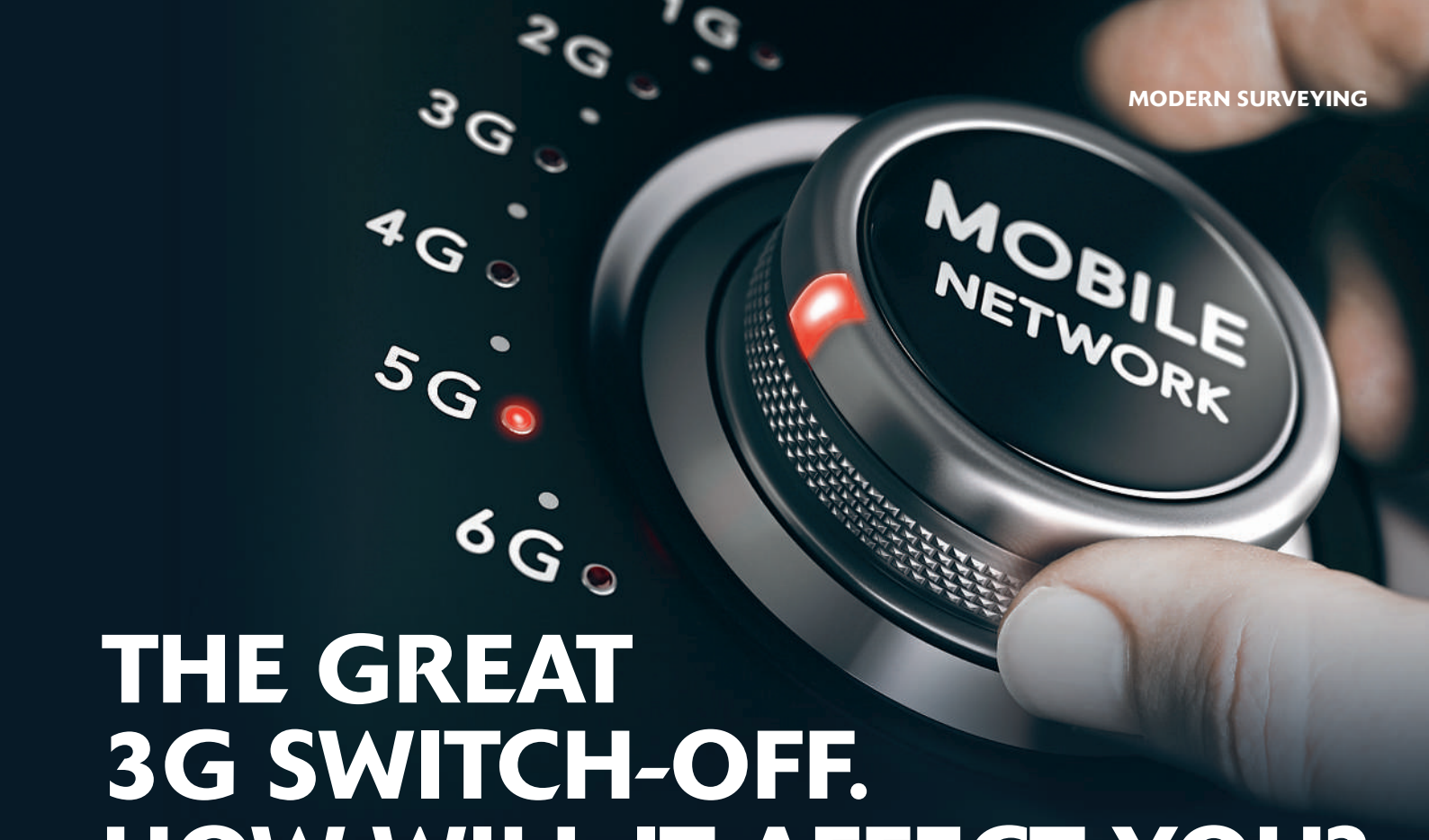

THE GREAT 3G SWITCH-OFF. HOW WILL IT AFFECT YOU?

INCONVENIENCE OR OPPORTUNITY? **MARK POVEDA** REPORTS ON THE IMPENDING DEMISE OF 3G MOBILE NETWORKS AND LOOKS AT THE IMPLICATIONS FOR GEOSPATIAL

If you're a regular reader of the news, you'll no doubt have seen a number of stories recently on how the 3G switch-off is already affecting the way we go about our daily routines.

For example, *The Sunday Times* recently featured an article about the growth of parking apps (currently no less than 30 different ones!) as pay-and-display parking machines are removed. The reason for their removal? Because the 3G data networks that are used to process card payments are being switched off. According to the article, Vodafone switched off its 3G network in Plymouth and Basingstoke on February 28th and will switch of the entire network by the end of the year. EE's 3G network will be closed by early next year, with Three to follow by the end of 2024.

This is a serious inconvenience and indicative of the type of changes of which we can expect a whole lot more during 2023. That inconvenience will be suffered not least in the geospatial area … one that has become reliant on phone networks for GNSS receivers, loggers and general field/office comms. We're already hearing anecdotal evidence of performance issues from customers who have noticed changes in service availability.

Preparing for 4G and 5G

If you use loggers or receivers that are incompatible with 4G or above, the chances are you will be affected at some point by the switch-over. However, it's important to remember that it won't happen overnight but will be phased-in, subject to each network provider's timetable. As such, will very much depend on where you are working in the UK and Ireland. In areas where good 2G coverage remains (although this is also scheduled to be switched off by 2033), it is uncertain how reliable coverage will be or how well it performs. The one thing you ***can*** guarantee is that you will be challenged with the slow speeds of a 2G network.

As a distributor for Trimble survey and mapping solutions, here at KOREC, we're in exactly the same position as everyone else and, consequently, having to plan ahead for these inevitable changes. We are already investing in and upgrading our solutions to meet the challenge and would urge all users of any manufacturer's geospatial systems to look ahead so that they are not caught out unexpectedly on-site. Nobody wants to disappoint a client, lose revenue, deal with frustrated surveyors in the field or fail to deliver a project on time.

Opportunity knocks

Inconvenience aside, switching off 3G to make room for the faster, more reliable 4G and 5G networks, does introduce new opportunities. Customers, whether surveyors or engineers, are asking for a better-connected site and 5G will assist this by enabling even faster and more efficient data flows. For example, while 3G can reach speeds of 8MB per second, 5G will eventually run in excess of 1GB per second, up to a maximum of 20GB. In geospatial terms, it means a 5GB laser scanning project that took two hours to download on 3G can be downloaded in just 35 seconds on 5G!

Additionally, reports are stating that 5G can support one thousand more devices per square metre than 4G – a welcome upgrade for an ever-connected world where even your fridge can communicate with you on food expiry and usage!

When 3G networks first came online in 2002, it was like trading a tape measure for a 3D Laser Scanner, and when the first iPhone was launched in 2007, little did we imagine that there would be over 34 iterations to date, with the first 3G version only released in 2008. Similarly, when the 5G network is fully active, its potential is hard to imagine. But I believe that, if we prepare now, then 5G is another fantastic opportunity for our tech-savvy, expanding industry to become even better, more effective and, of course, more profitable too.

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