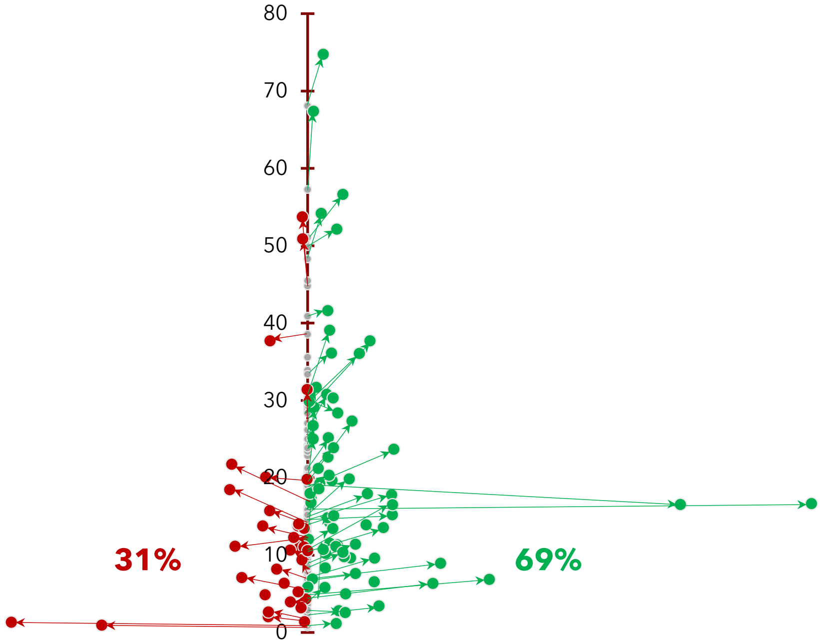
# 69% of operators leveraged pricing power to increase ARPU alongside rising data usage

## 31% failed – often operating from a low-usage position




**In Tefficient's 45th public analysis of mobile data trends, 116 operators are ranked based on metrics such as average data usage per subscription, total data traffic, and revenue per gigabyte.**

**In 2024, 94% of operators saw growth in data usage per subscription, with 69% successfully converting this into higher ARPU. This trend continued into the first half of 2025: 93% experienced increased data usage, and 68% translated that growth into higher ARPU. The performance is roughly in line with 2023, although it still reflects a decline from 2022 levels.**



**Operators unable to capitalise on pricing power – therefore experiencing falling ARPU – tend to operate in the bottom left low-usage area of the Christmas tree. A risky spot.**

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## Methodology notes on M2M/IoT

The global proliferation of M2M (Machine-to-Machine) or IoT (Internet of Things) SIMs has resulted in rapid growth, with some mobile operators boasting an equivalent number of M2M SIMs as human SIMs. Previously, we incorporated data usage statistics inclusive of M2M. We have, since 2023, however refined the data usage metrics to exclude M2M subscriptions. This adjustment enhances international comparability.

Certain mobile operators, particularly in Europe, now transparently disclose their count of M2M subscriptions in their reports. In contrast, operators like Vodafone and Telenor do not provide this breakout but specify that M2M subscriptions are not encompassed within their reported subscription totals. We find no methodological issue with either approach.

However, a noteworthy segment of operators does not clarify whether M2M subscriptions are included or excluded from their reported subscriber counts. This ambiguity is more prevalent in Asia, China, the Middle East, and Africa. While some of these operators might possess minimal to no M2M subscriptions, we have assumed, for the purposes of this analysis, that they exclude M2M subscriptions from their reported subscriber counts.

A limited number of operators, such as Telekom Germany and MTN South Africa, solely report their mobile subscriber totals inclusive of M2M subscriptions. While they should theoretically be excluded from our analysis of data usage per non-M2M subscription, we have chosen to include them. However, to reflect their M2M-inclusive status, we have appended an "incl. M2M" label to their names.

## Three-quarters of operators now above 10 GB of usage per month

Figure 1 shows the average mobile data usage for 116 reporting or reported[1] mobile operators globally with values for the full year of 2024 or the first half of 2025.

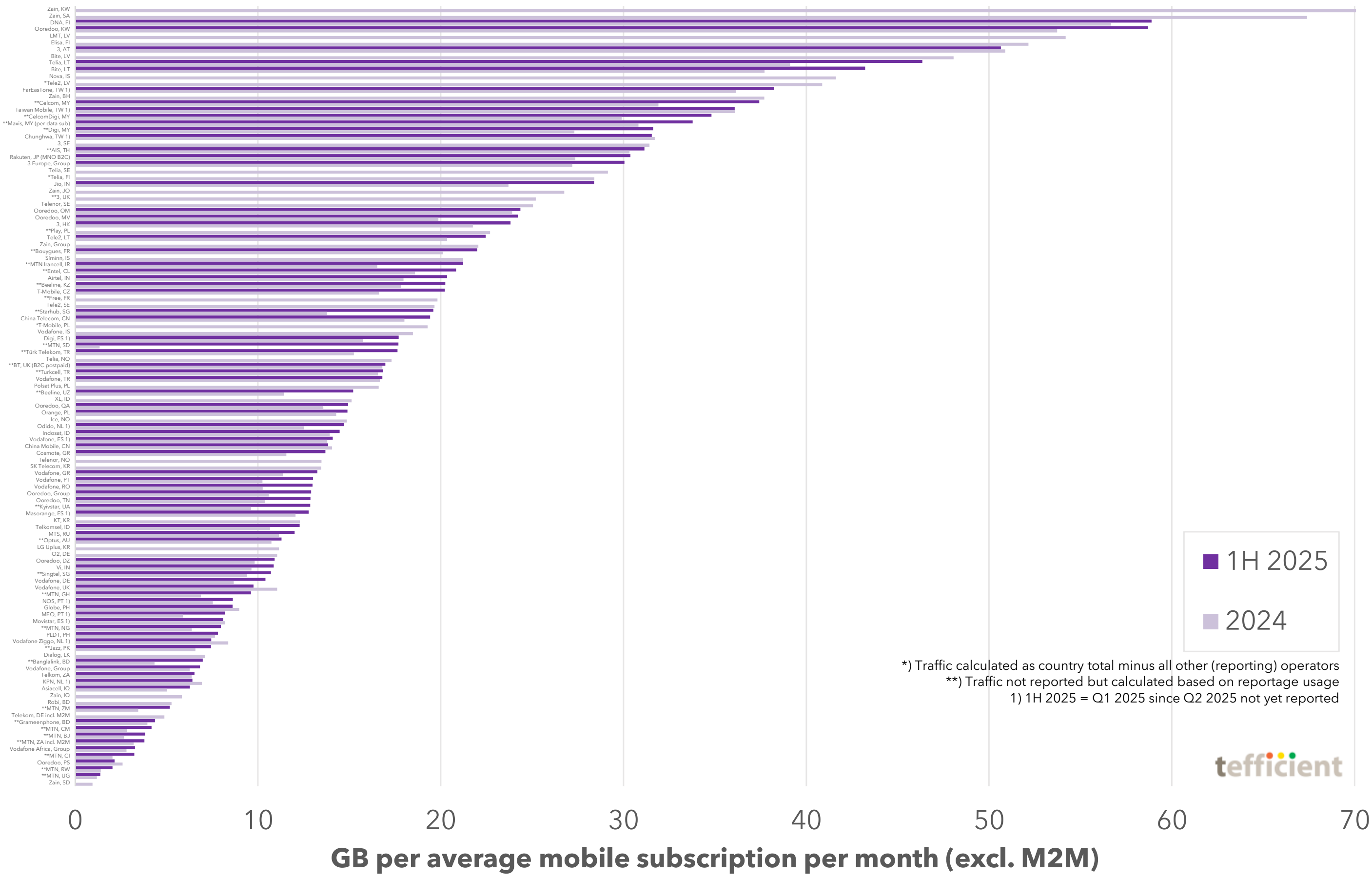


Figure 1. Average mobile data usage per subscription per month (excl. M2M) – all operators.

As it's not easy to read Figure 1 we will break it down into three regions of the world, but let's first identify the **global data usage podium** – see Figure 2. The order is based on 2024 usage.

**Zain** Kuwait defends the gold medal from our previous analysis. Zain doesn't report mobile data traffic more than once a year, so the latest value is for 2024. Zain Kuwait's impressive **74.8 GB** per average SIM per month comfortably grants it the number one position of the world also this time. Zain launched **5G** in June 2019 and claimed 100% population coverage by end of 2021. The high usage comes from Zain selling smartphone plans with large buckets – with **unlimited** as the ultimate tier. But Zain is also offering **5G fixed routers** with 2 TB or, if that's not sufficient, unlimited data volume. Zain Kuwait had 10% usage growth (+6.7 GB per month) in 2024.

[1] By regulators – if reported by 28 August 2025.

**Zain** Saudi Arabia again grabs the silver medal with its notable **67.4 GB** per average SIM per month in 2024. Zain launched **5G** in October 2019 and did in 2024 decide on an investment plan that would double the number of cities covered with 5G, adding 7,000 sites to cover 66% of the populated area with 5G. Like Zain Kuwait, the high usage comes from Zain selling smartphone plans with large buckets – with **unlimited** as the ultimate tier. Zain is also offering speed-tiered **5G home plans** with unlimited data volume, whose popularity might explain some of the 18% usage growth (+10.1 GB per month) Zain Saudi Arabia had in 2024.

With **58.9 GB** per month for the first half of 2025 (56.7 GB per month in 2024), **DNA** from Finland defends the bronze medal. **Unlimited, speed-tiered, plans** – both for smartphones and data-only – form a key component of the Finnish market logic. DNA doesn't report how large share of its customer base that has unlimited plans, but for Finland as a whole, that share was **86%** of non-M2M subscriptions in December 2024. The Finnish operators all launched **5G** in 2019 and DNA communicated "close to" 100% 5G population coverage in December 2024.

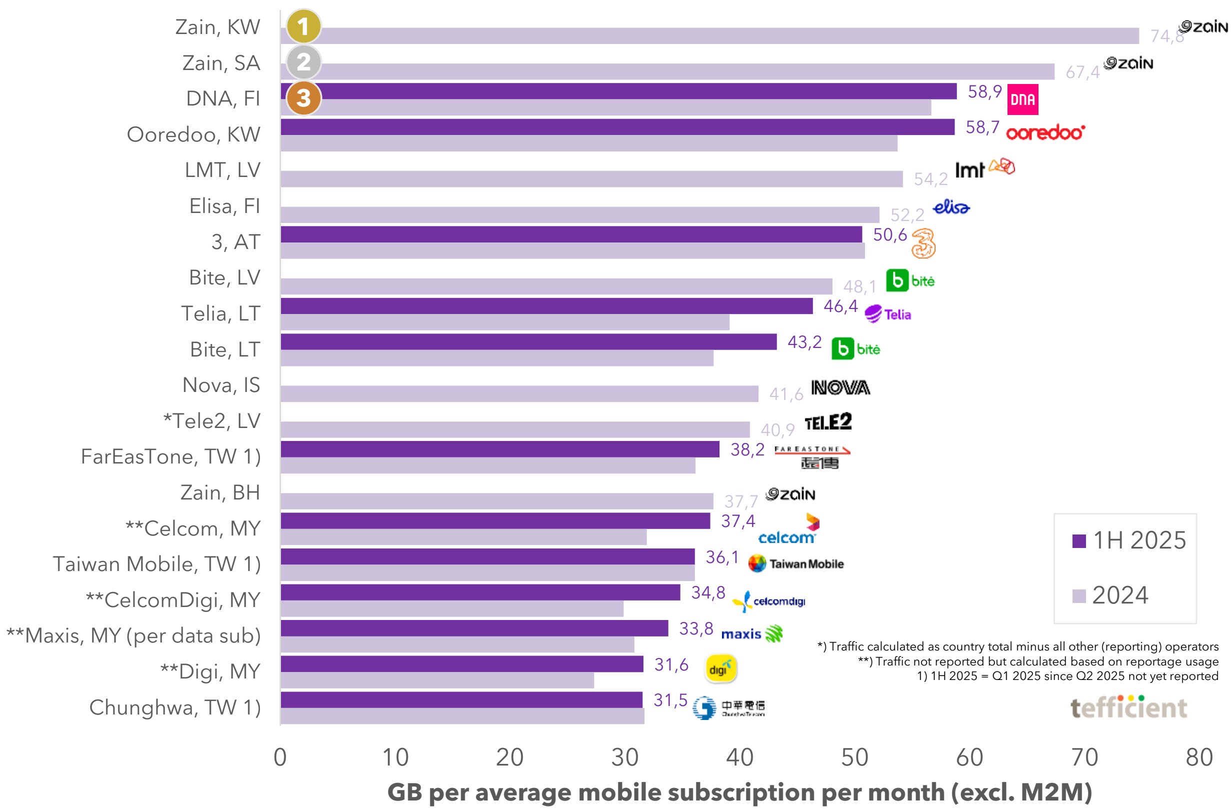


Figure 2. Average mobile data usage per subscription per month (excl. M2M) – top 20 operators.

Below the podium we find **Ooredoo** from Kuwait as number four with 58.7 GB per month in 1H 2025. Latvia's **LMT** is positioned as number five with 54.2 GB per month in 2024. **Elisa** from Finland fell to position six with 52.2 GB per month in 2024 after which it stopped reporting its mobile data traffic.

**3** (Drei) from Austria is seventh-ranked with 50.6 GB per month in 1H 2025. **Bite** from Latvia follows with 48.1 GB per month in 2024. The top ten ends with two Lithuanian operators: **Telia** with 46.4 GB and **Bite** with 43.2 GB per month in the first half of 2025.

The rest of Figure 2 consists of Nova from Iceland, Tele2 from Latvia, Taiwan's FarEasTone, Taiwan Mobile, and Chunghwa, Zain Bahrain, and Malaysia's CelcomDigi[2] and Maxis.

[2] Celcom and Digi have merged into CelcomDigi but the company is still reporting the data usage separately for the old Celcom and the old Digi.

## Europe: Nordic & Baltic operators and '3' dominate the usage top

Now to the first of three breakdowns: Europe. The number 3, 5, and 6 of the world, **DNA**, **LMT**, and **Elisa**, form the European podium.

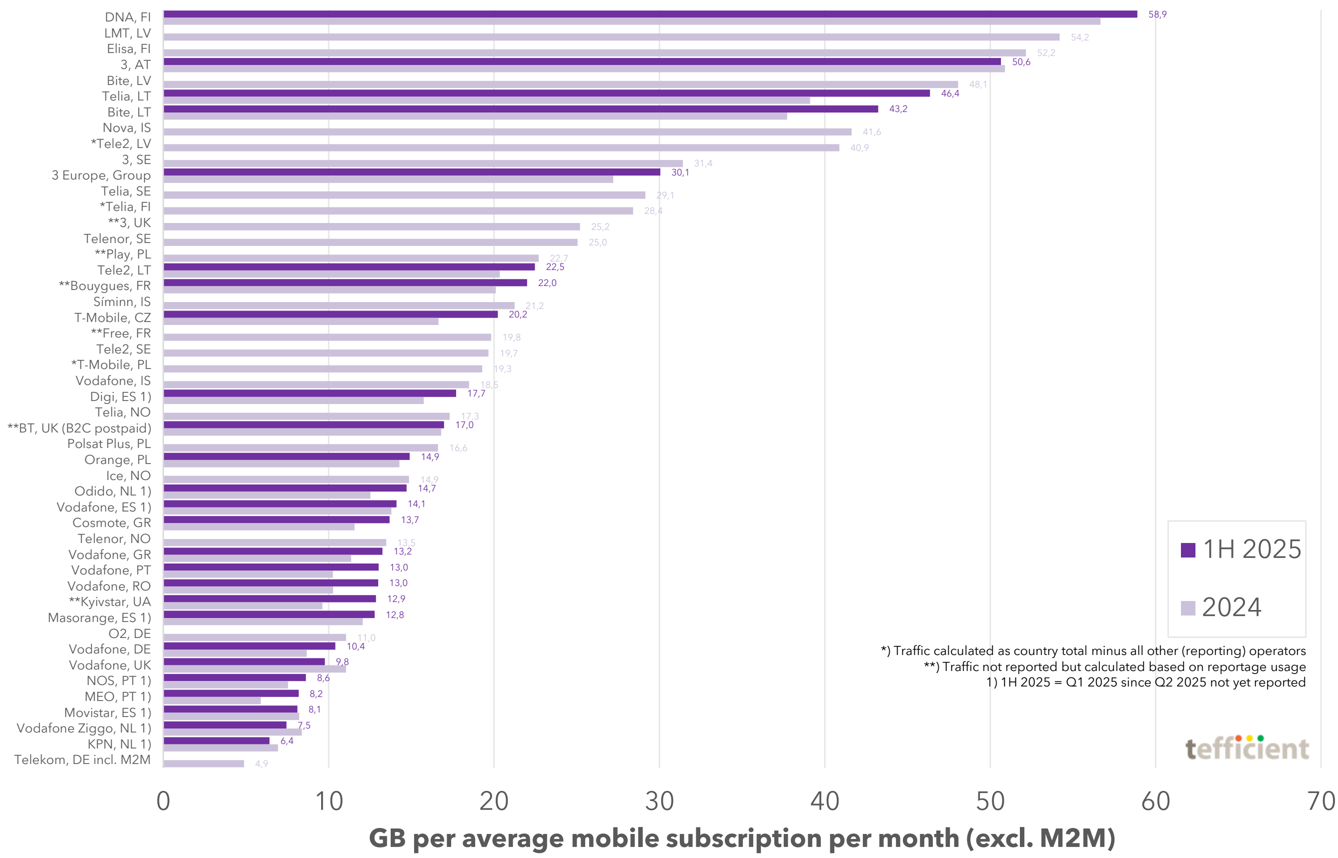


Figure 3. Average mobile data usage per subscription per month (excl. M2M) – European operators.

**3** (Drei) from Austria is ranked as number four. Latvia's **Bite** is number five followed by **Telia** and **Bite**, both from Lithuania. Iceland's **Nova** is number eight. **Tele2** Latvia[3] and **3** Sweden finish the European top ten.

The bottom eight operators are from the low usage markets[4] of **Germany** (Telekom incl. M2M, Vodafone, O2), **Portugal** (MEO, NOS), the **Netherlands** (KPN, VodafoneZiggo), and the **UK** (Vodafone[5]).

Who had the fastest usage growth in Europe? Let's look at Table 1.

[3] Since Tele2 itself doesn't report its mobile data traffic, we have assigned the Latvian country residual to Tele2 (after having deducted LMT's and Bite's traffic).

[4] See our latest country data usage report: https://tefficient.com/the-demand-for-additional-mobile-data-is-weaker-than-ever-arpu-growth-softens/.

[5] The low usage figure of Vodafone UK for 1H 2025 is affected by the merger with 3 happening in June 2025.

| Fastest | 1H 2025 vs. 1H 2024 | | 2024 vs. 2023 | |
|---|---|---|---|---|
| Telia, LT | +8.2 GB | +22% | +8.7 GB | +28% |
| Bite, LT | +7.8 GB | +22% | +8.8 GB | +31% |
| Kyivstar, UA | +4.9 GB | +62% | +2.4 GB | +33% |
| Vodafone, GR | +3.1 GB | +31% | +3.4 GB | +43% |
| **Slowest** | **1H 2025 vs. 1H 2024** | | **2024 vs. 2023** | |
| VodafoneZiggo, NL 1) | -1.0 GB | -12% | +0.6 GB | +8% |
| Telia, FI | n/a | n/a | -1.8 GB | -6% |

Table 1. Operators with fastest and slowest usage growth in 2024 and 1H 2024-1H 2025 – European operators.

If examining who had the highest absolute growth in gigabyte, the winner was **Telia Lithuania** in the twelve months to June 2025 (+8.2 GB) and **Bite Lithuania** in 2024 (+8.8 GB). If instead measured in percent, the winner was war-exposed **Kyivstar Ukraine** with 62% in the twelve months to June 2025 and **Vodafone Greece** with 43% in 2024.

In the other end, it was **VodafoneZiggo** from the Netherlands that had the slowest absolute and relative growth in the twelve months to June 2025, -1.0 GB (-12%). This is based on Q1 2025 only as Q2's traffic isn't reported yet. In 2024, it was **Telia Finland** that had the most negative development of mobile data usage. Since Telia does not report the traffic itself, Telia has been assigned the country residual after having deducted the reported traffic of Elisa and DNA.

## Asia and China: Taiwan and Malaysia in the top seven usage positions

Malaysia's **CelcomDigi** and **Maxis** have mixed in with the three Taiwanese operators **FarEasTone**, **Taiwan Mobile**, and **Chunghwa** that in our last report held the top three usage positions in Asia and China. FarEasTone is still first but now followed by the Celcom part of CelcomDigi – pushing Taiwan Mobile down to the third position. The full CelcomDigi is number four while its Malaysian competitor Maxis is number five. The Digi part of CelcomDigi follows with Chunghwa as number seven.

The rest of the top ten consists of AIS from Thailand, Rakuten[6] from Japan, and Jio from India.

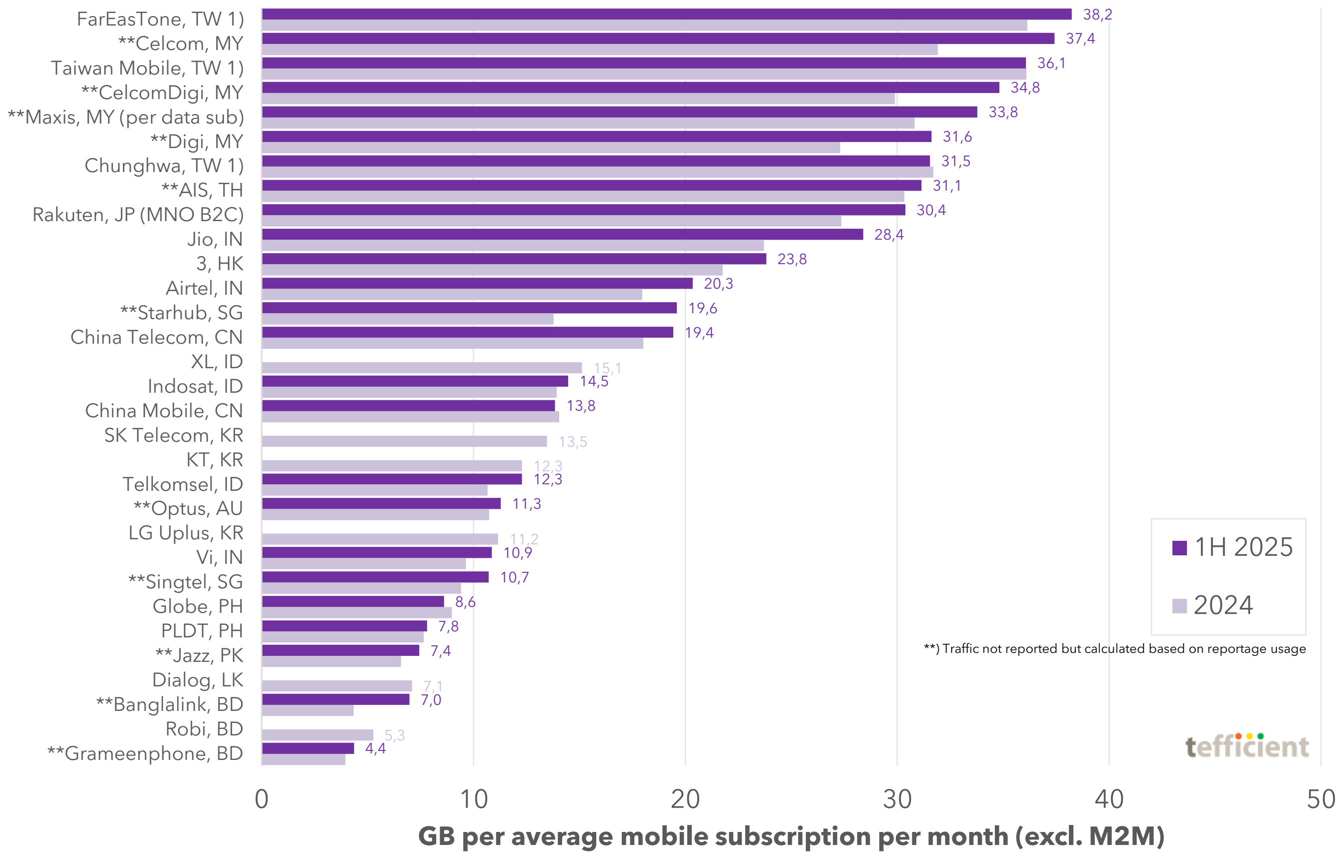


Figure 4. Average mobile data usage per subscription per month (excl. M2M) – Asian and Chinese operators.

Bangladeshi operators (**Grameenphone**, **Robi**, and **Banglalink**) occupy the three lowest usage positions in Asia/China.

The Asian/Chinese operators with the fastest and slowest annual growth in mobile data usage in the twelve months to June 2025 and in 2024 are:

[6] The value shown is for the MNO consumer segment only as that's the only reported segment. Neither B2B customers nor the relatively few remaining Rakuten MVNO customers are included.

| Fastest | 1H 2025 vs. 1H 2024 | | 2024 vs. 2023 | |
|---|---|---|---|---|
| Celcom, MY | +6.5 GB | +21% | +4.3 GB | +15% |
| Rakuten, JP (MNO B2C) | +6.4 GB | +27% | +7.9 GB | +41% |
| Banglalink, BD | +3.9 GB | +124% | +0.7 GB | +20% |
| **Slowest** | **1H 2025 vs. 1H 2024** | | **2024 vs. 2023** | |
| Globe, PH | -0.7 GB | -8% | +2.1 GB | +30% |
| LG Uplus, KR | n/a | n/a | -1.0 GB | -8% |

Table 2. Operators with fastest and slowest usage growth in 2024 and 1H 2024-1H 2025 – Asian and Chinese operators.

The **Celcom** part of Malaysia's CelcomDigi had the fastest absolute growth in mobile data usage in the twelve months to June 2025: +6.5 GB (+21%). In 2024, it was instead the Japanese challenger **Rakuten** that had the fastest absolute and relative growth in its mobile data usage from MNO consumer customers: +7.9 GB (+41%). The fastest percentage growth to June 2025, +124%, was recorded by **Banglalink** in Bangladesh – but here there's a methodology change triggered by VEON no longer reporting the number of data users. The second highest growth rate is with **Airtel India**, 44%.

In the twelve months to June 2025, **Globe** from the Philippines had the weakest absolute and relative development in mobile data usage: -0.7 GB (-8%). In 2024, it was instead (again; it had the same position in 2023) South Korea's **LG Uplus** that had the slowest development, -1.0 GB (-8%), as Korea's consumers downgraded their mobile data plans and more of them put their trust in 4G MVNOs rather than the 5G-focussed three MNOs who continue to struggle with low customer satisfaction. The market share for MVNOs in the regular phone segment increased from 16.4% in June 2024 to 17.6% in June 2025. The Korean **MVNO base grew 9%** while the MNO base at the same time decreased 1%.

## RoW: Middle East dominates the usage top

The rest of world (RoW) ranking combines Middle Eastern, Latin American, Turkish, African, and Russian/Eurasian operators with reporting international groups, see Figure 5.

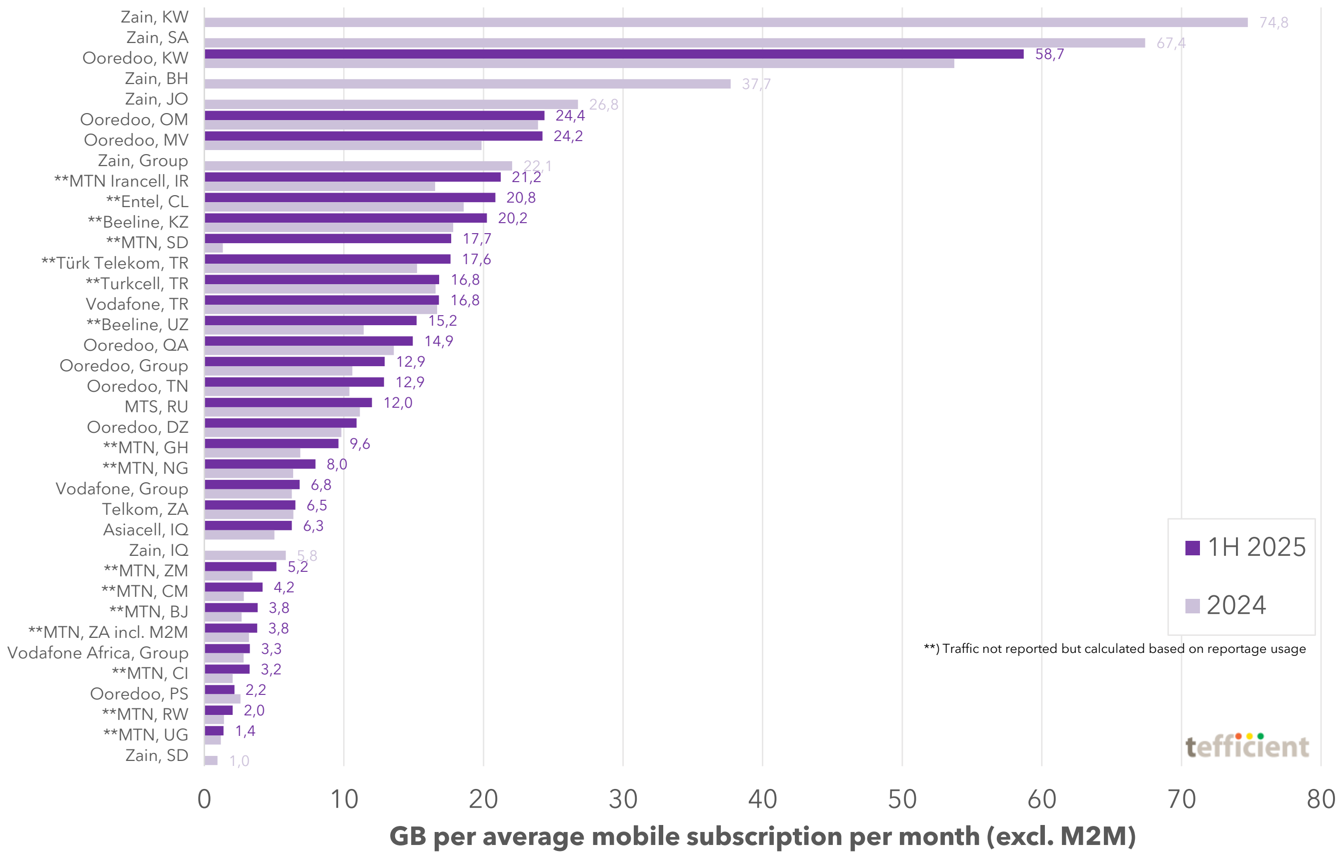


Figure 5. Average mobile data usage per subscription per month (excl. M2M) – RoW operators.

The world number 1 and 2, **Zain Kuwait** and **Zain Saudi Arabia**, obviously top this chart too. **Ooredoo Kuwait** takes the RoW bronze medal.

**Zain Bahrain** is number four followed by **Zain Jordan**, **Ooredoo Oman**, **Ooredoo Maldives**, and **Zain Group**. **MTN Irancell** comes in as number nine whereas **Entel Chile** ends the RoW top ten.

**African** operators are, together with **Ooredoo Palestine**, occupying the ten lowest monthly data usage positions in our RoW sample. MTN Ghana and MTN Nigeria have much higher mobile data usage and are positioned just below the middle of the graph. Ooredoo Tunisia and Algeria have yet higher usage[7].

[7] The position of MTN Sudan in 1H 2025 is as reported, but likely either not correctly reported or affected by the effects of the civil war on reported numbers.

These are the RoW operators with the fastest and slowest growth in mobile data usage in the twelve months to June 2025 and in 2024:

| Fastest | 1H 2025 vs. 1H 2024 | | 2024 vs. 2023 | |
|---|---|---|---|---|
| MTN Irancell, IR | +8.4 GB | +65% | +5.8 GB | +55% |
| Zain, SA | n/a | n/a | +10.1 GB | +18% |
| MTN, BJ | +1.7 GB | +83% | +0.9 GB | +48% |
| MTN, ZM | +2.3 GB | +79% | +1.2 GB | +56% |
| **Slowest** | **1H 2025 vs. 1H 2024** | | **2024 vs. 2023** | |
| Turkcell, TR | -3.9 GB | -19% | -2.4 GB | -13% |

Table 3. Operators with fastest and slowest usage growth in 2024 and in 1H 2025 – RoW operators.

**MTN Irancell** grew the fastest in absolute usage in the twelve months to June 2025, +8.4 GB (+65%). In 2024, it was **Zain Saudi Arabia** that had the fastest absolute usage growth, +10.1 GB (+18%). **MTN Benin** had the fastest relative growth, +83% (+1.7 GB), in the year to June 2025. In 2024, the fastest relative usage growth was with **MTN Zambia**, +56% (+1.2 GB).

Turkey's **Turkcell** holds all four worst usage development positions among the RoW operators. The hyperinflation is Turkey seems now to negatively affect the data usage of the Turkish operators with Turkcell having the worst trends. The usage growth of competitors Vodafone and Türk Telekom have also ended but is closer to zero.

## Traffic growth continued – but at a slower rate and not everywhere

We have seen that the average data usage varies much between different operators in different countries. If we instead compare the total data traffic, the large population differences between the countries make the spread even wider, see Figure 6.

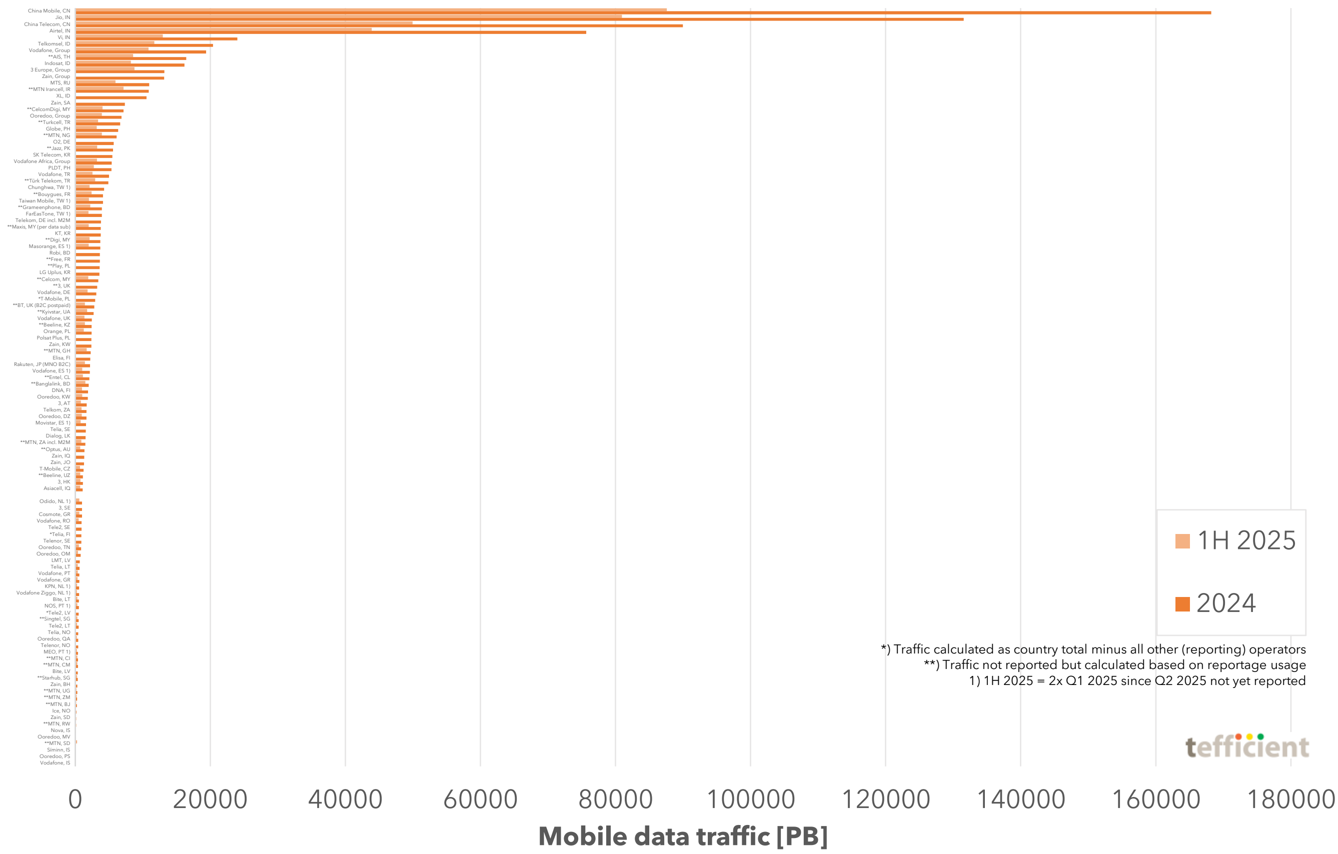


Figure 6. Total mobile data traffic – all operators.

As it's difficult to read Figure 6 we will in a bit break it down into the three regions of the world, but let's first identify the **global data traffic leaders** – see Figure 7. The order is based on 2024 traffic.

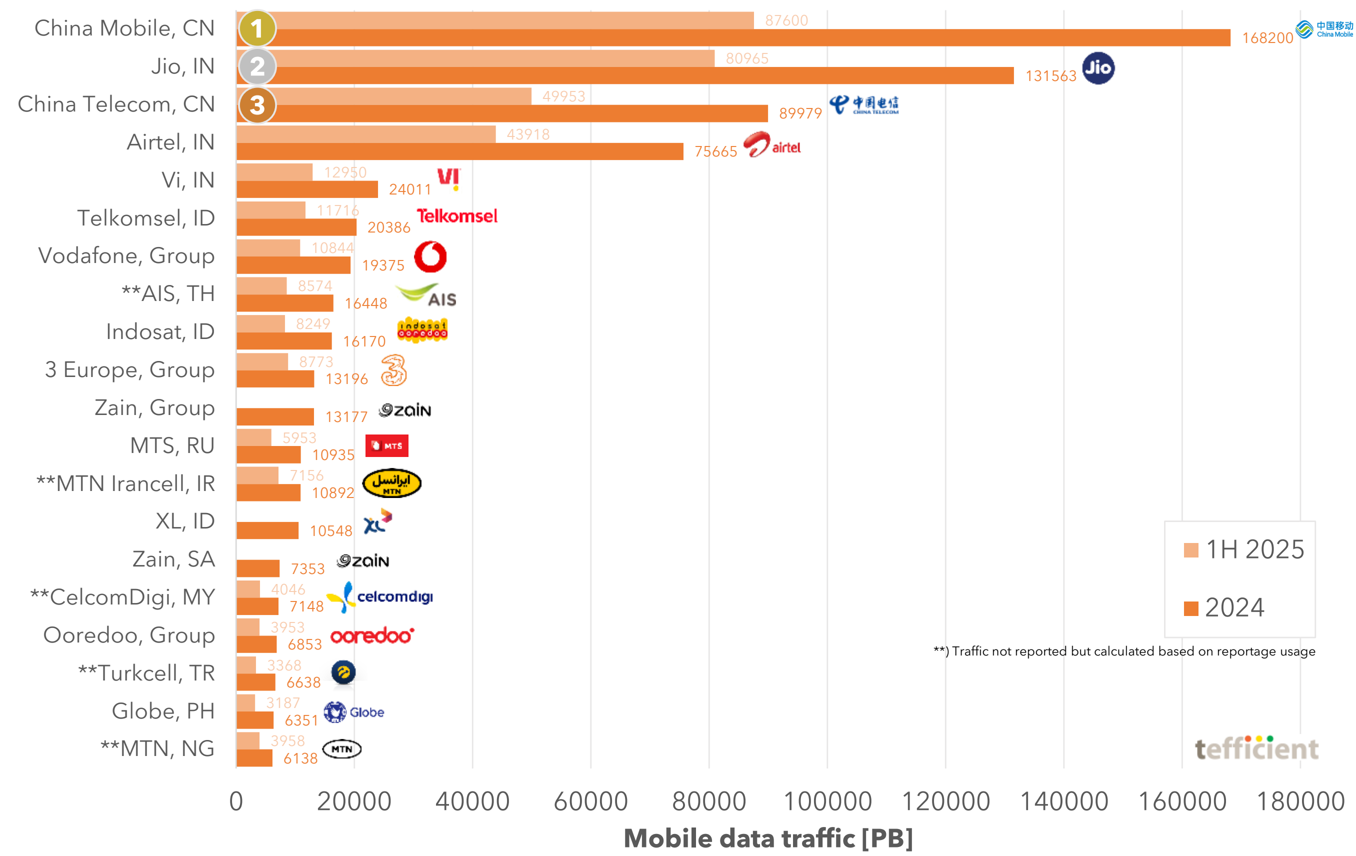


Figure 7. Total mobile data traffic – top 20 operators.

**China Mobile** had 1.005 billion mobile subscribers in June 2025 (of which 60% are on its large 5G network consisting of 2.6 million live base stations) and was in 2024 and in 1H 2025 the largest operator in the world in mobile data traffic. But the growth is no longer really present at China Mobile: Its total traffic grew just **1%** in 2024 and **8%** from 1H 2024 to 1H 2025.

India's **Jio** is the operator with the largest mobile subscriber base in India – 485 million in June 2025 when including FWA. Jio's data traffic growth was **30%** both in 2024 and in the year to June 2025. In comparison with China, India had very late (2022) licensing of 5G, but it has been the catalyst for India catching up on Chinese mobile data traffic – as it also enabled Indian operators to launch FWA services. In last year's report, we stated that Jio was the new world leader in mobile data traffic, but that was based on Jio's reporting standard that include also fixed broadband traffic into its reported data traffic, something this analysis should not cover. We have now eliminated that fixed broadband traffic[8].

**China Telecom** has much faster mobile data traffic growth than China Mobile: **24%** in 2024 and **16%** in the twelve months to June 2025. 65% of its customer base is on China Telecom's 5G network, 5 percentage points higher than China Mobile.

[8] Jio has earlier (Q1 2024) communicated that its average fixed broadband subscriber uses 300 GB per month, a figure that has been used here. Note that the FWA traffic is included in the mobile data traffic in this analysis.

**Airtel** India comes in as number four. In our last report, Airtel overtook China Unicom which since abandoned its reporting of mobile data traffic. T-Mobile USA has not issued its 2024 Corporate Responsibility Report (maybe there won't be one?) and as T-Mobile doesn't report or indicate its mobile data traffic elsewhere, the US "uncarrier" has left the charts. **Vi** from India is the new, distant, number five.

Figure 8 below shows a quarterly comparison of the mobile data traffic reported by the Chinese and Indian operators occupying positions 1-5 globally. China Unicom is in the chart too although no new data has been reported.

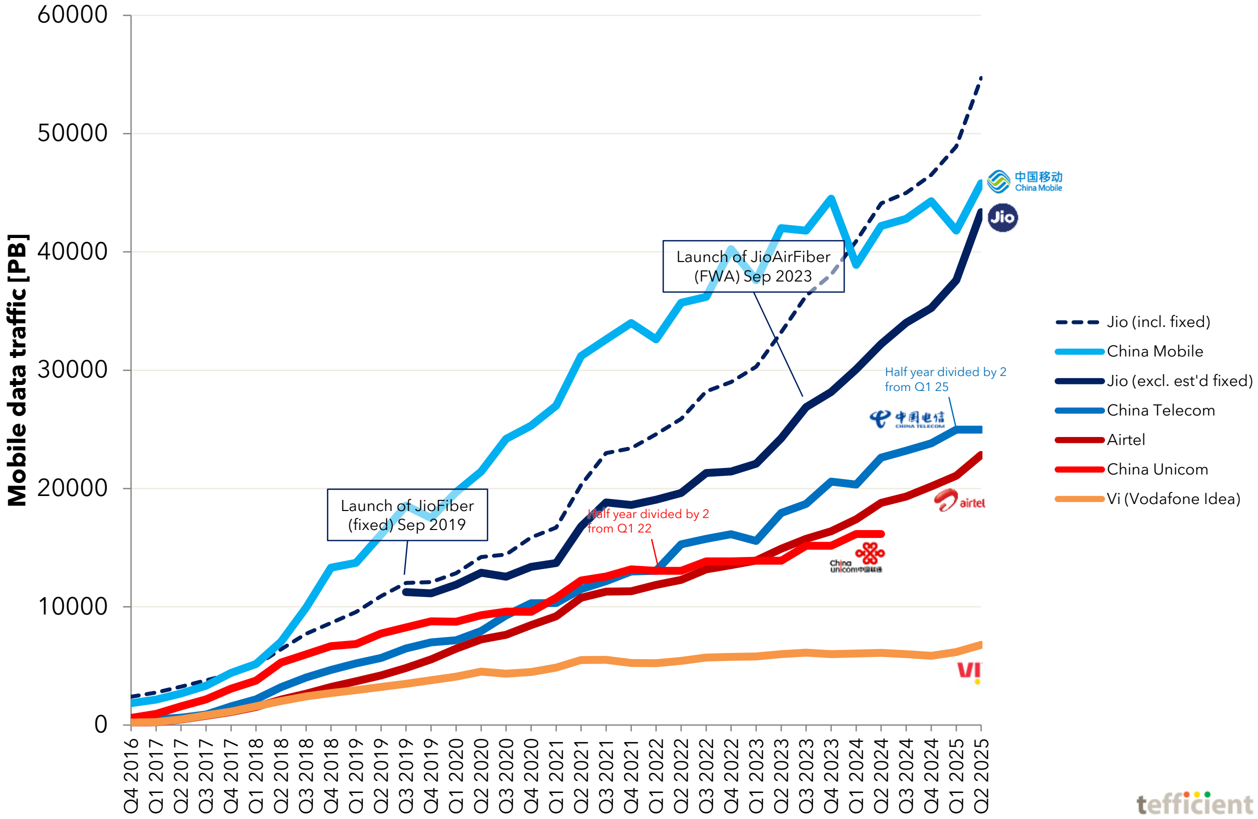


Figure 8. Total mobile data traffic – Chinese and Indian operators.

Commenting further on **Jio**, it was the world's largest operator in mobile data traffic back in 2016-2017 after which China Mobile took over the leading position. In September 2019, Jio launched JioFiber, its fixed broadband service, and started to include also the traffic generated by these fibre customers in its reported data traffic (which we did not realise at first). We have now eliminated the assumed traffic of these fibre customers, resulting in the **thick dark blue** line representing the mobile data traffic including FWA. Since **China Mobile** has had so sluggish mobile data traffic growth lately, Jio is perhaps – with the help of its FWA launch in September 2023 – about to overtake China Mobile as the world's largest mobile data carrier. The difference in Q2 2025 is small.

**Airtel India** is possibly about to get closer to China Telecom. Airtel has, like Jio, launched FWA, but seems not to have had the same volume growth in the segment as Jio who reported 7.4 million FWA customers in June 2025, overtaking T-Mobile USA as the provider with the largest FWA base in the world.

**Vi**, who has not been able to follow the 5G rollout of Jio and Airtel, has had much slower growth in its mobile data traffic.

## Europe: Operators from populous countries hold positions 2-14, Kyivstar grew fast

Now to the European breakdown: Since the highest ranked European country operator (O2 Germany) is just number 21 in our global ranking, we could generally conclude that the European countries are less populated than the global traffic leaders. And it's not always the operators that you necessarily would suspect (with the largest SIM base) that are in the top of Figure 9.

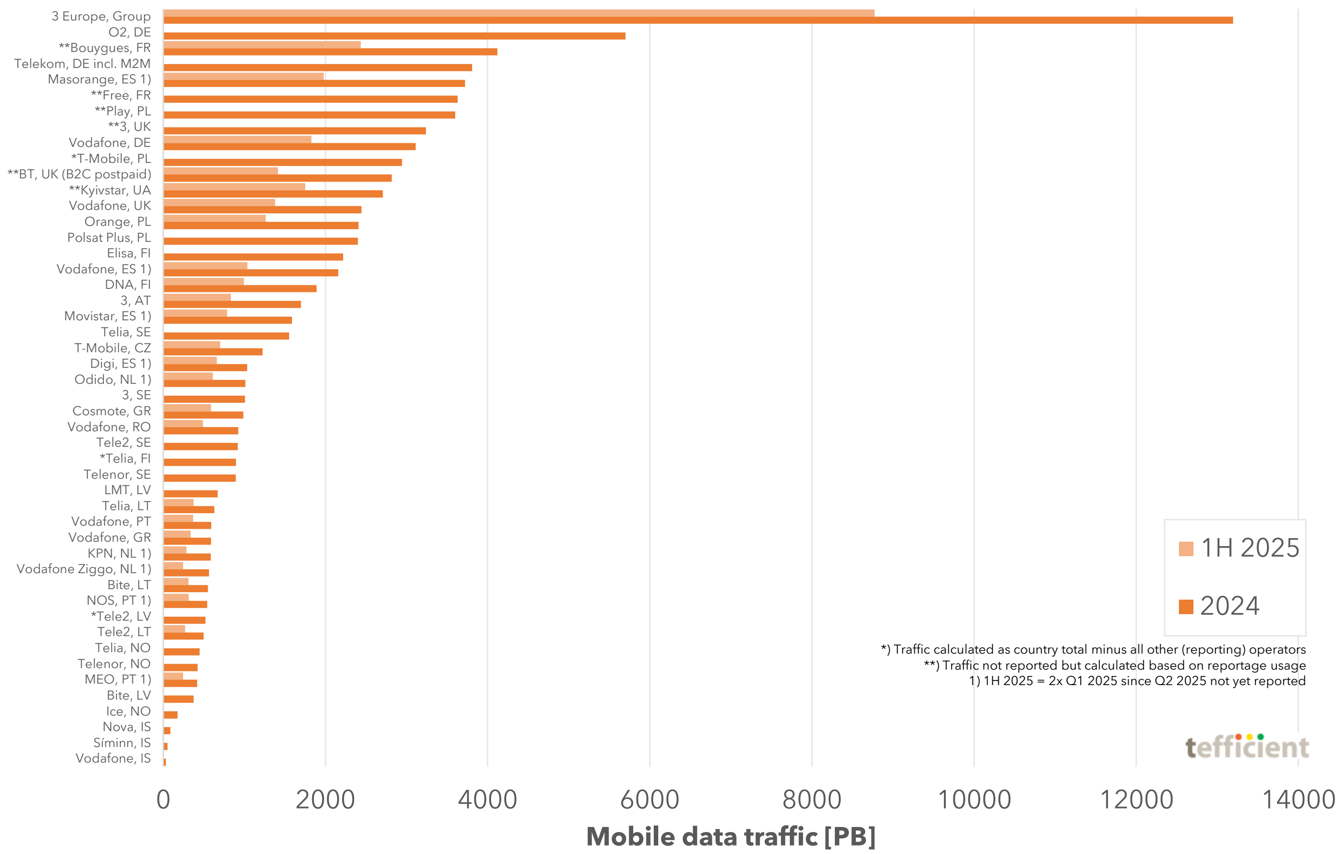


Figure 9. Total mobile data traffic – European operators.

With only European operators included in the group, we have recategorised the **3 Europe** group as European. With operations in the UK, Italy, Sweden, Denmark, Austria, and Ireland, it has the highest mobile data traffic in Europe. Its traffic grew **15%** in 2024 but 36% in the year to June 2025. The inclusion of the whole traffic of VodafoneThree in the UK has increased the last figure.

With Italy's WindTre no longer being reported, **O2 Germany** is the largest reporting national mobile data carrier in Europe with **20%** growth in 2024. Regretfully, the German arm of Telefónica has however abandoned its financial reporting altogether since it delisted in 2024, meaning that we have seen no reporting of data traffic in 2025. O2 Germany otherwise held up this good practice although its owner, Telefónica, stopped it back in 2020. O2 is ranked higher than both of its competitors, Telekom (#4) and Vodafone (#8).

Vodafone Italy – now acquired by Swisscom and merged with Fastweb – is no longer reported as Swisscom gave up its reporting of mobile data traffic in 2023. Vodafone Italy was previously ranked high in our charts.

The French operator **Bouygues** is the new number three and its competitor **Free** is holding the fifth position in Europe. **Play** from Poland is number six followed by **3 UK** which was merged with Vodafone in 2025. **T-Mobile Poland** is ranked as number nine (based on the residual national traffic). The top ten ends with **BT/EE UK** based on its reported usage per B2C postpaid customer.

These are the European operators with the fastest and slowest growth (in %) in mobile data traffic in the twelve months to June 2025 and in 2024:

| Fastest | 1H 2025 vs. 1H 2024 | 2024 vs. 2023 |
|---|---|---|
| Kyivstar, UA | +56% | +28% |
| Vodafone, GR | +30% | +44% |
| **Slowest** | **1H 2025 vs. 1H 2024** | **2024 vs. 2023** |
| Vodafone Ziggo, NL 1) | -14% | +9% |
| Telia, FI | n/a | -9% |

Table 4. Operators with fastest and slowest data traffic growth in 2024 and 1H 2024-1H 2025 – European operators.

**Kyivstar Ukraine** had the fastest growth in mobile data traffic in the twelve months to June 2025, +56%. In the unfortunate context where Ukraine is under Russian military attack, this is particularly impressive and indicates resilience.

The growth leader in 2024 was **Vodafone Greece**, +44%. After many years of being a European mobile data laggard, Greece is quickly improving its position overall, see Tefficient's country analysis in which Greece also in 2024 leads the world in mobile data usage growth.

Based on Q1 2025, **VodafoneZiggo** from the Netherlands had the slowest traffic growth of all reporting European operators in the twelve months to June 2024 – a decline of 14%. If looking at the trend in 2024, it's instead **Telia Finland** that, if calculating the country residual after Elisa and DNA, had the worst data traffic development, -9%.

## Asia and China: China and India dominate the traffic top, Rakuten grew fast

We find the six global traffic leaders in the top of the Asian/Chinese comparison: **China Mobile**, **Jio**, **China Telecom**, **Airtel**, **Vi**, and **Telkomsel**. The annual growth rates have come down for these operators (1%-24%), but in absolute petabyte terms, the growth was still massive.

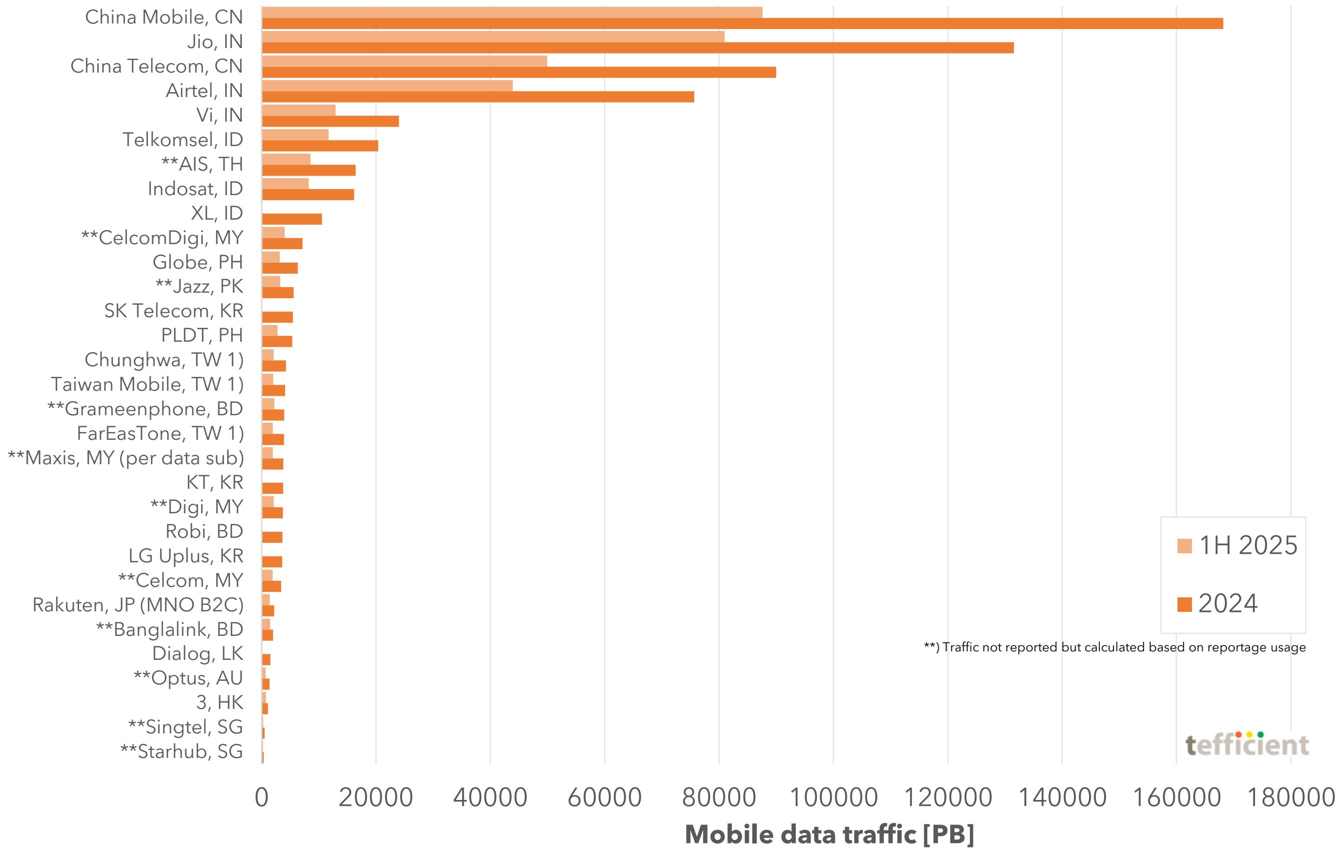


Figure 10. Total mobile data traffic – Asian and Chinese operators.

Thailand's **AIS**, the other Indonesian operators (Indosat and XL) and the Malaysian operator **CelcomDigi** follow.

These are the Asian/Chinese operators with the fastest and slowest growth (in %) in mobile data traffic in the twelve months to June 2025 and in 2024:

| Fastest | 1H 2025 vs. 1H 2024 | 2024 vs. 2023 |
|---|---|---|
| Banglalink, BD | +94% | +18% |
| Rakuten, JP (MNO B2C) | +55% | +81% |
| **Slowest** | **1H 2025 vs. 1H 2024** | **2024 vs. 2023** |
| Globe, PH | -2% | +7% |
| Vi, IN | +6% | 0% |

Table 5. Operators with fastest and slowest data traffic growth in 2024 and 1H 2024-1H 2025 – Asian and Chinese operators.

We commented **Banglalink**'s and **Rakuten**'s very fast growth in the previous, usage, section already. The growth of Banglalink is affected by a reporting change; the operator with the second fastest growth is Rakuten, +55%.

**Globe** from the Philippines had the slowest traffic growth in the year to June 2025, -2%. In 2024, **Vi** from India has the slowest growth, 0%, when competition pushed 5G rollout and Vi could not follow pace. The beginning of 2025 marks a slight improvement for Vi in mobile data traffic, but Indian competition is still growing faster.

## RoW: Russian, Iranian, Saudi, Turkish, and Nigerian operators top in traffic

Figure 11 collects operators from the rest of the world, but also a few reporting international groups.

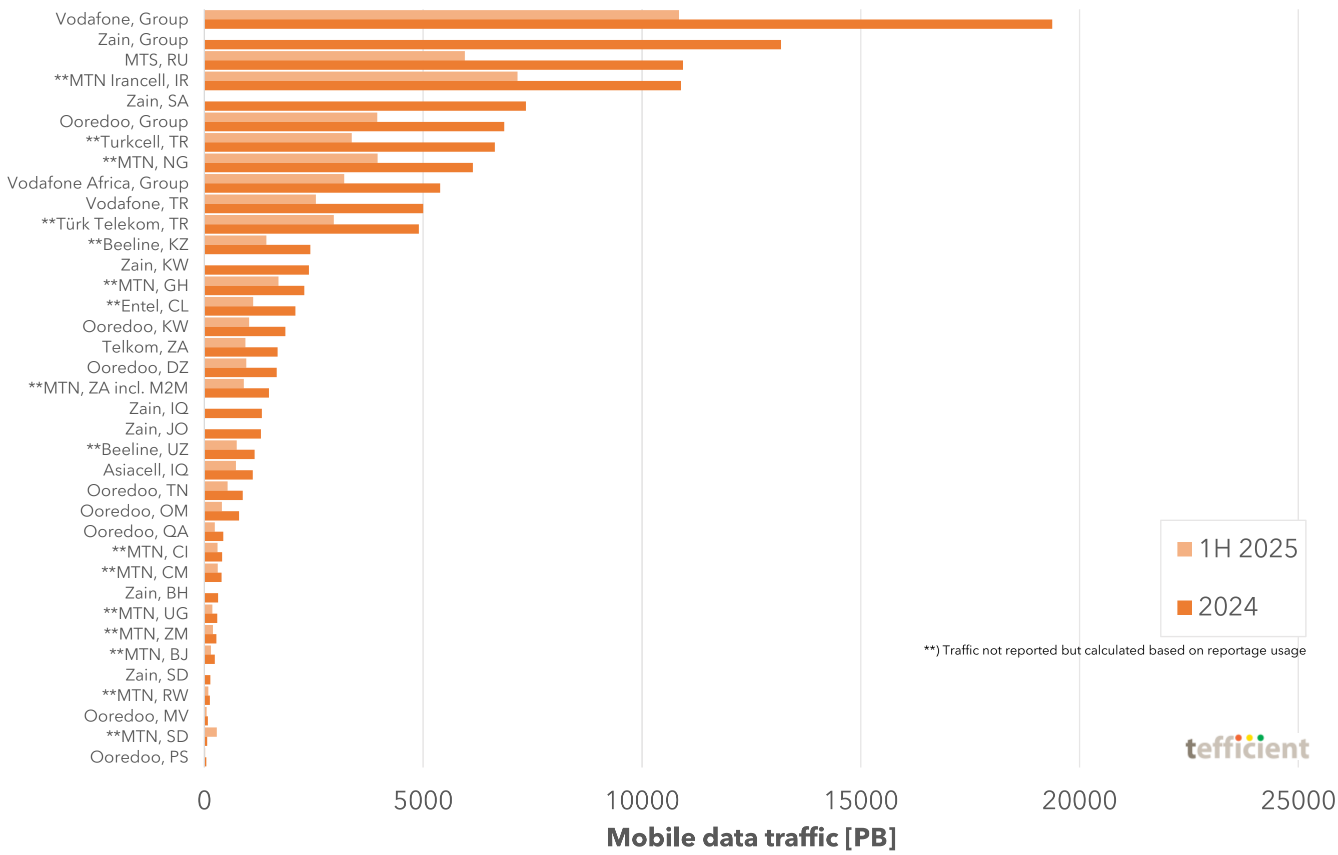


Figure 11. Total mobile data traffic – rest of world operators.

**Vodafone Group** tops the chart, followed by **Zain Group**.

The Russian operator **MTS** is number three followed by **MTN Irancell**, **Zain Saudi Arabia** and **Ooredoo Group**. **Turkcell** is number seven, **MTN Nigeria** number eight. The top ten ends with **Vodafone Africa Group** and **Vodafone Turkey**.

These are the RoW operators with the fastest and slowest growth in mobile data traffic (in %) in the twelve months to June 2025 and in 2024:

| Fastest | 1H 2025 vs. 1H 2024 | 2024 vs. 2023 |
|---|---|---|
| MTN, GH | +75% | +40% |
| MTN Irancell, IR | +69% | +59% |
| **Slowest** | **1H 2025 vs. 1H 2024** | **2024 vs. 2023** |
| Turkcell, TR | -20% | -13% |
| MTN, SD | n/a | -19% |

Table 6. Operators with fastest and slowest data traffic growth in 2024 and 1H 2024-1H 2025 – RoW operators.

**MTN Ghana** had the fastest growth between 1H 2024 and 1H 2025, +75%, while **MTN Irancell** had it in 2024, +59%.

Turkcell had, as previously discussed, the most negative development in mobile data traffic in the twelve months to June 2025, -20%. The slowest growth in traffic in 2024, -19%, was in **MTN Sudan** and regretfully explained by the civil war.

## How much money can you make on a GB of mobile data?

The way we calculate revenue per gigabyte – *total* mobile service revenue per carried gigabyte – will resonate with mature markets where operators generally aren't attempting to monetise voice and SMS based on usage. Instead, they have made voice and messaging allowances unlimited and included them in a flat fee.

In *maturing* markets, usage-based monetisation is still used to a higher degree. This is true also for voice and messaging. With our calculation method, one might think that the operators ending up with the highest effective revenue per gigabyte would thus be operators from maturing markets. This is only partly true: Mixed with operators from **Uganda**, **Palestine**, and **Sudan** are European and Middle East operators with equally high revenue per GB: **KPN**, **Telenor Norway**, **VodafoneZiggo**, **Telekom Germany** and **Ooredoo Qatar**.

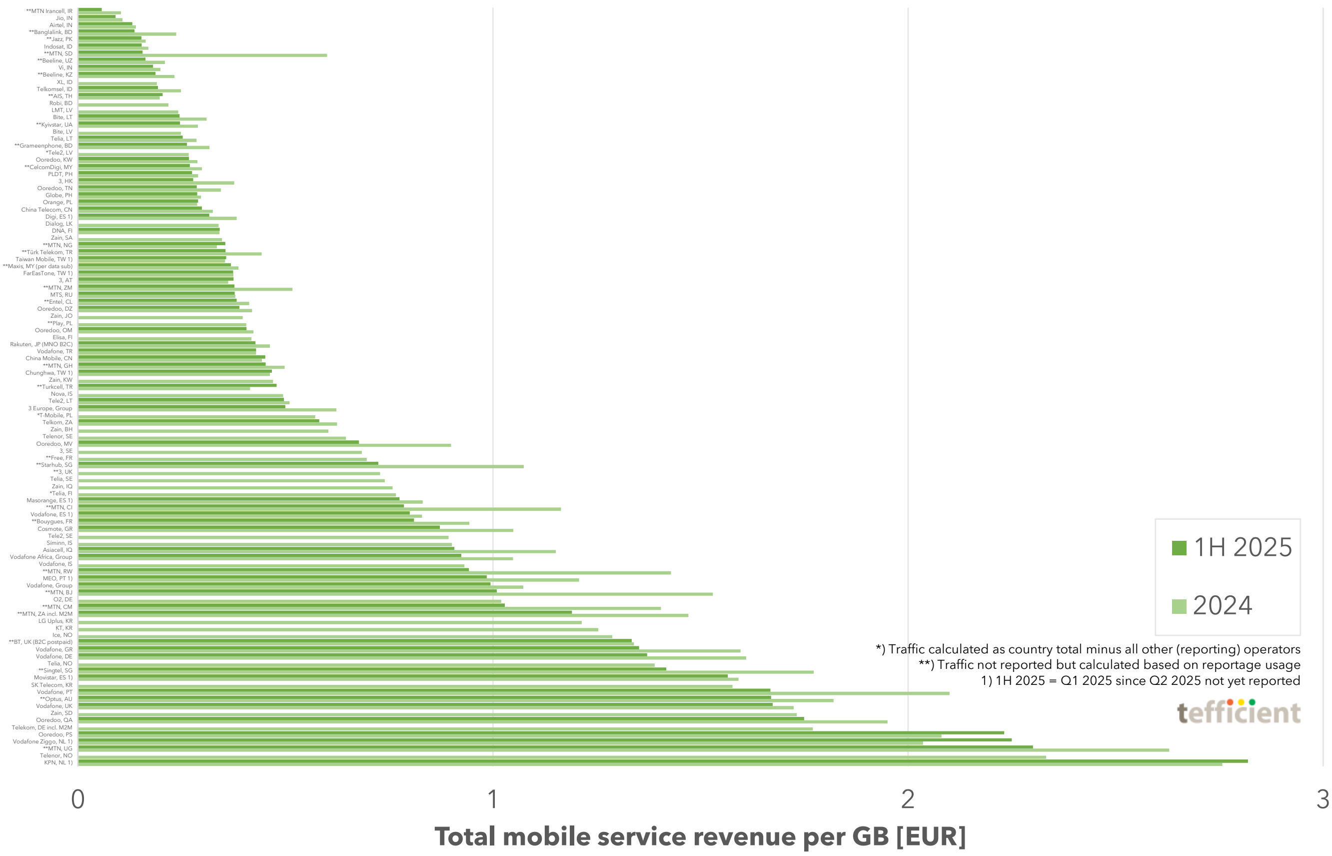


Figure 12. Total mobile service revenue per gigabyte – all operators[9].

We will – for readability reasons – soon break Figure 12 down into Europe, Asia/China, and RoW, but let's first look into a disclaimer with regards to operators marked with * or **.

[9] Who also report mobile service revenue.

**When reporting mobile data traffic, take inspiration from Vodafone**

Most graphs in this analysis carry this legend:

*) Traffic calculated as country total minus all other (reporting) operators
**) Traffic not reported, but calculated based on reported usage

There are a few operators globally that, in their regular easy-to-use Excel sheets, report their **total mobile data traffic** quarter by quarter. Of the larger operator groups, **Vodafone** is a great example. We encourage all operators to follow it.

Some operators are instead reporting – or occasionally indicating – **data usage**. These are the operators labelled with **. The problem here is that many operators aren't defining what a user is – sometimes it is all users, sometimes "active data users" (whatever that is), sometimes smartphone users, sometimes branded smartphone users, sometimes postpaid users, sometimes 4G users. Typically, these usage numbers are stated to impress, i.e. they are representative only for a smaller, high-usage, segment of the subscriber base. An exception to that operators reporting usage aren't reporting the number of associated users is **MTN** Group that report the usage per mobile data customer *and* the number of such mobile data customers (a subset of the total customer base). Well done.

Most operators are still not reporting anything, though. Orange Group and Telia Company are such examples. And, of course, North American carriers. In some cases, country regulators are helpful in reporting a breakdown per operator. But in most cases, the country regulator is just reporting the total. On such occasions – and if also all other operators report data traffic or at least usage – we have calculated the country residual and assumed that this traffic equals that of the non-reporting operator. These are the operators labelled with *.

It's not necessarily so that a regulator and the reporting operators use the same definition when reporting data traffic. Traffic via MVNOs or roaming traffic can e.g. disturb the comparability. Where the error risks being the largest, though, is in countries where the country residual has been assigned to a *-labelled operator while, at the same time, one or several of the other operators are **-labelled operators, i.e. have not explicitly reported the total data traffic but some type of usage.

So, if any operator (*-labelled or **-labelled) is unhappy with its calculated data traffic, the solution is simple: Start reporting your total mobile data traffic.

Having explained this, let's now from Figure 12 identify the ten operators that have the *lowest* total mobile service revenue per gigabyte in the world:

| | 2024 | 1H 2025 |
|---|---|---|
| 1. **MTN Irancell**, Iran** | 0.10 EUR ↓ | 0.06 EUR ↓ |
| 2. **Jio**, India | 0.11 EUR ↓ | 0.09 EUR ↓ |
| 3. **Airtel**, India | 0.14 EUR ↓ | 0.13 EUR ↓ |
| 4. **Banglalink**, Bangladesh** | 0.24 EUR ↓ | 0.14 EUR ↓ |
| 5. **Jazz**, Pakistan** | 0.16 EUR ↓ | 0.15 EUR ↓ |
| 6. **Indosat**, Indonesia | 0.17 EUR ↓ | 0.15 EUR ↓ |
| 7. **MTN**, Sudan** | 0.60 EUR ↓ | 0.16 EUR n/a |
| 8. **Beeline**, Uzbekistan** | 0.21 EUR ↓ | 0.16 EUR ↓ |
| 9. **Vi**, India | 0.20 EUR ● | 0.18 EUR ↓ |
| 10. **Beeline**, Kazakhstan** | 0.23 EUR ↓ | 0.19 EUR ↓ |

Table 7. Operators with the lowest total mobile service revenue per consumed gigabyte.

These operators are active in maturing high data usage markets and/or in highly competitive markets. **MTN Irancell** is new at the top of the list with the lowest revenue per GB. All the three major Indian operators (**Jio, Airtel, and Vi**) are on the top ten list.

None of these ten operators was able to increase its revenue per gigabyte. **Vi** was closest with 0% in 2024.

The ten operators that have the *highest* total mobile service revenue per gigabyte in the world are:

| | 2024 | 1H 2025 |
|---|---|---|
| 1. **KPN**, Netherlands 1)[10] | 2.8 EUR ↓ | 2.8 EUR ↓ |
| 2. **Telenor**, Norway | 2.3 EUR ↓ | n/a |
| 3. **MTN**, Uganda** | 2.6 EUR ↓ | 2.3 EUR ↓ |
| 4. **Vodafone Ziggo**, Netherlands 1) | 2.0 EUR ↓ | 2.2 EUR ↑ |
| 5. **Ooredoo**, Palestine | 2.1 EUR ↑ | 2.2 EUR ↑ |
| 6. **Telekom**, Germany (incl. M2M) | 1.8 EUR ↓ | n/a |
| 7. **Ooredoo**, Qatar | 2.0 EUR ↓ | 1.7 EUR ↓ |
| 8. **Zain**, Sudan | 1.7 EUR ↓ | n/a |
| 9. **Vodafone**, UK | 1.7 EUR ↓ | 1.7 EUR ↓ |
| 10. **Optus**, Australia** | 1.8 EUR ↓ | 1.7 EUR ↓ |

Table 8. Operators with the highest total mobile service revenue per consumed gigabyte.

In our mature market focused country analysis you can identify the Netherlands, Norway, Germany, and the UK as some of the country markets (of the covered) with high revenue per gigabyte – so this list generally seems plausible.

**Ooredoo Palestine**'s entry into the top ten list is regretfully a consequence of the Gaza war. The only other operator with an increase in the total revenue per GB is **VodafoneZiggo** from the Netherlands where Q2 2025 isn't yet reported when it comes to mobile data traffic.

**Zain Sudan** is likely on the top list because of the civil war.

We conclude that there in 2024 was **27x difference** between the operator with the highest total service revenue per gigabyte (KPN Netherlands) and the operator with the lowest (MTN Irancell). In the first half of 2025, the multiplier was **49x**. These multipliers are essentially unchanged compared to last year's analysis, i.e. the gap is not closing.

[10] 1) = Q1 2025 for 1H 2025 as Q2 2025 not yet reported.

## Europe: Widespread revenue per GB – increasing in a few instances

Figure 13 shows the European breakdown. Since European operators played both in the bottom and some close to the top of the global chart, the spread is almost as large as in the global view.

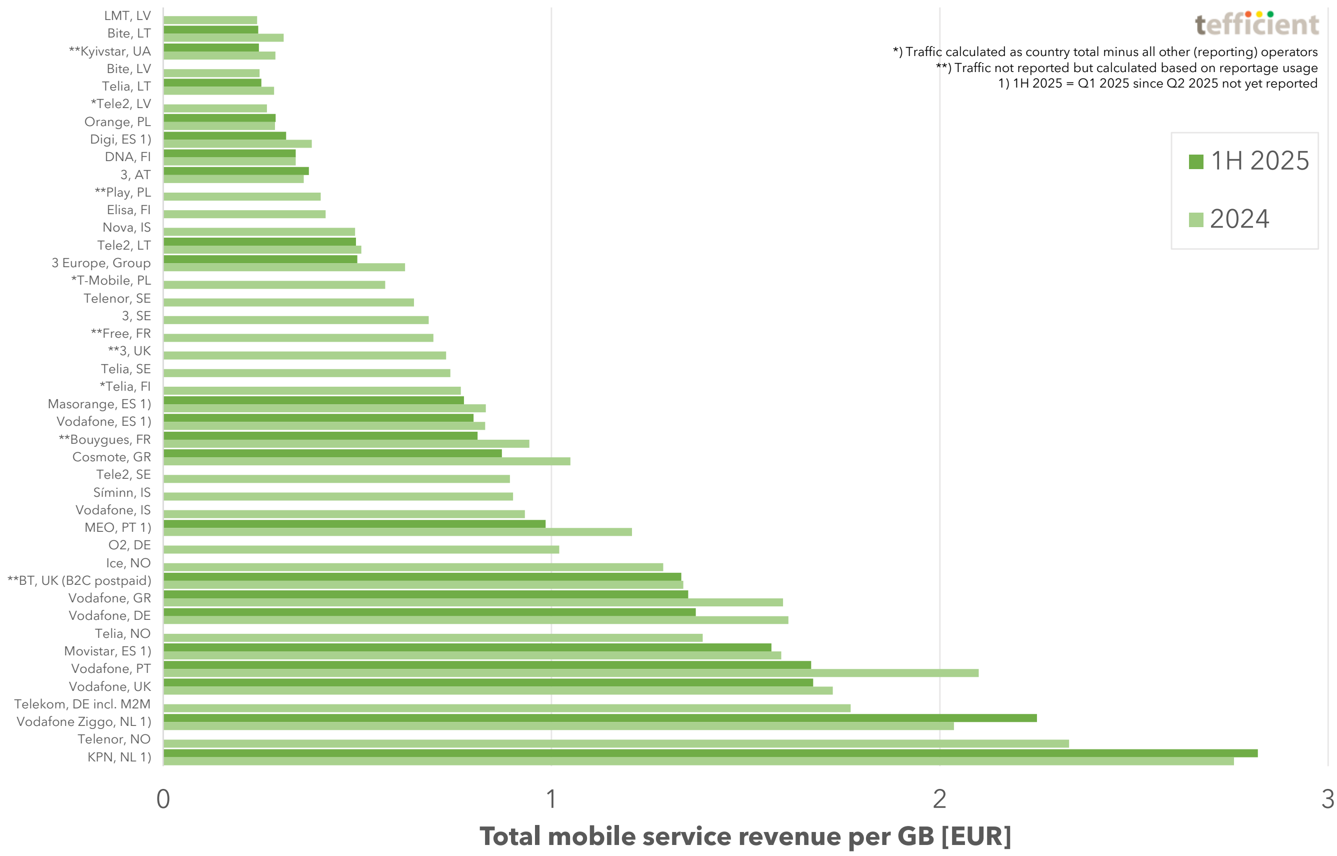


Figure 13. Total mobile service revenue per gigabyte – European operators.

Dutch, Norwegian, German, UK, and Portuguese operators play in the bottom of the graph – where the total service revenue per consumed gigabyte is high. In the other end of the scale – where the revenue per gigabyte is low – we find operators from **Latvia**, **Lithuania**, **Ukraine**, **Poland**, **Finland**, and **Austria**.

Four European operators increased their revenue per GB:

- 1H 2024 to 1H 2025, **VodafoneZiggo** from the Netherlands[11] (+13%) and **Orange Poland** (+4%).
- 2023 to 2024: **Telia Finland** (+6%) and **Nova Iceland** (+2%).

[11] Q1 2025 for 1H 2025 as Q2 2025 not yet reported.

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## Asia and China: Revenue per GB no longer decreasing fast

Figure 14 shows the Asian and Chinese operators. Indian, Indonesian, Bangladeshi, Pakistani, and Thai operators had the lowest revenue per gigabyte whereas Australian, South Korean, and Singaporean operators had much higher revenue than the rest.

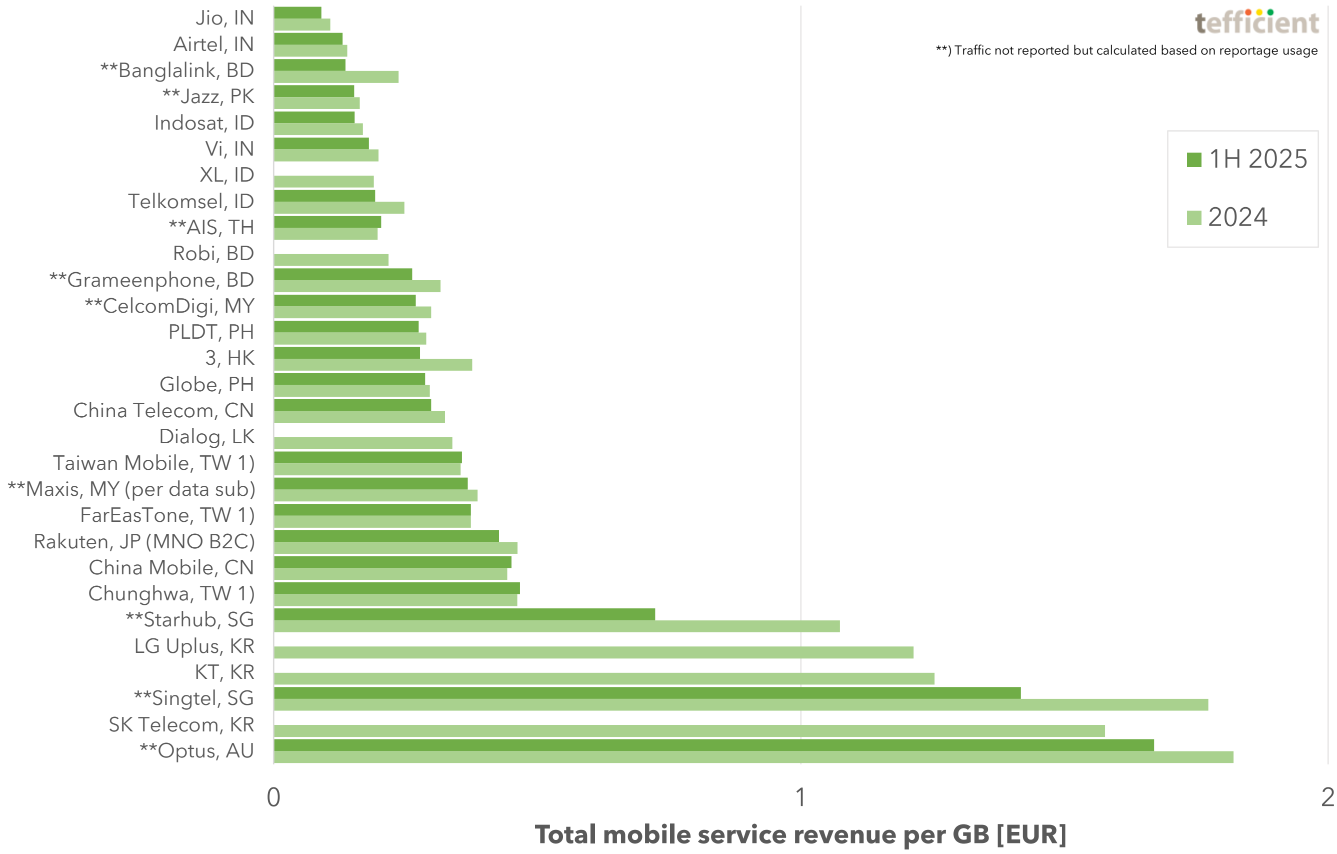



Figure 14. Total mobile service revenue per gigabyte – Asian and Chinese operators.

The erosion in revenue per gigabyte in Asia/China is not as quick as it was in previous editions of this report. In contrast, two Asian/Chinese operators increased their revenue per GB in 1H 2025 compared to in 1H 2024:

- **AIS** from Thailand (+7%) and **Taiwan Mobile** (+0.1%).

## RoW: Widespread revenue per GB – increasing in Turkey and a few other countries

We are ending this section with Figure 15 – showing the operators in the rest of the world alongside a few groups that separate out mobile service revenue in their reporting.

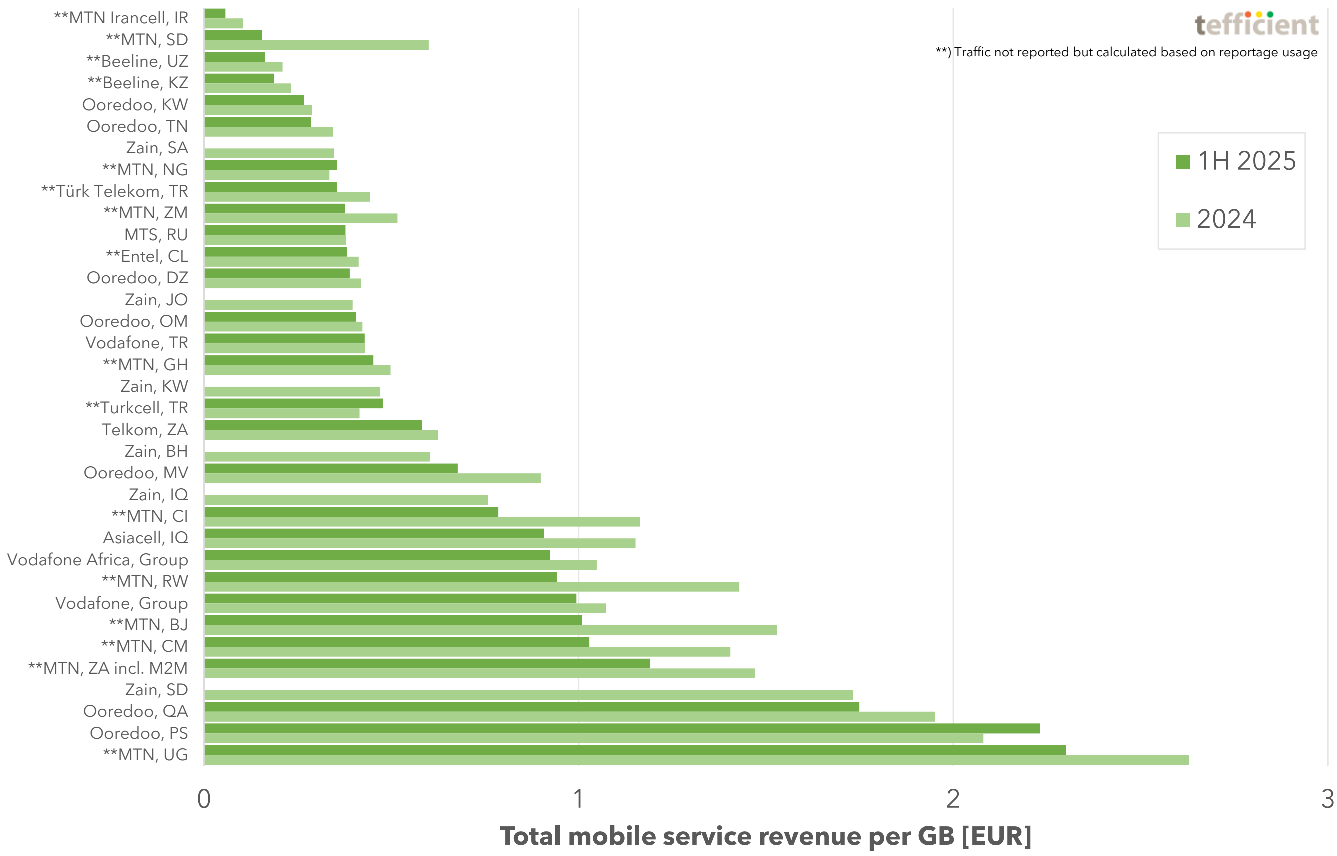



Figure 15. Total mobile service revenue per gigabyte – rest of world operators.

MTN Irancell, MTN Sudan, Beeline Uzbekistan and Kazakhstan, Ooredoo Kuwait and Tunisia, Zain Kuwait, and MTN Nigeria form the top of the chart where revenues are lowest per gigabyte. **Sub-Saharan operators** populate the bottom of the graph – alongside Ooredoo Palestine and Qatar.

Four RoW operators increased their revenue per GB:

- 1H 2024 to 1H 2025, **Turkcell** Turkey (+58%), **Ooredoo Palestine** (+40%), **Vodafone Turkey** (+18%), and **Ooredoo Oman** (+10%).
- 2023 to 2024: **Turkcell** Turkey (+45%), **Vodafone Turkey** (+38%), and **Ooredoo Palestine** (+20%).

The Turkish development is not surprising given the hyperinflation in the country. The development in Palestine is regretfully due to the Gaza war.

## The revenue per GB goes up when usage goes down

Let us now combine the revenue per gigabyte with the usage. Those of you that have read our data usage and revenue analyses before are familiar with the **revenue per GB vs. usage** chart. Figure 16 shows it for all operators where we have values for both axes for 2024.

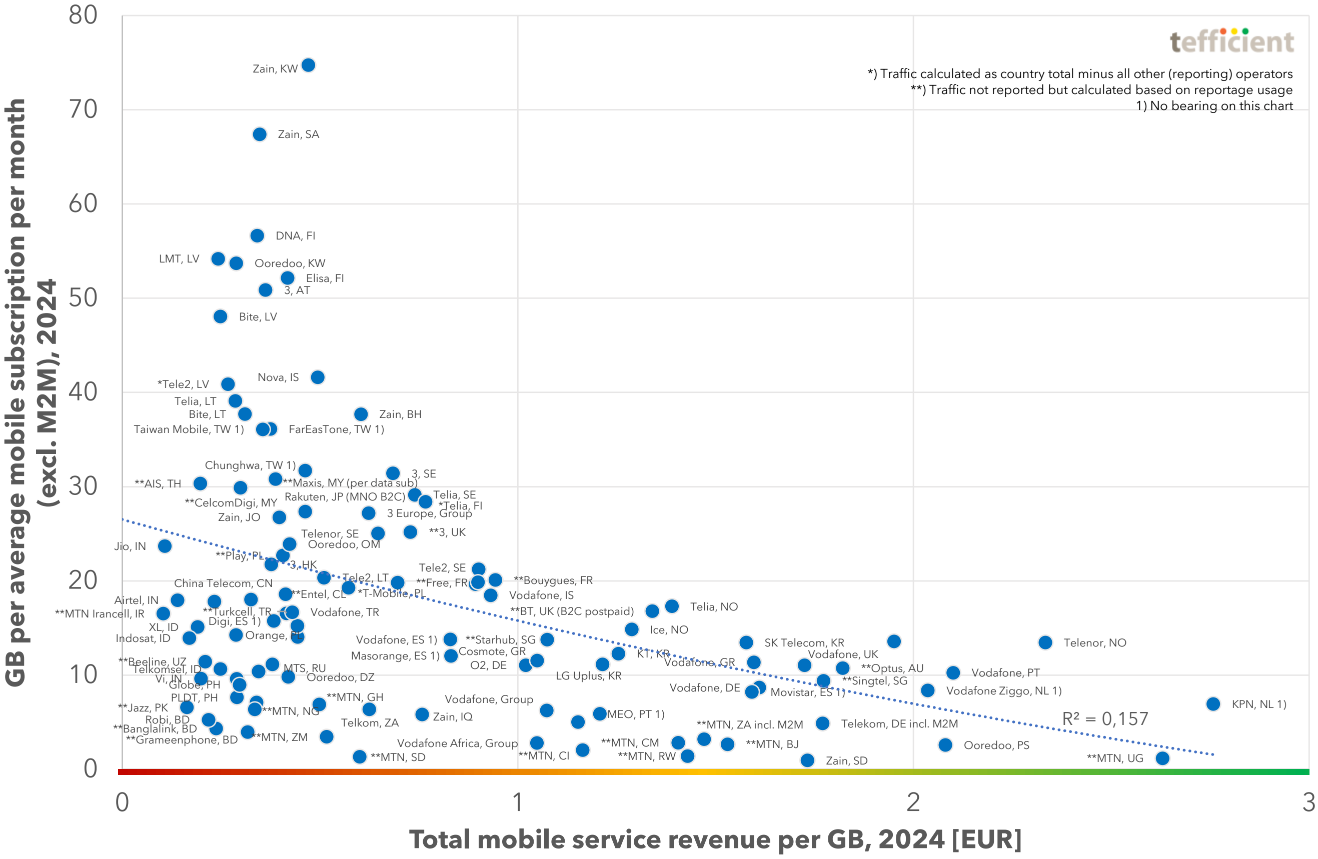



Figure 16. Mobile data usage vs. total mobile service revenue per gigabyte – 2024.

With all those labels, readability is so-so. Let's therefore highlight some of the outliers.

- The operators with the highest revenue per GB in 2024 are – from right – **KPN**, **MTN Uganda**, **Telenor Norway**, **Vodafone Portugal, Ooredoo Palestine**, and **VodafoneZiggo**.
- The operators with the lowest revenue per GB are – from left – **MTN Irancell**, **Jio**, **Airtel** India, **Jazz**, **Indosat**, **XL**, **AIS**, and **Vi**.
- The operator with the highest usage is – from the top – **Zain Kuwait**.
- The operator with the lowest usage is – from the bottom – **Zain Sudan**.

The dotted regression line – albeit with a $R^2$ value much lower than 1 – indicates that the usage goes down when the revenue per GB goes up.

## Usage drives ARPU

One could criticise the previous chart for comparing the number of gigabyte with something that relates to it – the revenue per gigabyte. Our next chart, Figure 17, is therefore comparing the number of gigabyte with the revenue per subscription, i.e. the **ARPU**. And that is perhaps even more interesting.

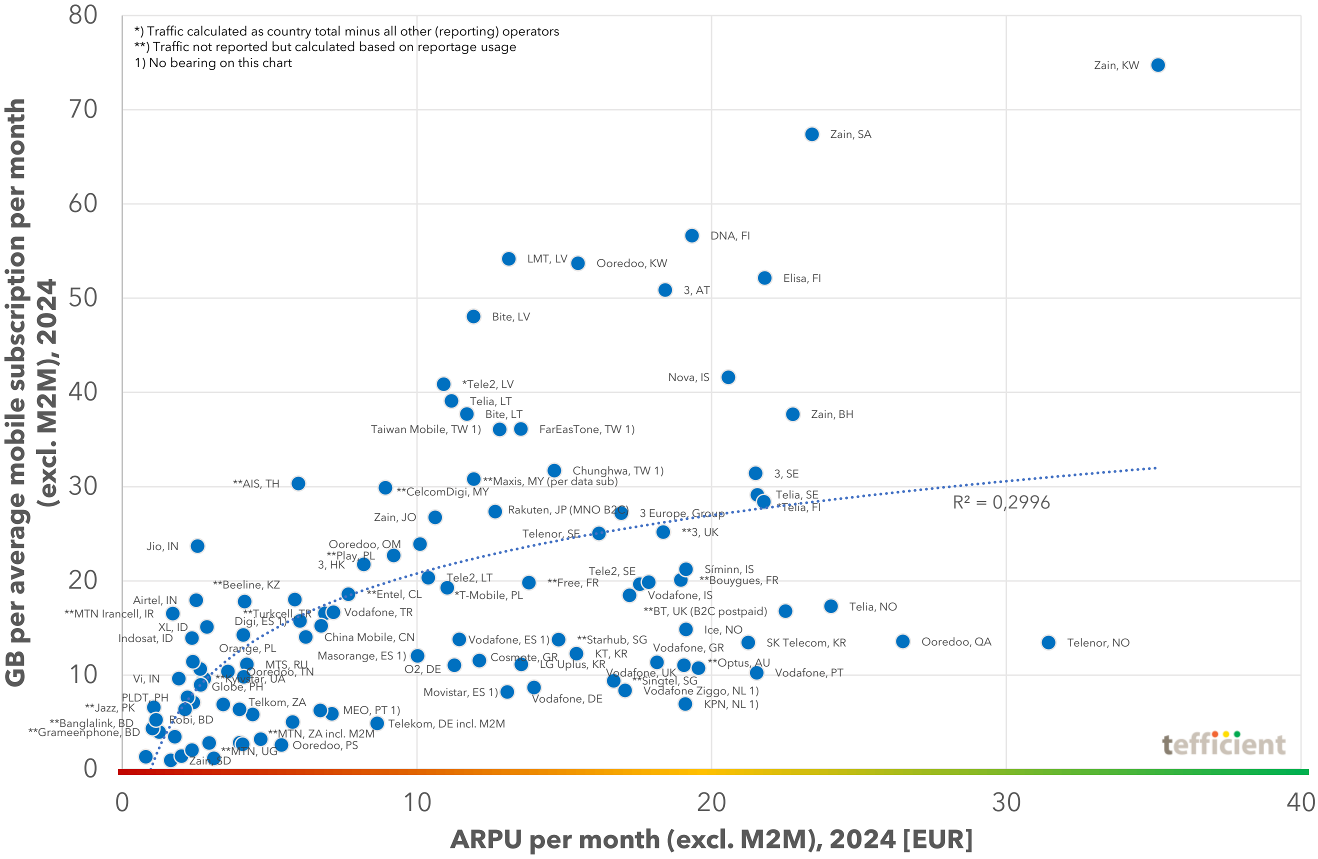



Figure 17. Mobile data usage vs. ARPU[12] – 2024.

Of all the operators there are three (from right) – **Zain Kuwait**, **Telenor Norway**, and **Ooredoo Qatar** – that enjoy much higher ARPU than other operators. But in the case of Zain, the data consumption is also the highest in the world. Telenor Norway's and Ooredoo Kuwait's customers aren't keen data users[13] – yet the ARPU is high.

[12] ARPU is calculated as the reported total mobile service (non-equipment) revenue incl. interconnect & roaming divided with the average number of reported subscriptions excl. M2M. It can differ from the definition of operator reported ARPU.
[13] The FWA traffic is not included in the reported mobile data traffic by the Norwegian regulator, Nkom (and fixed data traffic isn't reported). If it was included, the average usage would have been higher. Having said that, FWA revenues are also excluded so usage and revenues match.

In the middle upper part of the graph is a cluster of seven operators with very high average data usage but moderate ARPU between 12 and 23 EUR. Here we find **DNA** and **Elisa** from Finland together with **Drei** (3) Austria, **Zain Saudi Arabia**, **LMT** and **Bite** from Latvia, and **Ooredoo Kuwait**.

India's **Jio** continues to be an outlier. Its ARPU isn't the lowest – and it's growing quickly – but considering an average data usage of more than 28 GB per month, Jio could still be regarded an affordability leader of the world alongside **MTN Irancell**.

The dotted regression line suggests that **operators with higher data usage have higher ARPU**.

International trend: Operators with higher data usage tend to have higher ARPU

To moderate this, one must realise that the adherence to this line (shown by a $R^2$ value below 1) isn't perfect. And we should also remember that the line visualises an international – not a national – trend: It is quite difficult to find national examples showing that operators with higher data usage enjoy higher ARPU. If anything, it's rather the opposite. It's typically the challenger operator that has the customers with the highest data usage and challenger operators tend to have lower ARPU than incumbents.

## Dressing the Christmas tree in green and red

Absolute ARPU aside, how many of the operators have been able to deliver on "**more for more**" i.e. been able to increase ARPU while increasing data usage? And how many are just following the "more for less" stream, giving users more data but not being able to charge anything more?

All this is shown by our Christmas tree graph. Figure 18 shows the trends from 2023 to 2024. It provides an overall result very similar to [last year](): **Data usage grew for 94% of operators and 69% of them could turn that into ARPU growth** (with branches growing to the right). The figures for 2023 were 93% and 71%, then representing a decline compared to 2022.

> 2024: Data usage grew for 94% of operators
>
> ARPU grew for 69% of operators

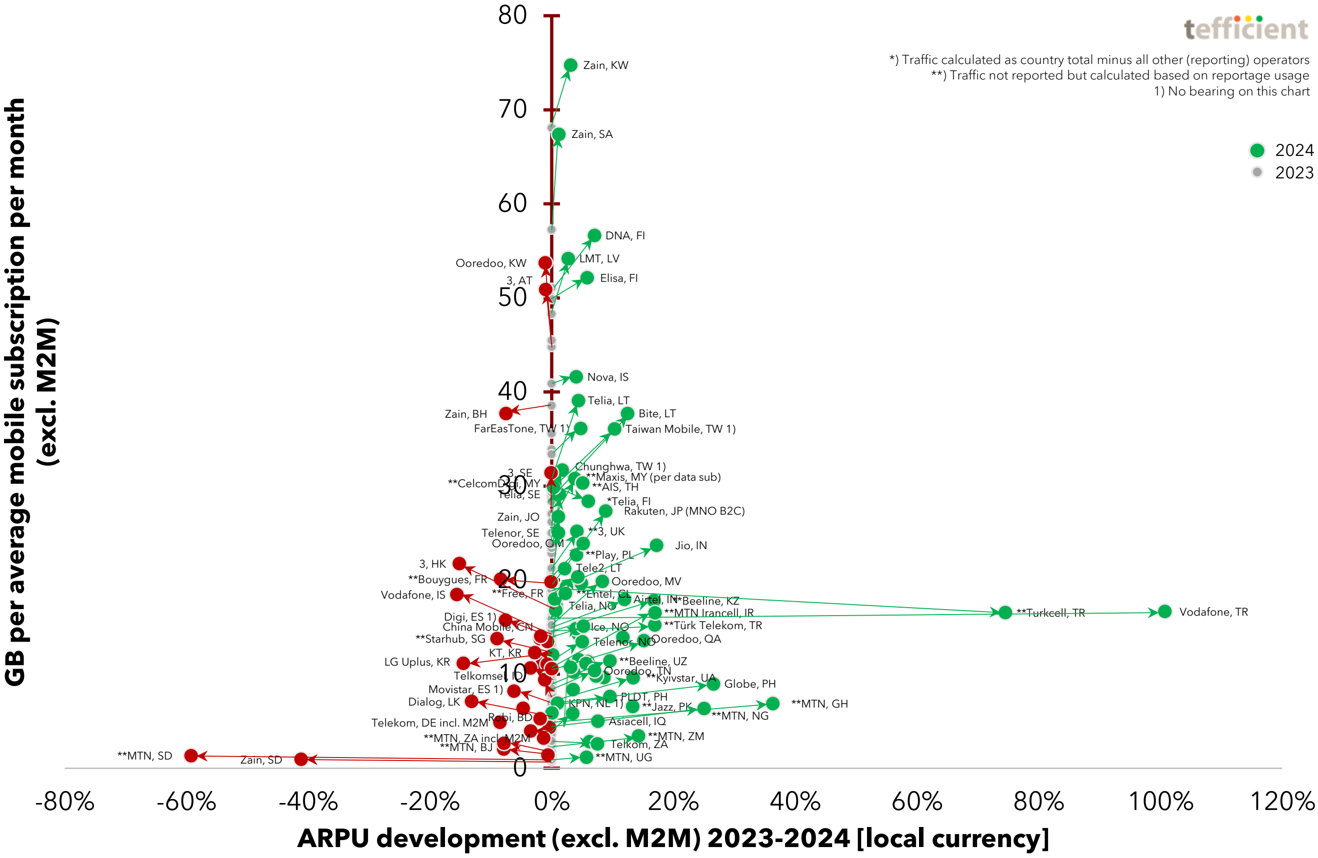



Figure 18. Mobile data usage development vs. ARPU[14] development – 2023 to 2024.

[14] ARPU is calculated as the reported total mobile service (non-equipment) revenue incl. interconnect & roaming divided with the average number of reported subscriptions excl. M2M. It can differ from the definition of operator reported ARPU.

If calculating the same for the smaller set of operators for which we can compare 1H 2025 with 1H 2024, **data usage grew for 93% of operators and 68% of them could turn that into ARPU growth**. In other words, quite similar numbers as for 2024.

Let's highlight a few best practices of successful "more for more" operators in 2024:

- Our global usage winner, **Zain Kuwait**, grew ARPU following a further increase in data usage likely following onto increased take-up of 5G and 5G home routers.
- The Finnish operators **DNA** and **Elisa** have been able to grow ARPU thanks to more customers upgrading to faster (and more expensive) speed tiers on their unlimited plans. **Telia** too had a positive ARPU development albeit under a calculated fall in usage.
- **Telia**, **Bite**, and **Tele2 Lithuania** all had good growth in both ARPU and data usage.
- **Jio**, **Airtel** and **Vi**[15] continued to improve its ARPU in 2024 as data usage grew.
- **Rakuten** from Japan could increase its ARPU strongly under significant usage growth.
- **Vodafone** and **Turkcell** could increase its ARPU faster than the Turkish inflation (44%) whereas Türk Telekom could not.
- **MTN Irancell** really grew usage and ARPU followed.
- **Globe** and **PLDT Philippines** both used their 5G focus to drive usage and ARPU growth.
- **MTN Ghana and Nigeria** stood out positively with good usage and ARPU growth.

Amongst the 31% unfortunate operators who could not grow ARPU, a few operators show up particularly negative with branches stretching far to the left:

**Zain Bahrain** is one of few operators with declining usage. ARPU logically fell too.

The ARPU of **3 Hong Kong** fell 15% in 2024 as 3 grew its subscriber base, driven by prepaid, with 17%. Contrary to what could be expected, the usage per average subscriber grew fast, meaning that 3 failed to monetise that additional usage.

**Vodafone Iceland** had a similar development, but without expanding its customer base. Its revenue development was quite negative from 2023 to 2024.

**LG Uplus** of South Korea too had negative ARPU development in 2024, -15%, as Uplus quickly expands its base with MVNO subscriptions. The two competitors **SK Telecom** and **KT** are too on the wrong (left) side of the Christmas tree. There has been much political pressure on South Korea's operators to reduce the price of 5G subscriptions, and the operators have therefore introduced cheaper alternatives (with less data). At the same time, MVNOs selling cheaper 4G subscriptions have taken market share from the MNO brands.

**Dialog Sri Lanka** also had a negative ARPU development, -13%, in 2024 as Dialog acquired Airtel in the second half of the year, boosting its prepaid subscription base. The reported total annual service revenue still declined by 7%.

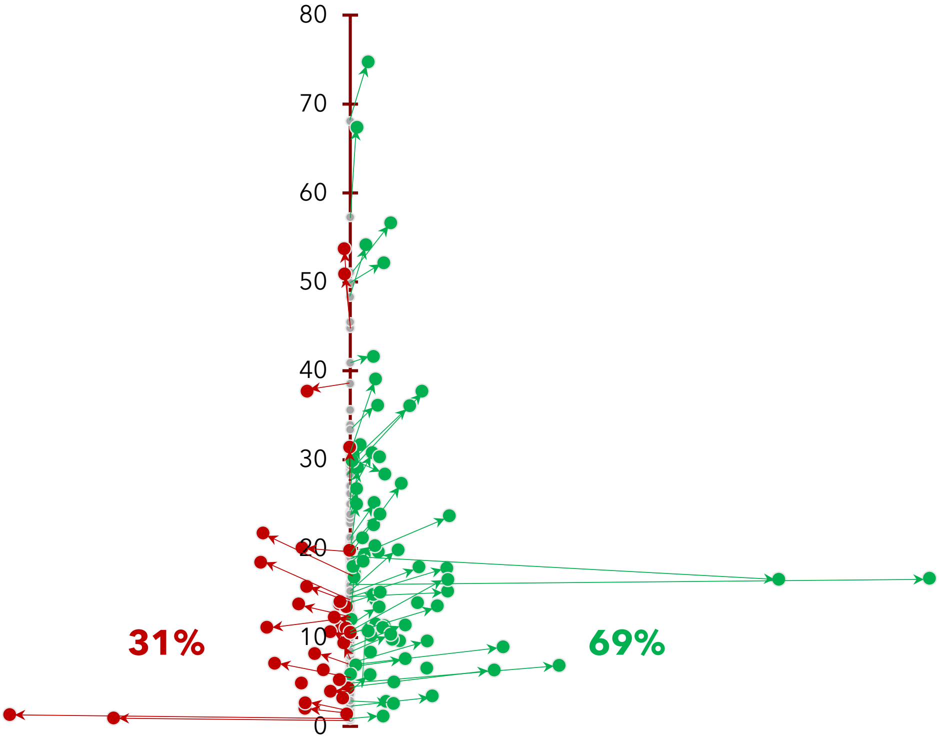
The ARPU of **MTN and Zain Sudan** fell significantly due to the civil war.

[15] Not labelled in the chart.

## Conclusion

In this edition, we presented fifteen updated ranking charts and three revised correlation plots, offering a clear view of global trends in mobile data usage, traffic, and service revenues. As expected, data usage and traffic generally continue to grow, although the rate of growth has slowed compared to 2022 and earlier.

Notably, 69% of operators succeeded in converting increased data usage into higher ARPU – a rather stable outcome compared to 2023. This trend persists in the first half of 2025, with 68% of operators achieving ARPU growth alongside rising data usage.




These results underscore the ongoing effectiveness of the "more for more" strategy. However, 31% of operators have not been able to leverage pricing power to drive ARPU gains. They tend to operate in the bottom left low-usage area of the Christmas tree graph above. It seems to be a risky spot.

Still, the majority – 69% – are executing on the strategy, as evidenced by their rightward shift.

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