The state of 4G pricing – 2H2017

Digital Fuel Monitor 8th release

Rewheel research PRO study, 1st December 2017

Unlimited mobile data
- After a comeback in 2016 unlimited mobile data has spread further during 2017
- Unlimited mobile data plans are now available in 23 out of the 41 EU28 & OECD countries

How many 4G gigabytes €30 buys in smartphone plans?
- In almost all EU28 & OECD countries gigabyte allowances in the 2H2017 increased compared to the 1H2017
- In 16 EU28 & OECD countries €30 bought in November 2017 4G plans with at least 100 or unlimited GB

How many 4G gigabytes €30 buys (smartphones)
4G plans (with at least 1,000 mins & 3Mbit/s speed for HD video) per country that for €30 or less includes the most GB

Fully allocated gigabyte price in smartphone plans
- In almost all EU28 & OECD countries fully allocated GB prices fell significantly compared to 1H2017
- The median fully allocated GB price in EU28 (£2.4/GB) and OECD (£3.3/GB) fell by ≈30% compared to 1H2017
- In Italy GB prices fell by more than 50% compared to 1H2017 in anticipation of Iliad’s imminent market entry
- In Finland the median fully allocated GB price in the 2H2017 was €0.3 while in Canada it was 41 times higher
- In Korea, Canada, US, Japan and Germany operators still charge exorbitant gigabyte prices

Fully allocated gigabyte price (smartphones)
- Country median
- In Korea, Canada, US, Japan and Germany operators charge exorbitant GB prices

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How many 4G gigabytes €30 buys in mobile broadband plans?

- In 12 EU28 & OECD countries €30 bought in November 2017 4G plans with at least 500 or unlimited GB
- 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 (1000 gigabytes)

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

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

Fully allocated gigabyte price in mobile broadband plans

- The EU28 median fully allocated GB price (€1/GB) stayed flat while the OECD (€1.2/GB) fell by ≈30% compared to 1H2017
- In Finland the median fully allocated GB price in 2H2017 was €0.08 while in Canada it was 117 times higher
- The price gap between Canadian and OECD gigabyte prices has widened in the 2H2017 compared to the 1H2017
- In Canada, US, Germany and Japan operators still charge exorbitant gigabyte prices

Fully allocated gigabyte price (mobile broadband)

Fully allocated GB price of 4G LTE mobile broadband plans (with at least 3Mbit/s for HD video) - Country median

1 Fully allocated GB price = tariff retail monthly price (incl. VAT) divided by included gigabyte allowance
Unlimited plans were assigned a finite volume of 300 GB or 500 GB. 300 GB and 500 GB were the highest finite volumes that €30 could buy in mobile broadband plans with full mobility and stationary usage (i.e. fixed-line broadband replacement) respectively

Prices: November 2017
Source: research.rewheel.fi ©
Other highlights

- Free Mobile (Iliad) in France, DNA in Finland and Elisa in Finland charge median fully allocated gigabyte prices in smartphone plans that range from €0.2 and €0.30.

**Fully allocated gigabyte price (smartphones)**

<table>
<thead>
<tr>
<th>Operator</th>
<th>Price per GB</th>
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<tbody>
<tr>
<td>Vodafone Greece, Canadian, Korean and US operators</td>
<td>€0.07 - €0.08</td>
</tr>
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- DNA in Finland, Elisa in Finland and Sunrise in Switzerland charge median fully allocated gigabyte prices in mobile broadband plans that range from €0.07 to €0.08.

**Fully allocated gigabyte price (mobile broadband)**

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- Due to a change in our methodology concerning the rules that determine unlimited mobile data plans (i.e. plans with no defined de-prioritization volume where the speed is throttled below 3 Mbps) US is no longer considered a county with unlimited plans in this 8th release.
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 8th release 2H2017 we tracked and analysed the state of 4G pricing during the second half of the year and reported the main price developments compared to the first half of the year.

As with every release we collected and analyzed thousands of eligible smartphone and mobile broadband plans from 41 markets in accordance with Digital Fuel Monitor’s methodology¹. We introduced one significant change in our methodology in this release.

In Digital Fuel Monitor 7th 1H2017 release we designated plans marketed as unlimited (e.g. US plans) where the operators reserved the right to de-prioritize (throttle the speed below 3 Mbps) customer data at times of congestion after a pre-determined finite volume has been reached as unlimited data volume plans. In this 8th release we decided to change this classification because it appears that US operators are systematically throttling users that reach the de-prioritization threshold. Moreover, it appears that the de-prioritization volume threshold has become a key differentiation factor among unlimited data plans in the US (see T-Mobile recent increase to 50 GB). So any plan, in Digital Fuel Monitor 8th release 2H2017 marketed as unlimited where the operator has named a finite volume and reserved the right to throttle the speed below 3 Mbps has been designated as a finite volume plan with a volume equal to the named de-prioritization/throttling volume. Unlimited plans in Digital Fuel Monitor 8th 2H2017 release are plans without a named finite volume and a speed of at least 3 Mbps at all times. If an unlimited data volume plan had a finite volume limit for tethering/hotspot functionality we logged this information in the tariff data base but still considered it to be an unlimited volume plan.

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Get the full report

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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 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.

About Digital Fuel Monitor

Digital Fuel Monitor (DFMonitor) is Rewheel's service tracking 4G prices in EU and OECD countries twice a year.
- Country view (example: Germany)  ➜ http://research.rewheel.fi/DE/
- Operator group view (example: Vodafone)  ➜ http://research.rewheel.fi/Vodafone

Network economics metrics

For comprehensive data usage, spectrum usage and capacity utilisation metrics in EU28 and OECD markets visit ➜ http://research.rewheel.fi/networkeconomics/

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

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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/