

INSIGHT SPOTLIGHT

Momentum for eSIM in smartphones is accelerating – at least from an industry perspective. Apple and Samsung, two of the three largest OEMs in the world by smartphone unit sales, have introduced eSIM in their flagship smartphone models, while over 100 mobile operators offer eSIM services to their customers, spanning more than 50 countries across all regions but Africa.

That’s significant progress, but what lies ahead? Our new smartphone survey, covering 100 mobile operators worldwide, reveals important insights into the future of eSIM. We highlight five key takeaways, as well as crucial implications for eSIM stakeholders. Further insights and regional views are available from GSMA Intelligence.

## Analysis

Source: GSMA Intelligence Operator Smartphone Survey 2020

Operator views on the importance of potential benefits of eSIM  
Scores range from 1 (lowest) to 5 (highest)

Increase adoption of other mobile devices by linking them to a main subscription plan



Drive greater use of digital distribution channels



Enhance customer experience by reducing the time between sign-up and commencement of service



Support international roaming services



Streamline logistics costs by reducing physical SIM purchases



Explore opportunities in new digital services (i.e. digital identity, access authorisation and mobile payment)



3.8                      3.9                      4.0                      4.1

N=100 mobile operators worldwide

### Five key takeaways on eSIM from our operator survey:

#### 1 Great expectations for 2020

The number of operators offering eSIM services for smartphones surpassed 100 in 2019 and continues to grow. These operators have nearly 2 billion mobile connections in aggregate, representing over 25% of connections worldwide. While eSIM currently accounts for a negligible fraction of that figure, the direction of travel is clear. Looking ahead, nearly 60% of operators that do not offer an eSIM service plan to do so during 2020–2021. Additionally, 20% of operators expect to offer more than 10 different eSIM smartphones by the end of 2020, which means they expect other OEMs to introduce eSIM in their smartphones this year.

#### 2 eSIM should be as much of a priority as 5G for OEMs

Around 80% of respondents believe that eSIM should be a priority for OEMs. Apple and Samsung have already made eSIM a priority (at least for their high-end smartphones and smartwatches) and Motorola has launched the first eSIM-only smartphone. However, other major OEMs, such as Huawei and Xiaomi, have yet to introduce eSIM in their smartphones. In terms of smartphone features that OEMs should prioritise, eSIM ranked nearly as high as 5G, which is surprising given the attention that 5G receives. Since 5G and eSIM are being deployed at the same time, there is an implicit call for OEMs to launch 5G smartphones with eSIM capability (Samsung Galaxy S20 being one example of such a device).

#### 3 A promising range of potential benefits

Most operators see eSIM as an enabler of incremental revenue and further digitisation for consumers. The potential for eSIM to increase adoption of other devices is seen by operators as the most important benefit. Beyond tablets and smartwatches, notebooks and laptops could add momentum to eSIM because the technology will allow such devices to reduce their dependence on Wi-Fi and tethering. Microsoft, Lenovo, HP and Asus have already launched eSIM laptops. Lenovo also launched the first 5G and eSIM laptop. Regionally, operators in North America have the highest expectations of eSIM’s potential benefits.

#### 4 The larger the operator, the stronger the belief in eSIM

Scores were higher than average across the board from operators (individually or as a group) with more than 75 million mobile subscribers, including expectations for global take-off and potential benefits. This comes as no surprise given that several groups – including Orange, Deutsche Telekom, Vodafone and Three – have launched eSIM services for smartphones across many of the markets in their footprints.

#### 5 eSIM will reach significant global scale by 2025

About 60% of smartphone unit sales will be eSIM-compatible by 2025 according to our survey. This largely aligns with the assumptions behind the GSMA Intelligence eSIM scenario analysis. In terms of eSIM user base, we forecast that between 2 and 3 billion smartphone connections (low and high adoption scenarios respectively) will use eSIM worldwide by 2025, with 2.5 billion (35% of smartphone connections) as a medium adoption scenario. China will begin its transition to eSIM in smartphones later than other countries (eSIM service for smartwatches is already available), but it will catch up in the medium term. In the medium adoption scenario, we estimate that China will have half a billion eSIM smartphone connections by 2025.

## Implications

### Mobile operators

- **Turning eSIM service availability into customer adoption** – eSIM should appeal to consumers as it adds another layer of digitisation that allows smooth, remote and instant enrolment and subscription delivery. The dual-SIM capability provided by early eSIM smartphones also allows users to have two mobile subscriptions and phone numbers – for example, one for business and one for personal use. However, the speed of eSIM adoption will largely depend on operators' commercial strategies and subscription plans specifically designed for eSIM. These need to create value for consumers beyond just the abovementioned benefits.
- **Think beyond smartphones** – Increased adoption of other devices (by linking them to a main subscription plan) is seen as the most important eSIM benefit. This relates closely to other findings from our survey: non-phone devices account for 25% of the total number of consumer devices sold by operators; and growing device/service revenues is the top reason for selling non-phone devices, even more so than churn reduction. eSIM should make it easier to remotely connect multiple devices under a single plan and one number/bill (e.g. a family plan). However, actual uptake will ultimately depend on whether consumers see real benefit in connecting those devices to mobile networks as opposed to Wi-Fi.

### OEMs

- **Watch out: operators are adjusting their device portfolios** – The majority of operators (76%) are likely to add at least one new smartphone vendor in 2020. Since operators are one of the primary channels for smartphone sales, this creates further competition for OEMs. 5G and eSIM are additional factors that could influence operators' decisions for choosing smartphones beyond traditional reasons such as brand reputation, range of models and price points. While 5G compatibility is the most important consideration for most operators when adding a new vendor, for a number of operators eSIM is the main determining factor. Additionally, eSIM could help differentiate OEMs that have low market shares.
- **Plan the transition to eSIM-only sensibly** – Currently, all eSIM smartphones but the Motorola Razr have dual capability (removable SIM and eSIM). But this is likely to be a transitional period. The question is, when will most OEMs shift to eSIM-only, at least for their newer models? Our survey results indicate that nearly 40% of respondents expect this to happen during 2020–2021. This may be an optimistic estimate though, as some OEMs have yet to introduce eSIM. Also, given the 2–3 year replacement rate in most countries, a sizeable smartphone base with removable SIMs will likely remain in place for several years.

### eSIM vendors

- **Survey results are a good sign for eSIM vendors' strategies** – For eSIM vendors (e.g. G+D, Gemalto, IDEMIA), eSIM helps streamline manufacturing and logistics. In general, our survey results bode well for eSIM vendors and their wider strategies of providing eSIM management and end-to-end solutions across all markets (consumer, automotive and industrial IoT). However, 23% of operators are planning to wait until 2022–2023 before launching eSIM for smartphones. This rises to 31% among European operators, indicating that more work needs to be done to bring these operators on board.
- **eSIM progress in smartphones could also spur adoption in IoT** – Fast deployment of eSIM in smartphones will help ecosystem players gain experience with the technology, which will boost volumes and lower eSIM costs for other use cases. IoT is a promising and growing market for eSIM, with integrated SIM (iSIM) expected to drive further IoT developments and market adoption.

## Related reading

[eSIM in China: the road ahead](#)

[Future of Devices: 5G and the China effect](#)