

October 2022

2G and 3G Switch-Off

The GSA logo features the letters 'GSA' in a white, bold, sans-serif font. To the right of the letters are three curved lines of varying lengths, suggesting signal waves or a stylized 'A'.



Introduction

When they were first introduced to the market, 2G and 3G were highly important innovations, but as greater technological advances have emerged, their importance has waned, and usage of both technologies is now diminishing worldwide. As a result, many operators and governments are determining that the older 2G and 3G technologies as well as the spectrum allocated to them should be switched off for the faster and more efficient 4G and 5G networks. This transition is typically referred to as the 2G and 3G switch-off.

Drawing on information collected by the GSA about the switch-off of 2G and 3G around the world, this report focuses on the number of operators that have already shut down these networks, those in the process of doing so and those planning such a move. It also identifies countries and territories that have in progress, completed or planned switch-offs.

Summary

- By the end of September 2022, GSA had identified 142 operators that have either completed, planned or are in progress with 2G and 3G switch-offs in 56 countries and territories
- 76 operators in 43 countries and territories have either completed or planned 2G switch-offs
 - Of those, 24 operators in 15 countries and territories have completed 2G switch-offs
 - 51 operators in 31 countries and territories have planned 2G switch-offs
 - Two operators in two countries and territories currently have 2G switch-offs in progress
- 80 operators in 42 countries and territories have either completed, planned or are in progress with 3G switch-offs
 - Of those, 28 operators in 17 countries and territories have completed 3G switch-offs
 - 46 operators in 31 countries have planned 3G switch-offs
 - Six operators in six countries and territories have 3G switch-offs in progress



Figure 1 shows the total count of operators that have completed, planned or are in progress with 2G and 3G switch-offs as of the end of September 2022; 51 operators have already completed, 97 have planned and eight are in progress.

Figure 1. Count of operators that have completed, planned or are in progress with 2G and 3G network switch-offs as of October 2022

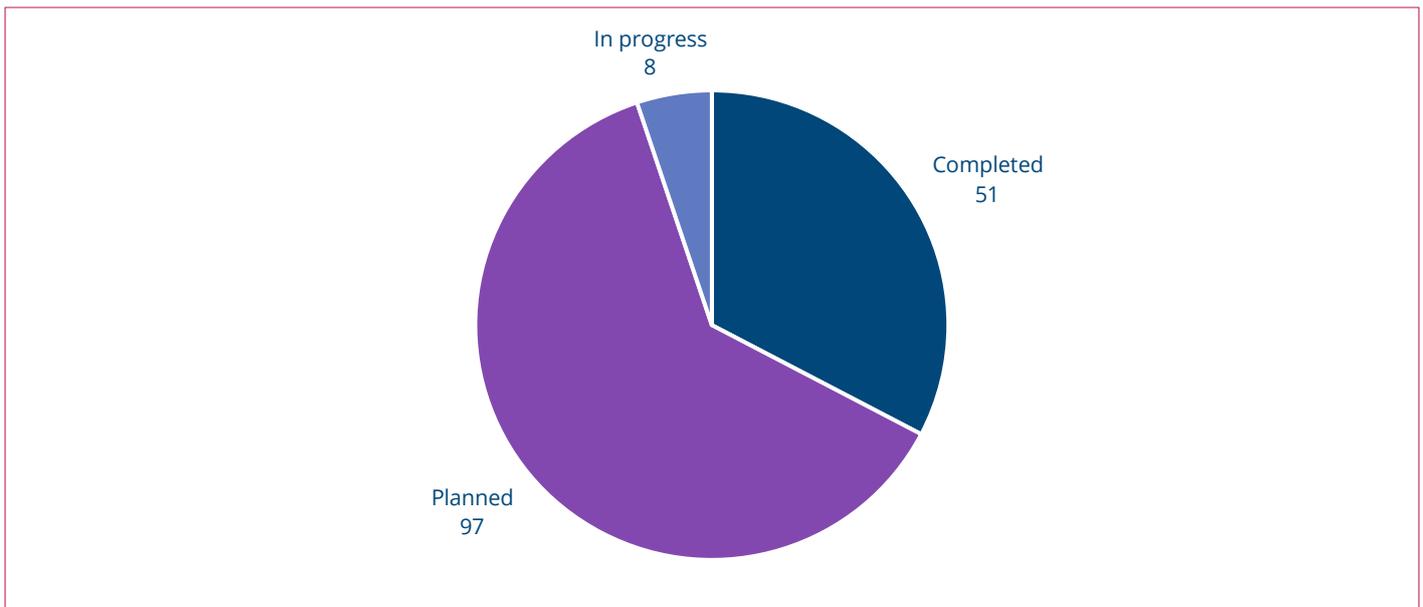


Figure 2 shows completed and planned switch-off dates for 2G and 3G networks identified by GSA from 2015 to 2026 onwards. The chart shows that the rate of switch-off for both technologies will continue to increase, with the shutdown of 3G in particular outpacing that of its predecessor. The most popular year for operators switching to 4G and 5G will be 2025.

Figure 2. 2G and 3G network switch-offs by year

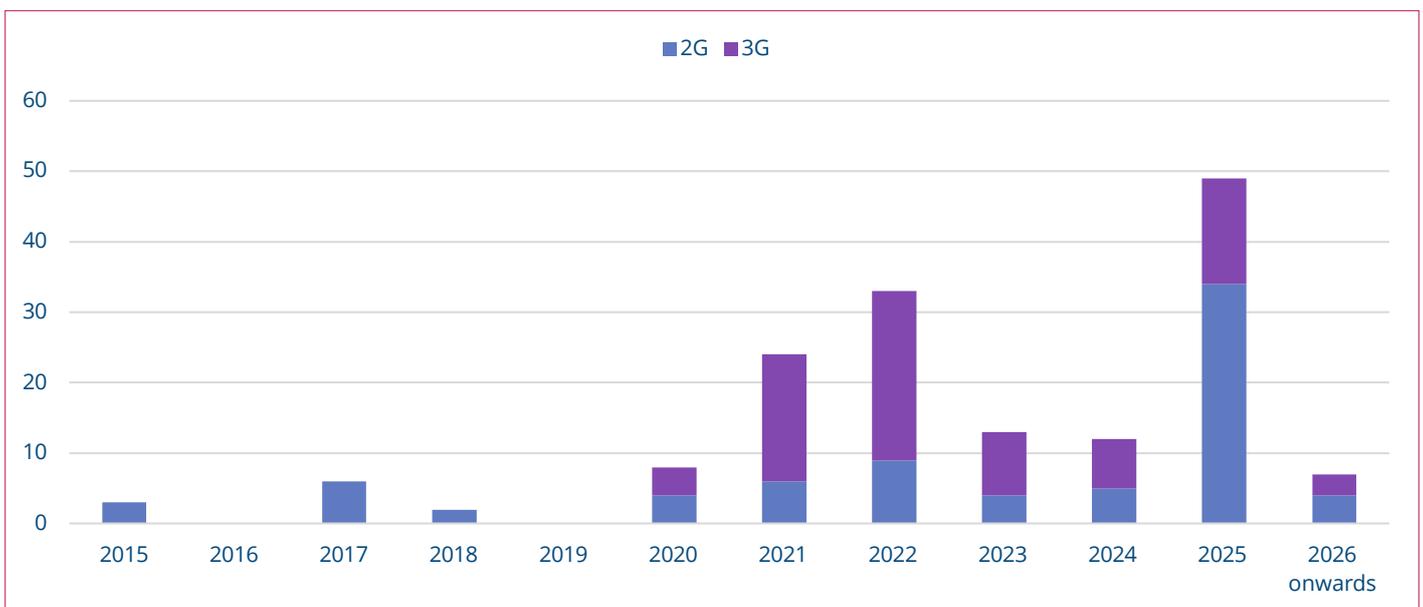
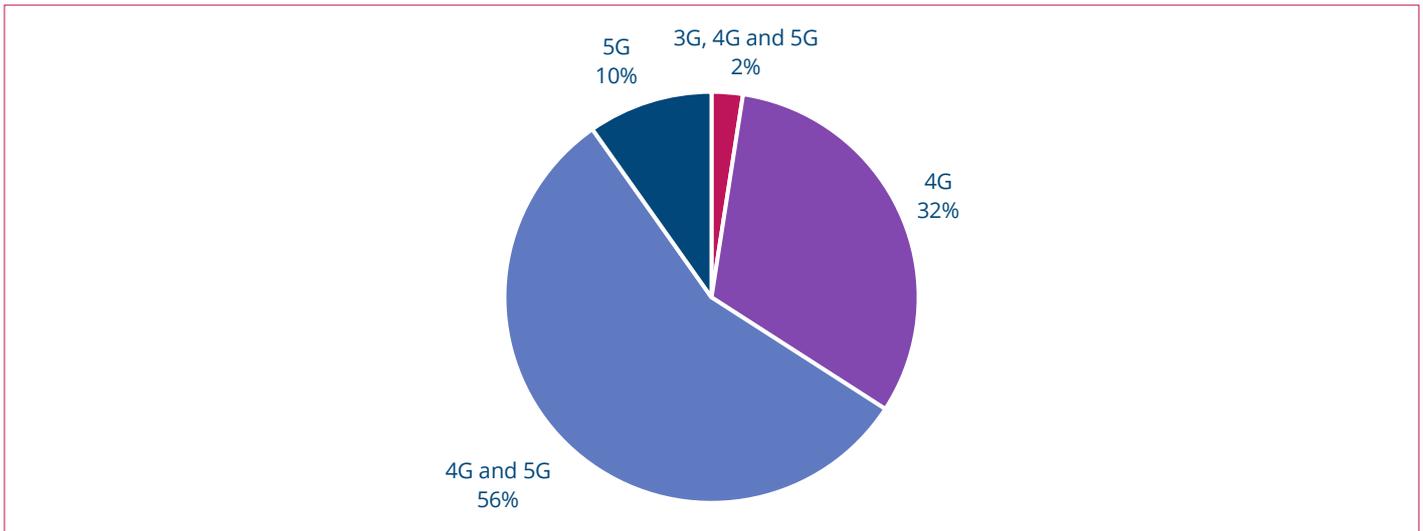




Figure 3 shows the network technologies that operators are upgrading to by proportion. According to our research, 56% of operators state their upgrade technology to be both 4G and 5G, highlighting the importance of these to mobile technology; 32% stated they will be upgrading to 4G only; 10% will be moving to 5G; and 2% will be upgrading to 3G, 4G and 5G.

Figure 3. Share of network upgrade technologies



Global Picture

Figure 4 shows the total completed, planned or in-progress switch-offs of 2G and 3G networks by sub-region, based on announcements from operators. From this we can derive that Europe has or will be undertaking the largest number of shutdowns, with 95 or 61% of the total. Asia will be responsible for 33 (21%), followed by Oceania with eight (6%) and North America and the Middle East and Africa with eight (5%) each. Latin America and the Caribbean has just three (2%) 2G and 3G switch-offs.

Figure 4. Shutdown of 2G and 3G networks by sub-region

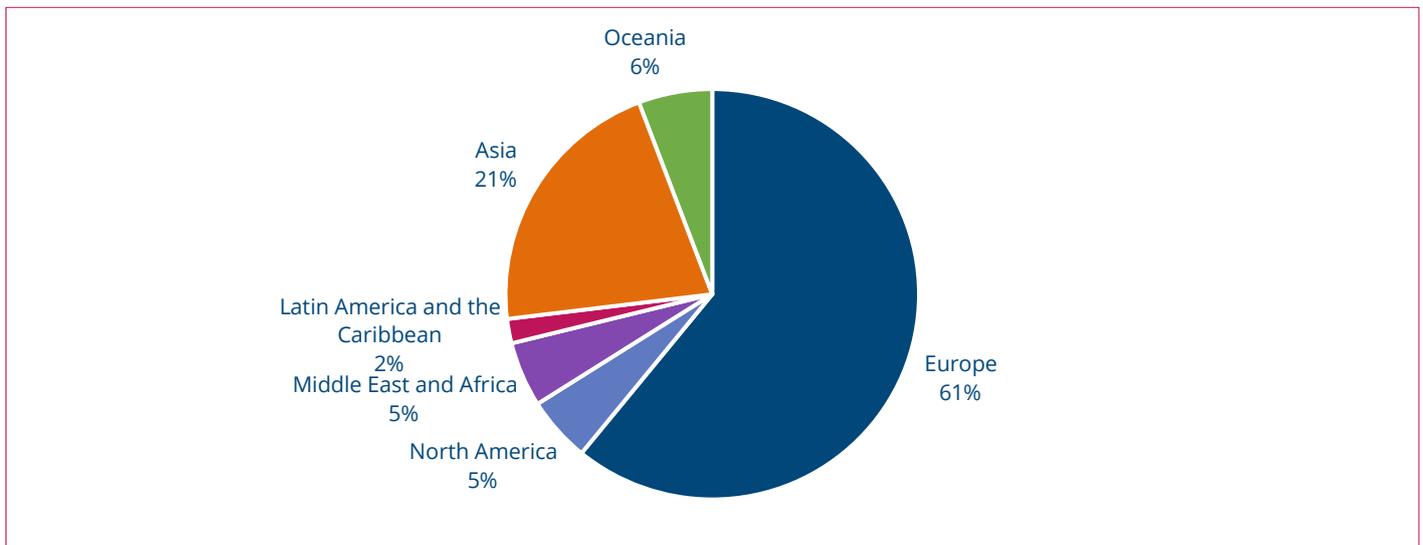




Figure 5 shows countries and territories with operators that have either completed or planned 2G switch-offs: 15 countries and territories have already completed 2G switch-offs, a further 31 have plans to do so and two are in progress. This gives a clear indication of the accelerating shutdown of the technology around the world.

Figure 5. Countries and territories with operators that have completed or planned 2G switch-offs

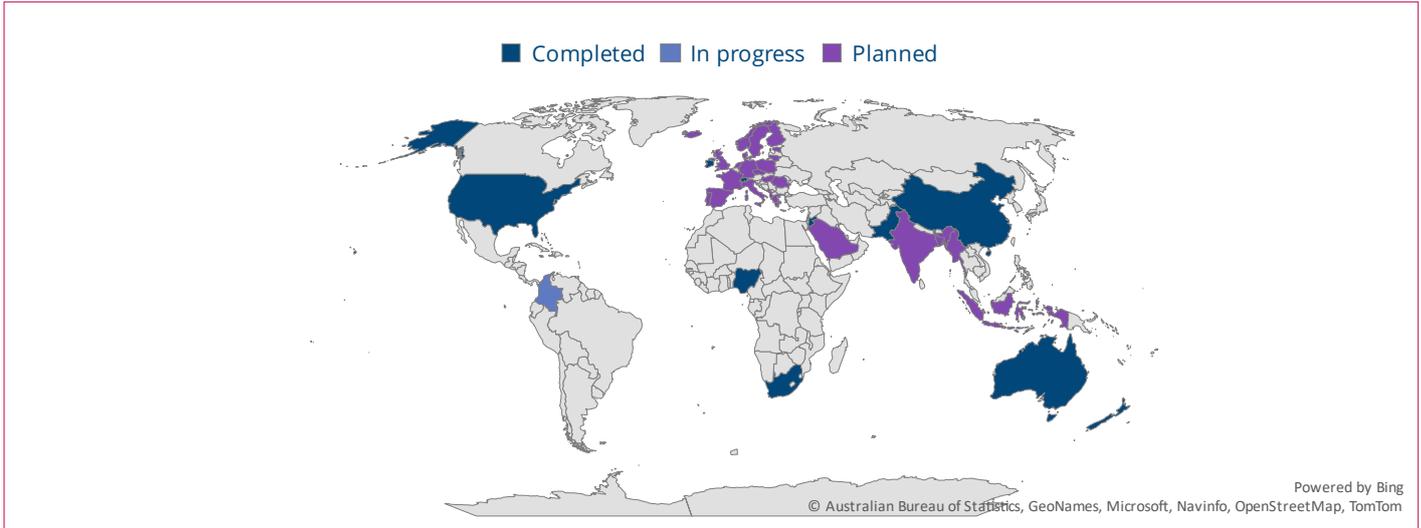
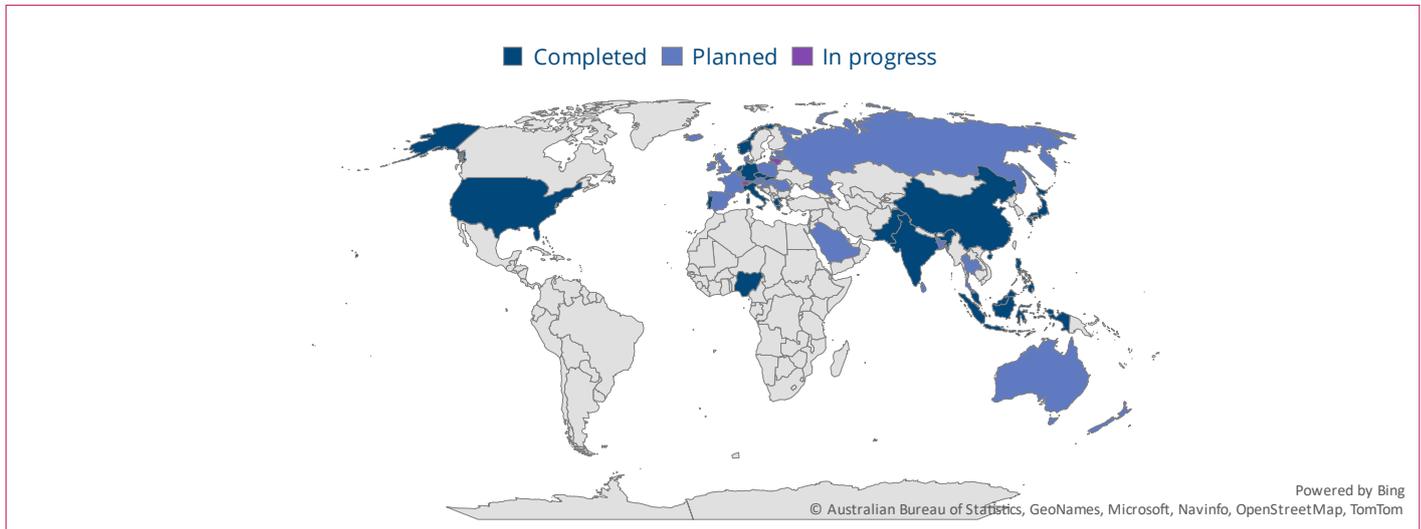


Figure 6 shows the countries and territories with operators that have completed, planned or are in progress with 3G switch-offs: 17 countries and territories have already completed switch-offs, 31 have planned switch-offs and six have their switch-offs currently in progress.

Figure 6. Countries and territories with operators that have completed, planned or are in progress with 3G switch-offs



Conclusion

The pace of 2G and 3G switch-offs looks set to pick up over the coming years, with numerous operators from around the globe planning to shut down these networks. The rising number of 4G and 5G devices and adoption of the technologies will lead to decreasing rate of 2G and 3G adoption and use, furthering the need for operators and countries to free up spectrum for 4G and 5G upgrades. As a result of these factors, we can expect to see new operators announce plans to switch off their 2G and 3G technologies.

ABOUT GSA

GSA is the voice of the global mobile ecosystem and has been representing mobile suppliers since 1998.

GSA Research

Mobile industry research is the backbone of GSA activity and covers topics from devices, chipsets and technology, to networks, features and spectrum.

The GSA research team is constantly following market dynamics and activity to ensure the latest data is available to GSA users via the GSA website.

Data is updated monthly and quarterly and can be referenced by users who register for free on the GSA website.

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