

Barometer of fixed Internet connections in Norway



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H2 2020 – H1 2021



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1 Summary of results

1.1 Summary table and nPerf score, all technologies combined



***** Eninvest, the best fixed Internet performance during the last 2 semesters *****

1.2 Our analysis

From July the 1st 2020 to June the 30th 2021, nPerf users conducted 26 862 connection tests on Norway's five largest Internet Service Providers. Eninvest dominates the market in terms of performance of fixed Internet connections by providing good upload throughputs and the best latency in the country, even if its download bitrate average only reaches the 4th position.

During this period, the average download speed of Norwegian people was 127 Mb/s, which is 20% higher than in 2019 / 2020, and globally a good performance.

Altibox is the fastest Internet Provider of the last 12 months.

For the third year in a row, Altibox has provided the fastest Internet connections on fixed networks in Norway over the last 12 months, with an average download speed of 154 Mb/s and an upload speed of 117 Mb/s. Its progression on download speed is the best from far, and much better than over the previous period.

Eninvest, an impressive latency can be enough

Eninvest is still the champion when it comes to the latency (11,5 ms!), but also provides good upload speed, around 113 Mb/s, that leads it just behind Altibox. As we said last year : if you are keen on video games, chose Eninvest : the latency average of the other main operators is at least twice slower.

Conclusion

On fixed networks, over the last two semesters, Eninvest has shown the best performances, mainly due to an exceptional latency of 11,5 ms, and nice improvements on download and upload speeds. Altibox stays behind but the scoring gap between them has grown : the upload speed could play a role for change in the next months. Apart from this, GlobalConnect only shows an improvement on its download speed but worsens elsewhere, Telenor stays at the last position by recording the worst figures, and the newcomer Telia (former Get/NetCom) does worse than Get last year, mostly because of its long latency.

This battle definitely deserves a closer look within the next semesters !

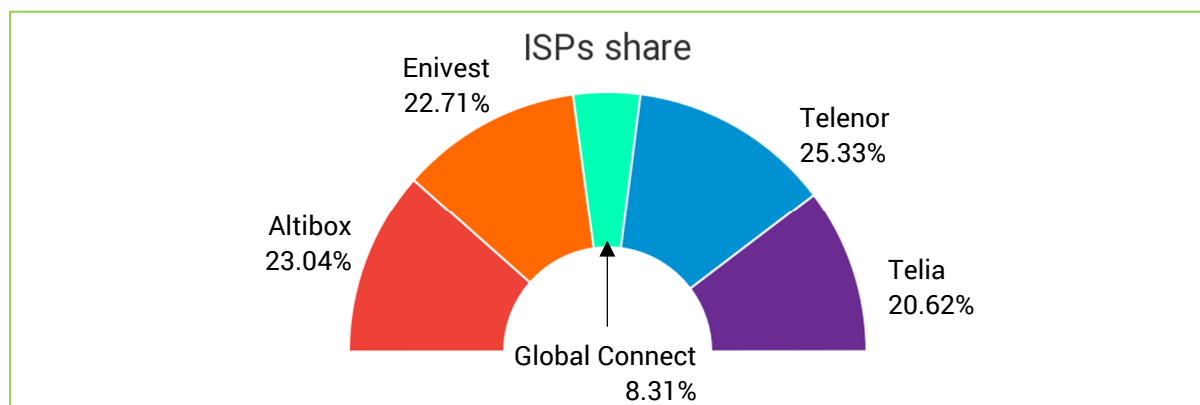
2 Overall results, all technologies combined

2.1 Data amount and distribution

From **July 1st, 2020** to **June 30th, 2021** we counted **26 862 tests** for the five main fixed line operators, distributed after filtering as follows:

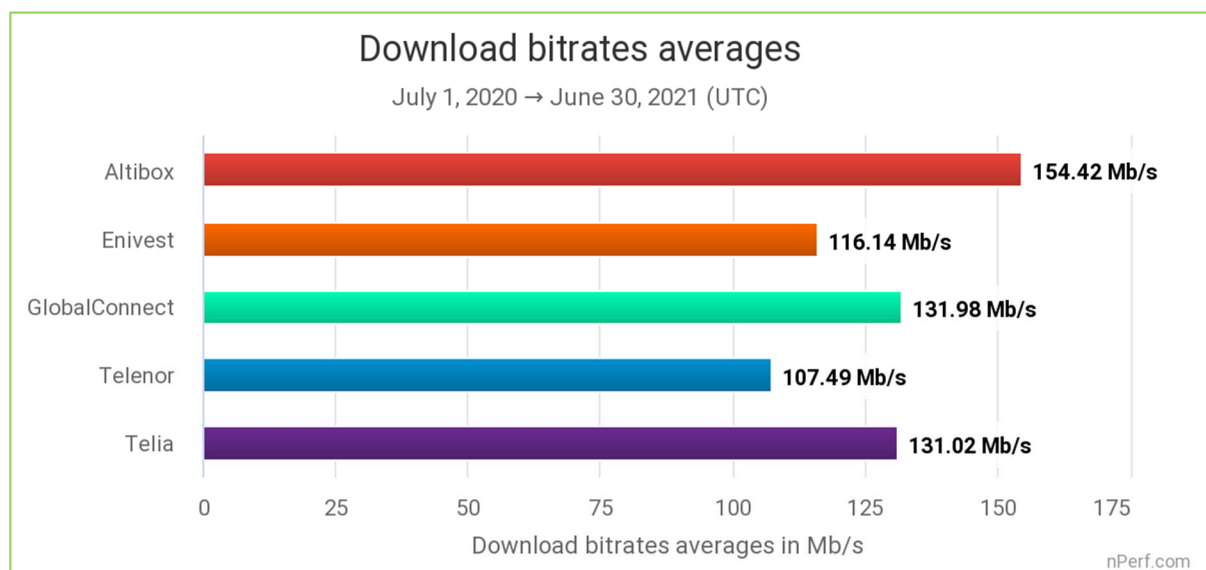
Country	Tests
Norway	23 118

Breakdown of tests by provider



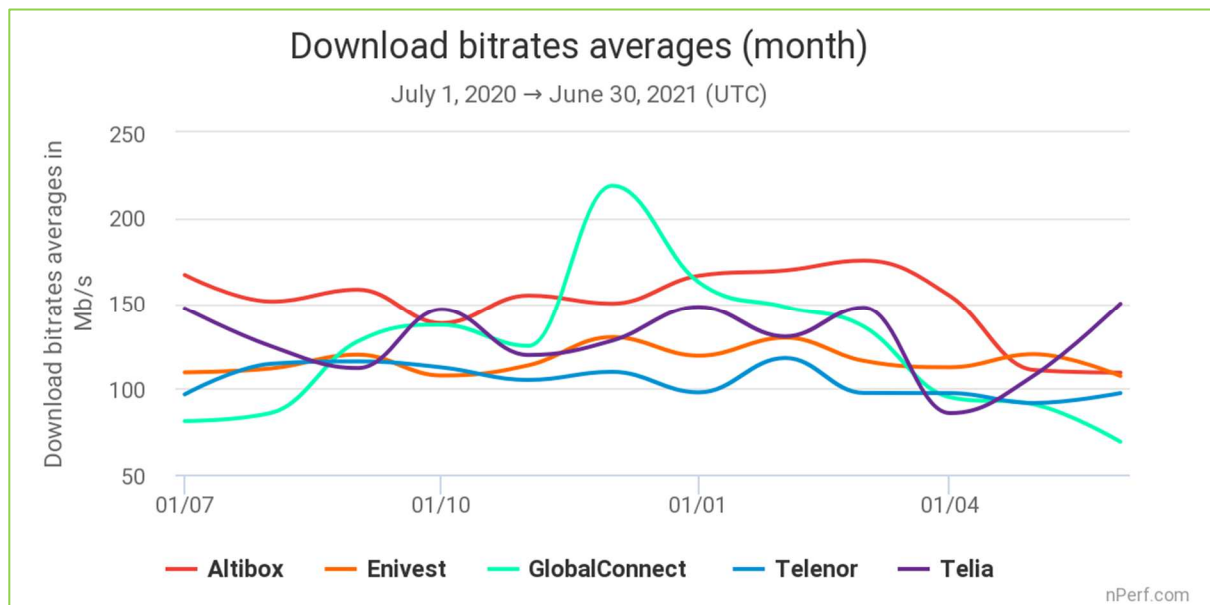
2.2 Download speed

The average download speed in Norway was **127 Mb/s** during the last 2 semesters.



The highest value is the best.

Altibox has provided the best fixed download speeds during the last 2 semesters.

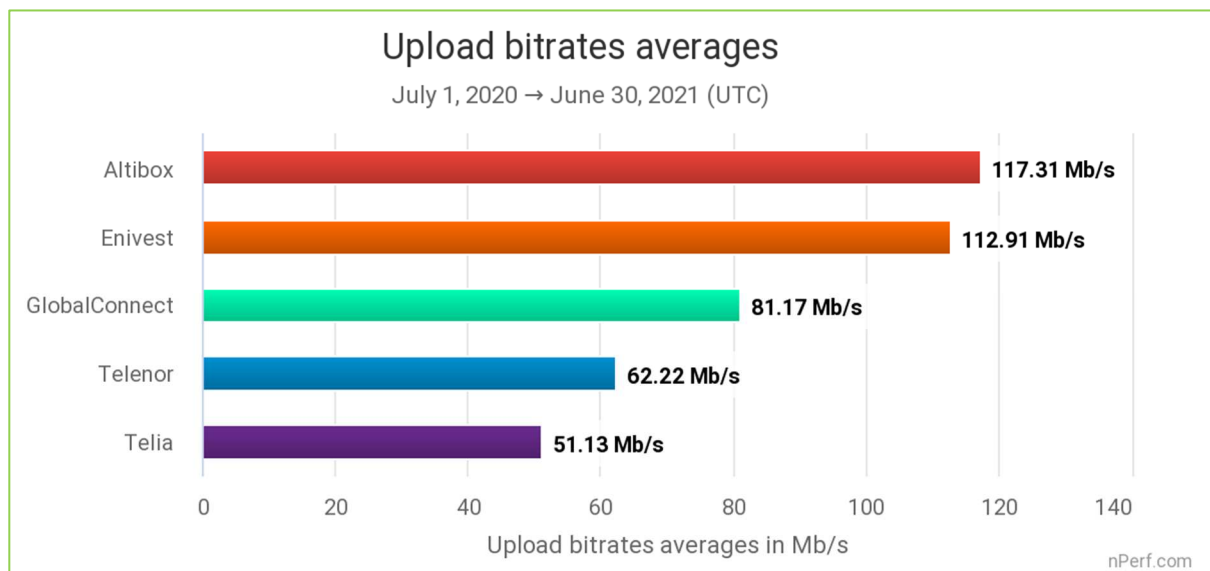


Above graph illustrates the ability of providers to maintain a constant download speed over the period regardless of network load (number of connected end-users).

Globally, all ISP's download performances have been oscillating over the past 12 months, but **Altibox** globally stood out the most, and **Global Connect** provided a peak average speed in December 2020, around 219 Mb/s.

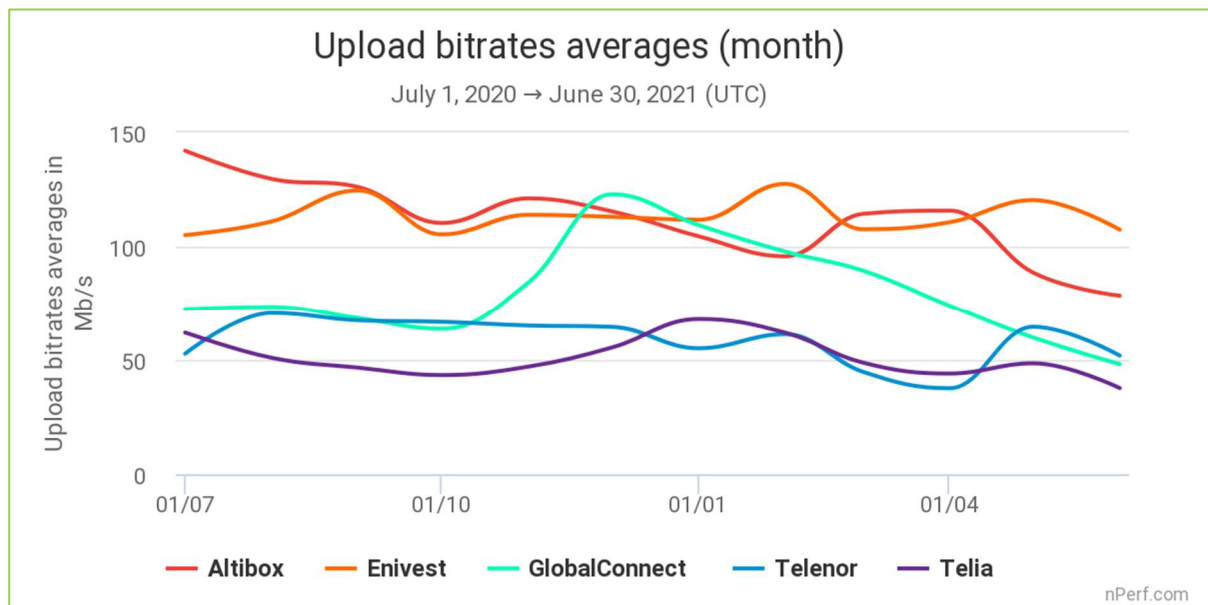
2.3 Upload speed

The average upload speed in Norway was 86 Mb/s during the last 2 semesters.



The highest value is the best.

Altibox has provided the best fixed upload speed during the last 2 semesters.

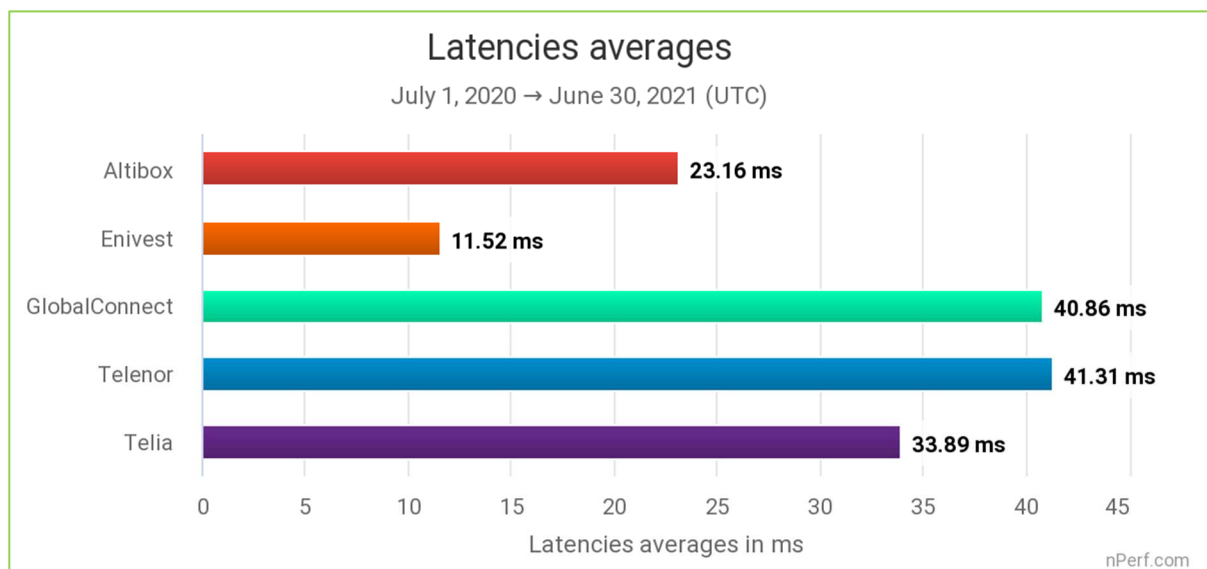


Above graph illustrates the ability of providers to maintain a constant upload speed over the period regardless of network load (number of connected end-users).

Globally, all ISPs have been relatively stable over the last two semesters. We can easily distinguish two groups : Altibox and Eninvest with high figures, and Telenor and Telia with worse ones. Only **Global Connect** has known a strong rise over November and December 2020, before slowly diminishing its upload average speed month after month.

2.4 Latency

The average latency in Norway was 31 ms during the last 2 semesters.



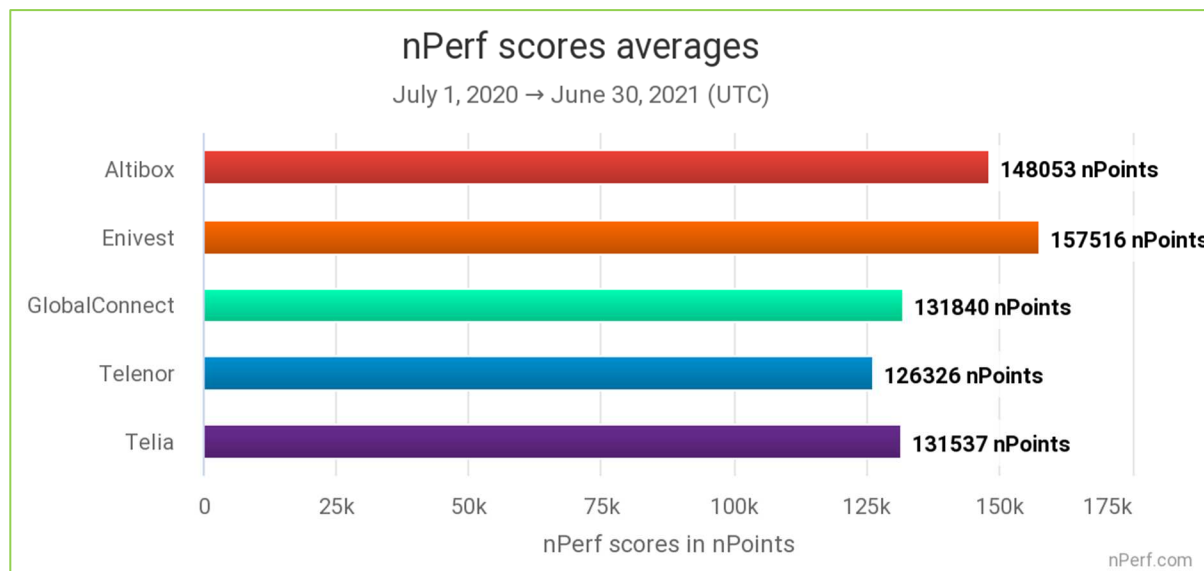
The lowest value is the best.

Eninvest has provided the best fixed latency during the last 2 semesters.

2.5 nPerf score, all technologies combined

The nPerf score, expressed in nPoints, gives an overall picture of the quality of a connection. It takes into account measured bitrates (2/3 Download + 1/3 Upload) and latency. These values are calculated on a logarithmic scale to better represent the perception of the user.

Thus, this score reflects the overall quality of the connection for mainstream consumer use.



The highest value is the best.

Eninvest, the best fixed Internet performance during the last 2 semesters.

3 Methodology

3.1 The panel

nPerf offers an Internet speed test application, which can be used for free at www.nPerf.com.

Everyone is free to use nPerf to measure the speed of their Internet connection. All users of the nPerf application form the panel of this study.

In addition, the results from the nPerf speed tests integrated on our partner websites are also included in the panel.

Thus, the nPerf study is based on thousands of tests, making it the study with the largest panel in Norway.

3.2 Speed and latency tests

3.2.1 Objectives and operation of the speed and latency test

The purpose of the nPerf Speed Test is to measure the maximum capacity of the data connection in terms of data rates and latency.

To achieve this, nPerf establishes multiple connections simultaneously to saturate the bandwidth to accurately measure it. The speed used for the barometer is the average speed measured by the application.

Speed measurements thus reflect the maximum capacity of the data connection. This rate may not be representative of the user experience experienced during normal use of the Internet, as it is measured only on nPerf servers.

The measured bit rate can be impacted by the quality of the user's local network, especially since the expected flow is high. Thus, for an optical fiber internet connection, a local Wi-Fi or Power-Line connection can greatly reduce performance. However, since these constraints are identical to all market operators, they do not bias the comparison. In addition, the user is made aware of these constraints and invited to use a wired local connection for testing very high speed.

3.2.2 nPerf servers

To ensure maximum user bandwidth at all times, nPerf relies on a network of servers dedicated to this task.

These servers are located with hosts in Norway and abroad.

Local providers are welcome to install nPerf servers, that's free!

The total bandwidth available for the Norway is greater than **36 Gb/s**, and that for the world is greater than **8 Tb/s** with more than **1900** active nPerf servers!

3.3 Statistical accuracy

With regard to the total volume of unit tests, the statistical precision used in this publication is:

- ✓ 3% for absolute values

If, for a given indicator, one or more operators have results very close to the best, in the confidence interval defined above, these will be share first place.

3.4 Filtering of test results

The results obtained are subject to automatic and manual checks to avoid duplication and to rule out possible abusive or fraudulent use (massive tests, robots ...).

Tests performed on cellular connections (2G, 3G, 4G) are also excluded from this barometer.

4 You too, participate in the nPerf panel!

To participate in the panel, simply test your connection on the website www.nperf.com. For mobile Internet, you can also use the nPerf app, available for free on the Apple AppStore for iPhone and iPad, and on Google Play for Android devices.

5 Custom analysis & contact

Do you need further study or want to get the raw data, punctually or automatically, to compile it yourself?

You can contact nPerf via www.nPerf.com "Contact Us" section or directly from the mobile app.

Phone contact: +33 482 53 34 11

Address: nPerf SAS, 87 rue de Sèze, 69006 LYON, France

Stay in touch with us, follow us!

