eSIM Summit at MWC22

eSIM in 2022 and beyond: assessing new developments, market trends and consumer behaviour

Theatre 3 - Hall 7
Wednesday 2 March 2022
10.30-12.30 (GMT+1)

KEYNOTE SPEAKER
Pablo Iacopino,
Director of Ecosystem Research,
GSMA
eSIM in 2022 and beyond
Assessing new developments, market trends and consumer behaviour

DATE
2 March 2022

Pablo Iacopino
Head of Research and Commercial Content
Good progress

• Proliferation of eSIM devices
• Launch of 5G devices with eSIM technology
• Commercialisation of eSIM service for smartphones and smartwatches
• eSIM for connected vehicles
• Work and alignment on global specifications (including eUICC)
• eSIM for international roaming

Slow progress

• Consumer awareness and adoption of eSIM
• eSIM ‘democratisation’ (for consumers) through cheaper devices
• eSIM promotion by OEMs and operators
• eSIM for IoT vertical sectors (beyond Automotive)
• eSIM for laptops

A reality check
eSIM in the smartphone market
Nearly 60 eSIM smartphone models – more than half have 5G technology

How many eSIM smartphones have been launched?
Cumulative figures

<table>
<thead>
<tr>
<th>Year</th>
<th>5G</th>
<th>Non-5G</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dec. 2017</td>
<td>3</td>
<td>25</td>
</tr>
<tr>
<td>Dec. 2018</td>
<td>8</td>
<td>25</td>
</tr>
<tr>
<td>Dec. 2019</td>
<td>16</td>
<td>19</td>
</tr>
<tr>
<td>Dec. 2020</td>
<td>43</td>
<td>15</td>
</tr>
<tr>
<td>Dec. 2021</td>
<td>57</td>
<td>14</td>
</tr>
</tbody>
</table>

- Most flagship smartphones are now eSIM-enabled
- 5G and eSIM get together
- Various models have a retail price < USD500

Source: GSMA Intelligence
eSIM service is now global
eSIM reaches more than 3 billion mobile subscribers

Commercial availability of eSIM service for smartphones

Number of countries

82

24


Geographical reach

• Most major markets are on board. eSIM is nearly ubiquitous in major markets
• Africa is catching-up
• China still missing…but for how long?

Source: Minimum number of countries, based on the lists provided by Apple, Huawei and Samsung (publicly available information) and GSMA Intelligence research of the top 30 markets
More than 230 operators offer commercial eSIM service
Fivefold increase over the last 3 years

Number of mobile service providers offering commercial eSIM service for smartphones

- Discussions with eSIM vendors indicate that this figure is even higher
- eSIM is a group strategy
- MVNOs are driving eSIM for international roaming

What lies ahead?

- 88% of surveyed operators plan to offer eSIM service by 2023
- 98% by 2025

Source: Minimum number of mobile service providers, based on the lists provided by Apple, Huawei and Samsung (publicly available information) and GSMA Intelligence research of the top 30 markets.
Source: GSMA Intelligence Operators in Focus Research – Operator Survey (100 operators worldwide), Future of Retail (2021)
### Potential benefits of eSIM: what do operators think?

**Incremental revenues and opex savings – it’s all about further digitisation**

**Operator views**

- Streamline logistics costs by reducing physical SIM purchasing
- Explore opportunities in new digital services (e.g. digital identity, access authorisation, mobile ticketing and payment)
- Increase adoption of other mobile devices by linking them to a consumer’s main subscription plan
- Facilitate international roaming services
- Be able to capture new opportunities in the growing IoT market (consumer and enterprise)
- Be able to capture new opportunities among Digital Native consumers
- Drive greater use of digital distribution channels
- Enhance customer experience by digitising SIM-related operations

**Source:** GSMA Intelligence Operators in Focus Research – Operator Survey (100 operators worldwide), Future of Retail (2021)
IoT is a promising market for eSIM. However, eSIM adoption is still low relative to its long-term potential.

The addressable market for eSIM and iSIM is significant. eSIM and iSIM are targeting a share of the cellular market.

Global IoT connections – billion

- **Automotive**: eSIM is already mainstream in connected vehicles.
- **Beyond Automotive**: Single initiatives rather than sector-wide deployments.

Source: GSMA Intelligence
**eSIM for IoT: there is untapped demand**

**Enterprises are accelerating their digital transformation**

**IoT deployments drive digitisation**

Enterprises speak; % of respondents

IoT deployments are:

- 63% Part of a wider digital transformation agenda
- 37% Standalone initiative

**Importance of eSIM in future IoT deployments**

Enterprises speak; % of respondents

- Awareness of eSIM is high
- 40% of enterprises see eSIM as very important to a successful IoT deployment
- Security and remote update of large volumes of devices are seen as the top eSIM benefits

- Very important
- Somewhat important
- Not at all important
- I don't know
- I am not familiar with eSIM

63%  37%

Source: GSMA Intelligence Enterprises in Focus Research – Enterprise Survey 2020 (~2900 enterprises across most vertical sectors)
Assessing consumer behaviour
Consumers: do they know what eSIM is?
Consumer awareness of eSIM is still low

Consumer awareness of eSIM
Percentage of total surveyed consumers who have heard of eSIM

<table>
<thead>
<tr>
<th>Country</th>
<th>2020</th>
<th>2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>Japan</td>
<td>22%</td>
<td>33%</td>
</tr>
<tr>
<td>Italy</td>
<td>26%</td>
<td>30%</td>
</tr>
<tr>
<td>Germany</td>
<td>25%</td>
<td>28%</td>
</tr>
<tr>
<td>Brazil</td>
<td>17%</td>
<td>27%</td>
</tr>
<tr>
<td>USA</td>
<td>26%</td>
<td>27%</td>
</tr>
<tr>
<td>South Korea</td>
<td>13%</td>
<td>20%</td>
</tr>
<tr>
<td>France</td>
<td>14%</td>
<td>14%</td>
</tr>
<tr>
<td>UK</td>
<td>13%</td>
<td>14%</td>
</tr>
</tbody>
</table>

- Less than 30% of consumers are aware of eSIM (average)
- 5pp increase compared to 2020 (average)
- Significant variations by country…but no correlation with eSIM service availability
- More work is needed by operators and OEMs

Source: GSMA Intelligence Consumers in Focus Research – Consumer Survey (2020 and 2021)
# How do consumers first find out about eSIM?

**Slow push by OEMs and operators**

## Finding out about eSIM

Among surveyed consumers who have heard of eSIM (aggregate, 8 countries)

<table>
<thead>
<tr>
<th>Method</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>I read an article about eSIM</td>
<td>28%</td>
</tr>
<tr>
<td>A friend/family member/colleague told me about eSIM</td>
<td>16%</td>
</tr>
<tr>
<td>I was told about eSIM when I bought a new device (e.g. phone, smartwatch, tablet) directly from the manufacturer</td>
<td>15%</td>
</tr>
<tr>
<td>I saw an advert for eSIM (e.g. on TV, in-store, online, at an airport)</td>
<td>10%</td>
</tr>
<tr>
<td>I received some information/promotional materials about eSIM from my mobile phone operator</td>
<td>8%</td>
</tr>
<tr>
<td>I heard about eSIM in another way</td>
<td>8%</td>
</tr>
<tr>
<td>Don't know / can't remember</td>
<td>8%</td>
</tr>
<tr>
<td>I heard about eSIM through my work</td>
<td>7%</td>
</tr>
</tbody>
</table>

### Operators and OEMs

- Operators and OEMs don’t talk much about eSIM to their customers
- OEMs talk more than operators, especially in the USA, Japan and South Korea

Source: GSMA Intelligence Consumers in Focus Research – Consumer Survey (2021)
Are consumers interested in using eSIM?
50-50: half of consumers are interested (average)

Consumer interest in using eSIM on a mobile phone at some point in the future
Percentage of total surveyed consumers who own/use a mobile phone

<table>
<thead>
<tr>
<th>Country</th>
<th>Very interested</th>
<th>Fairly interested</th>
<th>Not very interested</th>
<th>% interested</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brazil</td>
<td>28%</td>
<td>34%</td>
<td></td>
<td>62%</td>
</tr>
<tr>
<td>South Korea</td>
<td>15%</td>
<td>43%</td>
<td></td>
<td>58%</td>
</tr>
<tr>
<td>Italy</td>
<td>21%</td>
<td>36%</td>
<td></td>
<td>57%</td>
</tr>
<tr>
<td>USA</td>
<td>23%</td>
<td>32%</td>
<td></td>
<td>55%</td>
</tr>
<tr>
<td>UK</td>
<td>16%</td>
<td>38%</td>
<td></td>
<td>54%</td>
</tr>
<tr>
<td>France</td>
<td>14%</td>
<td>29%</td>
<td></td>
<td>43%</td>
</tr>
<tr>
<td>Germany</td>
<td>13%</td>
<td>26%</td>
<td></td>
<td>39%</td>
</tr>
<tr>
<td>Japan</td>
<td>7%</td>
<td>22%</td>
<td></td>
<td>29%</td>
</tr>
</tbody>
</table>

Source: GSMA Intelligence Consumers in Focus Research – Consumer Survey (2021)

- Significant variations by country…
- …but (again) no correlation with eSIM service availability
- 16% don’t know (average)…fairly high share
- No major differences by smartphone brand
Why are some consumers not using/interested in eSIM?
Various reasons – it means multiple challenges

Reasons for not using eSIM or not being interested in eSIM
Percentage of surveyed consumers who are not using eSIM or are not interested in using eSIM (aggregate, 8 countries)

<table>
<thead>
<tr>
<th>Reason</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>I'm just not interested in using eSIM</td>
<td>17%</td>
</tr>
<tr>
<td>I don't see the benefits of eSIM</td>
<td>15%</td>
</tr>
<tr>
<td>I don't understand how eSIM works</td>
<td>12%</td>
</tr>
<tr>
<td>I have privacy concerns about using eSIM</td>
<td>9%</td>
</tr>
<tr>
<td>The activation cost of eSIM is too high</td>
<td>7%</td>
</tr>
<tr>
<td>The cost of buying an eSIM compatible phone is too high</td>
<td>6%</td>
</tr>
<tr>
<td>Don't know</td>
<td>5%</td>
</tr>
<tr>
<td>The mobile phone operator provides an eSIM service, but it's not available on my plan</td>
<td>2%</td>
</tr>
<tr>
<td>My mobile phone operator doesn't provide an eSIM service</td>
<td>2%</td>
</tr>
<tr>
<td>Other reason</td>
<td>2%</td>
</tr>
</tbody>
</table>

Source: GSMA Intelligence Consumers in Focus Research – Consumer Survey (2021)
How do consumers use eSIM?

For main phone number

Use of eSIM in mobile phones
Percentage of surveyed consumers who use eSIM (aggregate, 8 countries)

- Multiple phone numbers stored on eSIM: 20%
- For secondary phone number: 21%
- Only use eSIM when travelling abroad: 4%
- Don’t know: 5%
- For main phone number: 50%

Multiple phone numbers stored on eSIM: France leads

Source: GSMA Intelligence Consumers in Focus Research – Consumer Survey (2021)
Future outlook: what could accelerate eSIM adoption?
### Future Outlook
What could accelerate eSIM adoption?

#### eSIM in the Consumer Market
- OEMs and operators raising consumer awareness of eSIM and promoting its benefits
- Enhancing user experience for eSIM activation and service management
- Full launch by all OEMs
- Transition to eSIM-only smartphones
- China launching commercial eSIM service for smartphones
- Migration to 5G: opportunity to push the transition to eSIM

#### eSIM in the Enterprise Market
- Adoption of global standards/specifications (as opposed to proprietary solutions)
- 5G adding momentum to the use of cellular connectivity for IoT – hence pushing eSIM
- The combined effect of eSIM- and iSIM-based solutions
- eSIM helping address key IoT deployments challenges (integration with existing technologies, cost of implementation and security)
- IoT companies having a clear eSIM strategy alongside their main IoT proposition
About GSMA Intelligence

info@gsmaintelligence.com

Data
- 1,400 Mobile operators
- 80 Operators groups
- 5,000 Networks
- 30M Data points updated daily

Research
- 130+ Reports annually
- 1M Report downloads in 2019
- 100+ Global, Regional & Topical Research, Deep Dives & Analysis

Pinpoint accuracy
- Five-year forecast consistently accurate within +/- 2.5% of reported data, updated quarterly

50+ Analysts & industry experts
- Supporting the business strategy of our subscribers and the wider ecosystem
THANK YOU!

Pablo Iacopino

Head of Research and Commercial Content

piacopino@gsma.com