

Audit Report

Sweden, 2024





Intro

umlaut has tested the coverage of the Mobile Networks in Sweden and took a detailed look into the 5G coverage of each operator.

In the nationwide assessment, more than 138.6 square kilometres of Sweden were tested, 98.3% of the urban „built-up area“ and 97.1% of the non-urban „built-up area“.

For the extensive crowdsourcing analysis, 48.6 thousand users have contributed 351.4 million samples.

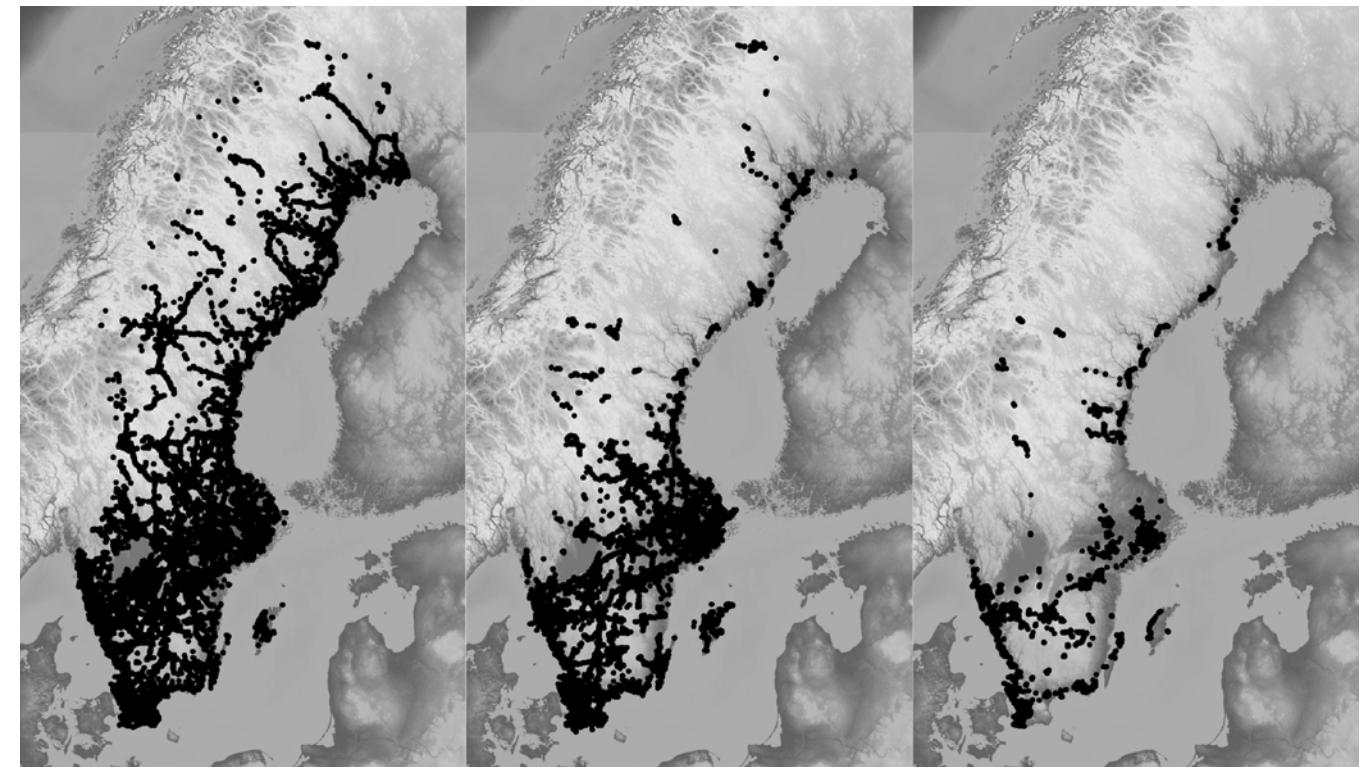
Six-month observation period

This crowdsourcing analysis is based on a 24-weeks period from 22.01.024 to 07.07.2024.



5G Footprint

5G Footprint KPIs — based on area share




	Telia	Operator 2	Operator 3
% 5G coverage over full footprint (5G Framework coverage reach KPI)	40.7%	23.6%	7.0%

Operators sharing the same network have been merged.



Report facts

 **351.4 million**
samples

 **138,663 km²**
size of tested area

 **24 weeks,**
W04 2024
to W27 2024
Data collection
time period

98.3%
of the 'built-up area'
covered
97.1%
of the 'Population area'
covered

 **48.6 thousand overall**
providing samples
Users

Metrics overview and KPI description

The following metrics were collected to assess coverage and performance

Total Samples Collected:

The total number of samples collected that were valid for coverage reach KPI.

Number of 2x2 km Tiles:

The total number of 2x2 km quadriles (zoom level 14) covered by each operator with data.

Share of 5G Samples:

The total share of 5G measurements over the total samples collected.

Share of 5G Samples (5G Capable Users):

The total share of 5G measurements over the total samples collected, filtered for 5G capable users only.

	Telia	Operator 2	Operator 3
Total Samples	41735774	110156488	42796783
Number of Tiles 2x2km	39910	34092	23700
Share of 5G Samples	28,8%	12,7%	11,4%
% 5G coverage over full footprint (5G Framework coverage reach KPI)	40,7%	23,6%	7,0%



Methodology

umlaut score

As the de-facto industry standard, our benchmarking methodology focuses on customer-perceived network quality and covers a wide range of mobile services. Today, more than 200 mobile networks in more than 120 countries are being evaluated by our unique scoring methodology. It allows a technical analysis that is unprecedented in its level of detail – enabling comparisons between the network performance and capability of each mobile network. Our public benchmarks as well as the certificate benchmarks help network operators to demonstrate how well they deliver wireless connections to consumers, business users and enterprises while revealing the areas of improvement.

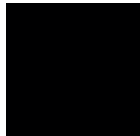
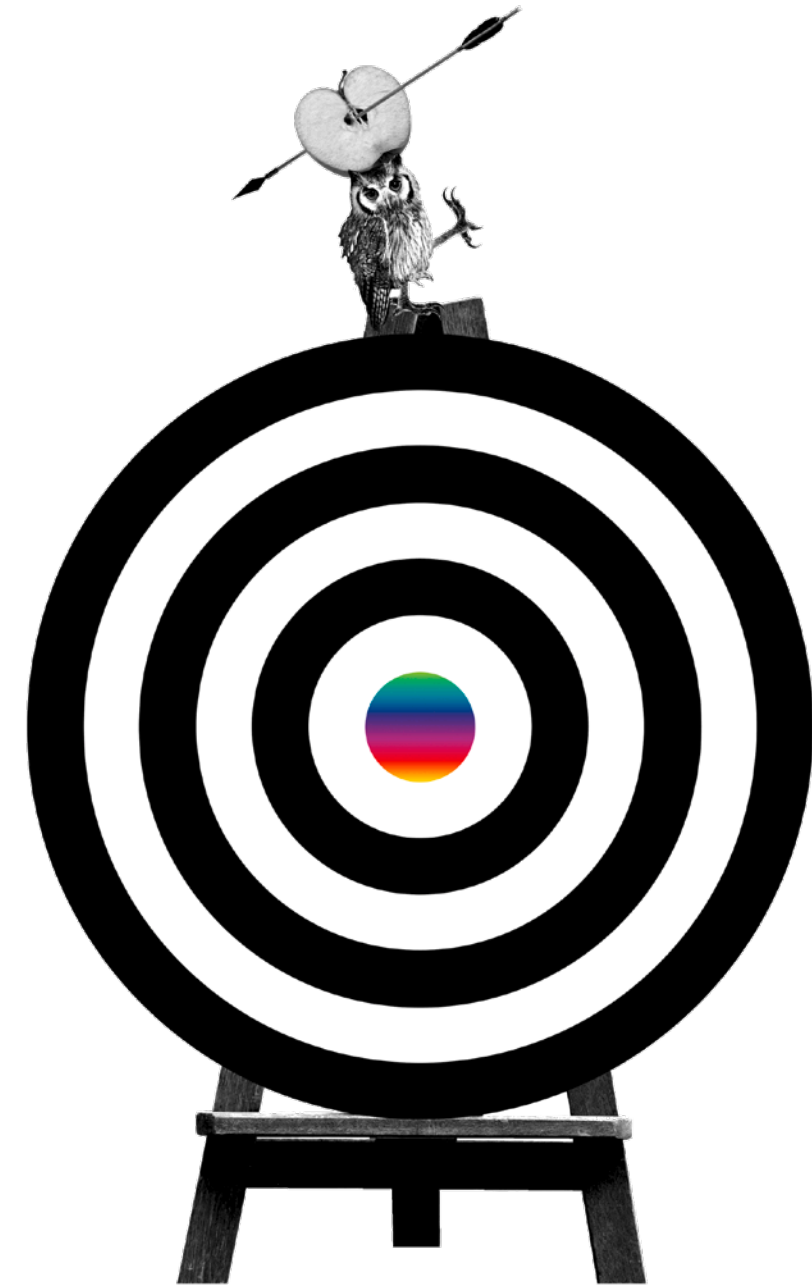
Crowdsourcing

For the collection of crowd data, umlaut has integrated background diagnosis processes into 8000+ diverse Android apps. If one of these applications is installed on the end-user's phone and the user agrees, anonymous data collection takes place 24/7, 365 days a year on this device. Reports are generated for every 15 minutes and daily sent to umlaut's cloud servers. Such reports generate just a small number of bytes per message and do not include any personal user data. The unique crowdsourcing technology allows umlaut to collect data about real-world customer experience in a truly passive way – wherever and whenever customers use their smartphones. By analyzing data according to predefined metrics, umlaut can provide information for the optimization of networks and also show if networks live up to the expectations of their customers.



Key takeaways

- ||| Telia shows the highest 5G footprint (coverage) and the highest 5G sample shares.





umlaut – Part of Accenture

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