

best in test.

For adding something on top in Romania and reaching an overall score of 866 dots in fixed broadband benchmarking survey we proudly award this certificate to

Vodafone Romania

Score 866 out of 1000



Hakan Ekmen
Chief Executive Officer Telecommunication







Report facts

umlaut tested and measured the performance of fixed broadband services in Romania. Focusing on the real user experience, we tested the categories Download Speed, Upload Speed and Latency.


For this report crowdsourced performance data has been collected and evaluated in 24 weeks from CW10 until CW33 2021. We collected 5.027.086 million samples from 22.054 lines.



5.0 million
samples



22.054
number of lines




**CW10 2021
to CW33 2021**
measurement
window




Claims





Best in test
Vodafone Romania

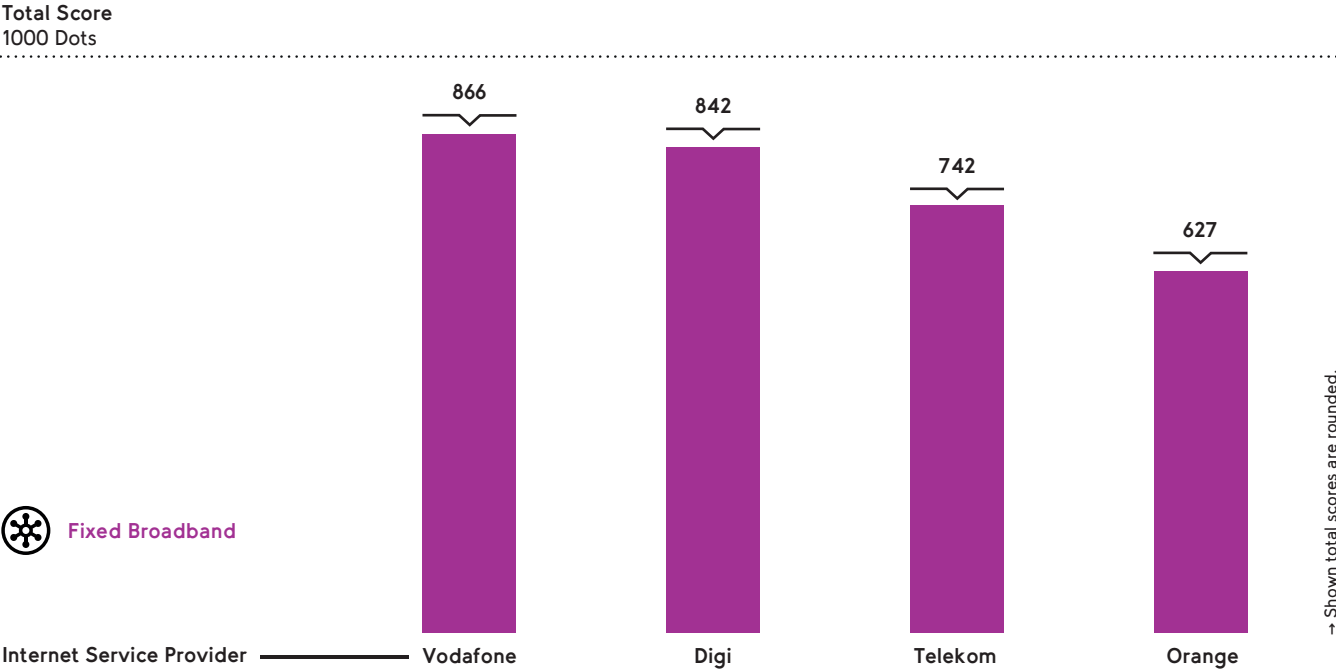


**Best rated user
download speed**
Vodafone Romania



Score and breakdown

Vodafone achieved the highest overall score among competitors with 866 dots out of 1000.



Score achieved by the networks under test.



Service	max.	Vodafone	Digi	Telekom	Orange
Speed Downlink	500	450	406	306	330
Speed Uplink	250	202	194	221	126
Latency	250	214	242	214	171



KPI overview

Speed and Latency

Speed KPIs		Unit	Vodafone	Digi	Telekom	Orange
Download Speed Active	P10 Datarate	[Mbit/s]	8,5	6,5	3,2	3,1
	AVG Datarate	[Mbit/s]	56,6	37,1	27,5	31,3
	P90 Datarate	[Mbit/s]	126,3	63,9	53,3	67,9
Download Speed Passive	DL Basic Internet class	[%]	94,6	94,2	93	93,8
	DL HD Video class	[%]	84,6	84,9	78,6	81
	DL UHD Video class	[%]	26,8	28,6	27,3	24,1
	DL Hi-Speed class	[%]	8,2	8,4	8,6	7,4

Speed KPIs		Unit	Vodafone	Digi	Telekom	Orange
Upload Speed	UL Basic Internet class	[%]	42,3	42,2	45,6	33,6
	UL HD Video class	[%]	40,6	38,3	43,4	29,4

Latency KPIs		Unit	Vodafone	Digi	Telekom	Orange
Latency	OTT Voice class	[%]	96,2	97,5	95,4	95
	Gaming class	[%]	88	93,9	83,4	81
	Egoshooter class	[%]	39	70,8	43,3	25,4

Measurement values achieved by the ISPs under test.

Methodology

As the de-facto industry standard, umlaut’s benchmarking methodology focuses on customer-perceived network quality and covers a wide range of mobile and fixed broadband services.

For the collection of crowd-data used for this certification report, we have integrated a background diagnosis processes into thousands of diverse Android apps. If one of these applications is installed on the end-user’s phone, data collection takes place 24/7, 365 days a year. We focus on the user experience. Our data collection is compliant with the GDPR, since we do not include any personal user data. This unique crowdsourcing technology allows us to collect data about real-world experience wherever and whenever customers use their smartphones to consume data services or place phone calls.

The umlaut benchmarking framework is based on a unified measurement method for true international comparability combined with the umlaut-Score approach. Our top priority is to fairly and transparently assess the global development of networks, push their quality and performance with our benchmarks and ultimately achieve improvements for every customer.



umlaut SE

Am Kraftversorgungsturm 3 · 52070 Aachen · Germany

Hakan Ekmen · Chief Executive Officer Telecommunication

cell +49 151 571 33 235 · hakan.ekmen@umlaut.com

www.umlaut.com