



FTTx conversion: worldwide trends and forecasts 2019–2025



Stephen Wilson

About this report

This report analyses and forecasts conversion rates (premises with active connections as a percentage of premises passed) for FTTx architecture and technologies during 2019–2025. It is based on several sources, including the following.

- Analysys Mason’s internal research, including our core telecoms forecasts, our fixed data traffic forecasts and our detailed modelling of the costs of technologies and deployment. Our modelling and assumptions are informed by professionals in our offices worldwide.
- Ongoing engagement with stakeholders in the FTTx market, including operators and vendors.

KEY QUESTIONS ANSWERED IN THIS REPORT

- How quickly will subscriber conversion rates on next-generation access (NGA) infrastructure increase over the next few years?
- Which markets worldwide are likely to have the highest rates of growth for next-generation access (NGA) subscriber conversion during the forecast period?
- What is the threat posed to wireline NGA subscriber conversion by wireless technologies such as 5G mmWave fixed-wireless access?
- How will cable broadband be affected by the growth in the number of FTTx subscribers?

GEOGRAPHICAL COVERAGE

- Western Europe (WE)
- Central and Eastern Europe (CEE)
- Middle East and North Africa (MENA)
- Sub-Saharan Africa (SSA)
- China
- Rest of emerging Asia–Pacific (EMAP)
- Developed Asia–Pacific (DVAP)
- North America (NA)
- Latin America (LATAM)

KEY METRICS

- Conversion rates (that is, premises with active connections as a percentage of premises passed)
 - Connection numbers
 - Connection rate of premises passed
- Split by architecture/technology:
- FTTC/VDSL or G.fast, FTTB/VDSL or G.fast, FTTB/LAN
 - FTTP (split by incumbent and alternative operator)
 - Cable DOCSIS3.0 or 3.1

WHO SHOULD READ THIS REPORT

- This report provides strategic planners with detailed and comprehensive insights into the development of FTTx.
- The report allows strategic planners to understand how quickly subscriber connection rates are likely to grow in the future and how the growth rate has been accelerated in different cases.
- This report shows the scale of the FTTx opportunity for equipment vendors and component suppliers.

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- 10. Growth in the number of cable broadband subscribers will be constrained by FTTP roll-outs
- 11. Non-incumbent FTTP take-up rates in Western Europe are currently highly variable, but will start to converge during the forecast period
- 12. Challenger infrastructure roll-outs will affect FTTP conversion in VDSL-dominated markets
- 13. Most operators in developed markets still have very few gigabit subscribers and such speeds are not common in entry-level FTTP tiers
- 14. The migration to gigabit FTTP speeds will take many years in most countries if there are no retail price incentives or free speed upgrades
- 15. There is still significant potential for growth in the number of NGA connections in emerging markets

16. Western Europe

- 17. NGA conversion rates will grow strongly in Western Europe during the forecast period

18. Central and Eastern Europe

- 19. NGA conversion rates will grow steadily, but unspectacularly, in CEE during the forecast period

20. Middle East and North Africa

- 21. NGA conversion rates are growing in MENA, but they remain constrained by a diverse set of factors

22. Sub-Saharan Africa

- 23. It is somewhat surprising that there have not been more-extensive roll-outs in Sub-Saharan Africa given the high NGA conversion rate

24. China

- 25. There is now very little potential for growth in fibre conversion rates in China

26. Rest of emerging Asia–Pacific

- 27. The overall NGA conversion rate in the rest of EMAP will be 44% at the end of 2025, which reflects the ongoing opportunities for growth in the fixed broadband segment

28. Developed Asia–Pacific

- 29. The threat of wireless substitution is intensifying in a number of countries in DVAP

30. North America

- 31. We forecast that there will be a smaller decline in the number of NGA subscribers in North America than previously anticipated

32. Latin America

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NGA conversion rates will only grow slightly during the forecast period, but NGA subscriber numbers will increase significantly

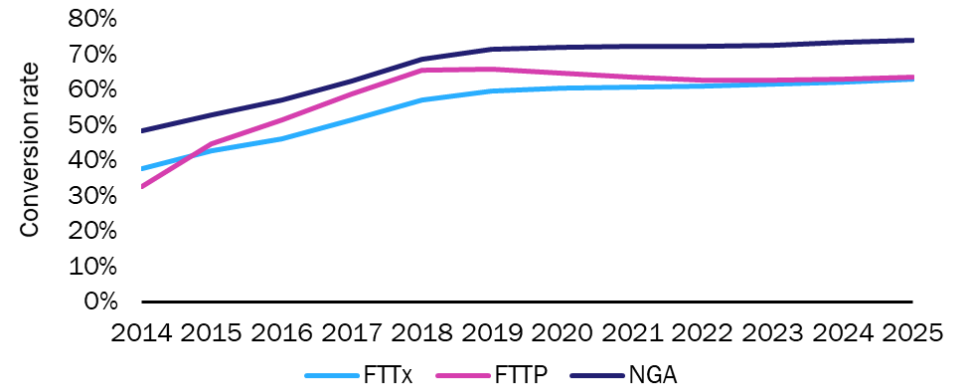
We forecast that the NGA conversion rate worldwide will grow from 73.2% at the end of 2019 to 77.5% at the end of 2025.

We forecast that the worldwide FTTP conversion rate will fall in 2020, 2021 and 2022. This is because conversion rates in EMAP (excluding China) will decrease in these years due to the significant FTTP roll-outs in India, particularly from Reliance Jio, and it will take time to attract subscribers. However, we still expect that the total number of FTTP subscribers worldwide will increase by 45% between the end of 2019 and the end of 2025.

At the end of 2025, MENA will have the lowest conversion rate (42.5%), and China will have the highest (93.5%). The threat of wireless substitution is limited in China because all three MNOs have rolled out FTTP networks. Competition between these players keeps retail prices low, as does government intervention on tariffs. Affordability is often an issue in regions with lower conversion rates. Furthermore, in MENA in particular, consumers have exhibited a greater willingness to rely solely on cellular connectivity, even if fibre connectivity is available.

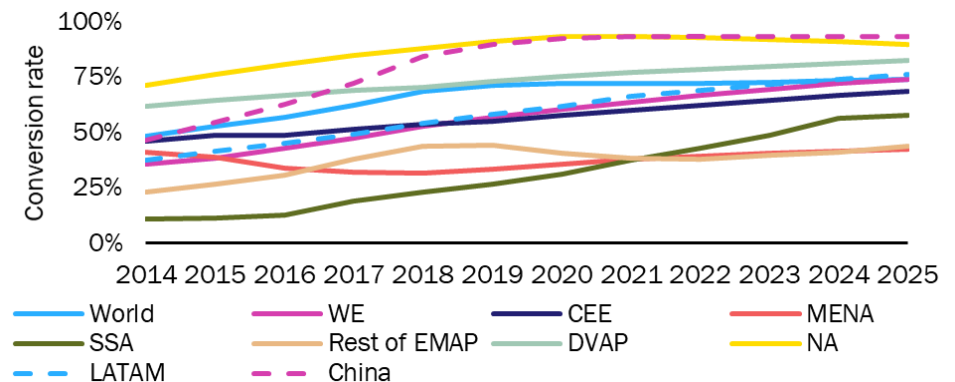
As in last year's forecast, we anticipate that NGA conversion rates will only decline at the end of the forecast period in NA. We now forecast that the conversion rate will fall to 89% by 2025 (rather than the 84% predicted last year). This is due to Verizon's slow progress with its mmWave roll-out and question marks over the technology's effectiveness.

Figure 1: Conversion rates by technology, worldwide, 2014–2025



Source: Analysys Mason

Figure 2: NGA conversion rates by region, 2014–2025



Source: Analysys Mason

Cable broadband players are facing increasing pressure from FTTP roll-outs in many European countries

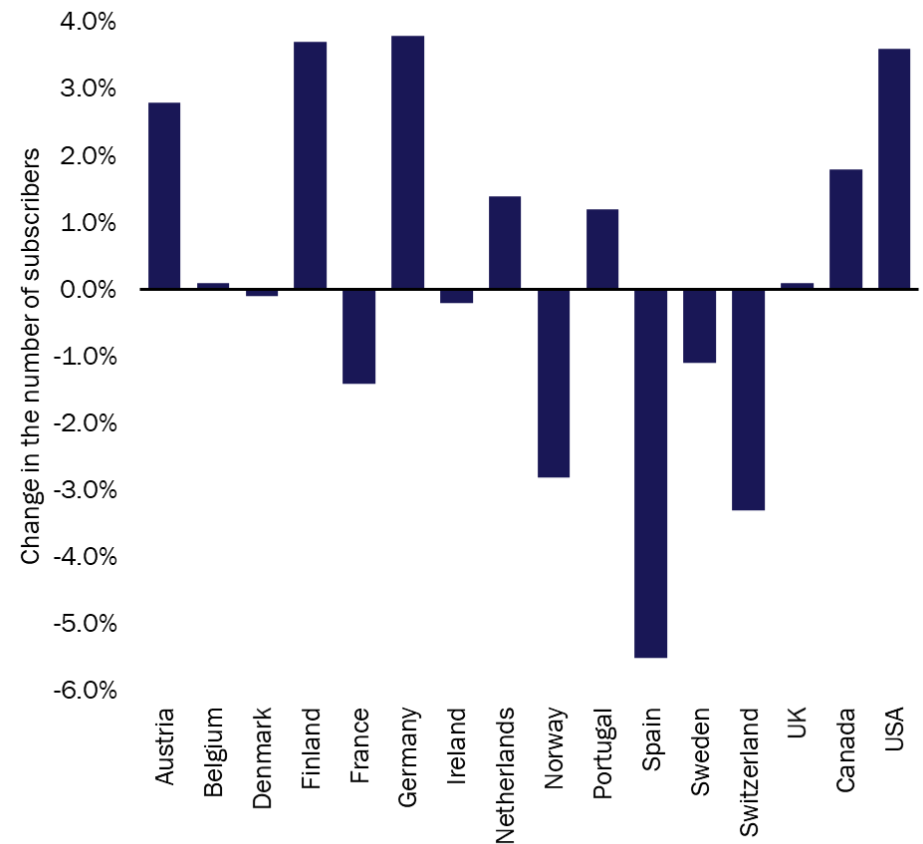
Cable broadband players are facing increasing pressure in a significant number of countries, particularly in Western Europe where we forecast a decline in cable broadband subscriber numbers in seven countries in 2019. However, there will be strong growth in the number of cable broadband subscribers in some countries. The number of cable broadband subscribers increased by 3.8% in Germany in 2019, even though cable broadband was rolled out later here than elsewhere in WE due to complexities around the ownership of different layers of the network.

Cable broadband is suffering partly due to non-network factors. Cable operators' traditional strength in providing broadband to existing pay-TV subscribers is becoming more of a hindrance as cord cutting becomes more prevalent. We forecast that the cable TV household penetration in Western Europe will fall from 23% at the end of 2019 to 21% at the end of 2025.

Some cable operators have lost broadband subscribers because they no longer provide premium pay-TV content. For example, Vodafone in Spain no longer shows Spanish Primera Liga football after failing to agree terms with Movistar. This helps to explain the 9% decline in the number of cable broadband subscribers in Spain in 2018.

Cable players are also under pressure in certain territories because they are weak in mobile, which is a disadvantage where converged fixed–mobile offers have taken hold. South Korean cable operators have suffered from unattractive MVNO offers.

Figure 3: Year-on-year change in the number of cable broadband subscribers, Western Europe and North America, 2019



Source: Analysys Mason



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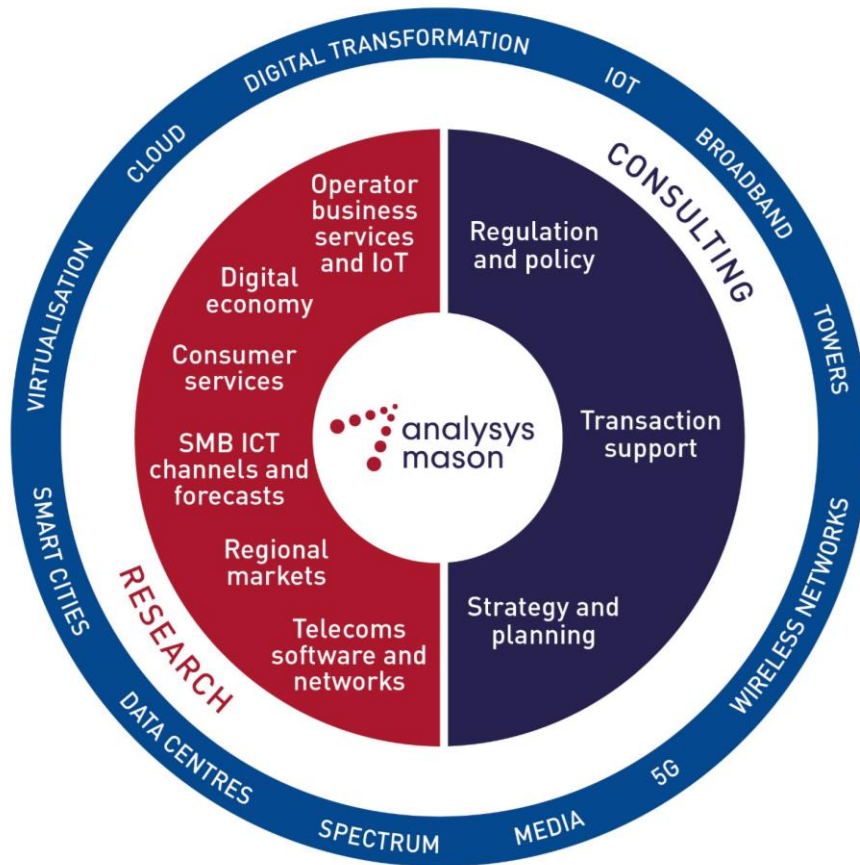
About the author



Stephen Wilson (Principal Analyst) is the lead analyst for Analysys Mason's *Fixed Broadband Services* and *Asia-Pacific* research programmes. He leads Analysys Mason's annual FTTx coverage, capex and conversion forecasts, and other recent areas of focus include examining fixed broadband operators' home Wi-Fi strategies. Stephen has more than 10 years of experience in the telecoms sector and is a graduate in Philosophy, Politics and Economics from St Catherine's College, Oxford University.

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Bush House • North West Wing • Aldwych • London • WC2B 4PJ • UK

Tel: +44 (0)20 7395 9000 • Email: research@analysismason.com • www.analysismason.com/research • Registered in England and Wales No. 5177472

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