

The state of 4G pricing – 1H2018

Digital Fuel Monitor 9th release

How many 4G gigabytes €5, €10, €15, €20, €25, €30, €40, €50, €60, €70 and €80 could buy in EU and OECD markets on smartphone and data-only plans. What a difference a 4th mobile network operator makes!

Rewheel research PRO study, 1st May 2018

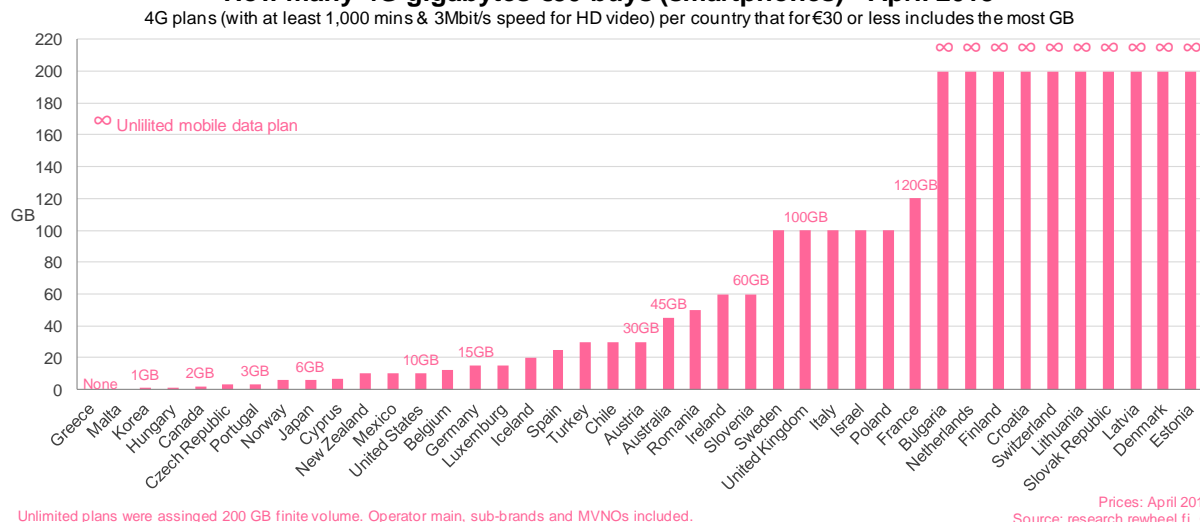
Unlimited mobile data

- After a comeback in 2016 unlimited 4G mobile data is here to stay
- Unlimited mobile broadband plans for fixed-to-mobile home broadband substitution (FMS) are now available for less than €30 in nine markets and for less than €20 in eight markets (including Switzerland!, Poland, Finland)

How many gigabytes €30 buys in 4G smartphone plans?

- In April 2018 in half of all 28 EU markets €30 bought consumers 100 or unlimited gigabytes
- In all EU28 & OECD markets, except Norway, €30 bought more gigabytes in April 2018 than in November 2017

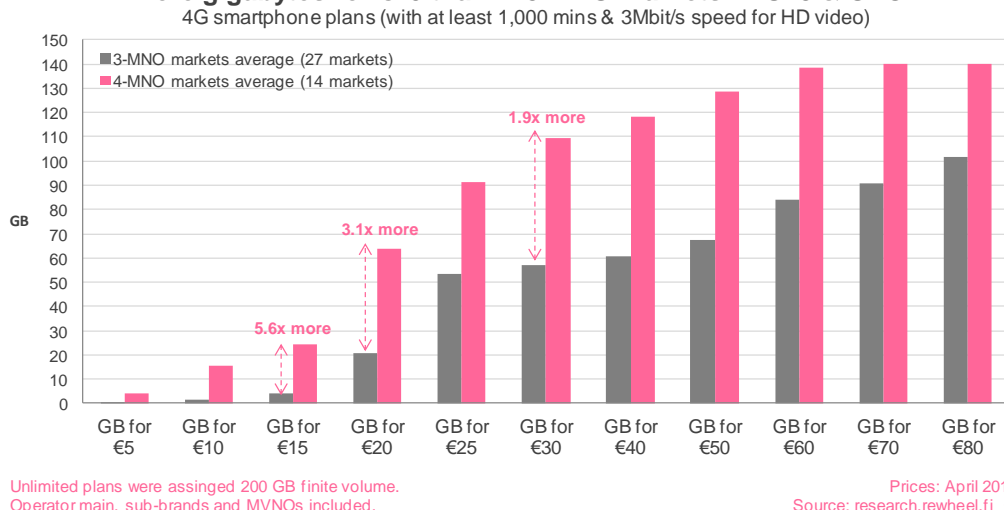
How many 4G gigabytes €30 buys (smartphones) - April 2018



4 versus 3 MNO markets

- In EU28 & OECD markets with 4 MNOs consumers could buy in average 3 times more gigabytes for €20 and nearly 2 times more for €30 compared to markets with 3 MNOs
- In the German and Austrian 4 to 3 consolidated mobile markets consumers must pay 4 and 3 times more respectively to buy 50 gigabytes than in the 4-MNO French market

In 4-MNO markets consumers could buy in average 3 times more gigabytes for €20 than in 3-MNO markets - EU28 & OECD



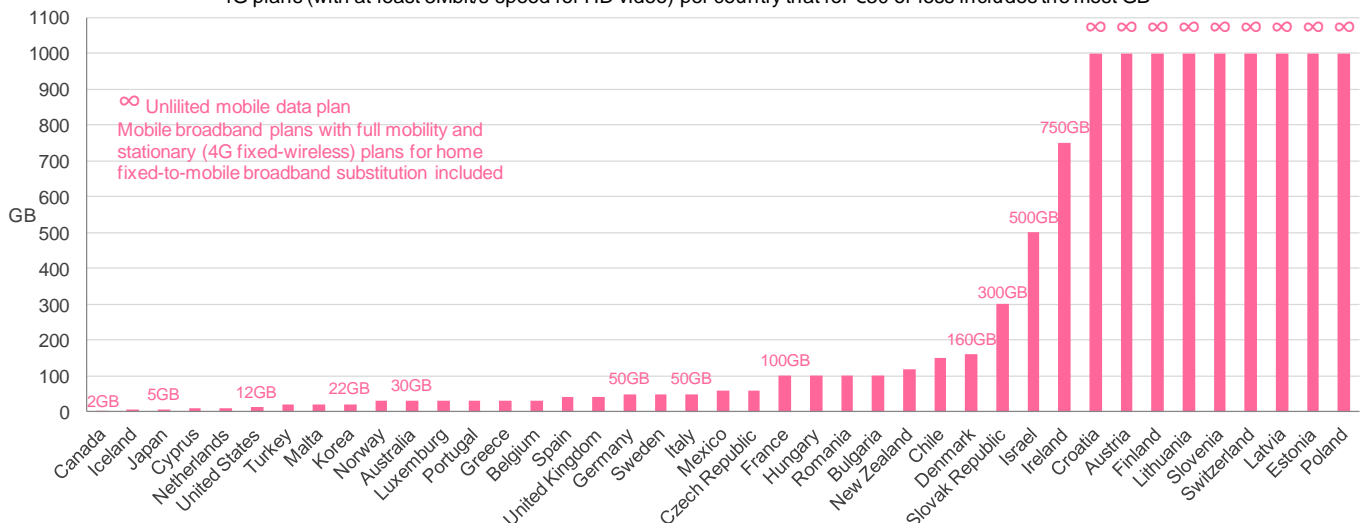
How many gigabytes consumers could buy in 4G smartphone plans with at least 1,000 mins and at least 3Mbps for HD video in EU28 & OECD markets? - April 2018														
EU28	OECD	Country code	Country name	GB for €5	GB for €10	GB for €15	GB for €20	GB for €25	GB for €30	GB for €40	GB for €50	GB for €60	GB for €70	GB for €80
			Greece	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.00	5.00
			Country	0.00	0.00	0.00	0.00	0.00	0.00	2.00	2.00	12.00	12.00	12.00
			Country	0.00	0.00	0.00	0.00	0.30	1.00	3.60	6.60	Unlimited	Unlimited	Unlimited
			Country	0.00	0.00	0.00	0.00	0.00	1.00	4.00	15.00	Unlimited	Unlimited	Unlimited
			Country	0.00	0.00	0.00	0.25	0.50	2.00	10.00	12.00	12.00	20.00	20.00
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			Country	0.00	0.50	1.00	2.00	3.00	6.00	12.00	30.00	40.00	40.00	60.00
			Country	0.00	0.00	0.00	2.00	6.00	6.00	14.00	20.00	30.00	30.00	50.00
			Country	0.00	0.00	0.00	0.00	3.00	7.00	7.00	7.00	7.00	7.00	10.00
			Country	0.00	0.00	0.00	0.00	0.00	10.00	10.00	25.00	25.00	25.00	40.00
			Country	0.00	3.00	5.00	5.00	10.00	10.00	15.00	15.00	15.00	15.00	20.00
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			Country	0.00	0.00	0.00	0.00	7.00	12.00	20.00	30.00	30.00	30.00	30.00
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			Country	0.00	0.00	0.00	0.00	25.00	30.00	40.00	60.00	60.00	60.00	60.00
			Country	0.00	10.00	20.00	30.00	30.00	30.00	30.00	30.00	50.00	50.00	60.00
			Country	0.00	2.00	6.00	15.00	28.00	45.00	52.00	96.00	96.00	150.00	200.00
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			Country	0.00	0.60	20.00	40.00	60.00	60.00	100.00	100.00	100.00	100.00	100.00
			Country	0.00	4.00	8.00	10.00	25.00	100.00	100.00	Unlimited	Unlimited	Unlimited	Unlimited
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			Country	0.00	5.00	5.00	27.00	Unlimited	Unlimited	Unlimited	Unlimited	Unlimited	Unlimited	Unlimited
			Finland	0.00	0.00	0.00	6.00	Unlimited	Unlimited	Unlimited	Unlimited	Unlimited	Unlimited	Unlimited
			Country	0.00	0.00	0.00	5.00	Unlimited	Unlimited	Unlimited	Unlimited	Unlimited	Unlimited	Unlimited
			Switzerland	0.00	0.00	0.00	0.00	Unlimited	Unlimited	Unlimited	Unlimited	Unlimited	Unlimited	Unlimited
			Country	0.00	8.00	16.00	16.00	Unlimited	Unlimited	Unlimited	Unlimited	Unlimited	Unlimited	Unlimited
			Country	0.00	0.00	0.00	Unlimited	Unlimited	Unlimited	Unlimited	Unlimited	Unlimited	Unlimited	Unlimited
			Country	0.00	0.50	6.00	Unlimited	Unlimited	Unlimited	Unlimited	Unlimited	Unlimited	Unlimited	Unlimited
			Country	0.00	0.00	20.00	Unlimited	Unlimited	Unlimited	Unlimited	Unlimited	Unlimited	Unlimited	Unlimited
			Country	0.00	4.00	12.00	Unlimited	Unlimited	Unlimited	Unlimited	Unlimited	Unlimited	Unlimited	Unlimited

How many gigabytes €30 buys in 4G mobile broadband or stationary (fixed-wireless) plans?

- Unlimited mobile broadband plans for fixed-to-mobile home broadband substitution (FMS) are now available for less than €30 in nine markets and for less than €20 in eight markets (including Switzerland!, Poland, Finland)
- In April 2018 in 9 out of 28 EU markets €30 bought consumers 500 or unlimited gigabytes
- A mobile-only operator from a challenger European group sells an affordable (less than €30) 4G unlimited mobile broadband plan for fixed-to-mobile broadband substitution packed with 1 terabyte (1,000 gigabytes)

How many 4G gigabytes €30 buys (mobile broadband) - April 2018

4G plans (with at least 3Mbit/s speed for HD video) per country that for €30 or less includes the most GB



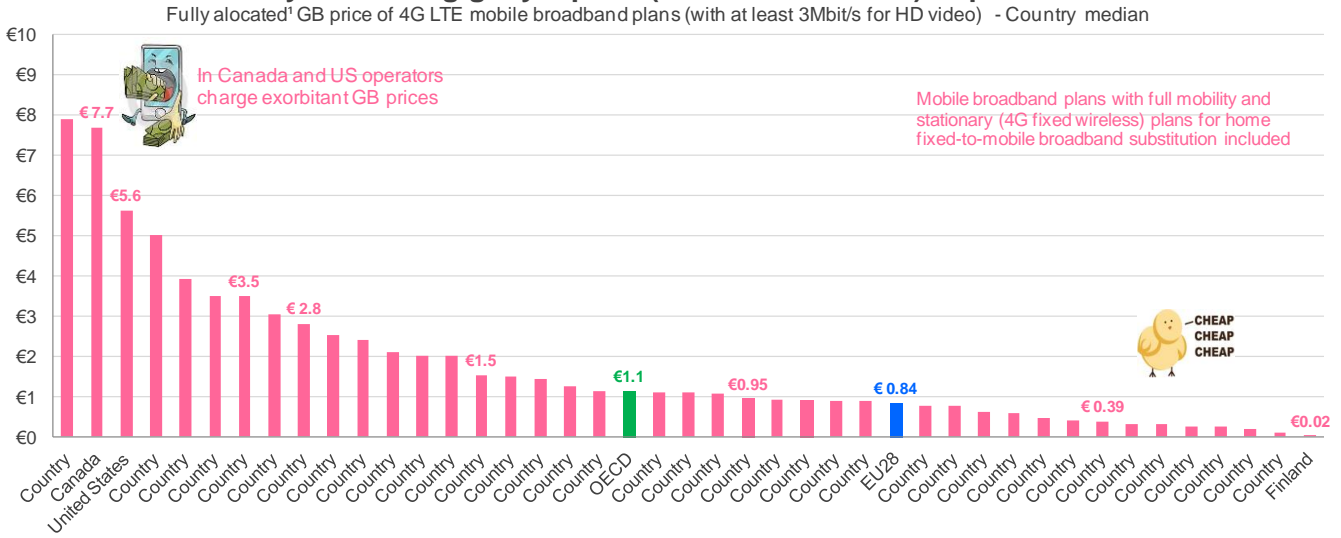
Unlimited plans were assigned 1,000 GB finite volume. Operator main, sub-brands and MVNOs included.

Prices: April 2018
Source: research.rewheel.fi ©

Fully allocated gigabyte price in 4G mobile broadband or stationary (fixed-wireless) plans

- The EU28 median fully allocated gigabyte price fell from €1.0/GB in November 2017 to €0.84 GB in April 2018
- The OECD median fully allocated gigabyte price fell from €1.2/GB in November 2017 to €1.1 GB in April 2018
- In Canada and the United States operators continue to charge exorbitant mobile broadband gigabyte prices

Fully allocated gigabyte price (mobile broadband) - April 2018



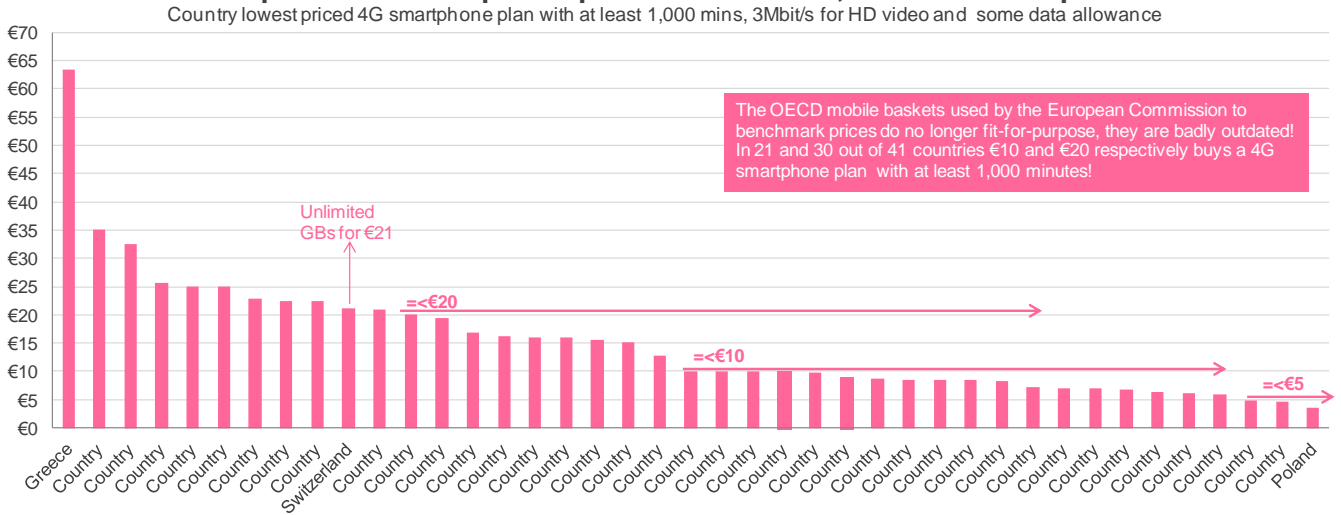
¹ Fully allocated GB price = tariff retail monthly price (incl. VAT) divided by included gigabyte allowance. Unlimited plans were assigned a finite volume of 1,000 GB.

Prices: April 2018
Source: research.rewheel.fi ©

The OECD methodology is flawed and the OECD mobile baskets are no longer fit for purpose

- The OECD methodology is flawed. The European Commission measures only the higher priced plans offered by incumbent operators by using the outdated OECD mobile baskets that have tiny data volume allowances (250 megabytes to 5 gigabytes for handset plans) while completely ignoring the lower priced plans (with very large or unlimited gigabyte allowances) that the challenger no.4 and some no.3 operators sell
- In 21 and 30 out of 41 countries €10 and €20 respectively buys a 4G smartphone plan with at least 1,000 minutes!

Lowest priced 4G smartphone plan with at least 1,000 minutes - April 2018



Operator main, sub-brands and MVNOs plans included

Prices: April 2018
Source: research.rewheel.fi ©

Context

Rewheel's Digital Fuel Monitor bi-annual releases have been tracking mobile data prices, price discrimination practices (zero-rating) and network economics metrics (data and spectrum usage) in the EU28 & OECD mobile markets since 2014. In this Digital Fuel Monitor 9th release 1H2018 we tracked and analysed the state of 4G pricing during the first half of 2018 (April 2018) and reported the main price developments compared to the second half of 2017 (November 2017).

As with every release, in this 9th release we have collected and analyzed thousands of eligible smartphone and mobile broadband plans (and as well stationary fixed-wireless plans indented for fixed-to-mobile broadband home substitution) from 41 markets in accordance with Digital Fuel Monitor's methodology¹.

In this 9th release we analyzed the gigabyte prices and ranked the EU28 & OECD countries using the maximum gigabytes for €30 price metric, as we have done the 2016 and 2017 releases, but as well using many more EUR baskets. We have ranked the EU28 & OECD countries using the maximum gigabytes that €5, €10, €15, €20, €25, €30, €40, €50, €60, €70 and €80 could buy. Similarly to the 2016 and 2017 releases, we have as well calculated the fully allocated country median gigabyte prices and ranked the EU28 & OECD countries also based on this metric.

In previous releases when calculating the fully allocated gigabyte prices (i.e. monthly reoccurring fee including VAT divided by the included gigabyte allowance) we assigned to plans with unlimited volume a finite volume that was determined by the maximum finite gigabyte volume that €30 bought in any of the EU28 & OECD countries. In DFMonitor's 8th release 2H2017 the finite volume assigned in smartphone plans with unlimited volume was 100 gigabytes.

In this 9th release we had to adjust this rule for consistency across all EUR baskets. We assigned to plans with unlimited volume the maximum finite gigabyte volume that €80 bought (the highest EUR basket we analyzed) in any of the EU28 & OECD countries. The reason for this adjustment was the fact that while €30 bought during April 2018 at most a finite volume of 120 gigabytes in smartphone plans across all EU28 & OECD countries €80 bought a higher finite volume of 200 gigabytes. Hence, if we were to stick to the €30 rule we would have created an artefact whereby unlimited volume plans that cost considerably less than €80 (e.g. 50) could end up having a higher fully allocated gigabyte price than more expensive plans with a large finite volume. This rule modification ensures that cheaper plans with a truly (i.e. 3 Mbps speed at all time for HD video) unlimited volume are always ranked higher than more expensive plans with large finite gigabyte volumes.

¹http://research.rewheel.fi/downloads/Methodology_DFMonitor_8th_release_2H2017.pdf

Table of Contents

1	How many 4G gigabytes €5, €10, €15, €20, €25, €30, €40, €50, €60, €70 and €80 buys?	8
1.1	4G smartphone plans with at least 1,000 minutes and 3 Mbps speed for HD video	8
1.2	4G mobile broadband or stationary (fixed-wireless) plans with at least 3 Mbps speed for HD video	23
2	Fully allocated country median gigabyte prices	33
2.1	4G smartphone plans with at least 1,000 minutes to all networks and 3 Mbps speed for HD video	33
2.2	4G mobile broadband or stationary (fixed-wireless) plans with at least 3 Mbps speed for HD video	34
3	Gigabyte prices in 4 versus 3-MNO markets	36
3.1	Do consumers in 4-MNO markets get more gigabytes for their money compared to 3-MNO markets?	37
3.2	Are gigabyte prices higher, or conversely gigabyte allowances lower, in more expensive OECD countries?	40
4	OECD mobile baskets are no longer fit for purpose (they are badly outdated)	42

Get the full report

The full 48-pages report is available for purchase. Please contact us at research@rewheel.fi or [+358442032339](tel:+358442032339).

About Rewheel

*New radio spectrum bands, 4.5G and 5G technology, unlimited mobile data plans and the Internet of Things radically change mobile network operators' cost, revenue and profitability dynamics. **Rewheel's mission is to help operators prepare for the paradigm shift in network and spectrum strategy, spectrum valuation, network sharing, M&A, MVNO economics and mobile data pricing.***

Founded in 2009, Rewheel is a Finland based boutique management consultancy. Our clients are mainly European mobile network operators, telco groups, MVNO groups, sector regulators, governments, global internet firms, mobile data-centric start ups, PE and VC investors.

We delivered management consultancy work for clients in the United Kingdom, United States, Ireland, Switzerland, Finland, Sweden, Belgium, Greece, Poland, Slovenia, Hungary, Russia, Romania. Buyers of our research reports and related strategic workshops include many companies and authorities across Europe and worldwide.

Since 2010 we have been supporting a number of European challenger mobile operators in multiband (700, 700 SDL, 800, 900, 1400 SDL, 1800, 2600, 3.5 GHz) auctions with spectrum valuation and strategic advisory services.

Network economics metrics

For comprehensive data usage, spectrum usage and capacity utilisation metrics in EU28 and OECD markets visit

⇒ <http://research.rewheel.fi/networkeconomics/>

Recent research reports

Gigabyte price development in 4 to 3 consolidated versus 4-MNO European markets – September 2013 to March 2018

⇒ http://research.rewheel.fi/insights/2018_apr_pro_4to3_consolidation_vs_4MNO/

The state of 4G pricing – 2H2017 – Digital Fuel Monitor 8th release

⇒ http://research.rewheel.fi/insights/2017_nov_pro_2h2017_release/

Unlimited mobile data and near zero marginal cost – a paradigm shift in telco business models

⇒ http://research.rewheel.fi/insights/2017_sep_pro_near_zero_marginal_cost/

O2 – Ready to disrupt the German tight oligopoly market

⇒ http://research.rewheel.fi/insights/2017_apr_pro_o2_germany_turnaround/

Capacity utilization and fixed-to-mobile broadband substitution potential – A study of 64 European operators

⇒ http://research.rewheel.fi/insights/2017_mar_pro_network_utilisation_mimo/

Effective structural remedies for Hutchison-WIND 4 to 3 Italian mobile merger

⇒ http://research.rewheel.fi/insights/2016_sept_premium_italy_hutch_wind_merger/

Telenor Denmark – Turnaround strategy

⇒ http://research.rewheel.fi/insights/2016_apr_premium_telenor_denmark_turnaround/

The approval of the 4 to 3 Telefonica E-Plus merger with Mickey Mouse MVNO remedies made Germany the least competitive market in EU28

⇒ http://research.rewheel.fi/insights/2016_feb_premium_denmark_germany/

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