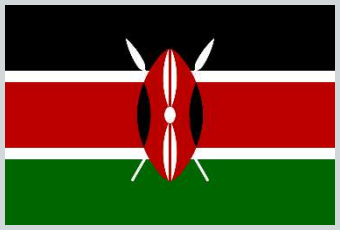
Barometer of fixed Internet connections in Kenya



Publication of

September 13th, 2022

H2 2021 – H1 2022

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1 Overall results

1.1 Summary table and nPerf score

Summary table - nPerf barometer H2 2021 - H1 2022
Fixed Internet connections in Kenya

nperf
We qualify your connection

1st in category

	Faiba	Mawingu WiFi	Safaricom	Telkom	Zuku
Download bitrate	40.72 Mb/s	10.16 Mb/s	20.58 Mb/s	16.41 Mb/s	22.89 Mb/s
Upload bitrate	25.11 Mb/s	11.07 Mb/s	19.11 Mb/s	17.44 Mb/s	15.67 Mb/s
Latency	28.87 ms	43.82 ms	42.91 ms	50.98 ms	44.43 ms
nPerf score	★ 110 621 nPoints	74 675 nPoints	90 369 nPoints	83 132 nPoints	89 869 nPoints

No.1 BROADBAND PERFORMANCE nperf AWARDS H2 2021 H1 2022

Best fixed Internet performance H2 2021/ H1 2022

Based on the nPerf score, which takes into account the upload and download bitrates, as well as the latency, all technologies combined.

Faiba provided the best broadband Internet performances in Kenya during the last two semesters.

1.2 Our analysis

This study is based on the tests carried out by users of the nPerf website. During the last two semesters, users of the nPerf app in **Kenya** completed, before filtering, **59.678 tests.**

Faiba is sacred champion of the Kenyan broadband Internet.

Its clear-cut victories on all the KPI contribute to its easy triumph in our newest barometer. By showing much better speed figures, and being the only provider under the 30 ms of latency, its more than 110k nPoints, and the large score gap with the rest of the contenders are fully deserved (>20k nPoints).

Safaricom and Zuku, in the battle for the second place

These ISP have done a good work throughout the period, and even if they finish 20k nPoints under the leader, they will surely fight to be considered the main opponent to the JTL fixed ISP. Their scores are tight (only 500 points separate them) but their positions are relevant : while Zuku is ranked second for downloading, Safaricom is ranked second for uploading and for the latency.

Telkom Kenya and Mawingu WiFi, a step below

Even if their performance are not that bad, these providers will surely carry on their efforts to improve their networks, and try to stay in the race. Mawingu gets the last position in both speed tests, whereas Telkom records the slowest average latency (51 ms).

Besides the domination of Faiba, we keep in mind the quick progression of Telekom through the last month, and thus wonder whether the next months will bring surprises. Of course, nPerf will keep an eye on the situation!

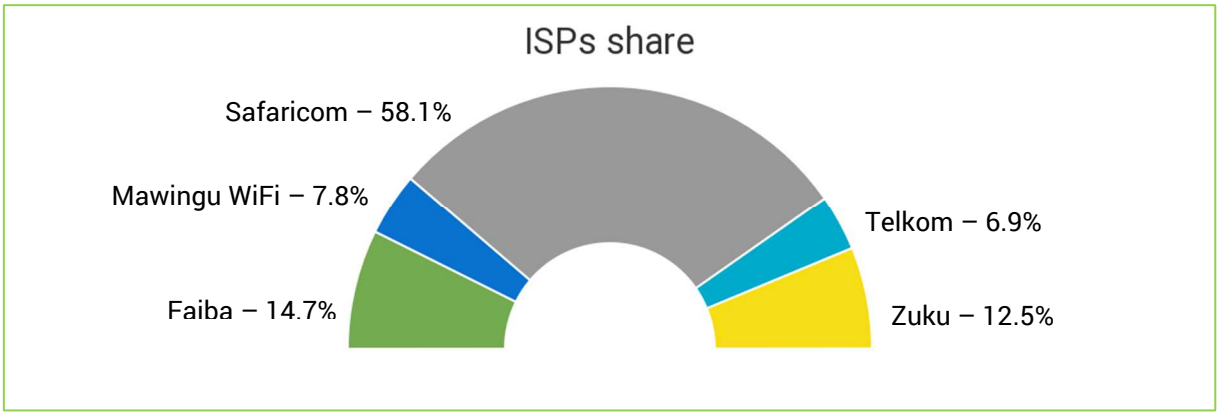
1 Results, all technologies combined

1.1 Data volume and distribution

Between **July 1st, 2021** and **June 30th, 2022** we counted in Kenya **59.678 speed tests**, distributed as follows, after filtering (see § 4.4) :

Country	Total
Kenya	**36.632**

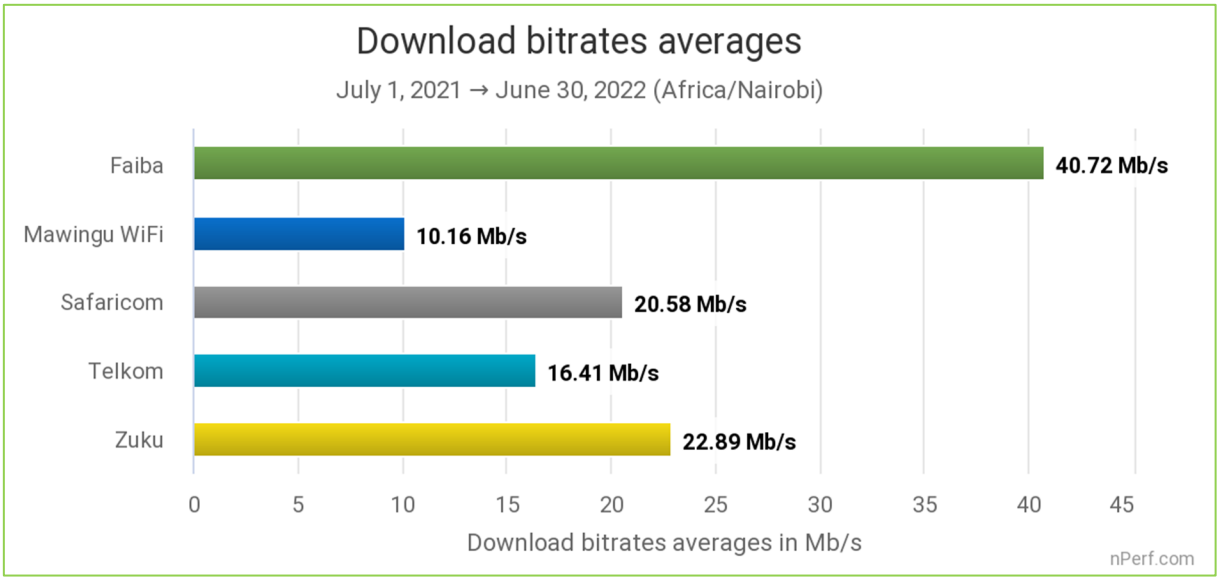
The overall distribution of the tests per provider is as follows:



Safaricom represents the vast majority of the tests selected for our panel, with more than 58% of the share. On the other hand, Mawingu and Telkom get the smallest parts.

P.S. : Liquid Intelligent Technologies hasn't been selected in our ISP list, since it seems specialized in professional networks, and nPerf can't clearly distinguish the domestic uses from this network ('Liquid Home').

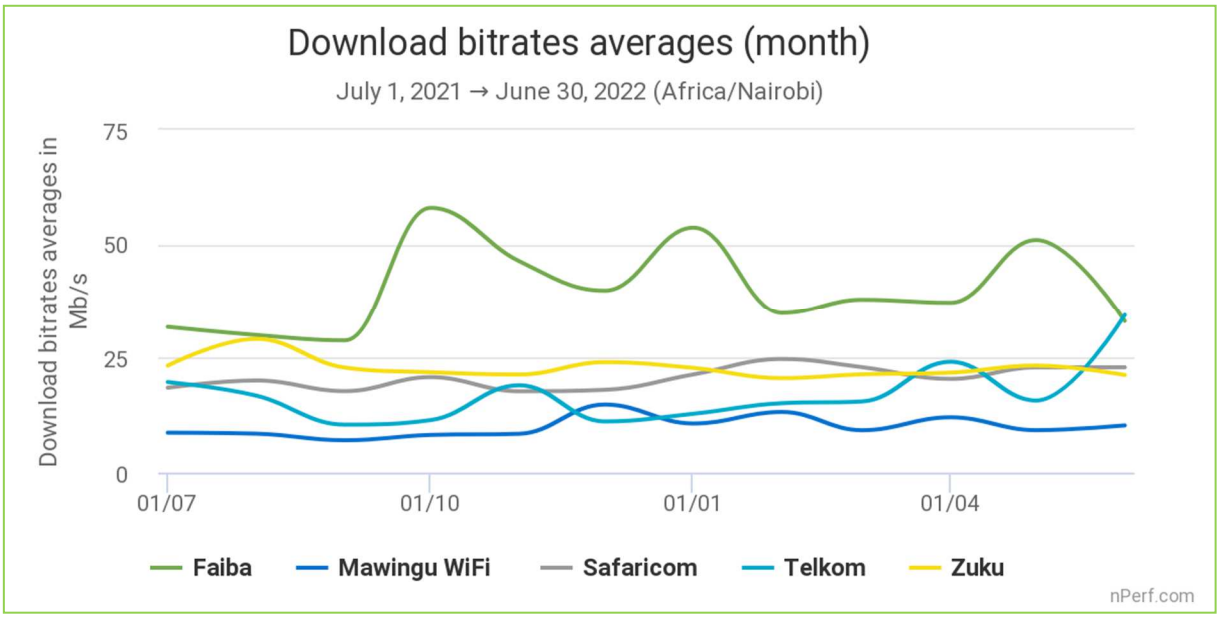
1.2 Download speed



The highest speed is the best.

Faiba subscribers enjoyed the best average broadband download speed, during the last two semesters.

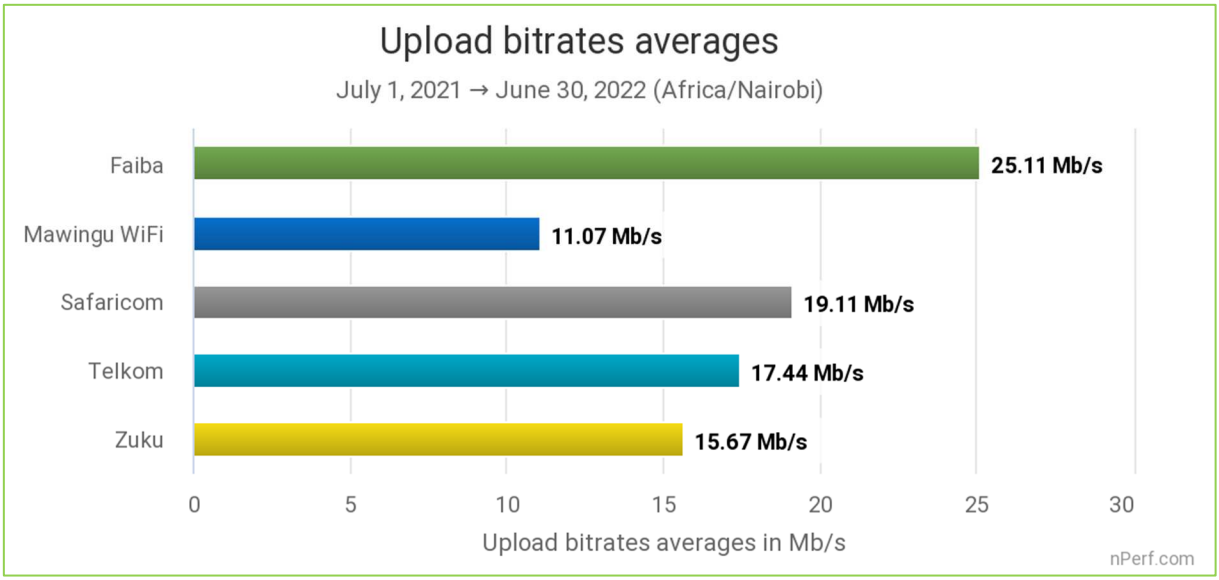
The fixed JTL's brand has offered the highest download speed of the country's fixed network, approximately 41 Mb/s, meaning almost twice as fast as the second ranked operator, Wananchi Group (branded Zuku). The latter is closely followed by Safaricom, and then comes Telkom Kenya, while Mawingu Networks finishes in the last position, with only 11 Mb/s.



The graph above shows the evolution of the *monthly* average bitrates throughout the period.

Without surprises, Faiba has flown over this race from start to end, while its competitors have offered a lower level scale bitrates, globally under 25 Mb/s. Faiba has significantly enhanced its average download speed from last October. At the very end of the period, a solid rise of Telekom's performances has begun: let's see if this trend carries on !

1.3 Upload speed



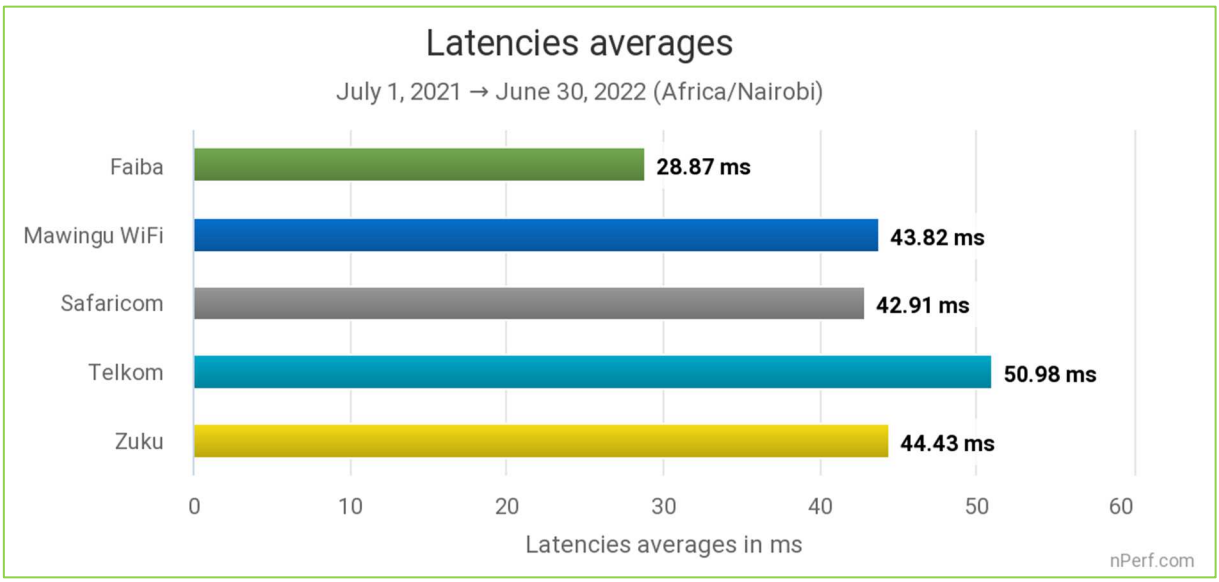
The highest speed is the best.

Faiba subscribers enjoyed the best average broadband upload speed, during the last two semesters.

Regarding this indicator, the gap between the contenders is smaller. The winner remains the same, with an average bitrate of 25 Mb/s. Mawingu, still the last, offers the same bitrate than for downloading. Safaricom manages to surpass Zuku (and Telkom too) to end up in second step.

The same phenomenon has occurred here regarding Telkom : its average figure has more than doubled, just between May and June... Is this be a single event, or could we expect a sustainable enhancement for this ISP ?

1.4 Latency



The shortest time is the best.

Faiba subscribers enjoyed the best average broadband latency, during the last two semesters.

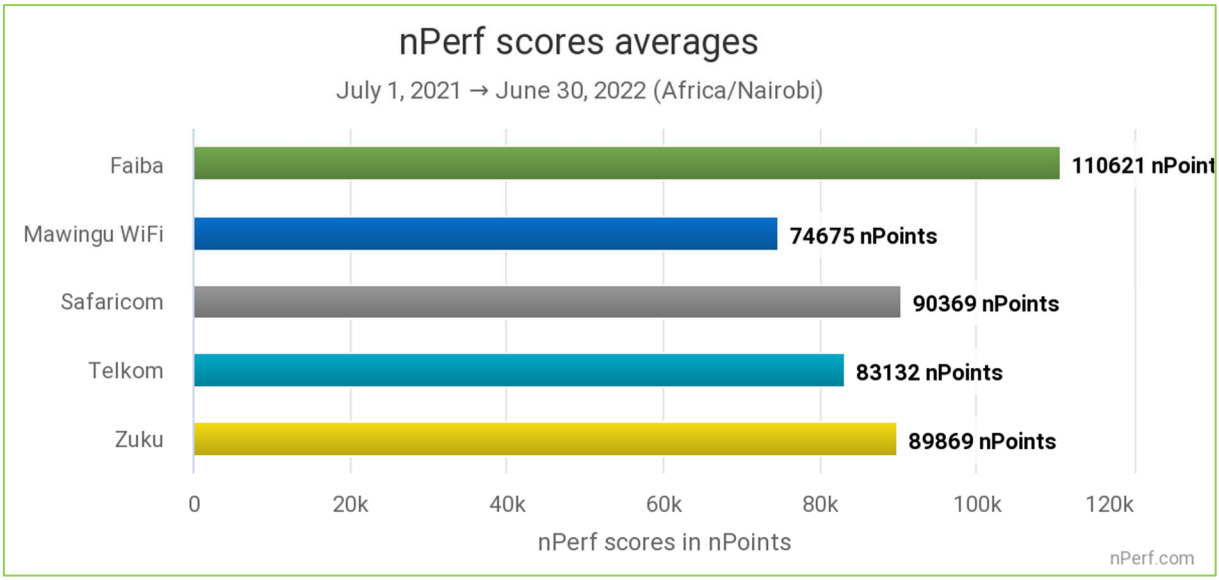
As any of its opponents hasn't been able to fall below 40 ms, Faiba obtains a remarkable performance, by averaging less than 29 ms. When looking at the yearly evolution, Faiba has clearly been better all along the period. Then come Safaricom, Mawingu WiFi and Zuku, in a tight interval of 1,5 ms, surrounding the 43,5 ms, while Telkom is relegated to the last position, by recording an insufficient 51 ms time of response, on average.

1.5 nPerf scores

The nPerf score, expressed in nPoints, gives an overall picture of the quality of a connection. It takes into account the measured bitrates (2/3 Download + 1/3 Upload) and the 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 **felt by the user**.

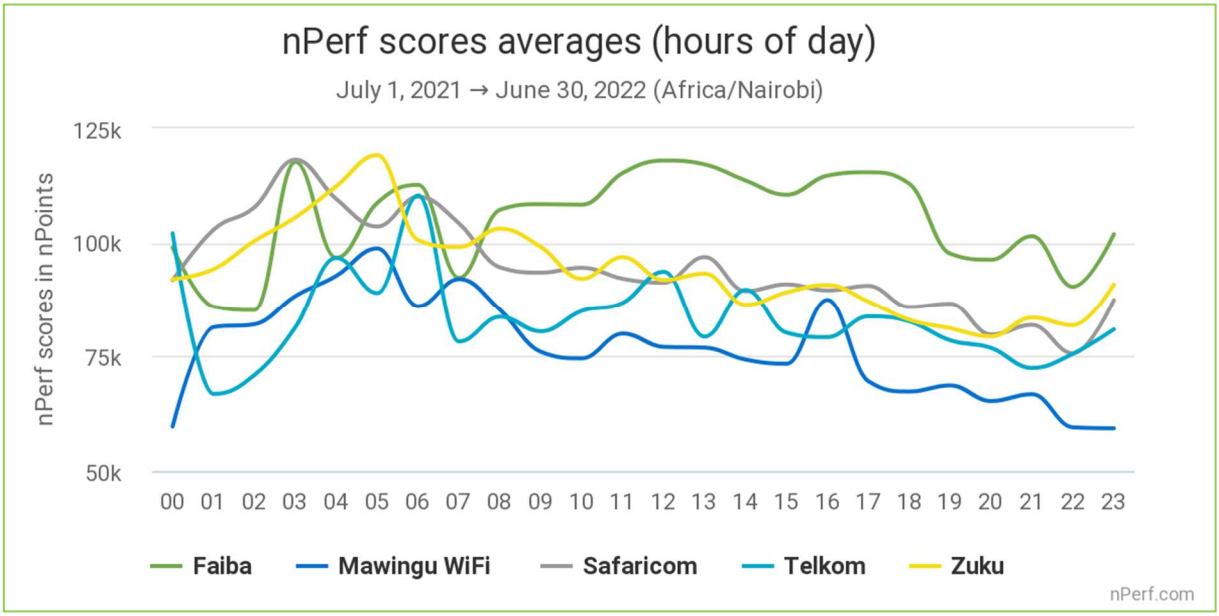
The results below consider all the previous indicators and therefore all the tests carried out. As technologies are grouped together, the proportion of tests in different technologies strongly impacts this global trend.



The highest value is the best.

Faiba subscribers enjoyed the best broadband Internet performances, during the last two semesters.

Faiba obtains more than 110k nPoints in our score. But most importantly, not a single competitor looks close to reach the 100.000 points, and much less the winner's level, in the short term. Indeed, the second ranked operator, Safaricom, is at a safe distance of 20k points, and so is Zuku, which completes the podium, in the third place, only 500 points behind.



The graph above illustrates the evolution of the *hourly* average scores throughout the period.

Find this global indicator directly in the website, or on your mobile device, via the « Compare » function at the end of the (full) test. It is updated in real time over 14 rolling days.

2 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.

3 Custom analysis & contact

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

You can contact nPerf via www.nperf.com through the "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!

4 Methodology

4.1 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 quality of their Internet connection. The panel of this study is formed by its users **in Kenya**. 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 the **thousands of tests** carried out monthly, exclusively by the operators' end customers, which makes it the "crowdsourced" study based on **one of the largest panels of the country.**

These tests reflect the **actual experience of the general public** on the various Internet networks.

4.2 Speed and latency tests

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.

4.3 nPerf servers

To ensure maximum user bandwidth at all times, nPerf relies on a network of servers dedicated to this task. These servers are hosted in the country and abroad. Indeed, nPerf has also installed dedicated servers directly at some providers' facilities, to maximize measurement reliability. **Local carriers are welcome** to install nPerf servers, that's free !

The total bandwidth available for Kenya is **5 Gb/s**, and reaches more than **10 Tb/s** worldwide**,** with more than **2.300** active nPerf servers!

4.4 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...).

The exclusive nPerf algorithm retains only the relevant tests, thus eliminating biases related to the overrepresentation of certain terminals, users or test locations.

The results are classified by provider. Tests performed on cellular connections (2G, 3G, 4G & 5G), or on professional/business/military/academic networks are also excluded from this barometer.

4.5 Statistical accuracy

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

Category	Number of tests (filtered)	Absolute values	Percentages
Global	36.632	3%	1 point

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