, positioning Enivest as a leader in the Norwegian market, particularly appealing to customers with high bandwidth and low latency needs.

Altibox: high performance with symmetrical speed excellence

Altibox offers competitive download and upload speeds of 152 Mb/s and 154 Mb/s, respectively, with a moderate latency of 33.72 ms. Its overall score of 123,407 nPoints reflects strong performance, particularly in symmetrical speed delivery, making it a preferred choice for both regular and demanding internet users.

Global Connect: steady performer with room for growth

Global Connect shows a balanced performance with a download speed of 136 Mb/s and an upload speed of 117 Mb/s. However, its higher latency of 67.46 ms and a score of 112,004 nPoints indicate areas for improvement, especially in reducing latency to enhance user experience.

Telia: reliable service with potential for speed enhancement

Telia presents a mixed picture with a download speed of 121 Mb/s, but a relatively low upload speed of 62 Mb/s, paired with a latency of 38.05 ms. Its overall score of 105,841 nPoints suggests that while it offers reliable service, there is considerable scope for improving upload speeds and reducing latency.

Telenor: navigating challenges to enhance connectivity

Telenor has room for enhancement, with a download speed of 116 Mb/s and an upload speed of 90 Mb/s. The high latency of 99.38 ms further impacts its user experience, reflected in its lower score of 99,684 nPoints. Focusing on network improvements could significantly boost Telenor's market position.

Conclusion

The Norwegian fixed broadband market is characterized by a competitive landscape where high-speed internet and low latency are increasingly becoming table stakes. Enivest's leadership in both speed and latency sets a high benchmark for quality of service. Altibox's strong symmetrical speeds indicate a focus on serving the needs of content creators and businesses alongside regular consumers.

Global Connect, Telenor, and Telia, while offering respectable services, need to focus on specific areas such as latency reduction and upload speed improvement to enhance their value proposition.

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) :

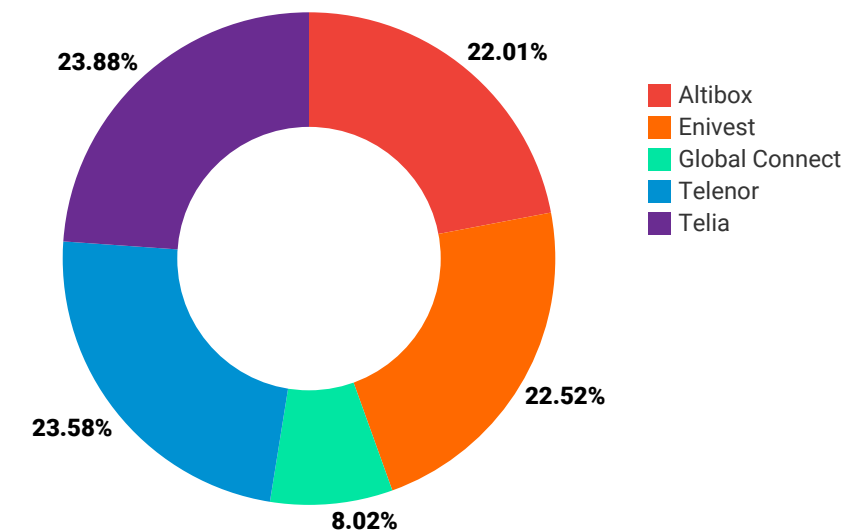
It indicated the delay a small packet of data requires to make a round-trip from your computer to the nPerf server. The shorter the delay, the most reactive your connection is. The main is the minimum value.

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 and regional Internet service providers with test share above 5% share. The chart below shows the overall test distribution for each service provider.

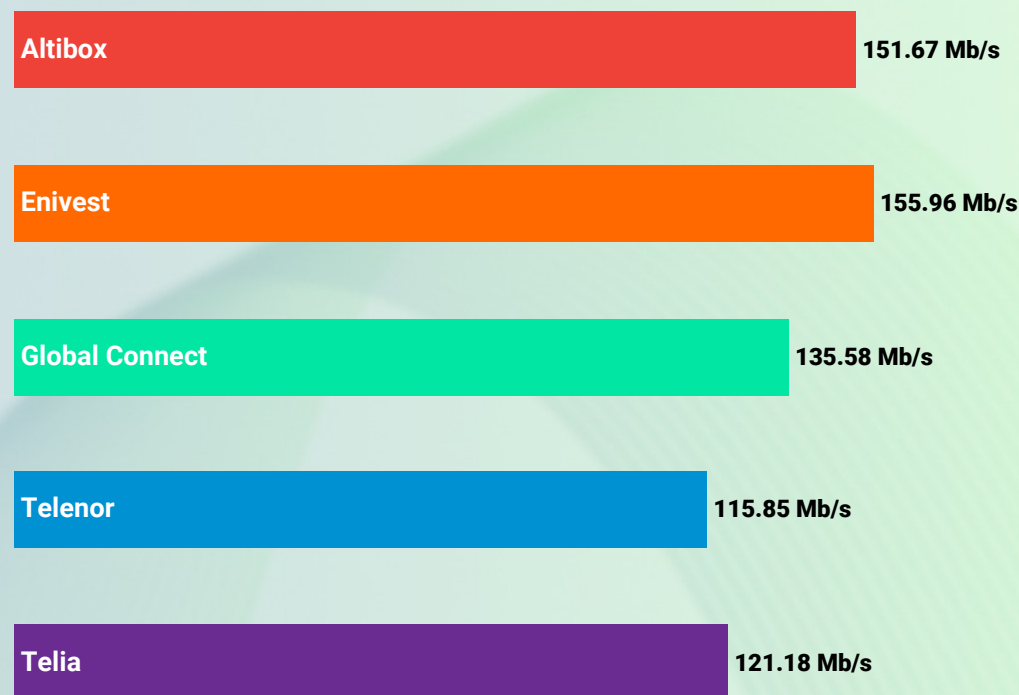
Overall distribution of the tests per provider (ISPs Share)



Source : nperf.com



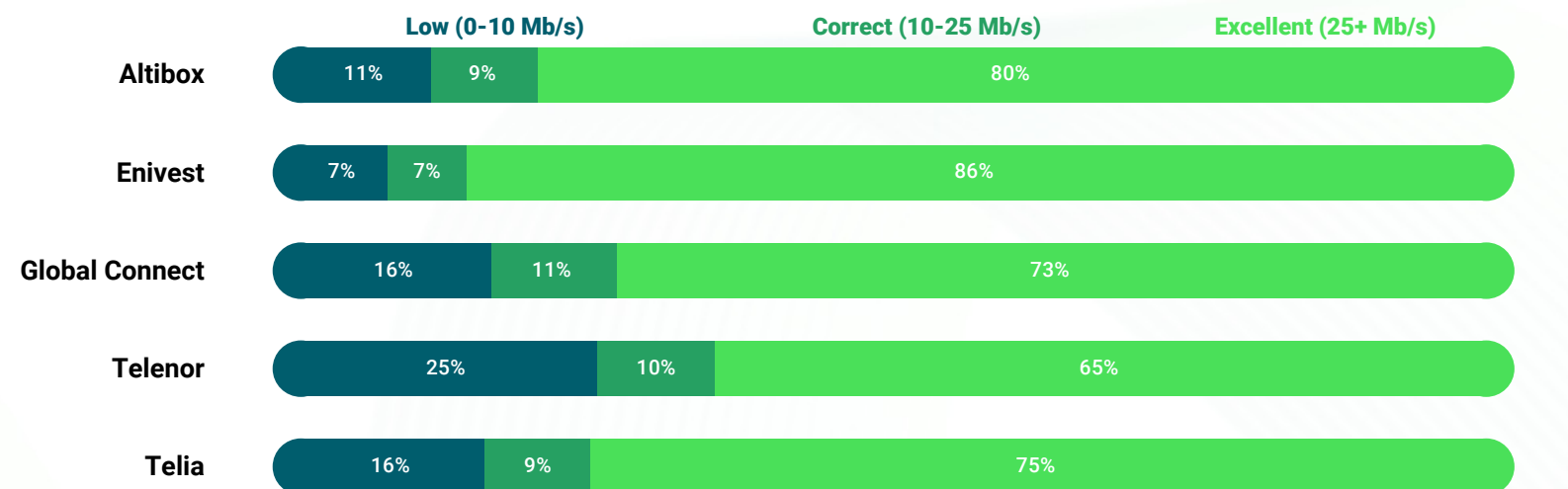
Download Speed (average)



Source : nperf.com

The subscribers of Eninvest and Altibox enjoyed the best average broadband download speed in 2023.

Download Speed results ventilation (average)



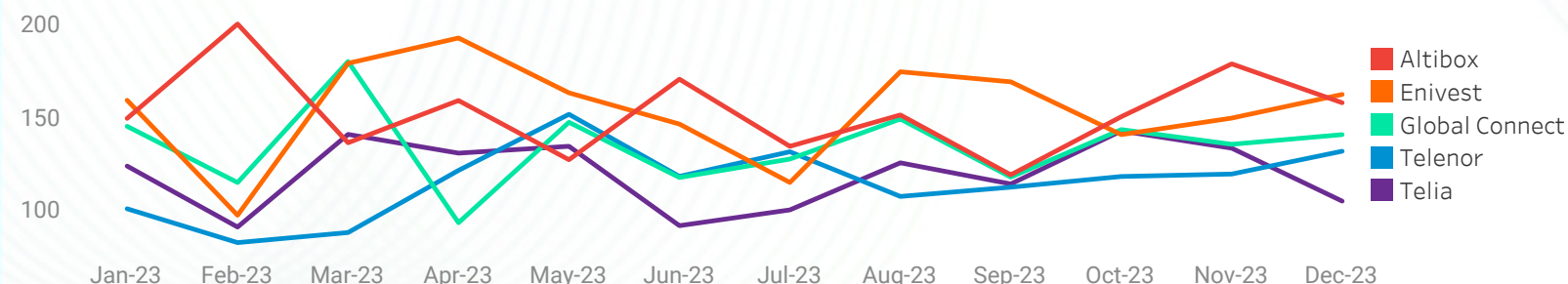
Source : nperf.com

Download Speed (average)



Source : nperf.com

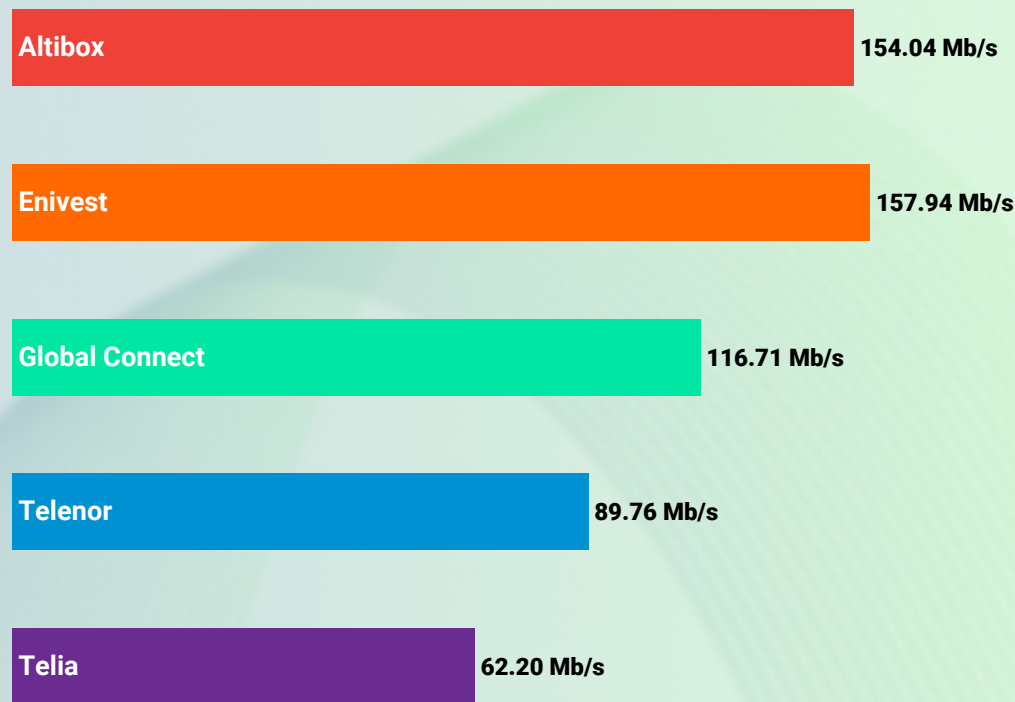
Download Speed evolution over the year (average)



Source : nperf.com



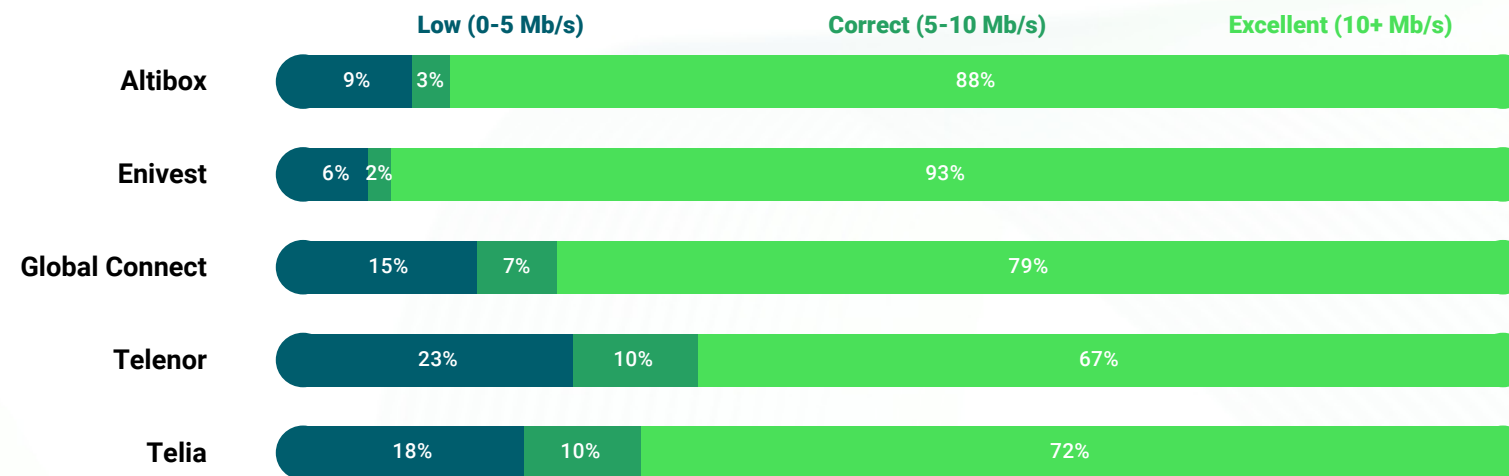
Upload Speed (average)



Source : nperf.com

The subscribers of Eninvest and Altibox enjoyed the best average broadband upload speed in 2023.

Upload Speed results ventilation (average)



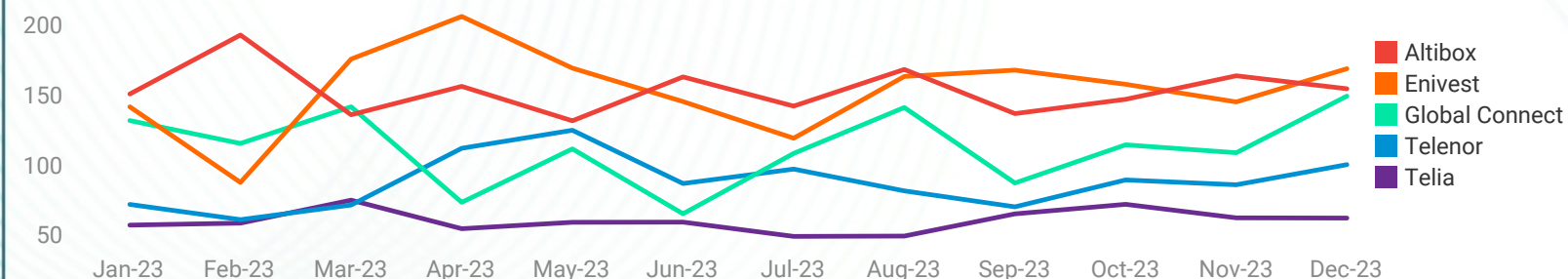
Source : nperf.com

Upload Speed (average)



Source : nperf.com

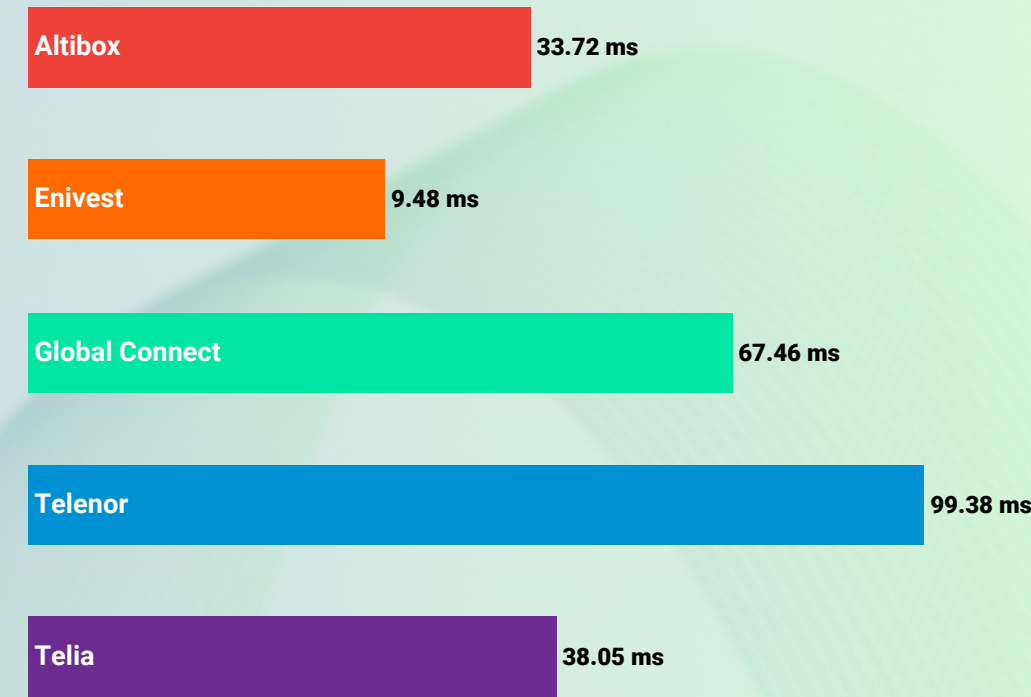
Upload Speed evolution over the year (average)



Source : nperf.com



Latency Speed (average)



Source : nperf.com

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

Latency Speed results ventilation (average)



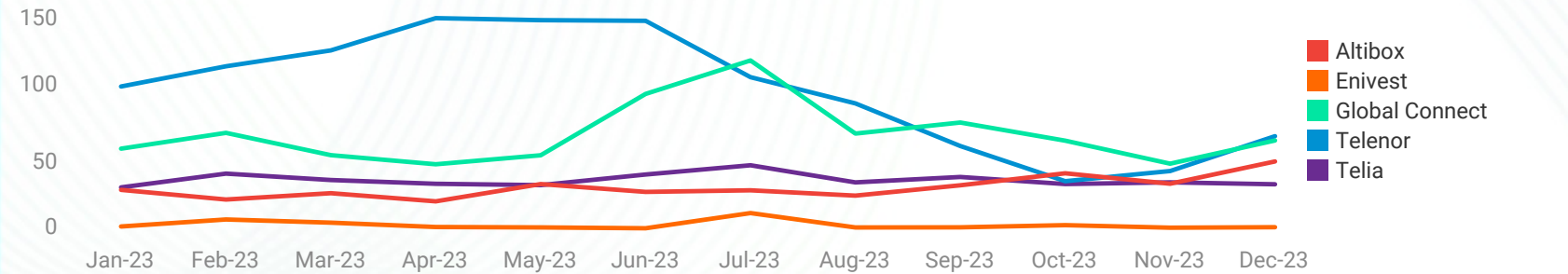
Source : nperf.com

Latency Speed (average)



Source : nperf.com

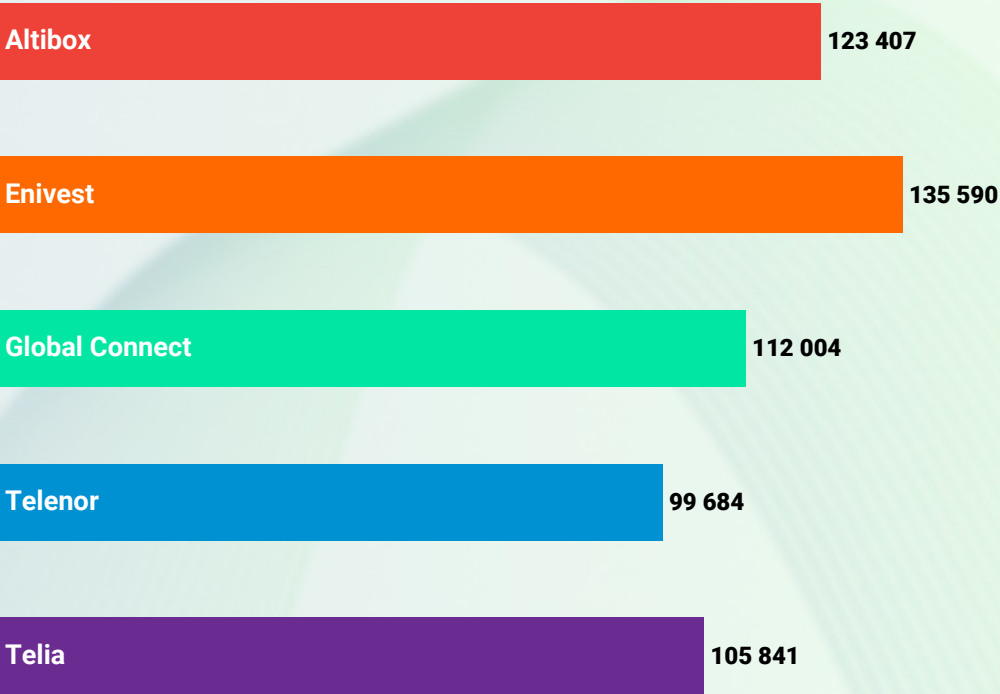
Average latency Speed evolution over the year



Source : nperf.com



nPerf Score (nPoints)



Source : nperf.com

The subscribers of Eninvest enjoyed the best broadband performances in Norway during 2023.

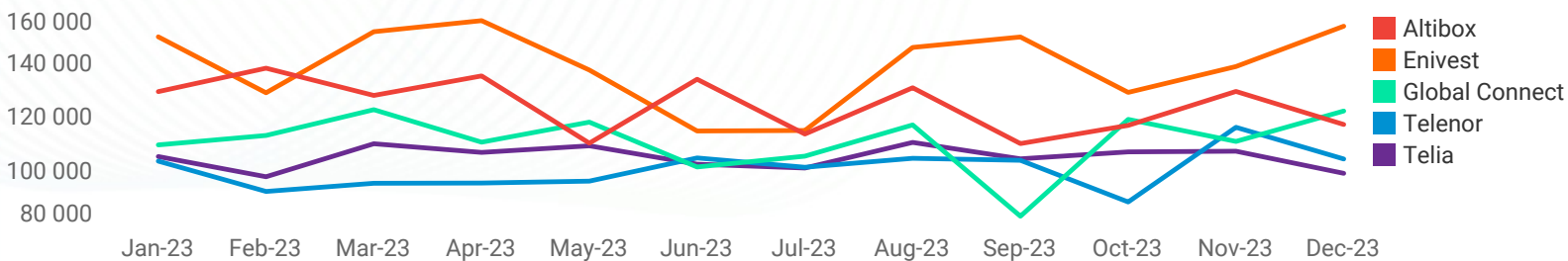
The nperf score takes into account the measured bitrates and the latency. The value of the points for the rates and the latency is calculated on a logarithmic scale, to better represent the perception of the user.

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

