Patterns of fixed traffic growth, 2025

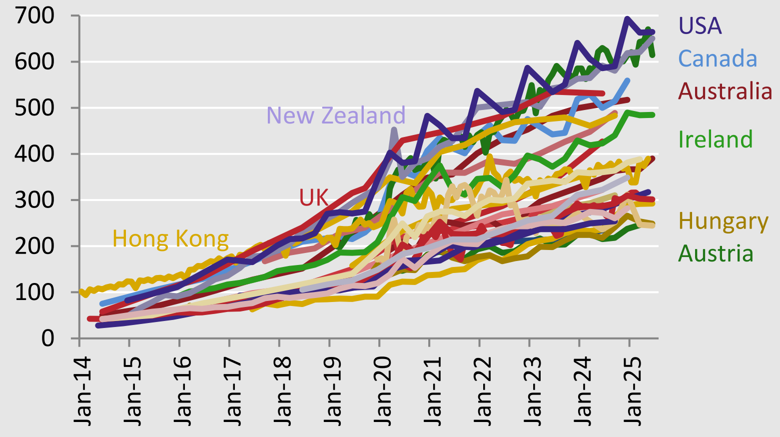
This note[2] considers the growth of broadband traffic per fixed line in various countries[3] around the world. In previous notes we have observed that around 10% traffic growth appears to be the new normal, and this pattern continues – average growth over the twelve months to March 2025 was 9.9%. (Figure 1). Past 'tail winds' for traffic growth, such as VOD uptake, continue to slacken, and there are no new major drivers of consumption.

Figure 1: Year-on-year growth in traffic per fixed broadband line, average across countries[1]

Traffic levels

We first look at absolute levels of traffic. Traffic per line continues to grow around the world, albeit with quite a wide spread in absolute levels:

Figure 2: Traffic per fixed broadband line, GB/month (28 countries)[4]



Median traffic per line amongst the 28 countries for which we have data was just under 366 GB per month at June 2024, and we estimate six countries have passed 500 GB, equivalent to 12 hours of streamed HD video per day per household. These are average figures, and individual households will be well above this.

[1] See Footnotes 4 and 9 for sources and caveats

[2] Previous analyses are available at Communications Chambers, *Patterns of internet traffic growth*, April 2018; *Patterns of internet traffic growth 2021*, October 2021; *Patterns of fixed traffic growth, 2022*, October 2022; *Patterns of fixed traffic growth 2023*, December 2023; and *Patterns of fixed traffic growth 2024*, November 2024

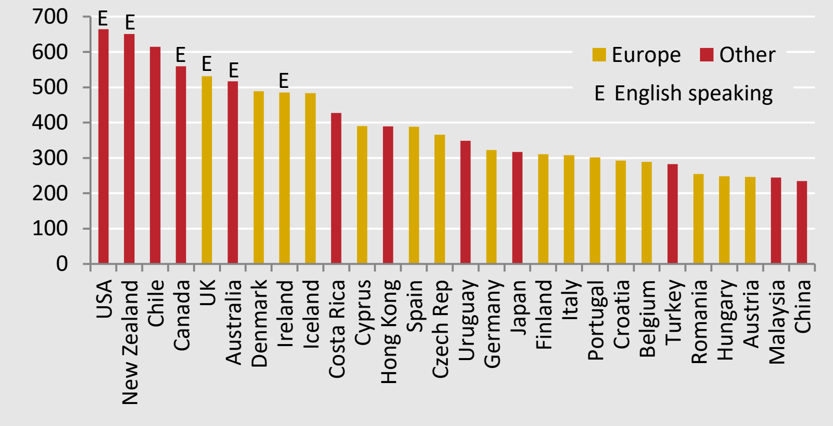
[3] Countries are those for which relevant data could be identified

[4] Sourced from relevant national regulatory authorities or government statistical services, with the exception of New Zealand (sourced from Chorus) and the US (from OpenVault). Figures are average for both business and residential lines, except for the UK which (from 2015) is residential only. Traffic is upload+download, except Australia which is download

A continuing feature of different countries' traffic is a lack of convergence – countries with less traffic are not 'catching up'. For instance, the ratio of the traffic of leaders such as the US, Canada and New Zealand to the traffic of laggards such as Hungary and Austria has stayed roughly fixed. Clearly national factors are important to traffic levels – it is not simply a matter of which countries were early adopters.

Figure 3 shows latest available traffic per line figures. English-speaking markets continue to dominate the top of the rankings, with six out of the top eight slots.[5]

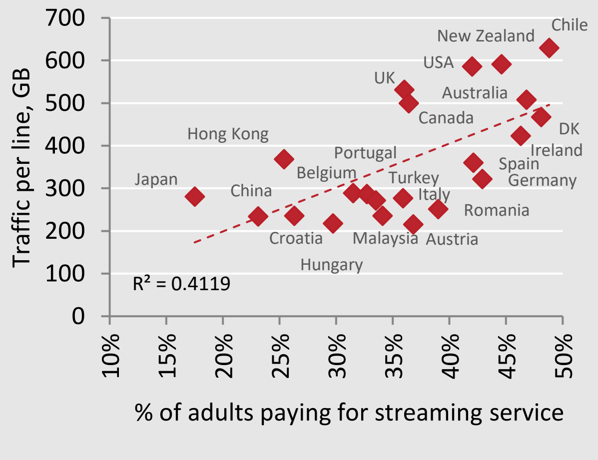
Figure 3: Traffic per fixed broadband line, latest available figure, GB/month[6]



Regarding Europe vs rest of world, it is striking that there is almost as much variation within Europe as there is globally. The UK has more than double the traffic per line as Austria, for example.

Video is the key driver of internet traffic, and we might expect use of video to link to country differences in traffic volumes (in particular video on demand, which is generally higher resolution and so needs more traffic). Figure 4 shows that there is such a correlation, with the countries with highest traffic also having the highest percentage of people reporting they subscribe to streaming video

Figure 4: Traffic (mid-2024) vs VOD usage[7]



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[5] It is possible that the Chile figure may be anomalous, in that it may include managed IPTV traffic. However, it has not been possible to confirm this

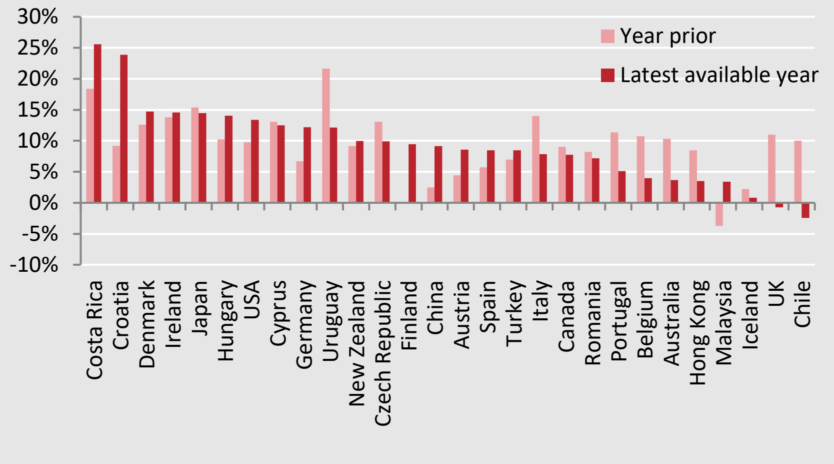
[6] All data is from July 2024 or more recently

[7] Streaming percentage from We Are Social & Meltwater, *Digital 2025 Global Overview Report*, 5 February 2025

Growth rates

Turning to traffic growth, Figure 5 shows the latest reported year-on-year growth for our sample of countries.

Figure 5: Growth in traffic per fixed BB line[8]



With the exception of Costa Rica and Croatia, all countries have growth of less than 15% in the most recent 12 months, and three countries including the UK reported essentially no growth (though note that the UK had a change in basis, so figures are not strictly comparable to the year prior).

Across our sample the median growth is 10%. Compared to the year prior, our sample is split evenly between countries that have seen an increase in growth and those seeing a decrease.

Twelve countries (out of our 28) have now reported at least one period where year-on-year traffic growth has been negative.

To provide a longer term and global perspective, Figure 6 shows averaged growth across the set of countries for which we have data (also shown at the top of this paper).

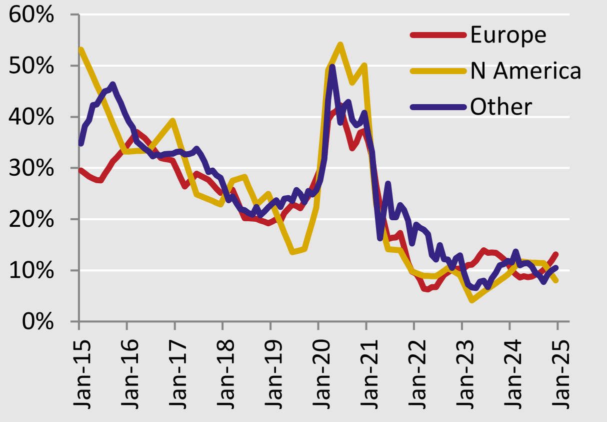
Up until 2022, traffic growth had been in long term decline, albeit punctuated by the pandemic. Since then, growth appears to have stabilised, at an average of 10%.

Figure 6: Year-on-year growth in traffic per fixed broadband line, average across countries[9]

[8] Year earlier data not available for Finland. Note earlier caveat on comparability of latest UK figure to prior figures
[9] Per FN 4. Communications Chambers analysis. Data interpolated where necessary. Notes: (i) The countries within the set varies somewhat over time, based on when countries started reporting and when they most recently published data.

Figure 7 shows the same metric split by region. The consistency of the picture across these three regions is striking – each shows the same decline, the same pandemic spike and the same levelling off at around 10%. This suggests the global nature of the internet (for instance, the relatively rapid expansion of Netflix, the immediate global availability of new features in social media and so on) trumps any national or regional changes in consumer behaviour or available services. That said, as we have seen there are material differences in absolute levels of traffic, even if *growth* is common across countries.

Figure 7: Year-on-year growth in traffic per fixed broadband line, by region[10]

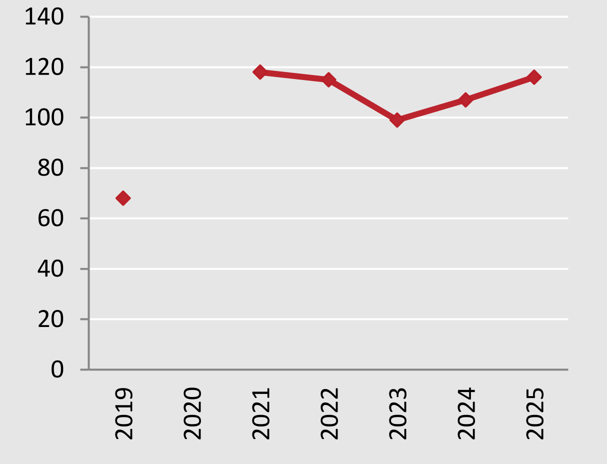


Causes of slower traffic growth

There are a number of factors that explain slowing traffic growth. There is simply only so many hours per day that people can spend online, and this cannot keep growing (indeed, in many markets it is not).

Further, while they can spend their time online with applications that require more bandwidth – watching video rather than surfing for instance – this transition is far past its fast growth phase. Figure 8 shows time spent streaming video in the UK, for example. It is still growing, but has only just re-reached the pandemic peak. Further, last year's growth rate was only 8%.

Figure 8: UK streamed video, mins/person/day [11]



This is growth in time spent. However, the associated growth in traffic will depend on two other factors – the video resolution of the stream (higher resolution requires more bandwidth) and improvements in video compression.

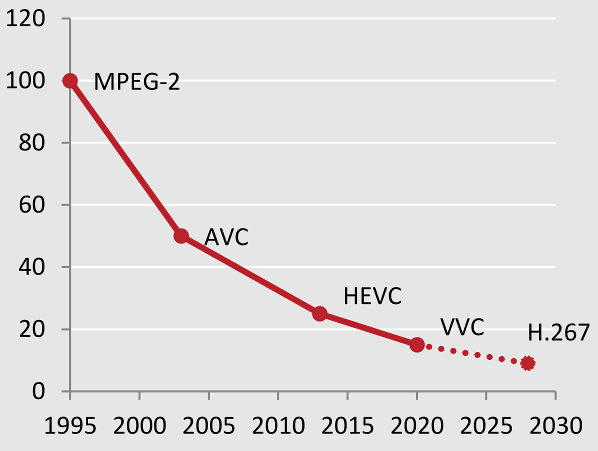
However, this variation does not appear to have material impacts on the trends shown. (ii) Because new historic data has become available, the figures in this chart do not exactly match those in the equivalent chart from our report a year ago

[10] Ibid

[11] Ofcom, *Media Nations* reports

Improved compression technologies have steadily reduced the bandwidth required for a given quality of video (**Error! Reference source not found.**), and will continue to do so, due to both improvements in compression techniques within standards and transitions to new standards (such as that from MPEG-2 to H.264/MPEG4, to HEVC and now on to VVC, with H.267 expected later in the decade). These in turn are enabled by ever greater processing power available to codecs – compression benefits from Moore's Law.[13]

Figure 9: Index of bandwidth for given quality[12]

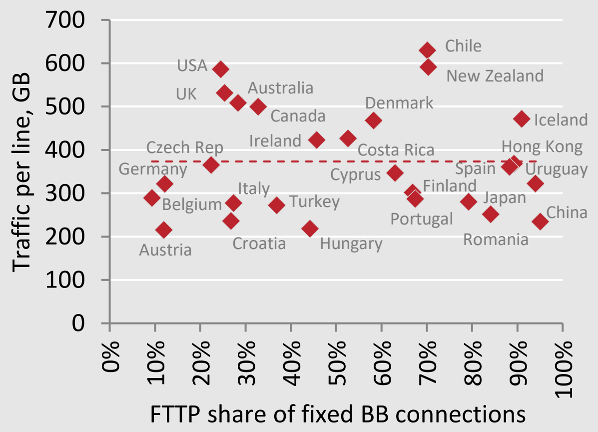


The historic trend has been a 7% annual improvement in compression. This would almost entirely offset the 8% growth in UK video consumption mentioned above, though a shift to (say) 4K streaming could still increase traffic needed.

Policy implications

One policy implication of traffic growth at these levels is that telcos' backbone costs are likely to fall over time, since the unit costs of backbone transport equipment is falling faster than traffic is rising. For instance, Cignal AI expects the unit cost of coherent ports (a key component of IP backbones) to fall by over 20% per year,[15] well above the 10% increase in traffic. This suggests that it is highly unlikely that continuing fixed traffic growth will impose unacceptable (or even material) costs on telcos. There is no need for a radical revision to the terms of trade between ISPs and content providers.[16]

Figure 10: Traffic (mid-2024) vs FTTP share of BB[14]



Another policy implication relates to the link between traffic and take-up of FTTP – or rather the absence of one. Figure 10 shows traffic per line against the portion of broadband connections that are FTTP. There is literally zero

[12] Communications Chambers analysis of Synamedia, A Guide to Choosing the Right Video Compression Vendor for your Business, November 2020; and Streaming Media Europe, State of the Video Codec Market 2025, 21 March 2025

[13] A codec is the software which generates a video image from the digital stream of data carrying a compressed version of that image (or vice-versa)

[14] FTTP percentages from: OECD, *Percentage of fibre connections in total broadband*, June 2024; OFCA, *Key Communications Statistics* [accessed24 October 2025]; Telegeography, *The rise of fiber*, 6 March 2025; Unidad Reguladora de Servicios de Comunicaciones, *Informe de Mercado de Telecomunicaciones a diciembre 2024*, 9 July 2025; *Cyprus Mail, Faster internet for Cyprus as fibre expands*, 2 April 2025

[15] Cignal AI, *Coherent Port Pricing Trends (1Q24)*, January 2024

[16] For a more detailed discussion, see Felten, Kenny & Webb, *European telecom operators are well placed to meet future investment requirements in digital infrastructure*, October 2025

correlation between the two.[17] This suggests that increased uptake of FTTP is not a major driver of increased usage.[18]

This is an important issue, since broadband policy should be aimed at increased usage[19] – this is ultimately what creates value for society. Instead it is often aimed at increased availability of higher speeds. The EU's Digital Decade targets call for 100% availability of Gigabit broadband, for example, necessitating expensive deployment of FTTP to rural areas. If that FTTP is then taken up, it will move European countries to the right in Figure 10 – but may not have any impact on traffic levels at all, given the lack of correlation.

(There may be other benefits to FTTP, such as lower opex for operators, but this will already be factored into operators' investment decisions, and doesn't require a policy intervention).

The positive perspective on this is that European countries have substantial potential to increase their use of the internet without any further adoption of FTTP. For instance, the US has 2.5x the traffic of Croatia, but slightly *lower* FTTP penetration. The EU's broadband infrastructure is not an impediment to its citizens getting far greater value from the internet, but rather has substantial latent potential.

This argues that policy makers should be cautious of investing too much money (either public funds or telco shareholders') in pushing FTTP out aggressively.

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October 2025

[17] R^2=0.00
[18] For a similar finding based on granular regional data for the UK, see Kany, Kenny & Gehan, *What drives broadband traffic?*, October 2023
[19] Strictly of applications, rather than traffic – but traffic here serves as a rough proxy for use of applications

Annex – Traffic by country (GB per fixed line per month)