DATA MOBILE WORLD BENCHMARK

2017



QoSi

4GMARK
mobile performance test

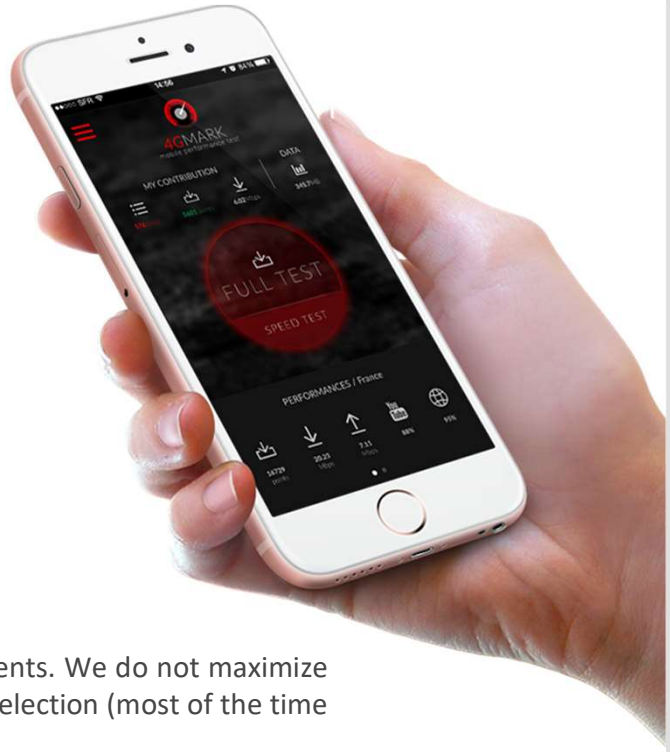
2017 BAROMETER 2G/3G/4G



January to december 2017
2G/3G/4G connections
Android and iOs LTE devices
From all Apps powered by
4Gmark©

INTRODUCTION

OBJECTIVE



4Gmark.com provides KPIS based on the customer perspective.

To do so we calculate, since 2015, kpis based on the LTE devices only in order to represents the average performance on all networks with unbiaised smartphones.

From those selected LTE-devices all tests of all technologies, including 2G and 3G, are gathered to give a reliable vision of performance and quality for a given carrier coverage.

In 2015 we invented the un-biaised calculation based on user's all tests aggregation from period and location. Because crowdsourcing are open platform, because 4Gmark is a tool than anyone can use from 1 to 1000 times, this algorithm give us the most reliable results. With 4Gmark a repeated massive tester or a one-time user represent the same part based on their average experience.

Our methodology prevents frauds and bugs. It exclude any suspicious measurements. We do not maximize the result with samples filtering, multi-threading transfert or best-latency server selection (most of the time user's operator). 4Gmark respect state-of-the-art of QoE Regulator's survey.

The Question we answer is simple : « With my 4G smartphone, what are the accurate national quality and performance provided? »

4GMARK.com • ALL RIGHTS RESERVED

INTRODUCTION



January to december 2017
2G/3G/4G connections
Android and iOs LTE devices
From all Apps powered by
4Gmark©

PROTOCOLE

The 4Gmark barometer and application carries out QoS and Performance testing on 4 major protocoles :

Downlink and **Uplink** transfer tests reproduce downloading or uploading of non-compressible and different files (extension). The file is stored and downloaded from an available test server randomly and equaly selected from all servers available per country (not a best-peering/latency biaised selection). The bandwidth for data transmission is measured with the ratio between the volume exchanged (the actual part of the file transmitted) and the whole time it takes (including initializing time). This is the most reliable methodology available from a crowdsourcing speed testing tool.

4Gmark is the only tool that carries out single-thread bandwidth measurements. this requires a major information campaign vis-à-vis the technophile community where the greatest bandwidth is often the most important.

Web Navigation reproduces launching an URL in a web browser loaded into 4Gmark and ascertaining whether the web page is displayed or not. This allows accessibility and the time to display the web page within a given time to be measured. The browser cache is emptied before the test is run.

YouTube Streaming test plays a video from the YouTube servers according to the playback quality chosen. 4 pieces of information are noted during playback in order to calculate the indicators: the time to launch the video sequence (from the http query until playbacks starts in the browser), the time to load the video (from the http query until the video is fully loaded in the cache), the number of buffering pauses in the sequence and the total waiting time during the sequence.

4Gmark is the first application with this **Quality of Experience (QoE)** vision to have integrated Web Navigation and YouTube measurements

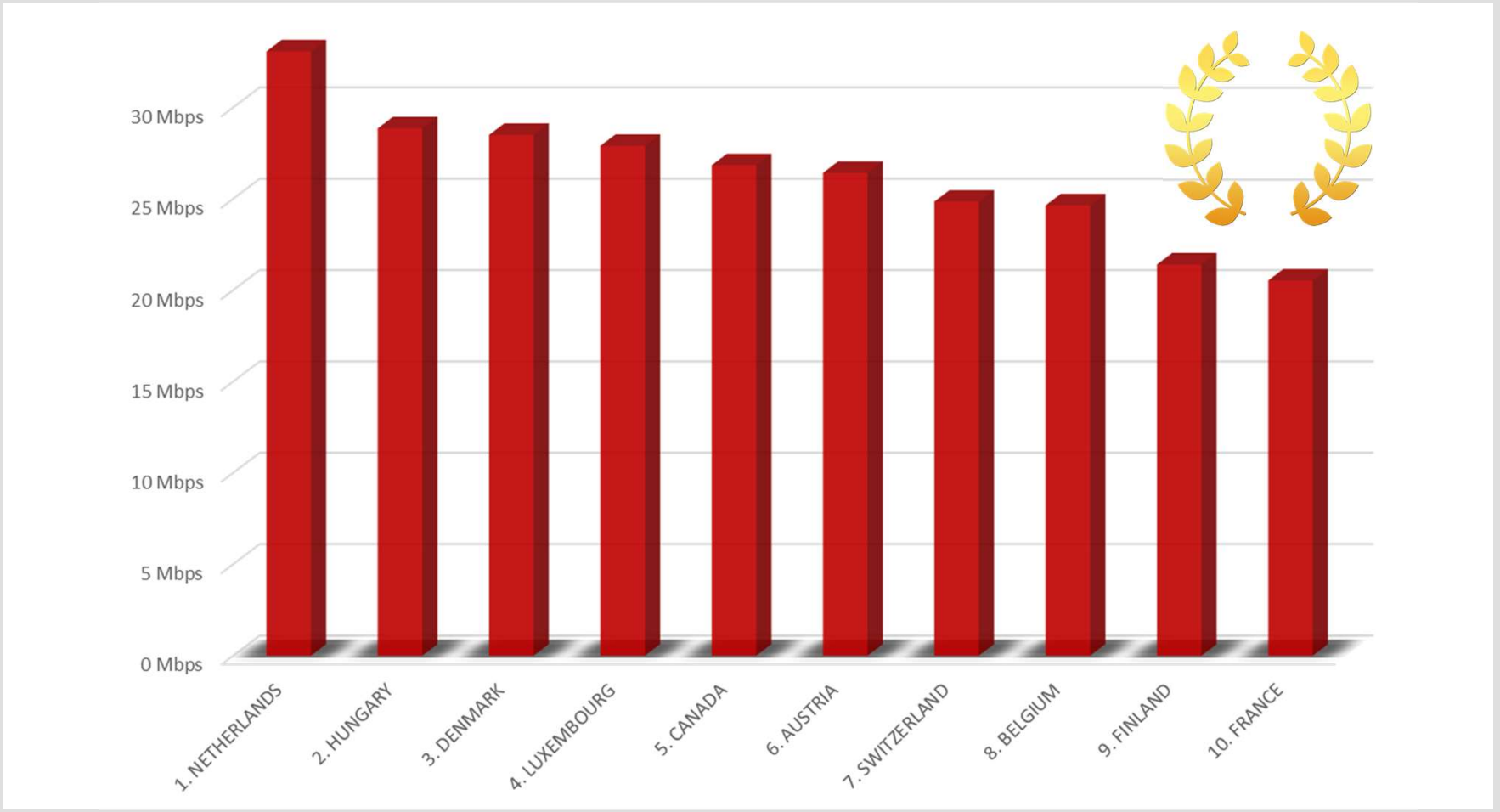
4GMARK.com • ALL RIGHTS RESERVED

2017 BAROMETER 2G/3G/4G



January to december 2017
2G/3G/4G connections
Android and iOs LTE devices
From all Apps powered by
4Gmark©

WORLD The 10 FASTEST COUNTRIES (2017)



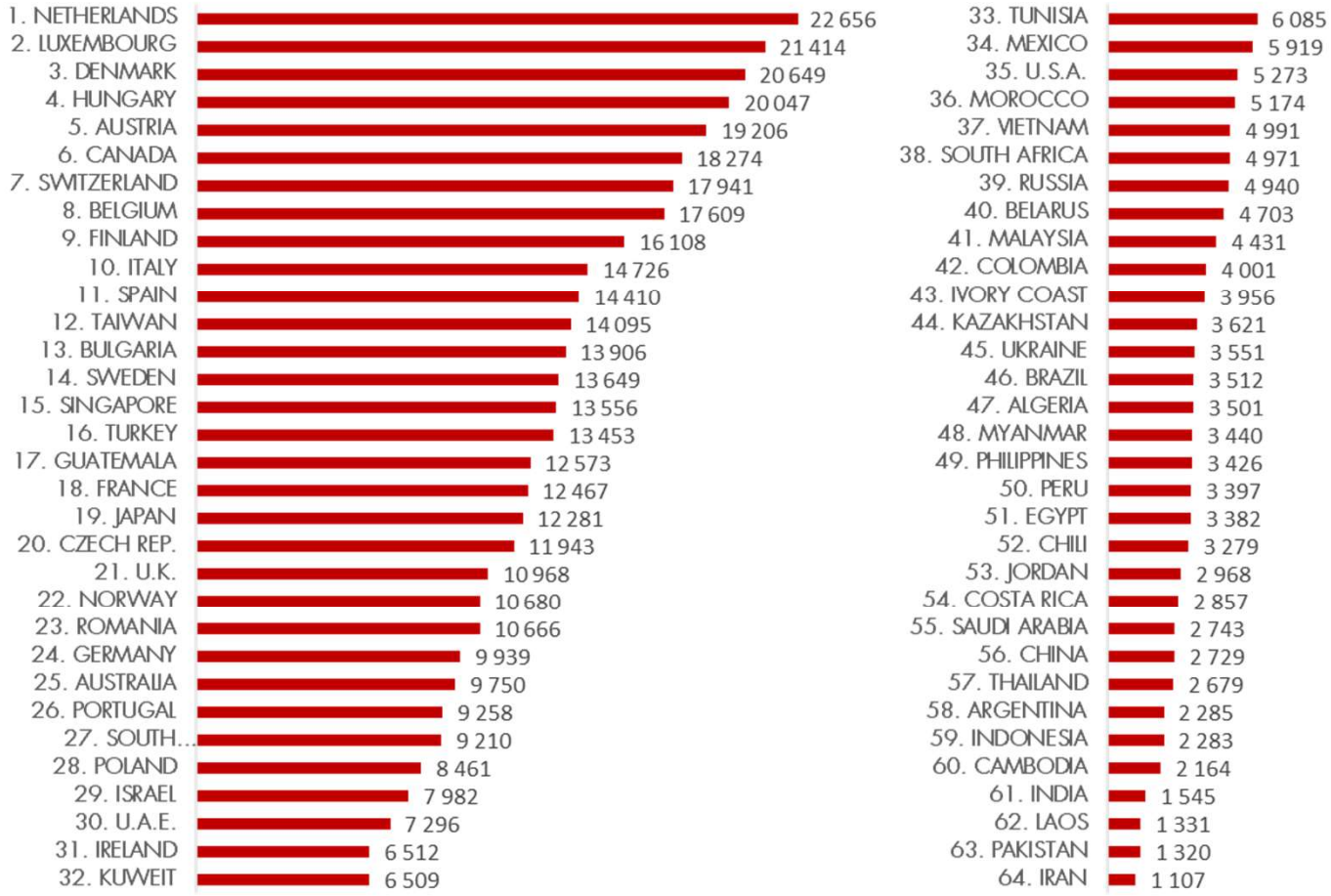
4GMARK.com • ALL RIGHTS RESERVED

2017 BAROMETER 2G/3G/4G



January to december 2017
2G/3G/4G connections
Android and iOs LTE devices
From all Apps powered by
4Gmark©

WORLD OVERALL QUALITY SCORE (points)



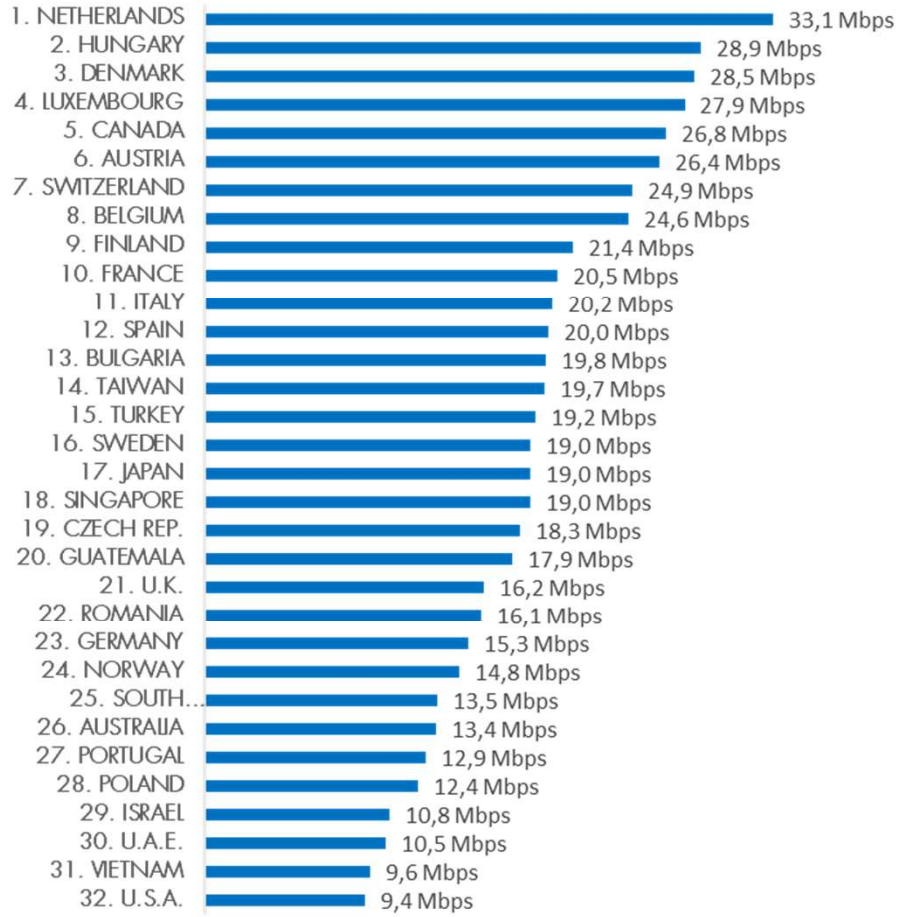
4GMARK.com • ALL RIGHTS RESERVED

2017 BAROMETER 2G/3G/4G



January to december 2017
2G/3G/4G connections
Android and iOs LTE devices
From all Apps powered by
4Gmark©

WORLD DOWNLINK SPEED (Mbps)



4GMARK.com • ALL RIGHTS RESERVED

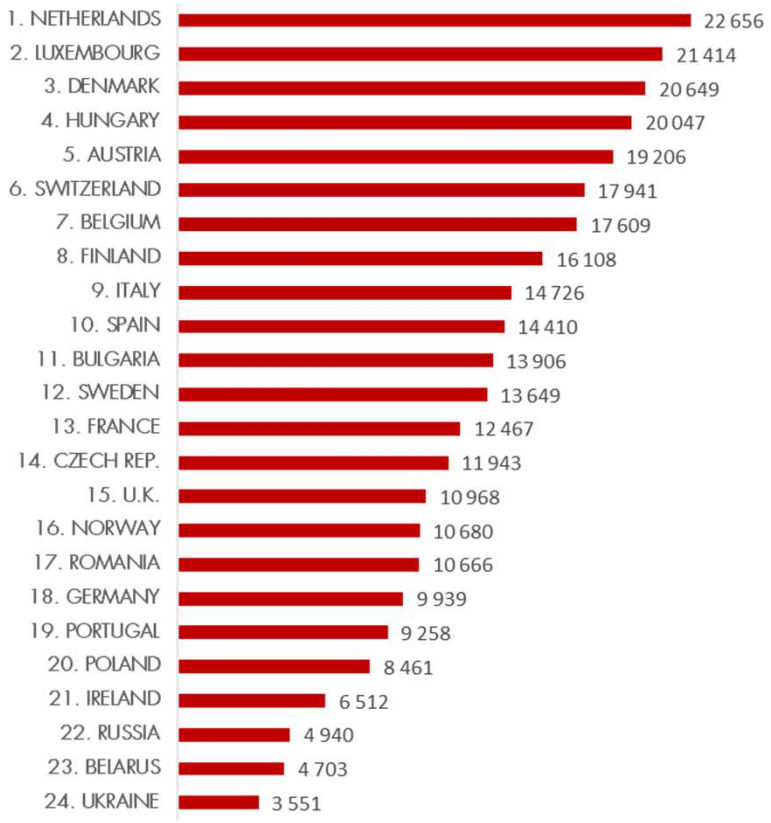
2017 BAROMETER 2G/3G/4G



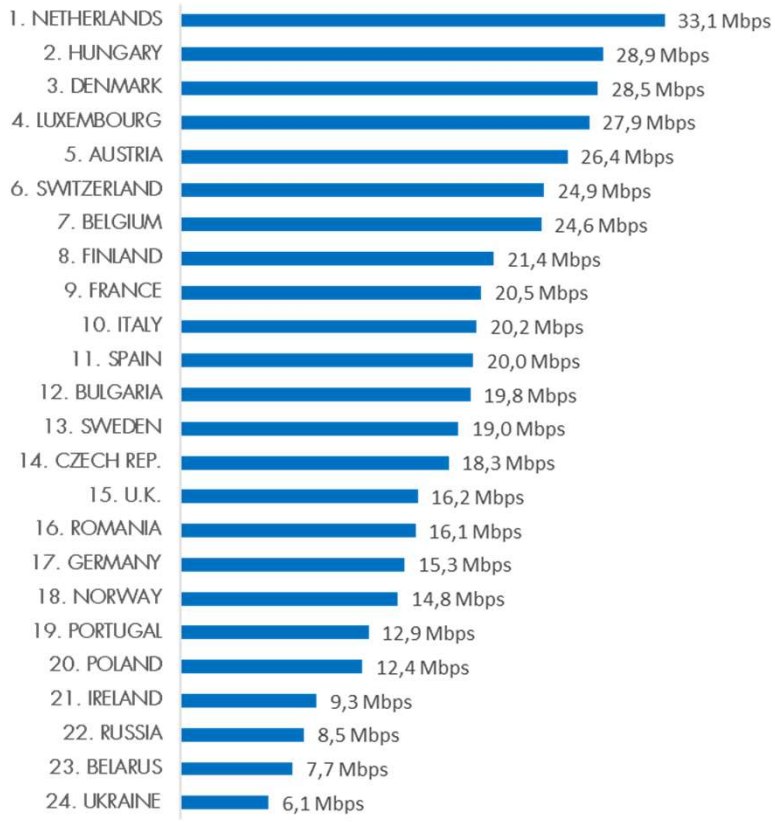
January to december 2017
2G/3G/4G connections
Android and iOs LTE devices
From all Apps powered by
4Gmark©

EUROPE

OVERALL QUALITY SCORE



SPEED



4GMARK.com • ALL RIGHTS RESERVED

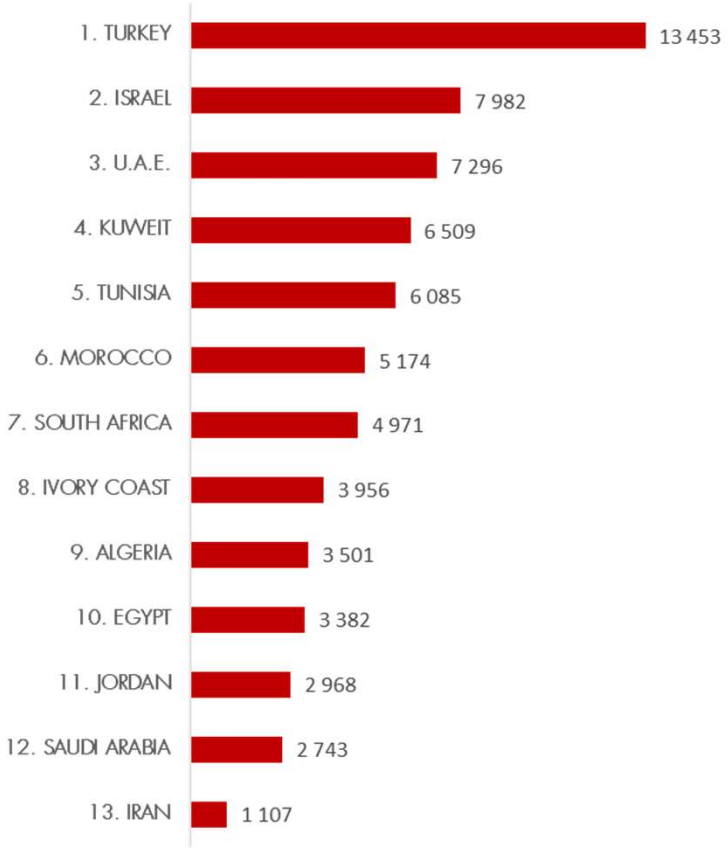
2017 BAROMETER 2G/3G/4G



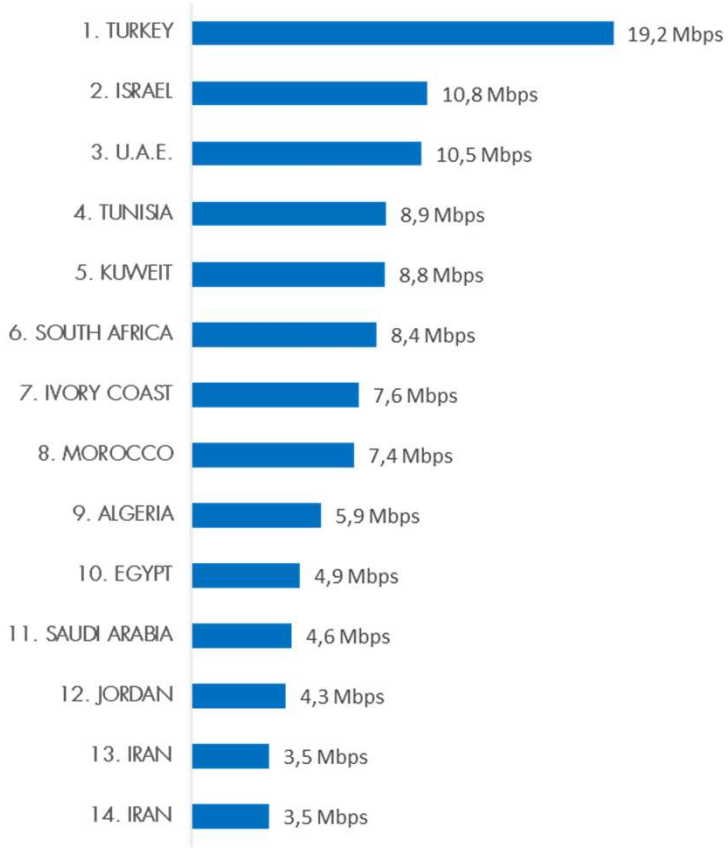
January to december 2017
2G/3G/4G connections
Android and iOs LTE devices
From all Apps powered by
4Gmark©

MIDDLE-EAST & AFRICA

OVERALL QUALITY SCORE



SPEED



4GMARK.com • ALL RIGHTS RESERVED

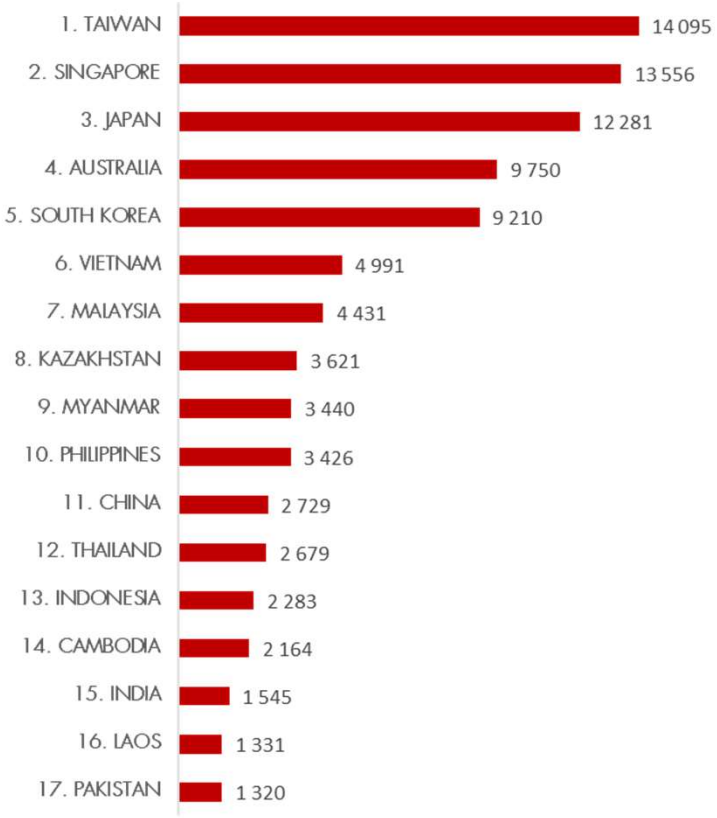
2017 BAROMETER 2G/3G/4G

ASIA PACIFIC

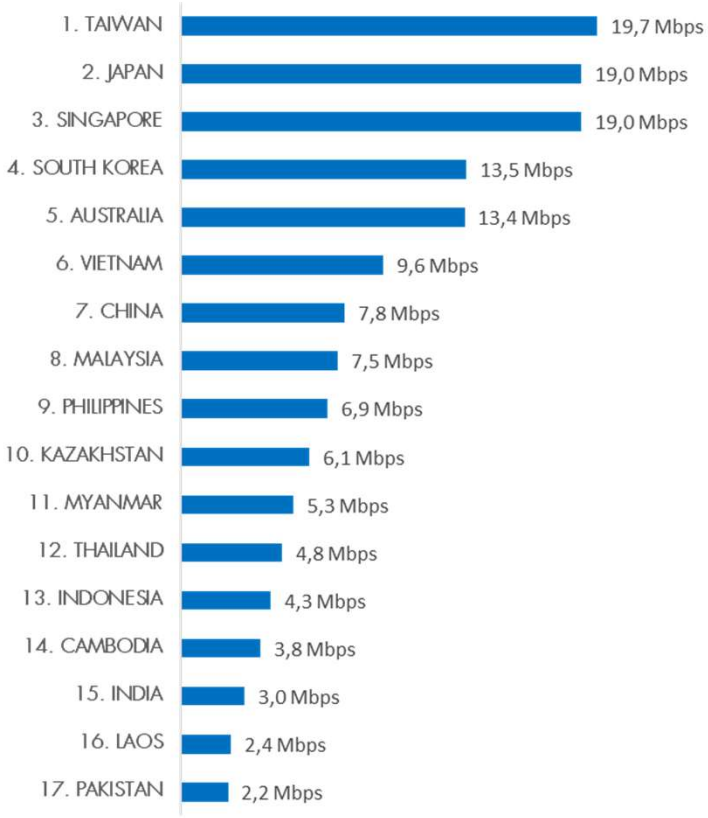


January to december 2017
2G/3G/4G connections
Android and iOs LTE devices
From all Apps powered by
4Gmark©

OVERALL QUALITY SCORE



SPEED



4GMARK.com • ALL RIGHTS RESERVED

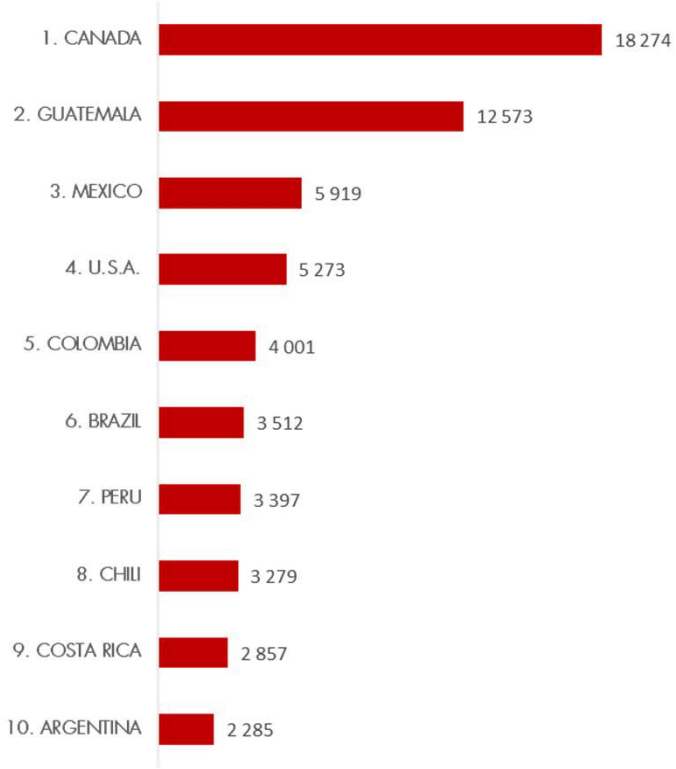
2017 BAROMETER 2G/3G/4G



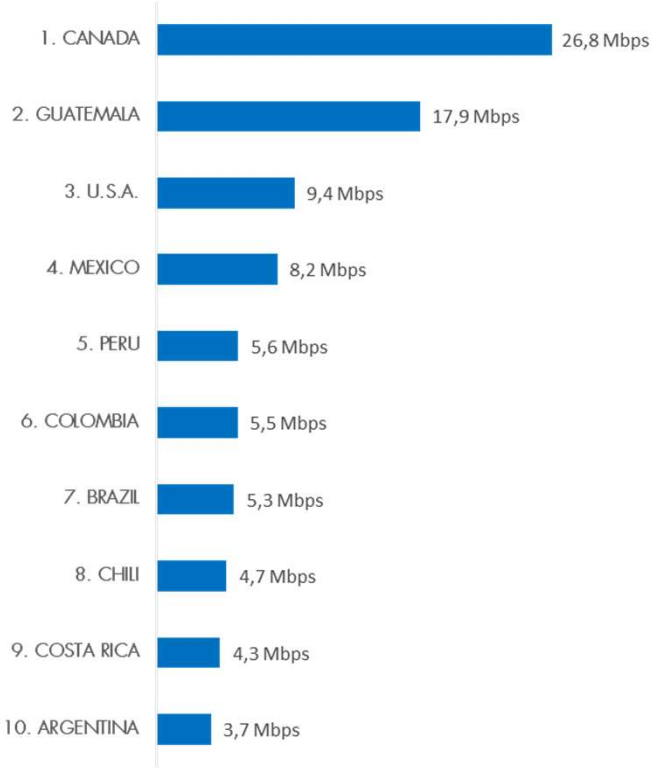
January to december 2017
2G/3G/4G connections
Android and iOs LTE devices
From all Apps powered by
4Gmark©

AMERICAS

OVERALL QUALITY SCORE



SPEED



4GMARK.com • ALL RIGHTS RESERVED

2017 BAROMETER 2G/3G/4G



January to december 2017
2G/3G/4G connections
Android and iOs LTE devices
From all Apps powered by
4Gmark©

4GMARK.COM - REPORTS

All our national reports are available on
http://www.4gmark.com/publications



4GMARK.com • ALL RIGHTS RESERVED

2017 BAROMETER 2G/3G/4G



January to december 2017
2G/3G/4G connections
Android and iOs LTE devices
From all Apps powered by
4Gmark©

4GMARK MOBILE DATA SOLUTION

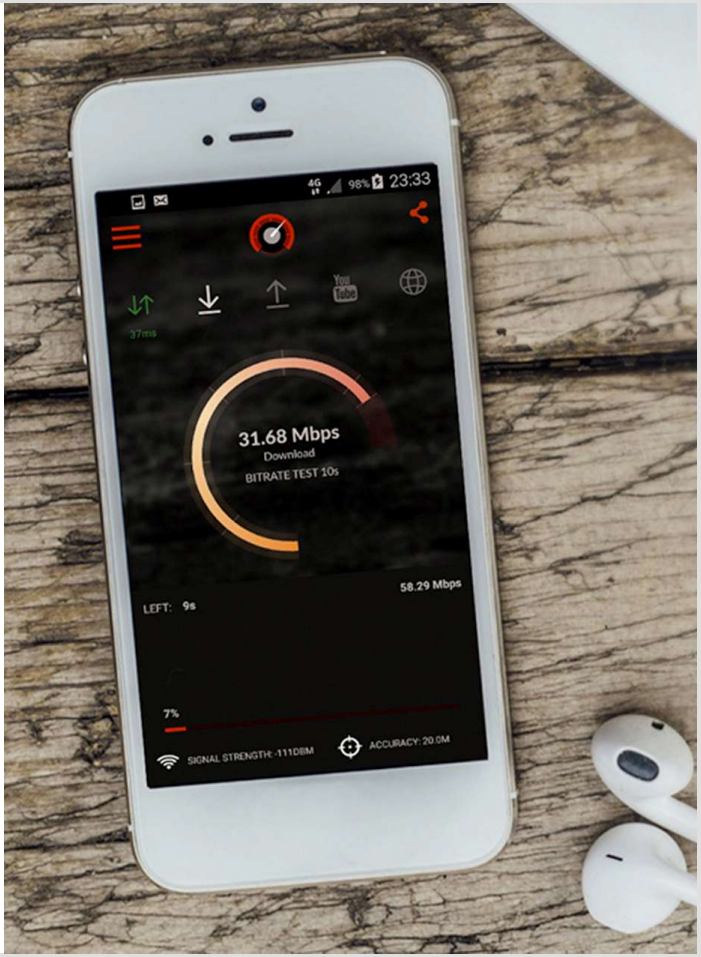
A unique experience

4Gmark is the only application to offer a comprehensive picture of the quality of the customer experience. This innovative design enables you to obtain a reliable measurement of your mobile connection.
The Speed Test closely reflects reality rather than returning the highest value recorded. The Full Test is the most comprehensive scenario to measure your experience by measuring your usage (including YouTube streaming and Web browsing).

Download 4Gmark. It's Free!

By carrying out their tests free of charge with 4Gmark, users can benefit from reliable and relevant information on the quality of their connection at any moment and at a specific geographical location. They are informed that they are participating in a collaborative project to create an information base in order to understand and improve the quality of service.

Download on the App Store GET IT ON Google Play http://get.4gmark.com



4GMARK.com • ALL RIGHTS RESERVED



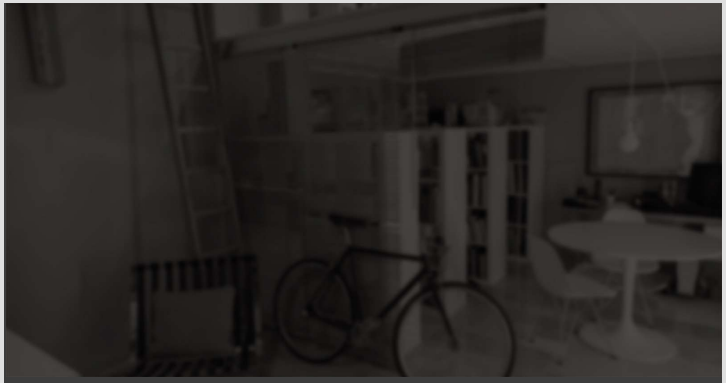
January to december 2017
2G/3G/4G connections
Android and iOs LTE devices
From all Apps powered by
4Gmark©

QOSI.FR

Qosi is the specialist in measuring the QoE / QoS of telecom networks and is the leader in **mobile customer vision** and crowdsourcing.
We capitalize more than 15 years of expertise and work with suppliers, operators, media and regulators worldwide. Methods, tools, equipment and uses are evolving rapidly. We have oriented our Development Strategy to integrate innovative and **disruptive solutions**.

We offer our customers a set of solutions to master QoE with the only global market offer:
- **Drive-Tests**
- **Analysis and expertise**
- **Measurement Tools**
- **Crowdsourcing**

QoE is changing. With **4Gmark** we are embarking on its revolution!



QOSI / 4GMARK
contact@4gmark.com

http://www.qosi.fr

https://facebook.com/4Gmark

https://twitter.com/4gmark

http://linkedin.com/company/5134782/

4GMARK.com • ALL RIGHTS RESERVED