

About this report

This report is about energy consumption and cost across mobile and fixed networks and provides practical measures for bringing it down. It also outlines best- and worst-case scenarios for usage and cost.

The report provides recommendations for operators and policy makers.

It is based on several sources:

- Analysys Mason's internal research
- a review of the relevant literature.



GEOGRAPHICAL COVERAGE

 Worldwide, but with a specific focus on countries in which 5G networks have been deployed.



KEY QUESTIONS ANSWERED IN THIS REPORT

- How much energy is consumed by operators and by the whole value chain (from data centres to consumers)?
- What are the long-term trends in energy usage in telecoms networks?
- What technological and commercial levers can operators pull to reduce their energy usage and lower their energy costs?
- What should policy makers consider if they want to define green networks?



WHO SHOULD READ THIS REPORT

- Networks teams
- Investor relations and analyst relations departments
- Government policy makers
- Regulators







Executive summary

Research overview

Measuring energy usage and efficiency

5G: problems and solutions

Beyond 5G: what else could be achieved?

About the authors and Analysys Mason



Our research programmes



Consumer Services programmes

Fixed Broadband Services

Mobile Services

Fixed-Mobile Convergence

Smart Devices

Future Comms

Video, Gaming and Entertainment

Digital Services



Networks programmes

Next-Generation Wireless Networks Wireless Infrastructure Strategies Fibre Infrastructure Strategies Operator Investment Strategies Telecoms Strategy and Forecast



Applications programmes

Network Automation and Orchestration

Customer Engagement

Monetisation Platforms

Digital Experience

Automated Assurance

Service Design and Orchestration

Telecoms Software Market Shares



Cloud programmes

Cloud Infrastructure Strategies

Data, Al and Development Platforms

Edge and Media Platforms



analysysmason.com/what-we-do/practices/research

Operator Business Services and IoT programmes



Enterprise Services
SME Services
IoT Services
Private Networks





Regional Markets programmes



Global Telecoms Data and Financial KPIs

Americas

Asia-Pacific

DataHub

Middle East and Africa

European Core Forecasts

European Telecoms Market Matrix

European Country Reports



~2800 forecast and 280+ historical metrics Regional results and worldwide totals Operator historical data



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