



RESEARCH FORECAST REPORT

MOBILE OPERATOR CAPEX SPENDING: WORLDWIDE TRENDS AND FORECASTS 2016-2025

CAROLINE GABRIEL

About this report

This report provides a detailed analysis and forecast of mobile operators' capex spending between 2016 and 2022, outlining the key trends that are driving spending patterns. It will isolate and analyse capex by eight regions, and by five types of operator.

The report is based on multiple sources including Analysys Mason's internal research and forecasts, a survey of the investment plans of more than 75 Tier 1 and Tier 2 operators conducted in the second quarter of 2017, as well as stakeholder interviews.

WHO SHOULD READ THIS REPORT

- Mobile and converged operators' CFOs, strategy executives and CxOs
- Investment community
- Vendors' strategy executives seeking to understand operator investment patterns

GEOGRAPHICAL COVERAGE

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

OPERATOR TYPES

- Developed market integrated operator
- Developed market mobile-centric operator
- Emerging market integrated operator/incumbent
- Emerging market established mobile operator
- Emerging market disruptor

Categories of capex

- Infrastructure (for example, sites and towers)
- RAN – BTS, antennas
- Core and backhaul
- Spectrum
- IT/ data centre
- CPE
- Cost transformation capex
- Other (for example, content)

Contents [1]

7. Worldwide trends

8. 5G spending will help to drive a 23% rise in capex from 2018 to 2025, but its pattern will be radically different from 3G and 4G
9. Five types of operator – each with a distinctive capex profile – will dominate regional mobile investment as the MNO model diversifies
10. Fragmentation of the operator models means new patterns of investment
11. 5G will be deployed in phases over a decade, initially led by integrated operators, but increasingly introducing disruptors with new economics
12. Different operator types will have different investment strategies within these new capex norms; emerging markets will drive growth
13. Prior to the deployment of 5G radio, most operators are investing in foundations that will alter the economics of the new network
14. The need for a lower cost base for 5G will increase sharing and wholesaling, creating a split between utility and capex-light MNOs
15. New software-driven architectures, in tandem with increased sharing and outsourcing, will represent significant capex, reducing future costs

16. Operator trends

17. Developed market integrated: Integrated operators will use their fibre to transform the network cost base and move to a more wholesale-driven model
18. Developed market integrated: Early moves to 5G and new architectures will create a heavy capex burden in 2020, before efficiencies have an impact
19. DM mobile-centric: The heavy spending to assure a lead in 4G is slowing as operators pursue RoI and fibre partnerships

20. DM mobile-centric: This type of operator cannot win based on scale; they will instead focus on disruptive services and flexible architectures
21. EM integrated: Mobile investment is the best hope for recovery, but outdated infrastructure will make capex efficiency elusive
22. EM integrated: China will drive early 5G deployments, but market structure and regulation will hamper growth strategies in some areas
23. EM established: Capex levels will continue to rise in mobile-dominated broadband markets, with a focus on efficient architectures
24. EM established: Under pressure from disruptors, these operators must consolidate leadership and expand into multi-play
25. EM disruptor: This group represents the main driver of new capex investment, but with an extreme focus on efficiencies
26. EM disruptor: A heavy focus on sharing will introduce efficiencies to the whole market while opening doors to further new entrants

27. Regional trends

28. Regional trends: Emerging markets will drive capex recovery as they play mobile broadband leapfrog
29. Western Europe: LTE will be the main driver of capex spending until 2022 or later, but the ability to finance 5G is in question
30. Central and Eastern Europe: Russia will dominate new capex projects; other CEE spending patterns grow closer to those of WE
31. Middle East and North Africa: Integrated operators will modernise and make early 5G moves to retain their leadership
32. Sub-Saharan Africa: Investment will be fragmented until 2023 when this region will become the main engine of capex growth

Contents [2]

- 33. Emerging Asia–Pacific: Disruptors will have a strong impact in an opex-heavy market where 5G will be introduced cautiously
- 34. China: Spending will recover after a steep drop in investment in 2017, but MNOs will use new architectures to control 5G capex
- 35. Developed Asia–Pacific: Mobile-centric telcos will invest heavily to offset integrated MNOs’ strategic advantage in fibre control
- 36. North America: Capex dip in 2017 is a blip, but despite being a 5G frontrunner, investment will be spread thinly over the decade
- 37. Latin America: Despite disruption in Mexico, the region will be in capex decline until 2021 as new deployments progress slowly
- 38. Appendix**
- 39. Worldwide: There will be changing capex:opex balance
- 40. Worldwide: A new supply chain will depress capex growth
- 41. Forecast categories and definitions**
- 42. Geographical scope: Forecasts are provided for 64 countries in 8 regions
- 43. Definitions
- 44. Mobile operator network segmentation
- 45. About the author and Analysys Mason**
- 46. About the author
- 47. About Analysys Mason
- 48. Research from Analysys Mason
- 49. Consulting from Analysys Mason

List of figures [1]

Figure 1: Mobile operator capex, worldwide, 2016–2025

Figure 2: Mobile operator capex, worldwide, 2008–2025

Figure 3: Capex spending by equipment category, worldwide, 2016–2025

Figure 4: Capex on RAN allocated to LTE and 5G, worldwide, 2016–2025

Figure 5: Average capex per operator by different MNO profiles, worldwide, 2016–2025

Figure 6: Main areas of capex growth by operator profile, 2016–2025

Figure 7: Capex spend on RAN, core and IT equipment (excluding virtualisation), worldwide, 2016–2025

Figure 8: Capex spend on infrastructure (including sites and backhaul, where owned), worldwide, 2016–2025

Figure 9: Divergence of operator models between utility and MNO-light

Figure 10: Cost savings achieved by network transformation, and investment in the enablers of transformation, worldwide, 2017–2025

Figure 11: Contribution of key transformation technologies to capex savings potential, worldwide, 2017–2025

Figure 12: Capex spend by DM integrated operators, worldwide, 2016–2025

Figure 13: Percentage of capex spending by category for DM integrated operators, worldwide, 2016 and 2025

Figure 14: DM Integrated operators' current and forecasted capex spending by category, worldwide, 2016–2025

Figure 15: Capex spend by DM mobile-centric operators, worldwide, 2016–2025

Figure 16: Percentage of capex spending by category for DM mobile-centric operators, worldwide, 2016 and 2025

Figure 17: DM mobile-centric operators' current and forecasted capex spending by category, worldwide, 2016–2025

Figure 18: Capex spend by EM integrated operators worldwide, 2016–2025

Figure 19: Percentage of capex spending by category for EM integrated operators, worldwide, 2016 and 2025

Figure 20: EM integrated operators' current and forecasted capex spending by category, worldwide, 2016–2025

Figure 21: Capex spend by EM established mobile operators, worldwide, 2016–2025

Figure 22: Percentage of capex spending by category for EM established mobile operators, worldwide, 2016

Figure 23: EM established mobile operators' current and forecasted capex spending by category, worldwide, 2016–2025

Figure 24: Capex spend by EM disruptors, worldwide, 2016–2025

Figure 25: Percentage of capex spending by category for EM disruptors, worldwide, 2016

Figure 26: EM disruptors' current and forecasted capex spending by category, worldwide, 2016–2025

Figure 27: Mutual sharing arrangements between Reliance Communications and Reliance Jio, 2015

Figure 28: Mobile capex forecast in developed economies, selected regions, 2016–2025

List of figures [2]

Figure 29: Mobile capex forecast in emerging economies, selected regions, 2016–2025

Figure 30: Capex forecast by equipment category, Western Europe, 2016–2025

Figure 31: Capex forecast by operator type, Western Europe, 2016–2025

Figure 32: Capex forecast by equipment category, Central and Eastern Europe, 2016–2025

Figure 33: Capex forecast by operator type, Central and Eastern Europe, 2016–2025

Figure 34: Capex forecast by equipment category, Middle East and North Africa, 2016–2025

Figure 35: Capex forecast by operator type, Middle East and North Africa, 2016–2025

Figure 36: Capex forecast by equipment category, Sub-Saharan Africa, 2016–2025

Figure 37: Capex forecast by operator type, Sub-Saharan Africa, 2016–2025

Figure 38: Capex forecast by equipment category, emerging Asia–Pacific, 2016–2025

Figure 39: Capex forecast by operator type, emerging Asia–Pacific, 2016–2025

Figure 40: Capex forecast by equipment category, China, 2016–2025

Figure 41: Capex forecast by equipment category, developed Asia–Pacific, 2016–2025

Figure 42: Capex forecast by operator type, developed Asia–Pacific, 2016–2025

Figure 43: Capex forecast by equipment category, North America, 2016–2025

Figure 44: Capex forecast by operator type, North America, 2016–2025

Figure 45: Capex forecast by equipment category, Latin America, 2016–2025

Figure 46: Capex forecast by operator type, Latin America, 2016–2025

Figure 47: Opex dominates MNO spending and is increasing more steadily

Figure 48: Impact of open architectures on macrocell capex costs, 2017 and 2022

Figure 49: Regions covered in this report

Figure 50: Definitions used in this report

Figure 51: Representation of mobile operator network segmentation

5G spending will help to drive a 23% rise in capex from 2018 to 2025, but its pattern will be radically different from 3G and 4G



Mobile operator capex spend will be USD139.7 billion in 2017 (excluding spectrum) and will grow to USD181.7 billion in 2025.

Following 2 years of decline, capex spending will begin to stabilise in 2017, with gradual growth resuming in 2018. Although major operators are still spending lower sums in 2017 than in 2014, this is offset by a large number of smaller projects, mainly based around LTE enhancement, many in emerging markets such as SSA and EMAP. Capex will not match the previous 2014 peak until 2022, when the total will reach USD200 billion.

This growth will be driven by 5G investment, but the pattern will be entirely different to those of previous mobile generations.

- Most operators will only deploy 5G at scale when they have already invested in enabling infrastructure, notably fibre backhaul/fronthaul and virtualisation platforms. This will reduce the weighting of MNO capex towards the radio network.
- 5G will be built to augment capacity and coverage on a common architecture and there will be few ‘big bang’ upgrades. This will create a steadier pattern of investment over a longer period – a full decade according to China Mobile and NTT DOCOMO – ending the spikey pattern of previous generations.

While the total sums spent will match those for 4G, MNOs will demand far more for their money in order to support a larger number of devices, services and locations (for example, the 5G network is targeted to support 1000 times more end points).

Figure 1: Mobile operator capex, worldwide, 2016–2025

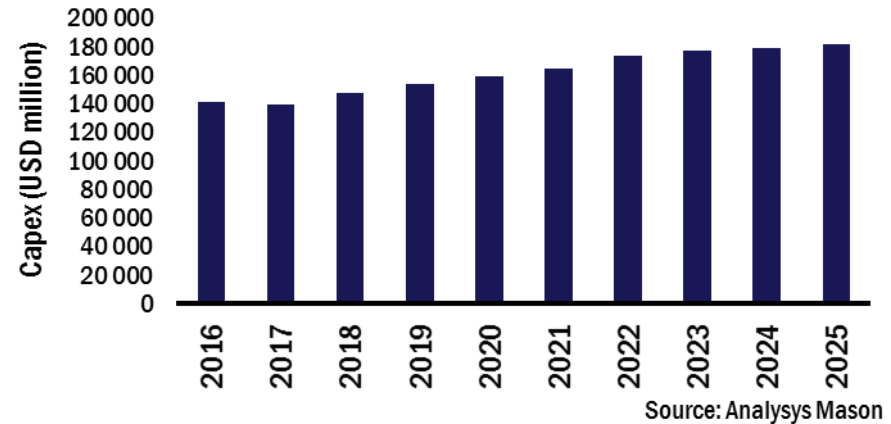
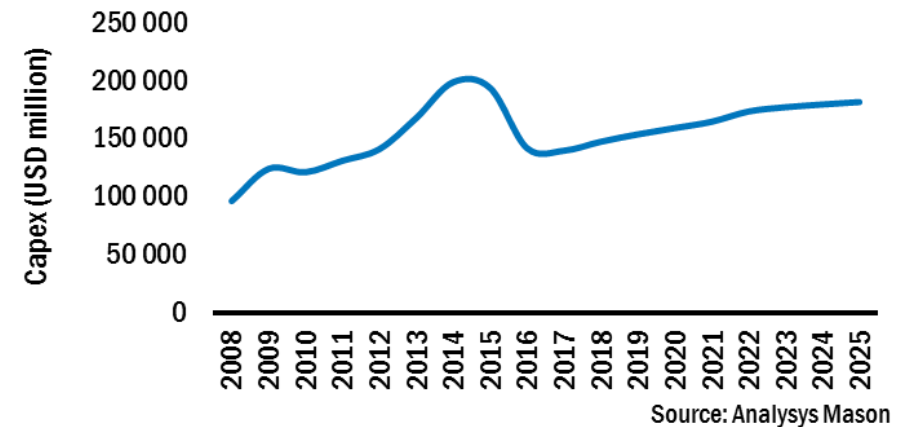


Figure 2: Mobile operator capex, worldwide, 2008–2025



CONTENTS

WORLDWIDE TRENDS

OPERATOR TRENDS

REGIONAL TRENDS

WESTERN EUROPE

CENTRAL AND EASTERN EUROPE

MIDDLE EAST AND NORTH AFRICA

SUB-SAHARAN AFRICA

EMERGING ASIA-PACIFIC

DEVELOPED ASIA-PACIFIC

NORTH AMERICA

LATIN AMERICA

APPENDIX

FORECAST CATEGORIES AND DEFINITIONS

ABOUT THE AUTHOR AND ANALYSYS MASON

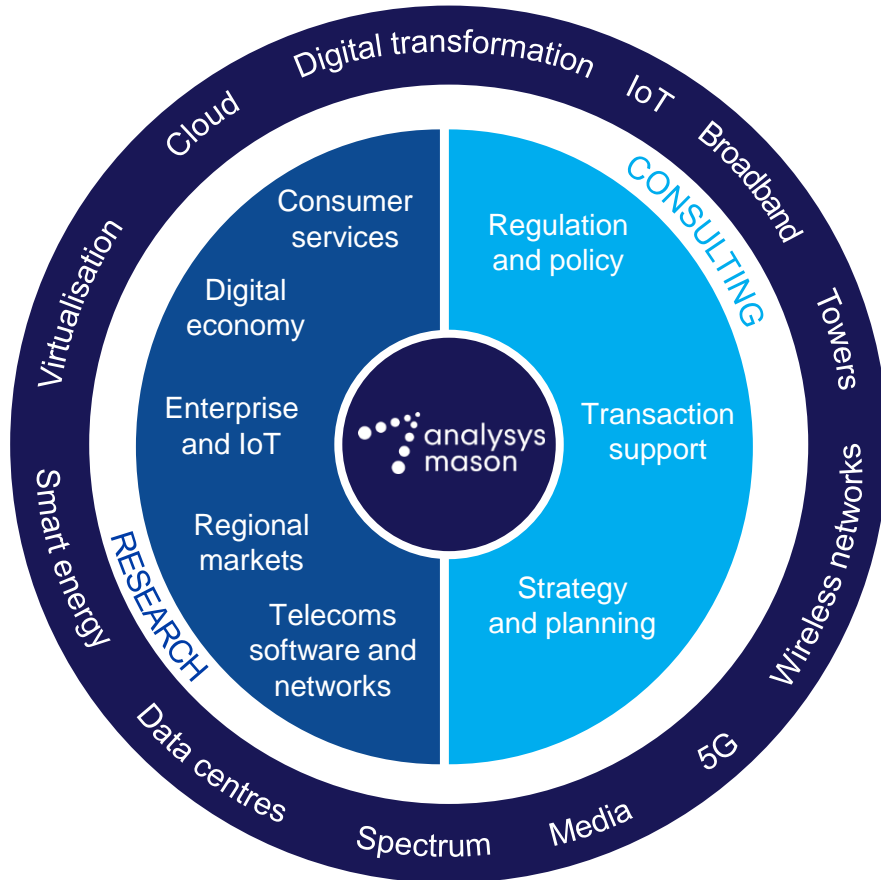
About the author



Caroline Gabriel is a senior contributor to Analysys Mason's *Next-Generation Wireless Networks* research programme. Caroline contributes to Analysys Mason's published and custom research content and works directly with our research clients to advise them on wireless network trends and market developments. She has been engaged in technology analysis, research and consulting for 30 years, and has focused entirely on mobile and wireless since 2002. As co-founder and research director of Rethink Technology Research, Caroline has developed a research base and forecast methodology based around deep contacts with mobile and converged operators worldwide.

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- Fixed Broadband Services
- Convergence Strategies
- Video Strategies



Network investment programmes

- Network Investment Strategies
- Network Traffic
- Spectrum

Telecoms software and networks programmes

- Software Forecast and Strategy
- Telecoms Software Market Shares



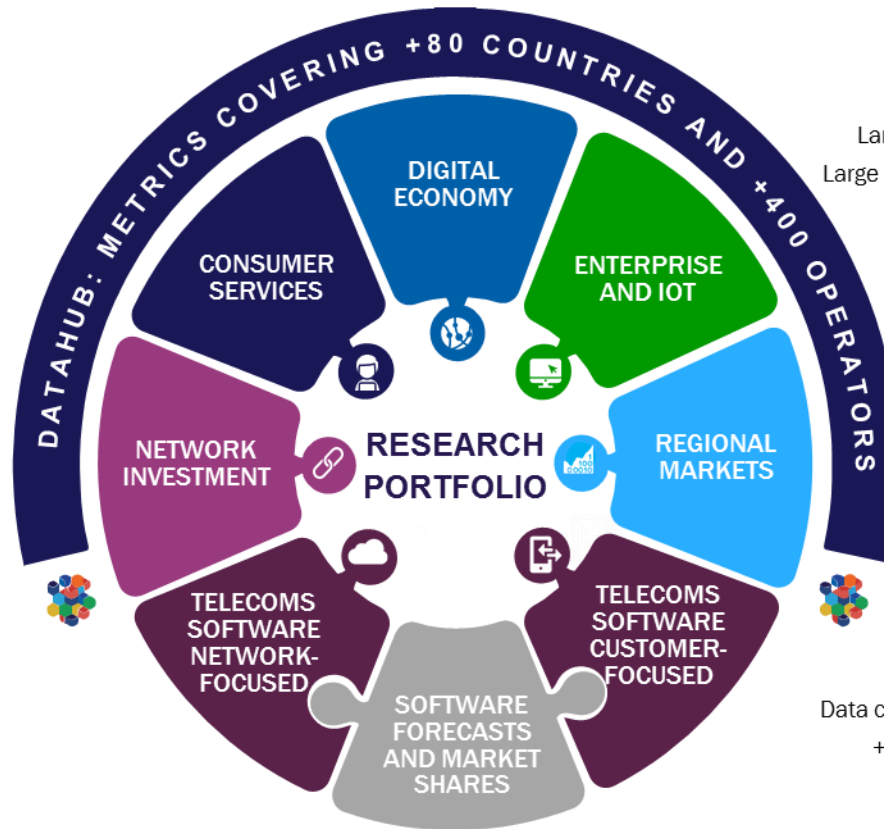
Network-focused

- Next-Generation Wireless Networks
- Service Delivery Platforms
- Service Fulfilment
- Service Assurance
- Network Orchestration
- Software-Controlled Networking



Customer-focused

- Digital Experience
- Customer Care
- Revenue Management
- Analytics



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Digital economy programmes

- Digital Economy Strategies
- Future Comms



Enterprise and IoT programmes

- Large Enterprise Voice and Data Connectivity
- Large Enterprise Emerging Service Opportunities
- SME Strategies
- IoT and M2M Services
- IoT Platforms and Technology



Regional markets programmes

- Global Core Data
- Americas
- Asia-Pacific
- Middle East and Africa
- European Core Forecasts
- European Telecoms Market Matrix
- European Country Reports



DataHub

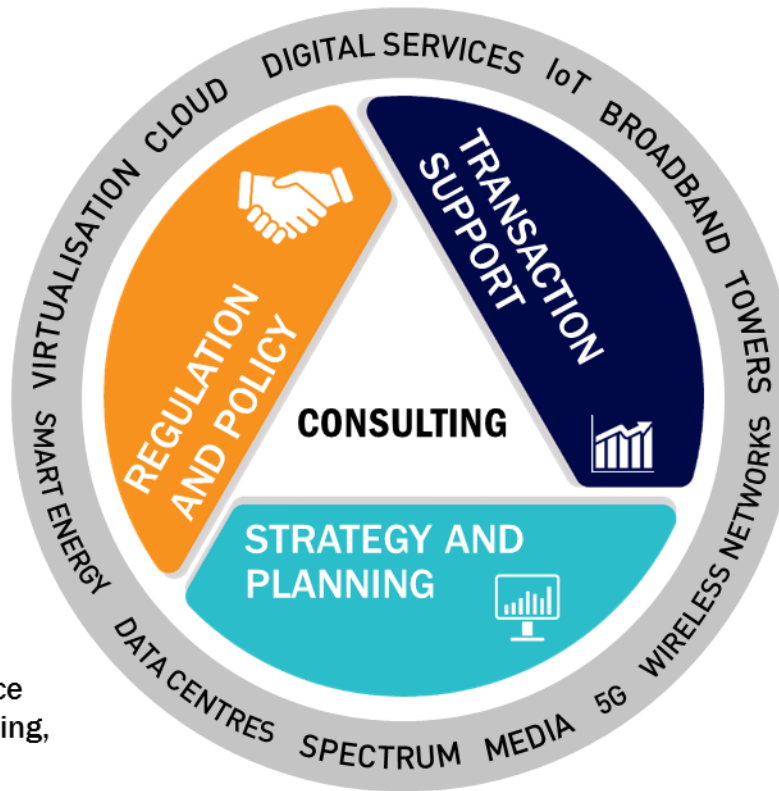
- Data covering +80 countries and +500 operators
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- Regional results and worldwide totals
- Operator historical data
- Compare markets and operators
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- Export data to Excel and save searches



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