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FTTx coverage and capex: worldwide trends and forecasts 2019–2025

Stephen Wilson

RESEARCH

About this report

This report analyses and forecasts coverage (premises passed) and capex 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 16 offices worldwide.
- Ongoing engagement with stakeholders in the FTTx market, including operators and vendors.

GEOGRAPHICAL COVERAGE

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

CASE STUDIES

- Coverage (premises passed)
- Capex (network and connection)
- 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 (Note: capex is not provided for cable DOCSIS3.0 or 3.1).

KEY QUESTIONS ANSWERED IN THIS REPORT

- How quickly will next-generation access (NGA) coverage grow across different global regions and individual markets?
- Which markets represent the most-promising opportunities for vendors in terms of NGA coverage expansion?
- To what extent can NGA coverage grow in emerging markets across the globe?
- What will be the scale of roll-outs from non-incumbent FTTP operators?
- What are the coverage levels of Gigabit-capable broadband?

WHO SHOULD READ THIS REPORT

- This report provides strategic planners with detailed and comprehensive insight into the development of FTTx in comparable markets, allowing them to understand what level and type of investment is appropriate, and where opportunities lie.
- For equipment vendors, construction businesses and component suppliers, it shows the scale of opportunity in FTTx.
- The model can also serve several other functions beyond the immediate scope of this report. It can be used to provide the costs of alternative scenarios, including different mixes of technologies, different demand profiles in different geotypes, and different completion dates. If you wish to explore these options, please contact the author.

Contents [1/2]

6. Worldwide trends

7. We forecast that 2019 was the peak year for global FTTx capex worldwide
8. FTTP will increase its dominance of the global NGA landscape during the forecast period
9. FTTP and cable networks are the only viable options for meeting coverage targets for gigabit-capable broadband
10. Roll-out plans in most countries in Western Europe currently miss the Gigabit Society's targets by some margin
11. Much work remains in Central and Eastern Europe in order to meet the EU's Gigabit Society's targets
12. The rate at which FTTP can be built out depends on the existing level of usable infrastructure, but regulation can help to speed up roll-outs
13. Non-incumbent operators can also rapidly increase FTTP coverage, particularly if they have access to their own or rented infrastructure
14. There are opportunities for FTTP vendors to benefit from significant coverage increases in some, but not all, large emerging markets

15. Western Europe

16. We forecast strong levels of investment in FTTP networks in Western Europe throughout the forecast period

17. Central and Eastern Europe

18. The number of non-incumbent FTTP deployments in rural areas in Central and Eastern Europe is growing, but not dramatically

19. Middle East and North Africa

20. Government intervention is driving an increase in fibre coverage in the Middle East and North Africa, and the focus on wholesale access in the region is increasing

21. Sub-Saharan Africa

22. NGA coverage in Sub-Saharan Africa is constrained by affordability, the high cost of deployment and the lack of availability of fibre backbone infrastructure

23. China

24. FTTP coverage is already very high in China and the focus has shifted to upgrading to next-generation PON

25. Emerging Asia–Pacific

26. The number of FTTP deployments in several countries in the EMAP region increased in 2019 and this momentum will continue

27. Developed Asia–Pacific

28. Several drivers explain the growth in the number of next-generation PON deployments in developed Asia–Pacific

29. North America

30. The number of new fibre entrants in North America is far fewer than in Western Europe

31. Latin America

32. Investment in FTTx networks in LATAM continues to be strong, although this will slow down during the forecast period

33. Forecast methodology and assumptions

34. Geographical scope: forecasts are provided for 64 countries in 8 regions
35. Definitions
36. We take baseline costs for each technology and then apply several context-specific variables to determine total capexTop-level breakdown of the relative costs of FTTx technologies: basic topologies
37. Top-level breakdown of the relative costs of FTTx technologies: basic topologies

Contents [2/2]

38. About the author and Analysys Mason
39. About the author
40. Analysys Mason's consulting and research are uniquely positioned
41. Research from Analysys Mason
42. Consulting from Analysys Mason

List of figures

Figure 1: FTTx capex, by worldwide region, 2015–2025

Figure 2: NGA coverage by technology, worldwide, 2015–2025

Figure 3: Percentage of premises covered by gigabit-capable networks, Western Europe, 2019 and 2025

Figure 4: Percentage of premises covered by gigabit-capable networks, Central and Eastern Europe, 2019 and 2025

Figure 5: Percentage of premises covered by gigabit-capable networks, North America and developed Asia–Pacific, 2019 and 2025

Figure 6: Incumbent operators' maximum year-on-year percentage point increases in FTTP coverage, as a percentage of total premises passed, selected countries

Figure 7: Incumbent operators' maximum year-on-year percentage point increases in FTTP coverage, as a percentage of total premises passed, selected countries

Figure 8: FTTP coverage of total premises, by selected counties in emerging markets, 2019 and 2025

Figure 9: NGA coverage by technology, Western Europe, 2017–2025

Figure 10: FTTx capex by technology, Western Europe, 2017–2025

Figure 11: NGA coverage by technology, Central and Eastern Europe, 2017–2025

Figure 12: FTTx capex by technology, Central and Eastern Europe, 2017–2025

Figure 13: NGA coverage by technology, Middle East and North Africa, 2017–2025

Figure 14: FTTx capex by technology, Middle East and North Africa, 2017–2025

Figure 15: NGA coverage by technology, Sub-Saharan Africa, 2017–2025

Figure 16: FTTx capex by technology, Sub-Saharan Africa, 2017–2025

Figure 17: NGA coverage by technology, China, 2017–2025

Figure 18: FTTx capex by technology, China, 2017–2025

Figure 19: NGA coverage by technology, emerging Asia–Pacific excluding China, 2017–2025

Figure 20: FTTx capex by technology, emerging Asia–Pacific excluding China, 2017–2025

Figure 21: NGA coverage by technology, developed Asia–Pacific, 2017–2025

Figure 22: FTTx capex by technology, developed Asia–Pacific, 2017–2025

Figure 23: NGA coverage by technology, North America, 2017–2025

Figure 24: FTTx capex by technology, North America, 2017–2025

Figure 25: NGA coverage by technology, Latin America, 2017–2025

Figure 26: FTTx capex by technology, Latin America, 2017–2025

Figure 27: Countries covered in this report, by region

Figure 28: Definitions used in this report

Figure 29: Capex model outline

Figure 30: Basic overview of FTTx network topologies and elements

We forecast that 2019 was the peak year for global FTTx capex worldwide

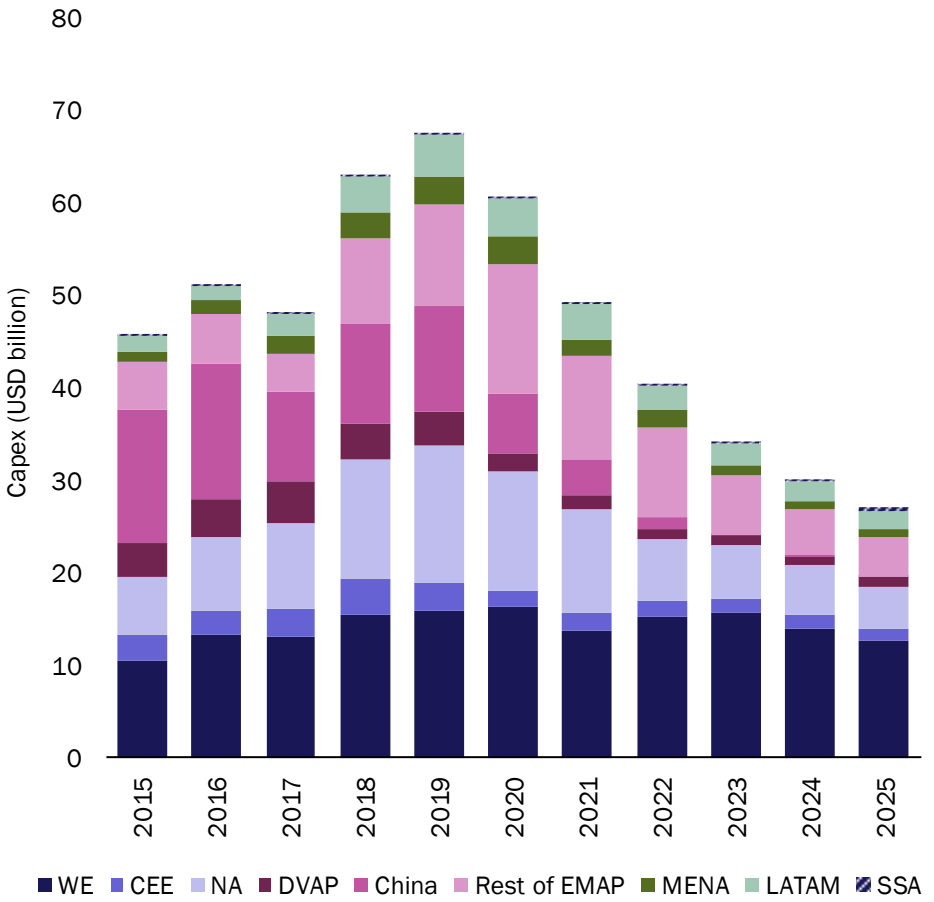
We estimate that global FTTx capex peaked in 2019.

FTTx coverage in China reached 96% of premises at the end of 2019 and there is limited scope to extend the number of new premises passed in China. As the expansion of network coverage in China slows, network capex will decline.

Capex in the rest of the EMAP region (excluding China) will peak in 2020. Roll-outs in markets such as India and Indonesia will be a significant driver of high capex in the early part of the forecast period. We expect 50% of premises in the rest of EMAP to be passed with NGA infrastructure by the end of 2025, up from 21% at the end of 2019. This growth reflects the confidence that has been generated as a result of robust subscriber take-up of NGA roll-outs in many emerging markets.

Western Europe's share of global FTTx capex will grow from 24% in 2019 to 47% in 2025, driven in part because there is room to increase FTTP coverage in France, Germany and the UK. Furthermore, many alternative operators are just starting to roll out FTTP in Western Europe; this, together with a generally slower rate of roll-out in the region, means that capex will still be spent on these deployments, even in 2025. FTTx capex in North America will remain steady towards the end of the forecast period, and in 2025, the region will have the second-highest share of overall global FTTx capex. Developed markets have much higher FTTP costs per premises passed and connected, which means they have a greater impact on the global capex figures.

Figure 1: FTTx capex, by worldwide region, 2015–2025



Source: Analysys Mason

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Contents

Worldwide trends

Regional trends

- Western Europe
- Central and Eastern Europe
- Middle East and North Africa
- Sub-Saharan Africa
- China
- Rest of emerging Asia-Pacific
- Developed Asia-Pacific
- North America
- Latin America

Forecast methodology and assumptions

About the author and Analysys Mason

About the author

Stephen Wilson (Principal Analyst) is the lead analyst for Analysys Mason's *Fixed Broadband Services* research programme. 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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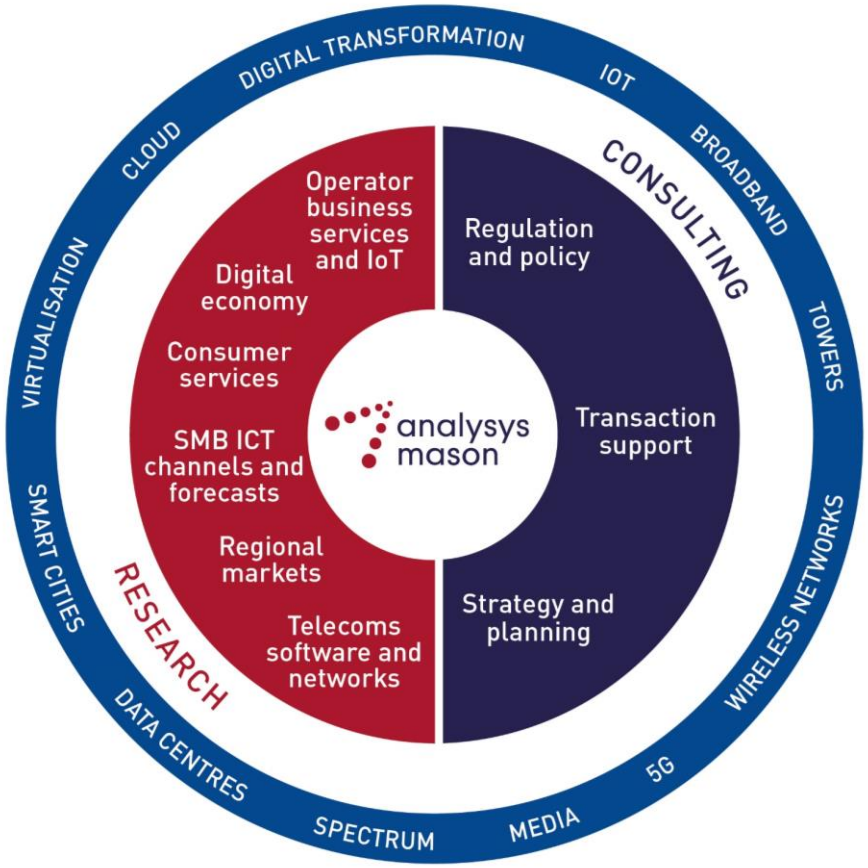

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PUBLISHED BY ANALYSYS MASON LIMITED IN **MARCH 2020**

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

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