



Barometer of mobile Internet connections in Indonesia

01/07/2023 - 30/06/2024

July 18, 2024



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nPerf**

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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.



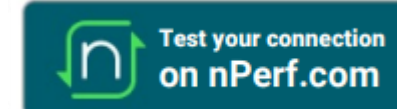
26Md+ coverage
scans in total.



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 Telkomsel enjoyed the best mobile Internet performances in Indonesia during 2024.

Mobile Internet connections in Indonesia

	IM3	Smartfren	Telkomsel	XL Axiata
▼ Download bitrates (Mb/s)	23.56	18.93	27.17	20.83
▲ Upload bitrates (Mb/s)	11.33	3.77	12.54	11.49
◀▶ Latency (ms)	51.13	37.57	48.38	62.82
🌐 Web browsing (%)	51.44	44.66	52.96	49.73
📺 Youtube streaming (%)	80.84	71.02	81.75	77.84
📶 nPerf Score (nPoints)	56 653	45 699	60 324	51 580

Source : nperf.com



Best mobile Internet performance
in 2024



Source : nperf.com



Source : nperf.com

Introduction

In Indonesia's telecommunications market, Telkomsel holds the leading position, followed by IM3 in second place, XL Axiata in third, and Smartfren in last. This ranking highlights the varied strengths and performance levels of each internet service provider (ISP) across key metrics such as download and upload speeds, web browsing, YouTube streaming, and latency.

Telkomsel leads with superior speed and streaming

Telkomsel stands out as the undisputed leader due to its excellent performance 4 out of 5 indicators. With a download speed of 27.17 Mbps, an upload speed of 12.54 Mbps, a web browsing score of 52.96, and a YouTube streaming score of 81.75, Telkomsel provides a top-tier internet experience, securing its top position in the market.

IM3: strong performance in streaming and speed

IM3 secures the second position with solid performance in YouTube streaming (80.84) and a download speed of 23.56 Mbps. These metrics make IM3 a competitive option for users prioritizing high-quality streaming and reliable speeds.

XL Axiata: consistent overall performance

XL Axiata holds the third position with an average score of 51580 nPoints. While not leading in any specific category, XL Axiata offers reliable service that meets the needs of many users.

Smartfren: champion in latency

In the last position, Smartfren lags behind its competitors but excels in latency with a score of 37.57 ms. Despite being last overall, this strong latency performance makes Smartfren a good choice for users who prioritize quick response times for applications such as online gaming and real-time communication.

Conclusion

The Indonesian telecommunications market is led by Telkomsel, thanks to its superior performance in download and upload speeds, web browsing, and YouTube streaming. IM3 follows in second place with strong streaming and speed metrics. XL Axiata ranks third with consistent overall performance, while Smartfren, in fourth place, excels in latency but struggles in other areas. This competitive landscape provides users with various options based on their specific needs, whether they prioritize speed, streaming quality, or low latency.

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:

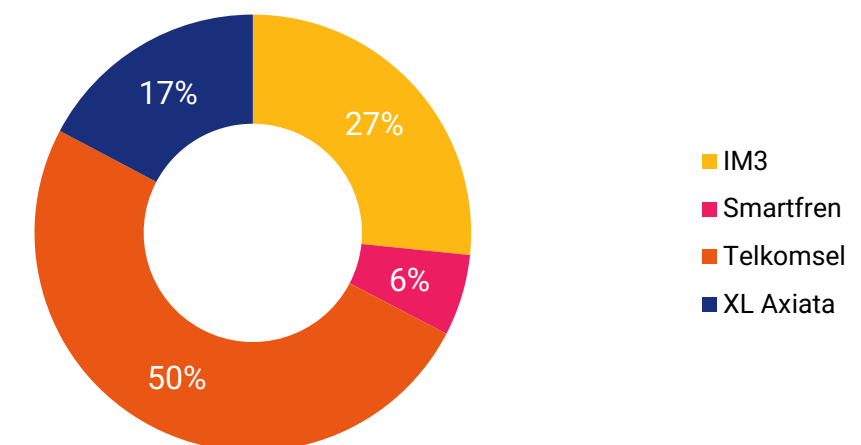
- ▼ **Download bitrate:**
Indicates the amount of data your connection can receive in one second from the nPerf server. The highest the measured value, the best is the bitrate of your connection.
- ▲ **Upload bitrate:**
Indicates the amount of data your connection can send in one second from the nPerf 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 1.5% precision for absolute values, 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.

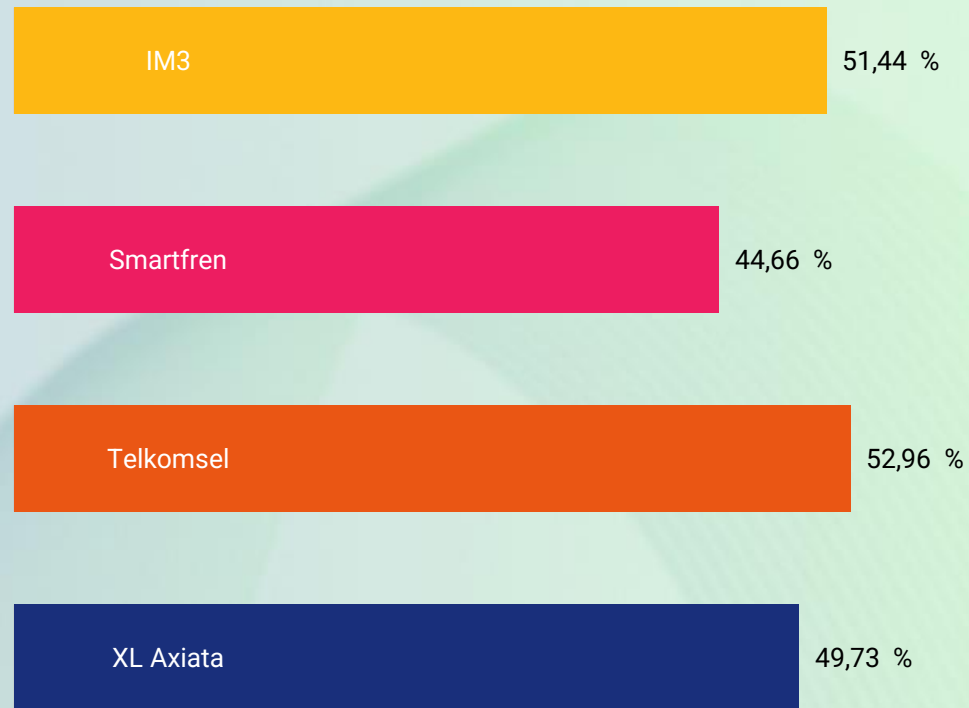
Overall distribution of the tests per provider (ISPs Share)



Source : nperf.com



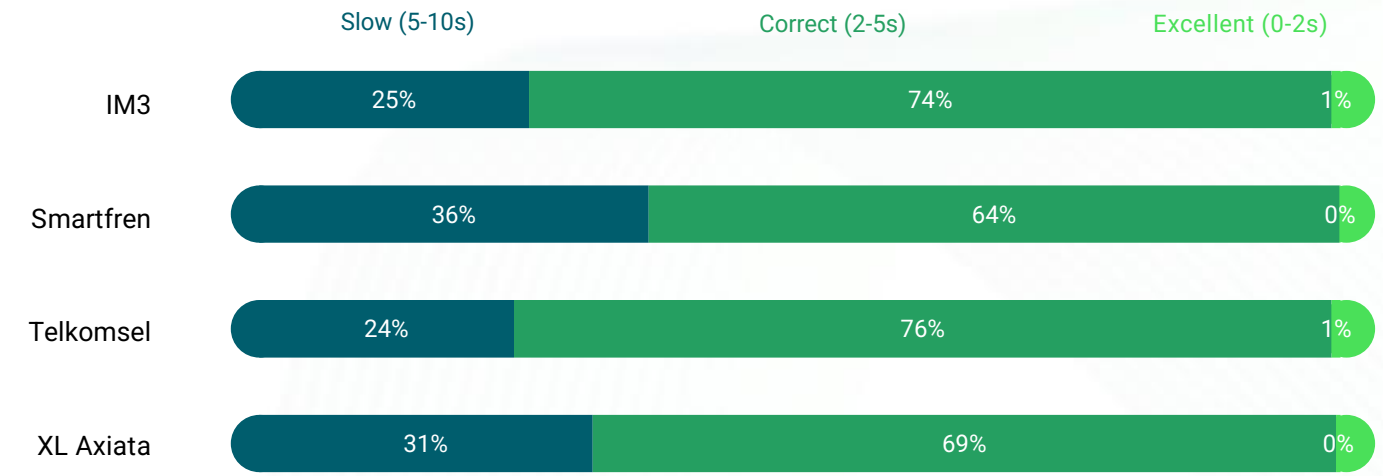
Browsing Performance rate (average)



Source : nperf.com

The subscribers of Telkomsel enjoyed the best mobile Internet browsing performance in 2024.

Browsing Performance results ventilation (average)



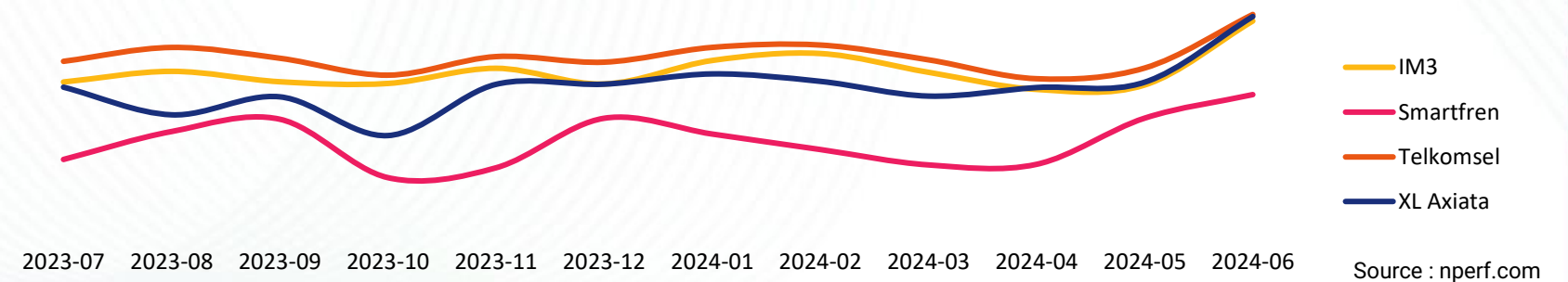
Source : nperf.com

Browsing Performance rate (average)



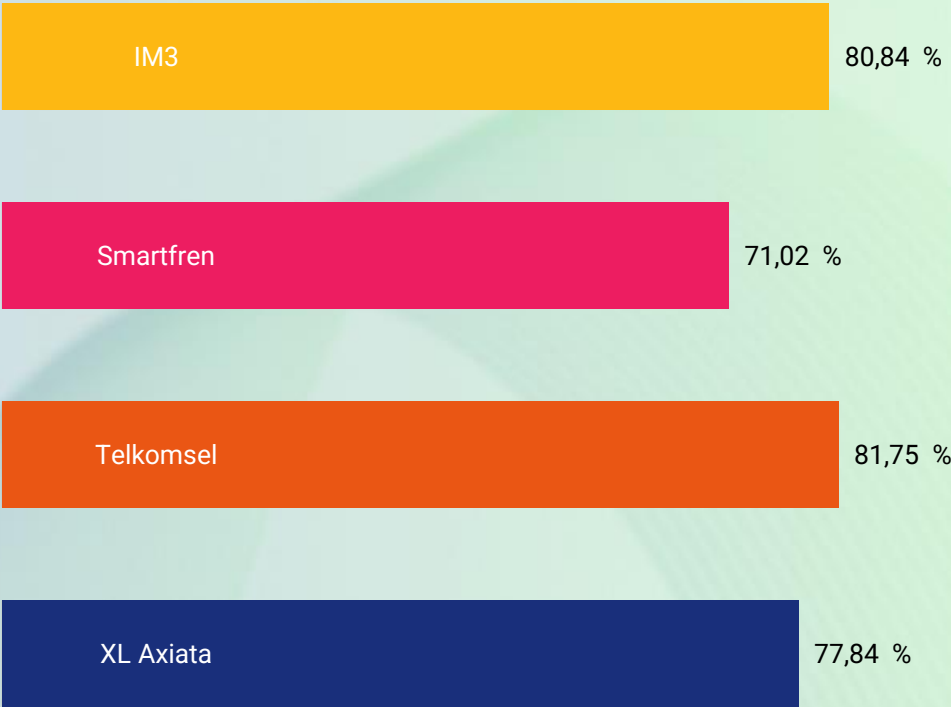
Source : nperf.com

Browsing performance rate (average) evolution over the year





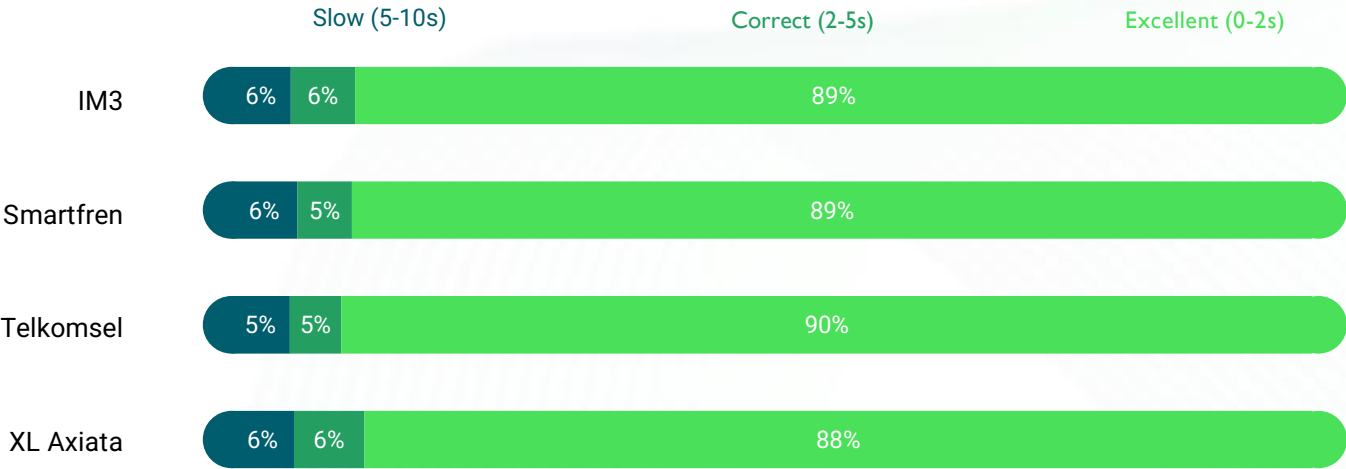
Streaming Performance rate (average)



Source : nperf.com

The subscribers of Telkomsel enjoyed the best mobile Internet streaming performance in 2024.

Streaming Performance results ventilation (average)



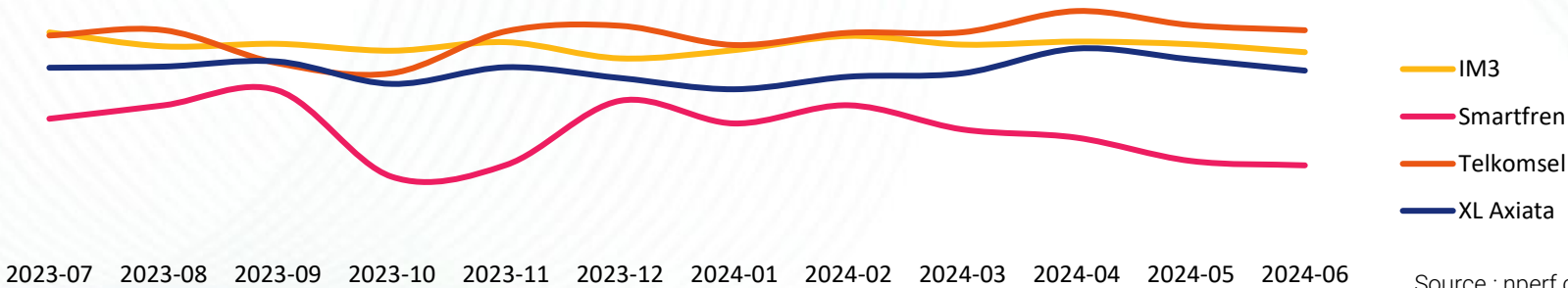
Source : nperf.com

Streaming Performance rate (average)



Source : nperf.com

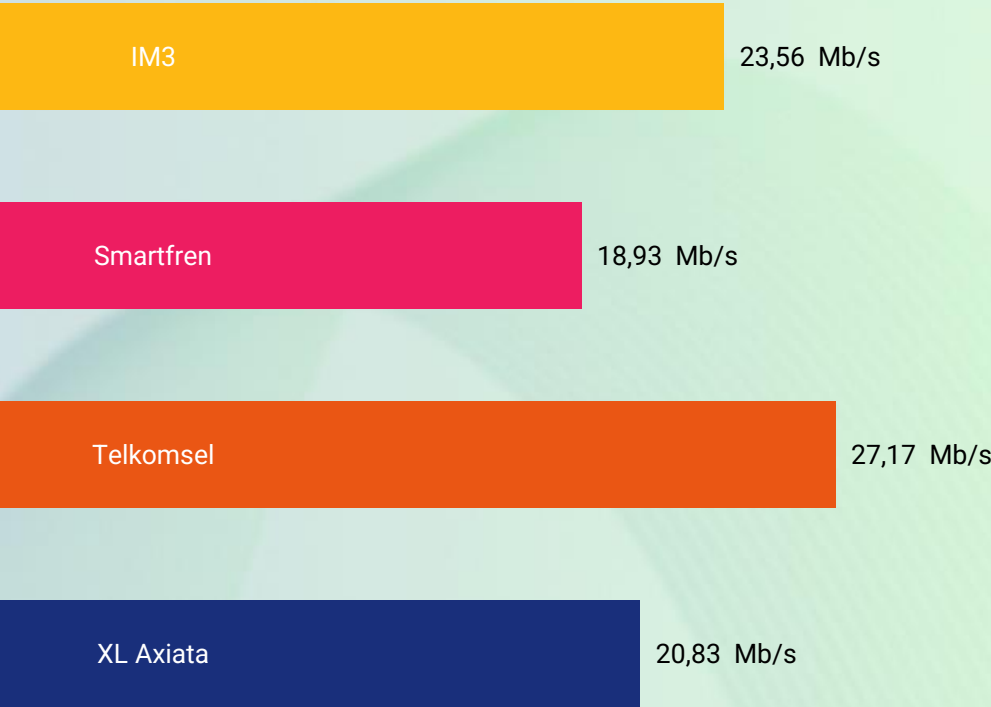
Streaming performance rate (average) evolution over the year



Source : nperf.com



Download Speed (average)



Source : nperf.com

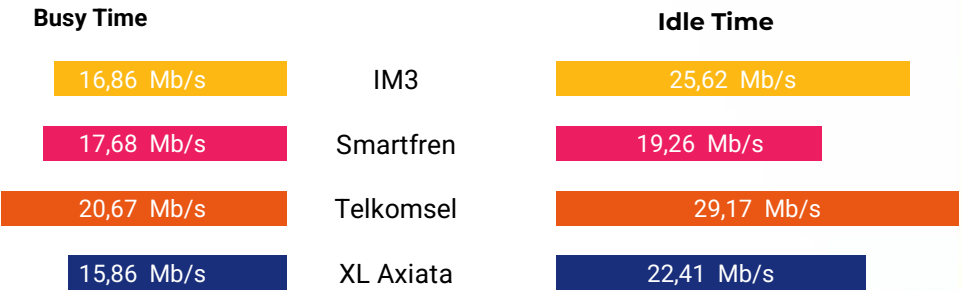
The subscribers of Telkomsel enjoyed the best average mobile Internet download speed in 2024.

Download Speed results ventilation (average)



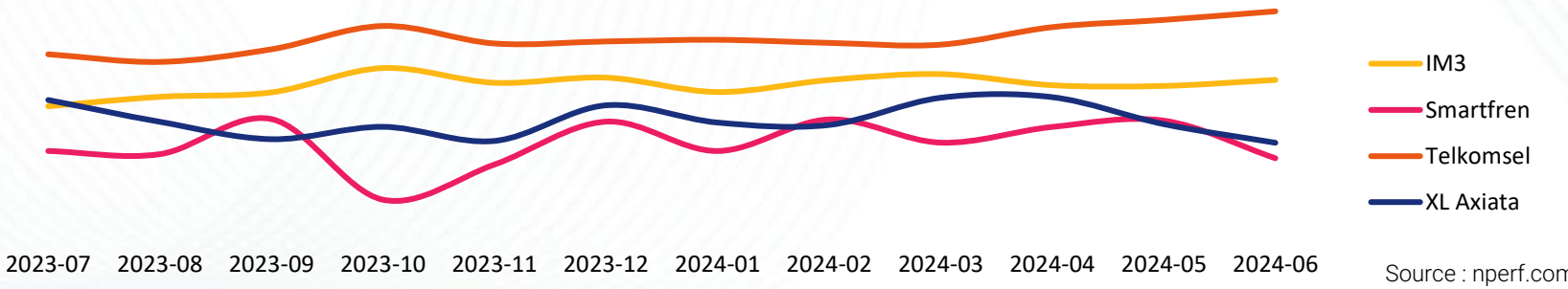
Source : nperf.com

Download Speed (average)



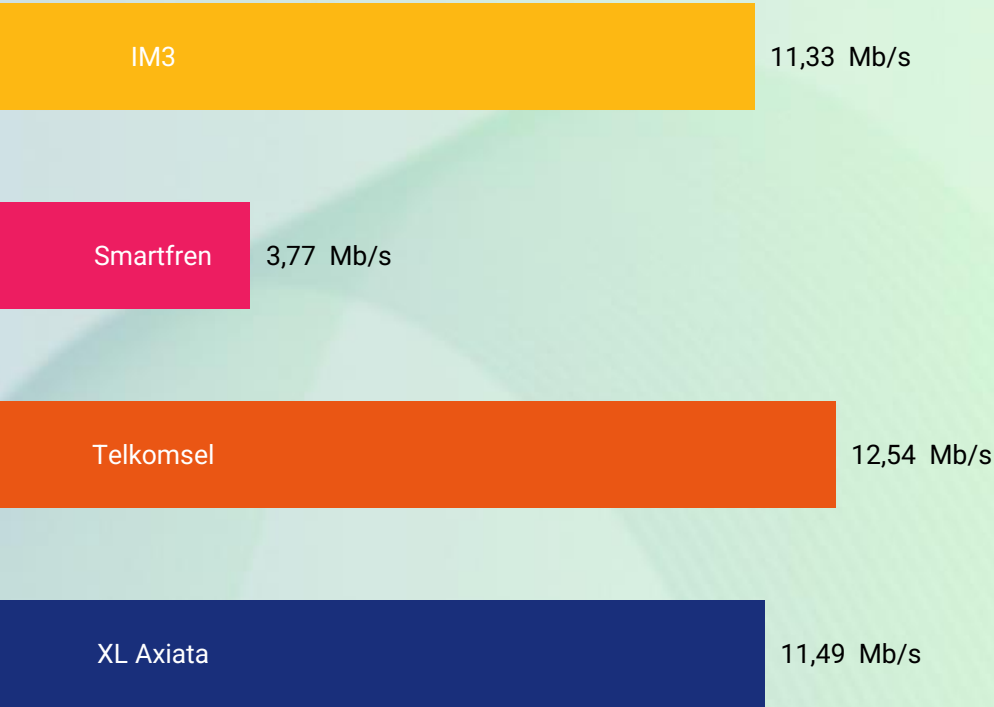
Source : nperf.com

Download Speed evolution over the year (average)





Upload Speed (average)



Source : nperf.com

The subscribers of Telkomsel enjoyed the best average mobile Internet upload speed in 2024.

Upload Speed results ventilation (average)



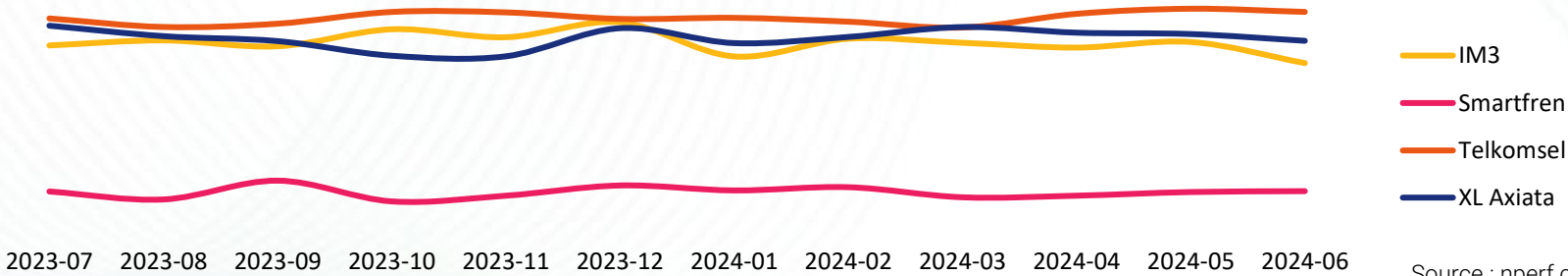
Source : nperf.com

Upload Speed (average)



Source : nperf.com

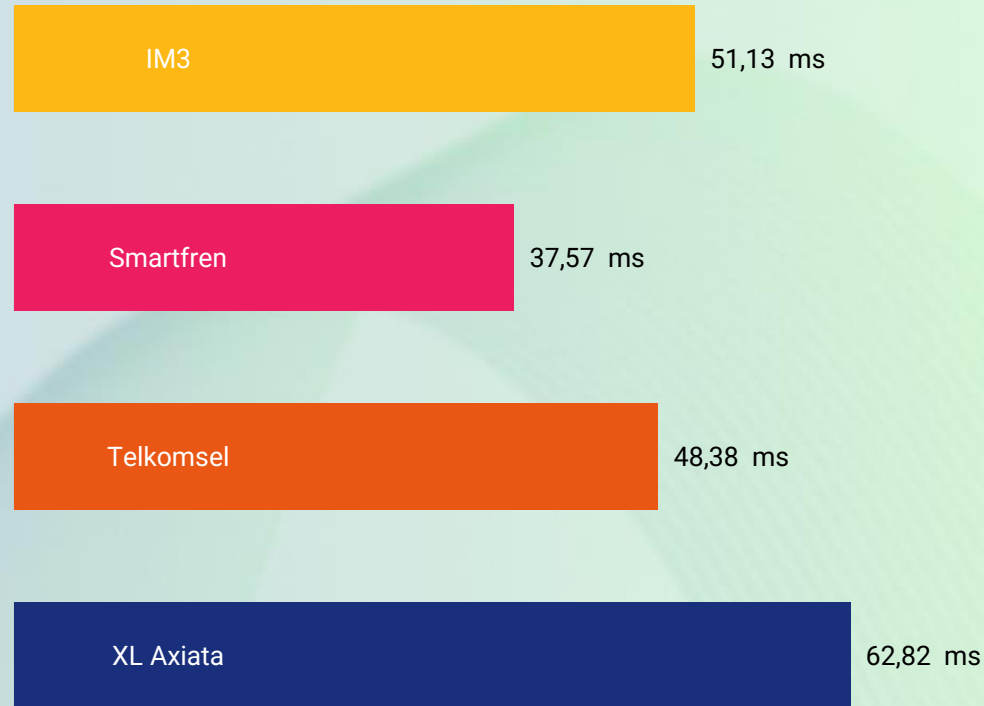
Upload Speed evolution over the year (average)



Source : nperf.com



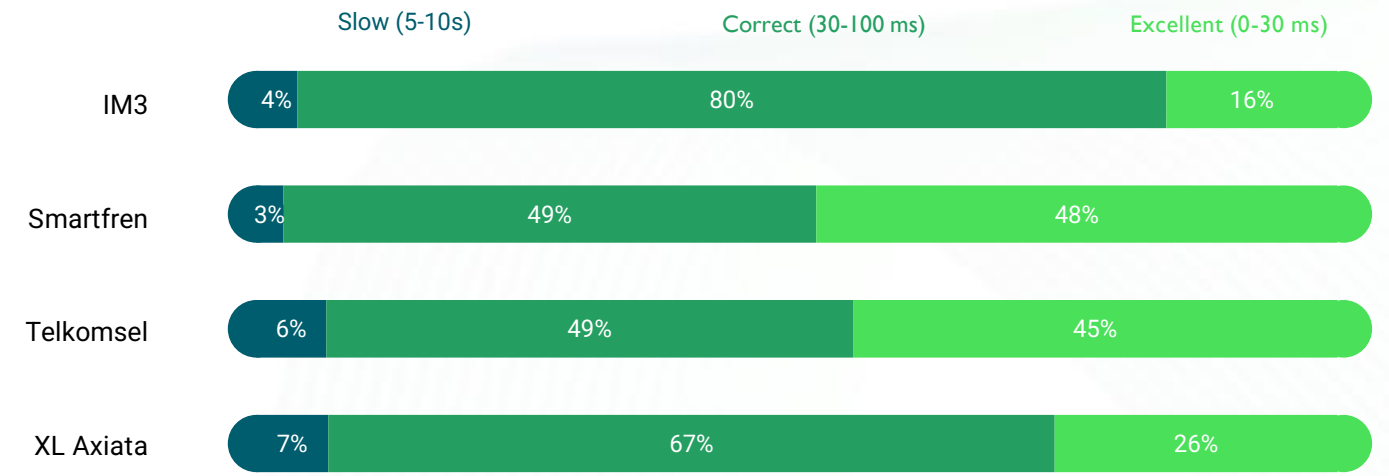
Latency Speed (average)



Source : nperf.com

The subscribers of Smartfren enjoyed the best average mobile Internet latency speed in 2024.

Latency Speed results ventilation (average)



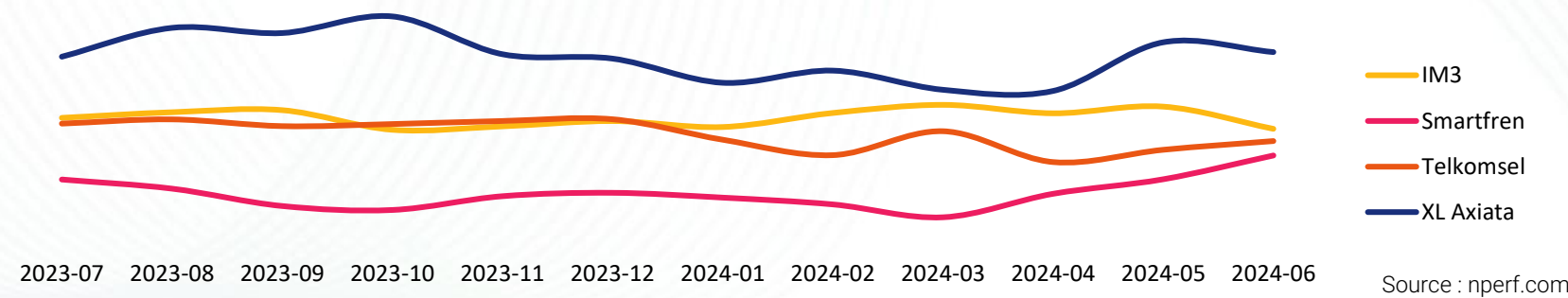
Source : nperf.com

Latency Speed (average)



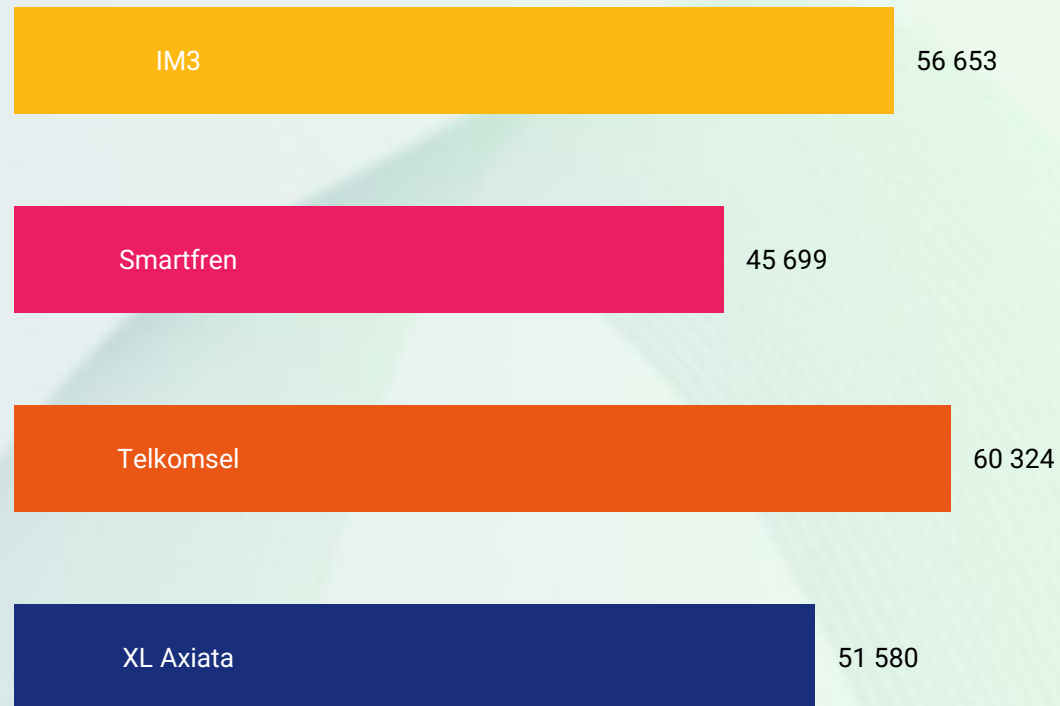
Source : nperf.com

Latency Speed evolution over the year (average)



Source : nperf.com

nPerf Score (nPoints)



Source : nperf.com

The subscribers of Telkomsel enjoyed the best mobile Internet performances in Indonesia during 2024.

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



nPerf score evolution over the year (average)

