The growing importance of mobile backhaul - from now until 2025

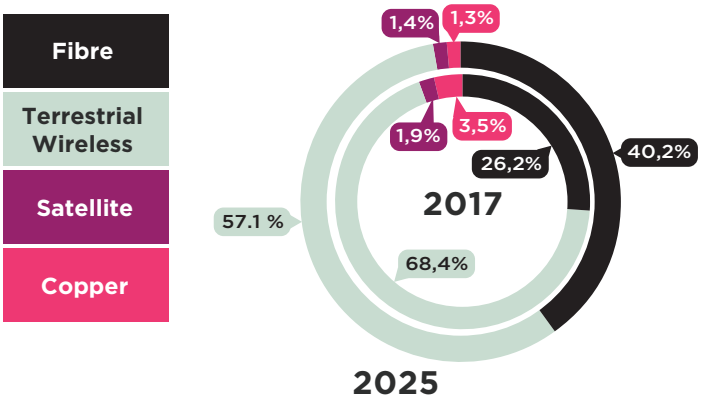


Mobile operators around the world are offering advanced mobile services with improved speeds and performance.

4G has revolutionised mobile broadband, and the arrival of 5G builds on that momentum. Its continued growth depends on a variety of backhaul options that can keep up and do so at reasonable costs. A new report from ABI Research highlights the growing dependence on terrestrial wireless as well as fibre.

WHY SPECTRUM FOR BACKHAUL MATTERS

Terrestrial wireless backhaul is the most popular backhaul method today, and will still have the largest worldwide share by 2025. To keep up with capacity demands, mobile operators are dependent on access to more spectrum across a multitude of bands. For example, the number of base stations using frequencies between 41 GHz and 100 GHz is expected to grow by almost 150 per cent.



5G USE CASES WITH GREAT POTENTIAL

Fibre and terrestrial wireless backhaul **Will be used to connect**

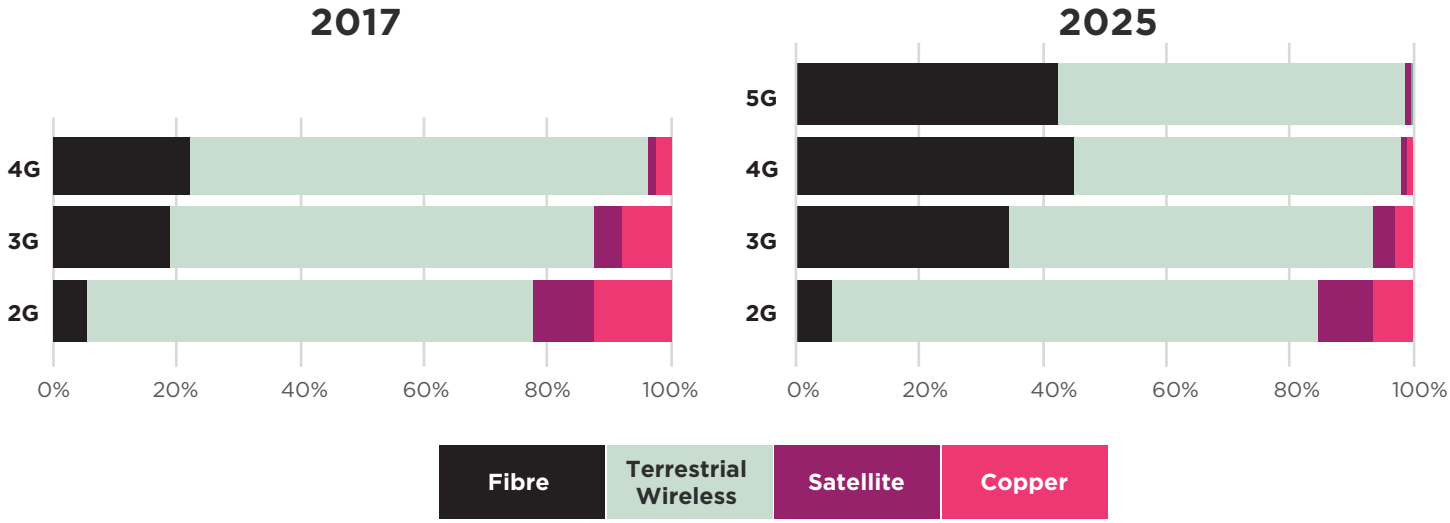
97.3% of all base stations

For 4G and 5G networks, the worldwide share is even higher.





Satellite backhaul will continue to have a niche role for mobile operators, with deployments in fringe areas of the network, usually in rural scenarios in emerging markets. Performance limitations also mean it is a better fit for older mobile technologies. For example, by 2025, 8.8 per cent of 2G base stations will use satellite and 0.9 per cent of 5G base stations.



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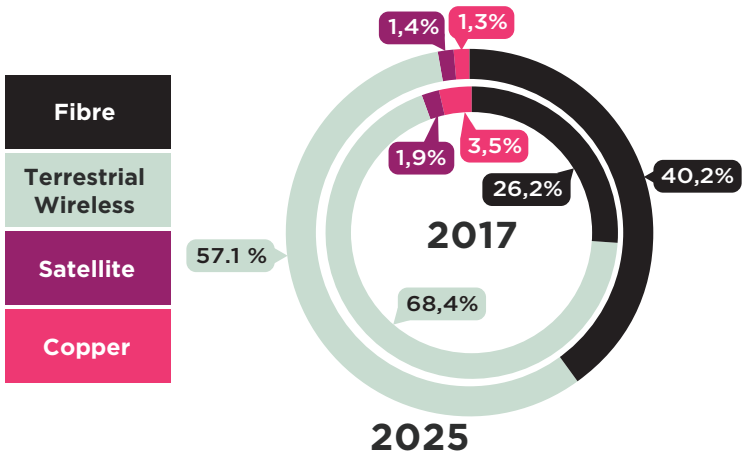


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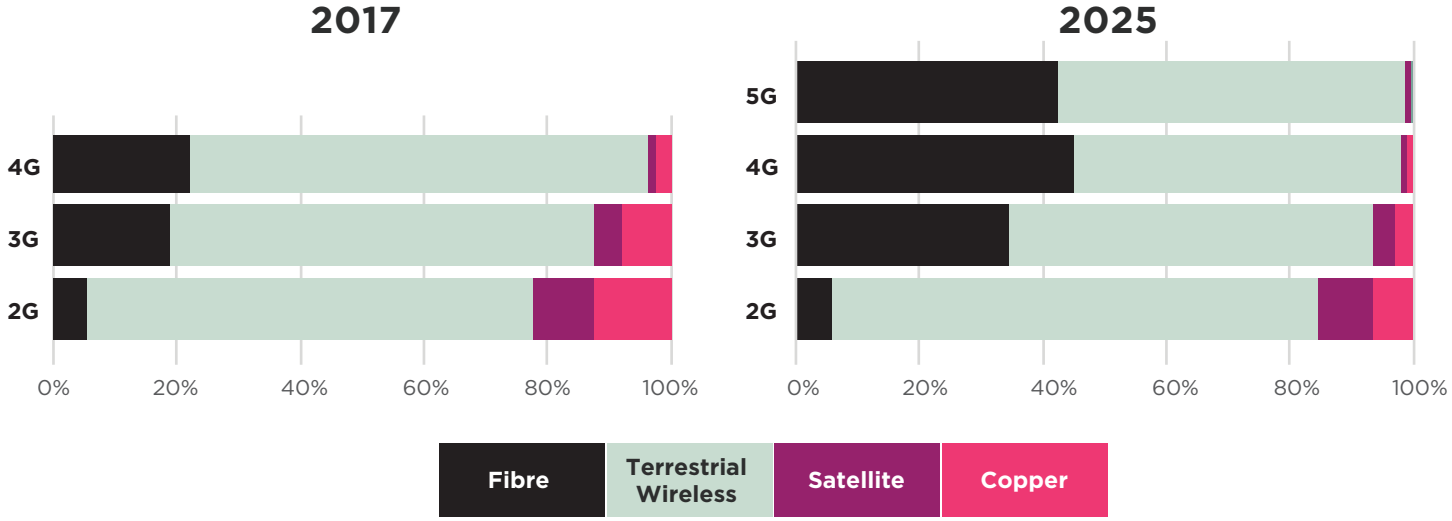
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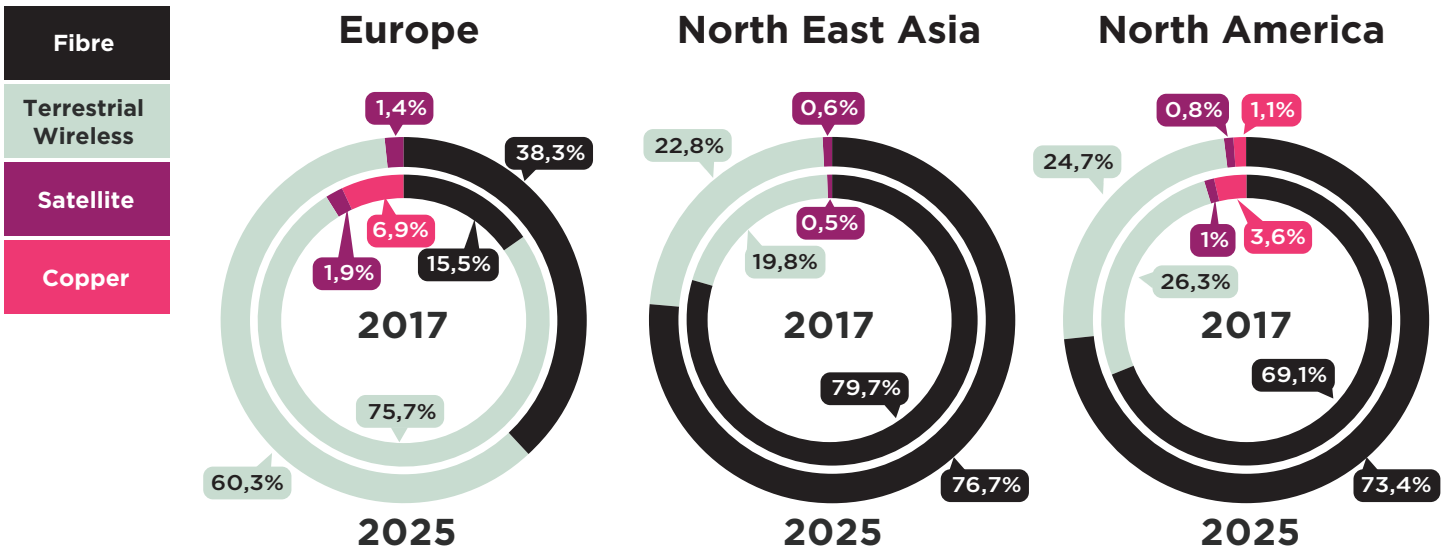


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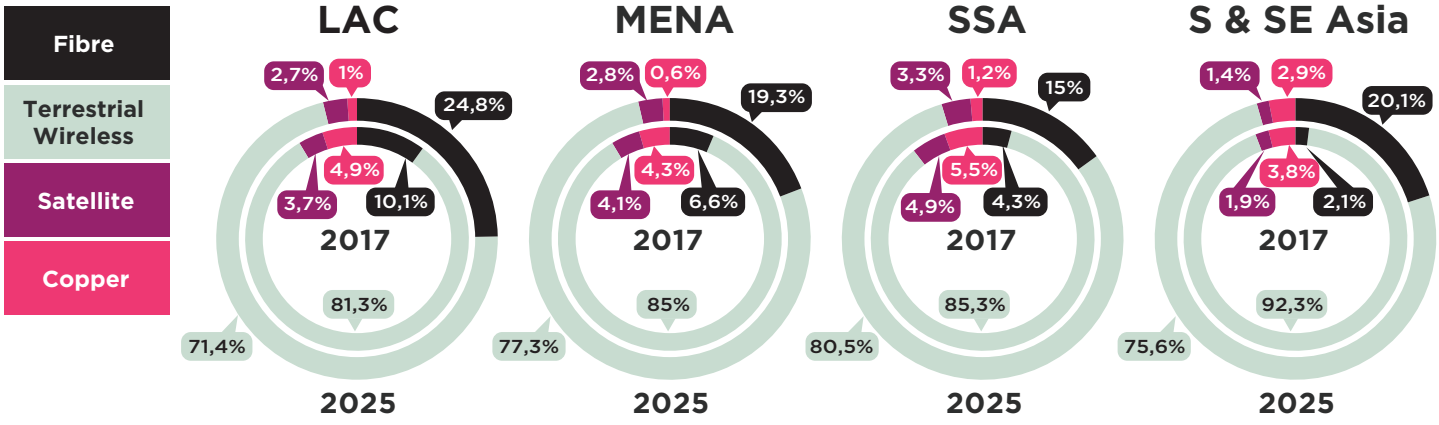
BACKHAUL TRENDS IN EUROPE, NORTH EAST ASIA AND NORTH AMERICA

In the North American and North East Asian regions fibre is already the dominant backhaul technology. But even here, mobile operators are dependent on wireless to connect all their base stations using backhaul that is fast enough to keep up with capacity demands. In Europe, with lower fibre roll-out, the dependence on terrestrial wireless backhaul is even greater. Satellite and copper form a small segment.



BACKHAUL TRENDS IN LATIN AMERICA AND THE CARIBBEAN, MIDDLE EAST AND NORTH AFRICA, SOUTH AND SOUTH EAST ASIA, AND SUB-SAHARAN AFRICA

While the use of fibre is expected to grow in developing markets from now until 2025, the dependence on terrestrial wireless backhaul is a dominant factor. For countries that want to take advantage of the societal benefits that come with 4G and subsequently 5G, getting the pricing and licensing of backhaul spectrum right is a must. While sub-Saharan Africa is the region where the largest percentage of base stations are connected using satellite backhaul, by 2025, only 3.3 per cent of base stations will depend on a satellite connection. That is down from 4.9 per cent in 2017.



Read the full report at:
https://www.gsma.com/spectrum/wp-content/uploads/2018/10/Mobile-backhaul-options.pdf

And find all the GSMA's reports and positions on 5G spectrum at:
https://www.gsma.com/spectrum/5g-spectrum-guide/

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