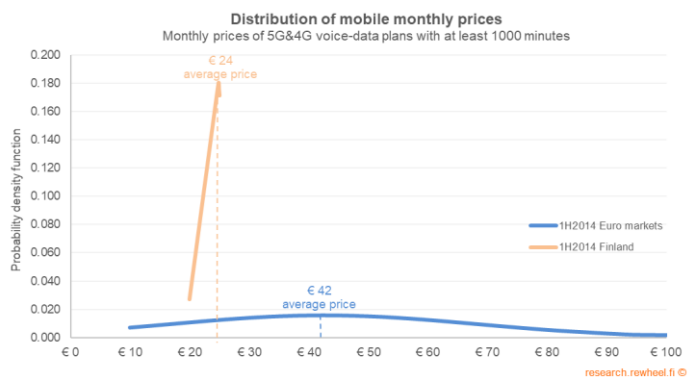
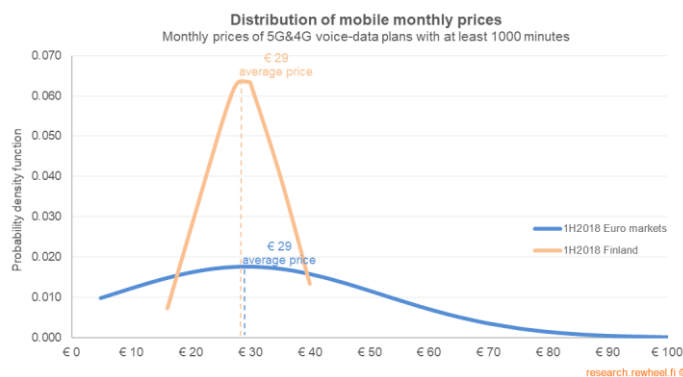
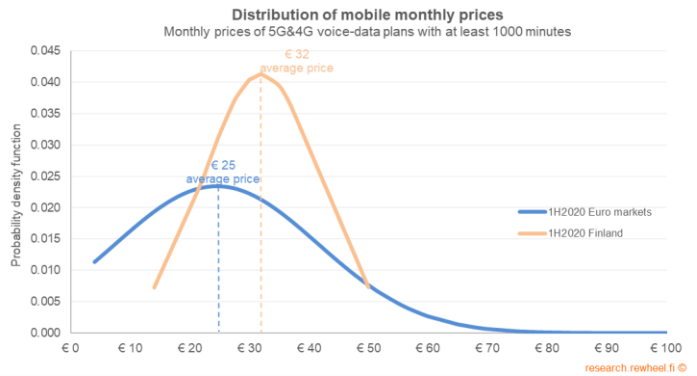
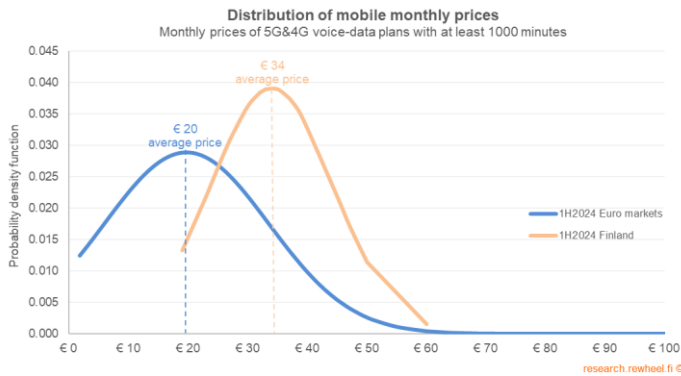


While mobile monthly prices fell by 53% in average across the 23 Euro markets, prices fell in 21 out of the 23 markets, in Finland prices went up 42% the last decade.

The average monthly price of 5G&4G voice-data plans with at least 1000 minutes fell 53% the last ten years across the 23 European mobile markets that use the Euro, from € 42 in the 1H2014 down € 20 in 1H2024. In Finland, the average monthly price went up by 42% from € 24 in the 1H2014 to € 34 in the 1H2024.

Rewheel research PRO study – January 2025



In the 1H2014 the average monthly price of 4G voice-data plans with at least 1000 minutes in the Finnish 3-MNO mobile market was € 23.90 (prices varied between € 19.90 and € 25.00). If 3G plans were to be included in the comparison the average monthly price in the Finnish market in the 1H2014 was even lower (€ 22.74). In 2014 Finnish consumers paid nearly half of what consumers paid across the 23 Euro mobile markets (€ 24 versus € 42).

The last ten years while the average monthly price fell in 21 out of the 23 Euro markets – prices increased only in Finland and Latvia – in Finland the average monthly price went up by 42%. In 2024 Finnish consumers paid in average € 34 for 5G&4G voice-data plans with at least 1000 minutes while consumers across the 23 Euro markets paid in average just € 20.

Monthly prices fell steeper in 4 vs. 3-MNO (Mobile Network Operator) markets. In the 4-MNO Italian and Romanian markets the average monthly price fell by 85% the last ten years. But in the 3-MNO Finnish market the average monthly price went up by 42%.

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1 Study context and methodology overview

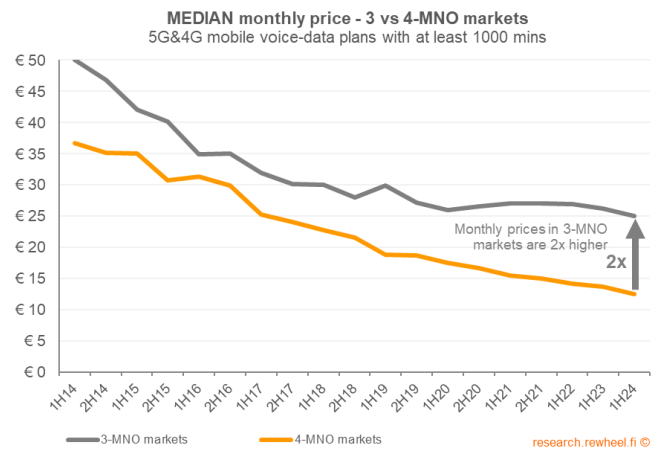
Rewheel has been tracking mobile prices since 2012. Rewheel first international comparison study¹ of mobile prices was conducted in December 2012. It tracked mobile prices across the 27 countries that were members of the European Union at the time. The main finding of the 2012 study “Research shows that users pay up to ten times more to use their smartphones in those Member States where there is no challenger to the big European operators.” was cited² by the former Vice President of the European Commission, Joaquin Almunia in a speech dated the 28th of February 2013.

Rewheel’s studies are the world’s most comprehensive mobile price comparison studies. Rewheel’s price comparison research aim is to objectively measure the price differences across mobile and broadband markets and identify the competition factors (e.g., 4 versus 3 mobile network operators) that underpin the massive price differences across markets.

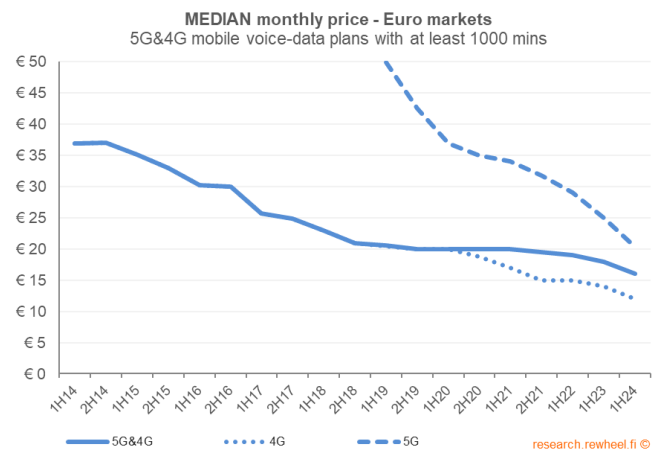
In April 2024 Rewheel published³ the 19th release of the mobile price comparison studies titled “The state of mobile and broadband pricing – 1H2024”. Therein Rewheel tracked and analysed mobile voice-data, mobile broadband and fixed broadband prices across 50 European, American, Asia Pacific, Middle East and African countries.

The main finding of the April 2024 study was that “Monthly mobile prices were 2-3x higher and gigabyte prices were 5-6x higher in markets with only 3 mobile network operators.”. Rewheel further reported that “...effective competition in markets with 4 mobile network operators not only leads to much lower mobile prices, but as well to substantially lower fixed broadband prices. In markets with only 3 mobile network operators, consumers not only pay 3x more for mobile plans with 100 gigabytes they also pay 60% more every month to buy fixed broadband plans with Gigabit speeds.” and that “...monthly prices of mobile voice-data plans continued to fall across most EU and OECD countries”.

In fact, as seen in the chart that follows, the median monthly price of 5G&4G voice-data plans with at least 1000 minutes across 4-MNO and as well across 3-MNO mobile markets has been falling continuously for the last ten years. As also seen in the chart, the median monthly price in 4-MNO markets has fallen steeper (66% decline to € 12.4) the last ten years than in 3-MNO markets (50% decline to € 25).



The trend of falling 5G and 4G monthly plan prices is as well evident among the 23 EU member states that use the Euro. These are the 20 EU member states that belong to the Euro area⁴ plus Bulgaria and Denmark with national currencies that are pegged to the Euro and Romania where mobile plans are priced in Euro.



Herein for the first time, we present the historic development of monthly price distributions (i.e., probability density functions of Gaussian distributions) of 5G&4G voice-data plans across the 23 Euro mobile markets and as well for each one of the 23 Euro mobile markets (e.g., Finland, Italy, France, Germany, Spain, Denmark, Romania).

Our latest analysis shows that average mobile monthly price across the 23 Euro markets fell by 53% the last ten years. Average monthly prices fell steeper in 4-MNO Euro markets (59%) than in 3-MNO Euro markets (49%). But while prices fell in 21 out of the 23 Euro mobile markets the last ten years – prices increased only in Finland and Latvia – in Finland the average monthly price went up 42%.

¹https://research.rewheel.fi/downloads/Rewheel_EU27_smartphone_tariff_competitiveness_report_December_2012_HIGHLIGHTS.pdf
²https://ec.europa.eu/commission/presscorner/detail/en/speech_13_168

³https://research.rewheel.fi/downloads/The_state_of_mobile_and_broadband_pricing_1H2024_PUBLIC_REDACTED_VERSION.pdf
⁴https://european-union.europa.eu/institutions-law-budget/euro/countries-using-euro_en

About Rewheel

Mobile data and broadband pricing, mobile operator competitiveness rankings, market modelling & analysis, competition analysis (consolidation, 4 to 3 mobile mergers, effective remedies, new market entries), MNO near-zero marginal data cost, MVNO economics, mobile capacity-only play, mobile centric convergence (MCC) pro-competitive strategies and 4th MNO business case.

Founded in 2009 and incorporated in Finland, Rewheel is a privately owned independent telecom research firm and boutique management consultancy. Our clients are mobile network operators, telco groups, MVNO groups, competition authorities, telecom sector regulators, governments, global internet firms, mobile data-centric start-ups, PE and VC investors.

Rewheel has delivered management consultancy work for clients in the United Kingdom, United States, Germany, Ireland, Switzerland, Finland, Sweden, Belgium, Greece, Poland, Slovenia, Hungary, Russia, Romania.

The following authorities have acquired access to Rewheel's independent pricing, mobile market competitiveness, 4 to 3 merger analysis and remedy assessment research: The European Commission Directorate for Competition, the United States Department of Justice, the New York, California and many other US State Attorney General Offices, the national competition authorities of Canada, Australia, the Netherlands and Greece, the Ministry of Economic Affairs of the Netherlands, the Ministry of Industry and Trade of Czechia, the Korean Electronics and Telecommunication Research Institute, the sector regulators of the United Kingdom, Germany, France, the Netherlands, Ireland, Finland, Portugal, etc.

Rewheel's mobile data pricing, strategy, competition analysis, merger assessment, network economics, spectrum, profitability and competitiveness focused reports have been cited by OECD Economic Surveys, The Economist, The Financial Times, The New York Times, Reuters, Bloomberg, WSJ and publicly referenced by the UK telecoms regulator Ofcom, BIPT, Vodafone, Telefonica, Tele2, Elisa, DNA, GSMA, VPs of the EU Commission responsible for Competition, MEPs, IEEE, ITU.

Recent Rewheel research PRO-reports

Mobile data usage in 2024, capacity limits 2024-2030 and many other competitiveness metrics for 173 mobile network operators present across 50 EU & OECD mobile markets

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Contrary to CMA's provisional speculative view – the entry of a new 4th MNO – is the only effective remedy for the Vodafone / Three merger

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Network performance and speed are NOT higher in more concentrated mobile markets

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The state of mobile and broadband pricing – 1H2024

⇒ https://research.rewheel.fi/downloads/The_state_of_mobile_and_broadband_pricing_1H2024_PUBLIC_REDACTED_VERSION.pdf

The 4 to 3 Vodafone / Three mobile merger in the UK will lead to substantial 26% to 51% monthly price increases

⇒ https://research.rewheel.fi/downloads/Predicted_price_increases_Vodafone_Hutchison_4_to_3_UK_mobile_merger_PUBLIC_VERSION.pdf

Wireless market and operator competitiveness – 2023

⇒ https://research.rewheel.fi/downloads/Wireless_market_operator_competitiveness_2023_PUBLIC.pdf

The state of broadband (FBB&FWA) pricing – 1H2023

⇒ [https://research.rewheel.fi/downloads/The_state_of_broadband_\(FBB_FWA\)_pricing_1H2023_PUBLIC_VERSION.pdf](https://research.rewheel.fi/downloads/The_state_of_broadband_(FBB_FWA)_pricing_1H2023_PUBLIC_VERSION.pdf)

The state of 4G and 5G pricing, 1H2023 – Inflation edition

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Mobile prices are 2x to 5x lower in markets with 4 or more MNOs

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The state of 4G & 5G pricing, 1H2020

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