



5G is here but is it for satellite?



Time to manage expectations

5G will drive transformation of Telecom itself

Today



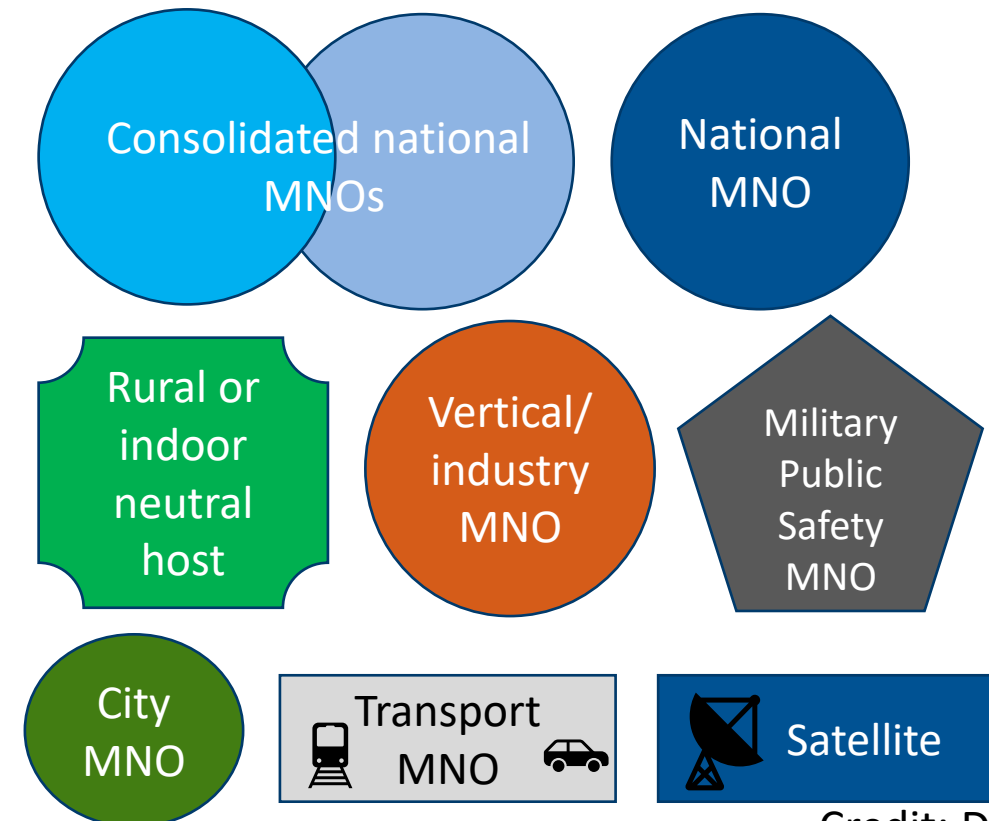
Credit: Dean Bubley

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Future



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Developments helping satellite

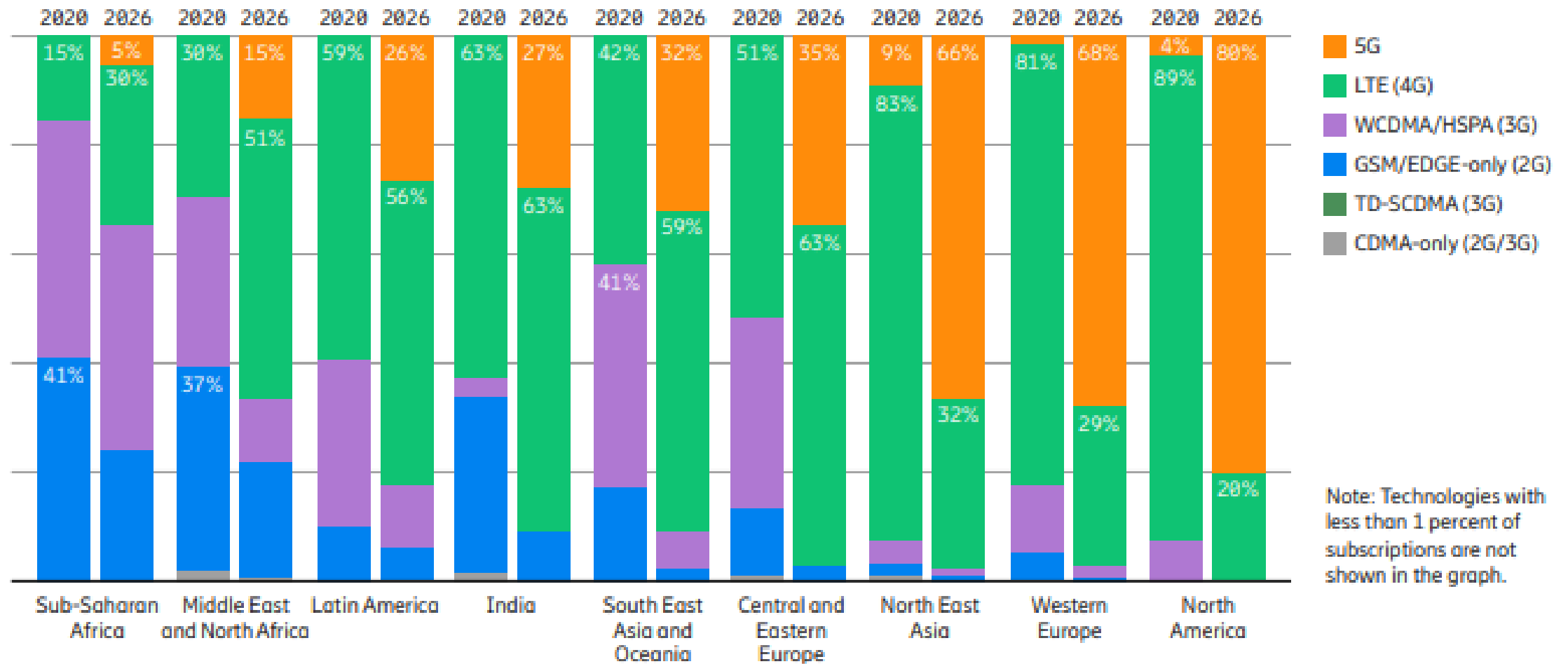
- 3GPP of today is more inclusive and has welcomed many new industries to its ranks. New actors lead to wider adoption.
- Applying cloud thinking lowers cost and increase flexibility. Networks become dynamic and on demand.
- Edge technologies will allow for new innovations
- New business models emerging
- Chipset support for satellite will drive narrowband IoT

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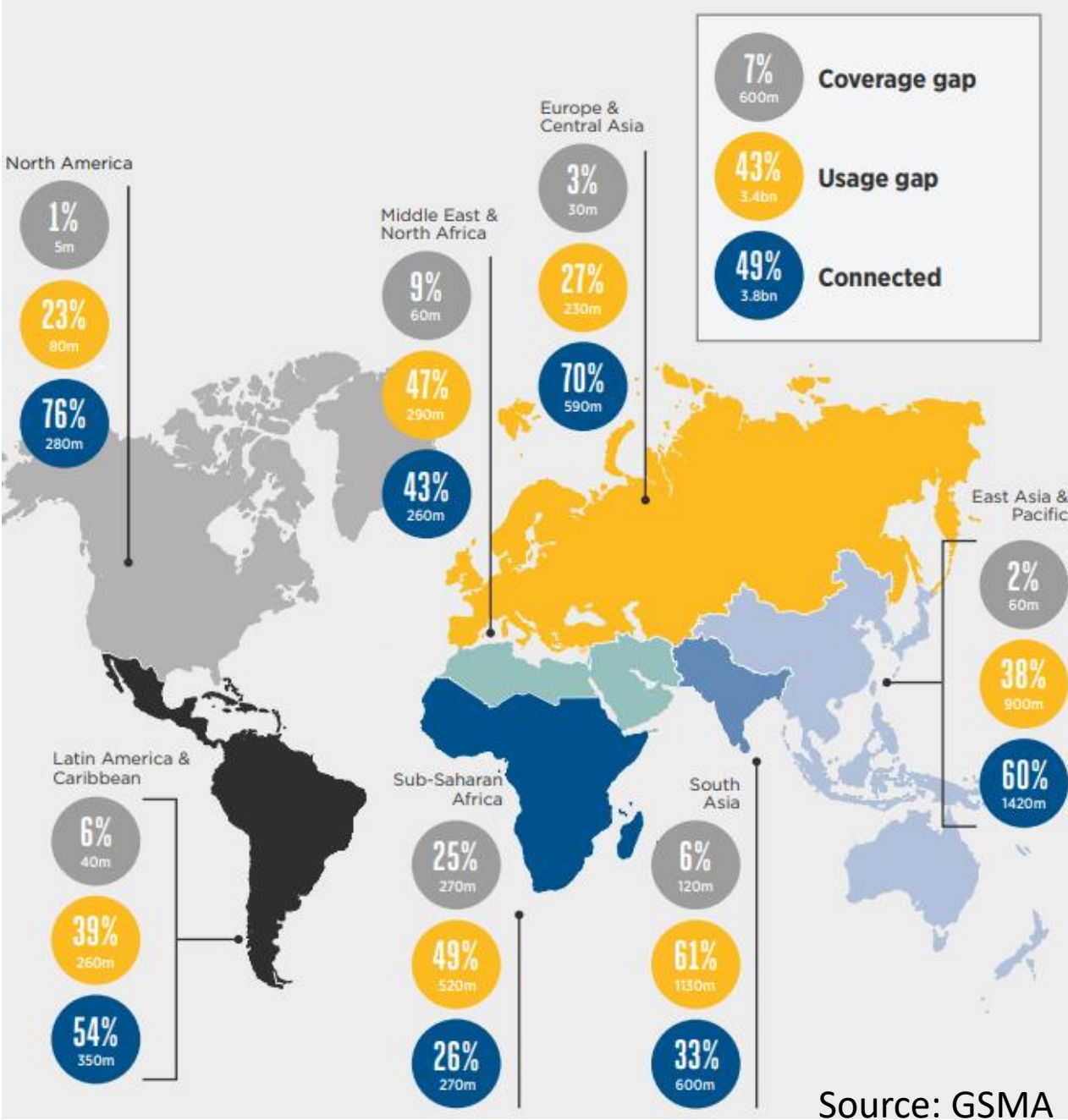
But don't start with technology – start with understanding the use case and market – it is time to manage expectations.

Regional view key to understanding



Note: Technologies with less than 1 percent of subscriptions are not shown in the graph.

Source: Ericsson



- ‘**Connected**’ refers to those who have used internet services on a mobile device. Mobile internet services are defined as any activity that consumes mobile data.
- ‘**Usage gap**’ refers to those who live within the footprint of a mobile broadband network but are not using mobile internet.
- ‘**Coverage gap**’ refers to those who do not live within the footprint of a mobile broadband network.

Low and middle income markets

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 - Access to relevant content

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- Finally social norms and gender equality also play a role

Where will 5G and satellite backhaul fit?

- Emergency response, disaster recovery and military applications in developed markets
- Cloud enabled networks and new spectrum policies open new opportunities
 - Digital inclusion agenda and USO funding tied to licenses
 - Time to market matters – being a gap filler is ok!
 - Private networking – enterprise verticals
- EDGE computing will create a platform for innovation
 - Ability to process data locally make satellite more attractive

Comtech solutions cover all mobile standards

- Comtech is the market leader in Mobile Backhaul and has a wide range of solutions
- For the high performance market Comtech SCPC and Heights provides the highest efficiency and lowest jitter and latency
- The flexibility and efficiency of UHP TDMA technology is unparalleled
- Memotec solutions provide 2G, 3G, LTE optimization for a terrestrial like look and feel
- All solutions are 5G ready

So where is the money?

- For the next few years existing wireless standards are more than capable to meet market demand in satellite backhaul markets
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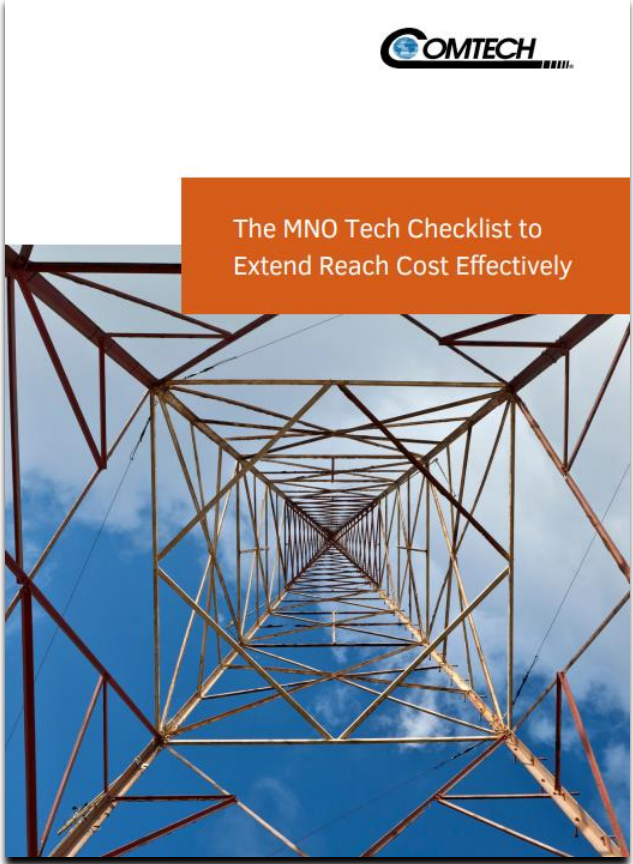
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- 2G will be supported by major RAN vendors to mid 2030-ies
- Although introduced in 2009 LTE is far from its peak and is still improving and adding new capabilities
- 5G is not just a flick a switch but a journey and will evolve over time. But it is not only about technical innovations but also changes in business models

Whitepaper





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