



eSIM Adoption and Global Market Trends

Theatre 3 - Hall 7 Wednesday 2 March 2022 10.30-12:30 (GMT+1)















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

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KEYNOTE SPEAKER **Pablo Iacopino,** Director of Ecosystem Research, GSMA











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## Part 1 - eSIM involving in Massive IoT









Can eSIM be the Linchpin of Massive IoT?

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KORE.









eSIM in Action: How to accelerate and keep Massive IoT SAFE?

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**Loic Bonvarlet,** VP Product and Marketing, Kigen











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eSIM Summit: eSIM Adoption and Global Market Trends

## eSIM in 2022 and beyond

Assessing new developments, market trends and consumer behaviour



Pablo lacopino Head of Research and Commercial Content

**eSIM** A reality check

## **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 ieUICC)
- 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

#### eSIM in the smartphone market

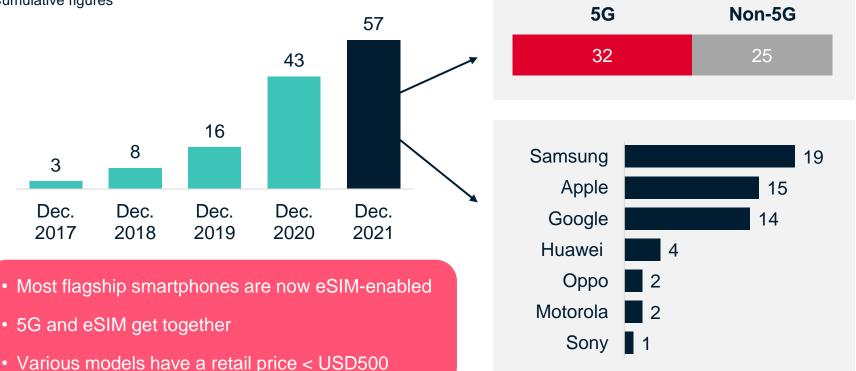
Nearly 60 eSIM smartphone models – more than half have 5G technology

#### How many eSIM smartphones have been launched?

Cumulative figures

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Intelligence



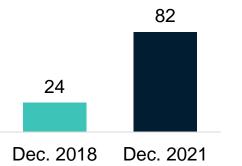
Source: GSMA Intelligence

#### eSIM service is now global

eSIM reaches more than 3 billion mobile subscribers

## Commercial availability of eSIM service for smartphones

Number of countries



 Most major markets are on board. eSIM is nearly ubiquitous in major markets

- Africa is catching-up
- China still missing...but for how long?

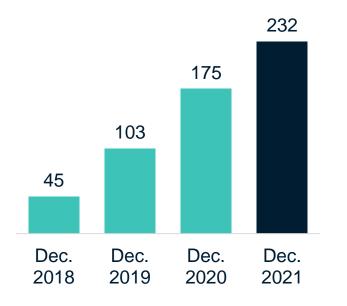




## More than 230 operators offer commercial eSIM service

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



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

Potential benefits of eSIM Operator views	2021 survey	Compared to 2020 survey
Streamline logistics costs by reducing physical SIM purchasing		
<ul> <li>Explore opportunities in new digital services (e.g. digital identity, access authorisation, mobile ticketing and payment)</li> </ul>		
<ul> <li>Increase adoption of other mobile devices by linking them to a consumer's main subscription plan</li> </ul>		
Facilitate international roaming services		
<ul> <li>Be able to capture new opportunities in the growing IoT market (consumer and enterprise)</li> </ul>		
<ul> <li>Be able to capture new opportunities among Digital Native consumers</li> </ul>		
Drive greater use of digital distribution channels		
<ul> <li>Enhance customer experience by digitising SIM-related operations</li> </ul>		

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

#### TODAY

## Automotive

eSIM is already mainstream in connected vehicles

## Beyond Automotive

Single initiatives rather than sector-wide deployments

#### FUTURE

#### Global IoT connections - billion

The addressable market for eSIM and iSIM is significant eSIM and iSIM are targeting a share of the cellular market 5.3 37 ~3x growth 40 30 1.9 20 13 10 0 2022 2023 2024 2025 2026 2027 2028 2029 2030 2020 2021

Consumer IoT Enterprise IoT

Cellular IoT

#### 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:

#### Importance of eSIM in future IoT deployments

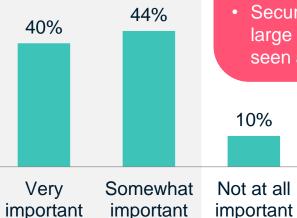
10%

Enterprises speak; % of respondents

#### IoT deployments are largely part of a wider digital transformation agenda



eSIM for IoT is eSIM for digitisation



- 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

4%

I don't know

2%

I am not

familiar with

eSIM

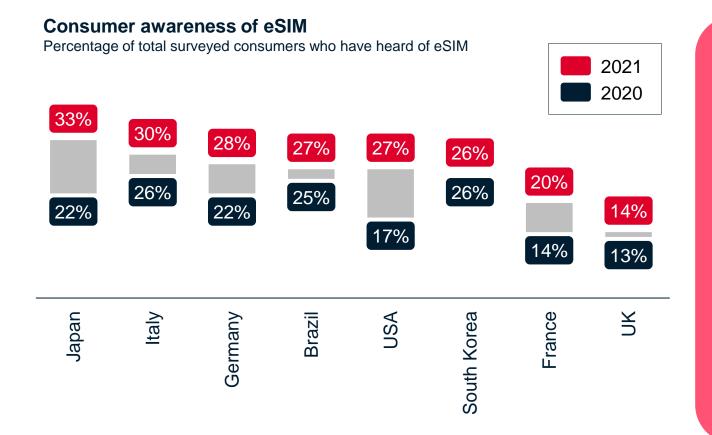




# Assessing consumer behaviour

#### Consumers: do they know what eSIM is?

Consumer awareness of eSIM is still low

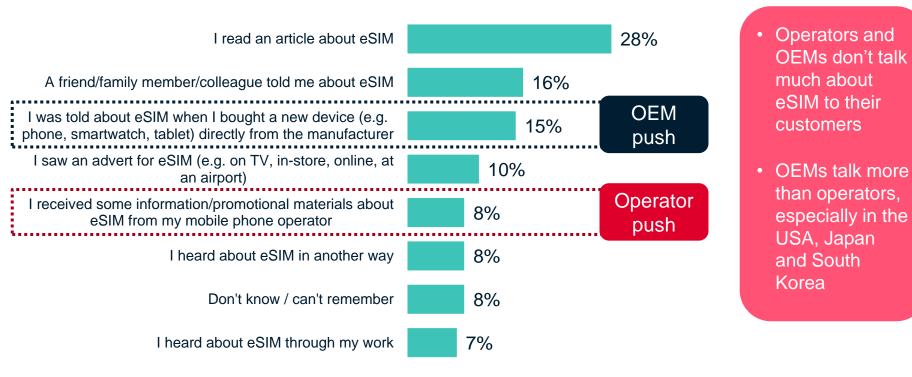


- Less than 30% of consumers are aware of eSIM (average)
- 5pp increase compared to 2020 (average)
- Significant variations by country...but no correlation with eSIM service availability
- More work is needed by operators and OEMs

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)



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

#### Are consumers interested in using eSIM?

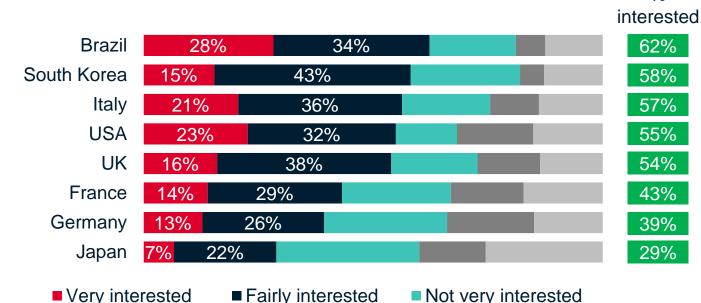
50-50: half of consumers are interested (average)

#### 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

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Intelligence



 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

Not at all interested Don't know



## 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)

	I'm just not interested in using eSIM 17%	I don't understand how eSIM works 12%		I have p concerna using 9%	s about eSIM	<ul> <li>Happiness with traditional SIM leads, especially in Europe</li> </ul>
I'm happy to use a traditional removable SIM card benefits of	I don't see the benefits of eSIM 15%	The activation cost of eSIM is too high 7%	The cost of buying an eSIM compatible phone is too high 6%	Don't know 5% My mobile phone operator provides an eSIM service, but it's not available on my plan 2%	Other reason 2% My mobile phone operator doesn't provide an eSIM service 2%	<ul> <li>15% don't see the benefits of eSIM</li> <li>12% don't understand how eSIM works</li> </ul>

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

## How do consumers use eSIM?

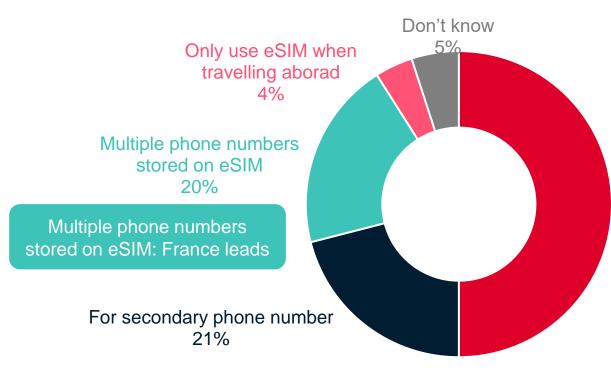
For main phone number

#### Use of eSIM in mobile phones

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Percentage of surveyed consumers who use eSIM (aggregate, 8 countries)



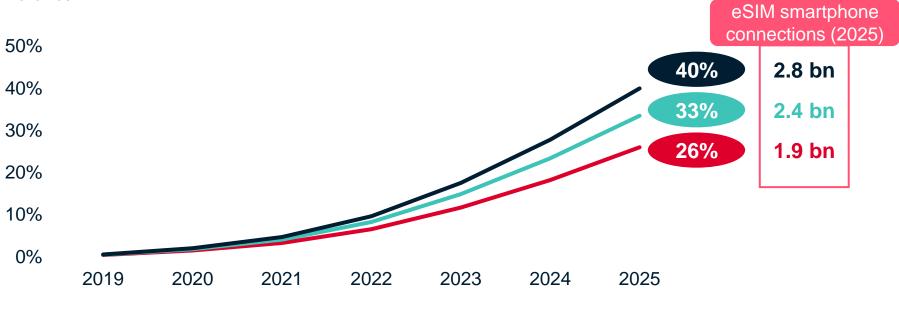
## For main phone number 50%



#### Charting the future: eSIM adoption in smartphones

The march towards mainstream – Acceleration from 2023 onwards

eSIM smartphone connections as % of total smartphone connections (installed base) Worldwide



-Low adoption scenario -Base case scenario -High adoption scenario





# 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

GSMA

- Transition to eSIM-only smartphones
- China launching commercial eSIM service for smartphones
- Migration to 5G: opportunity to push the transition to eSIM

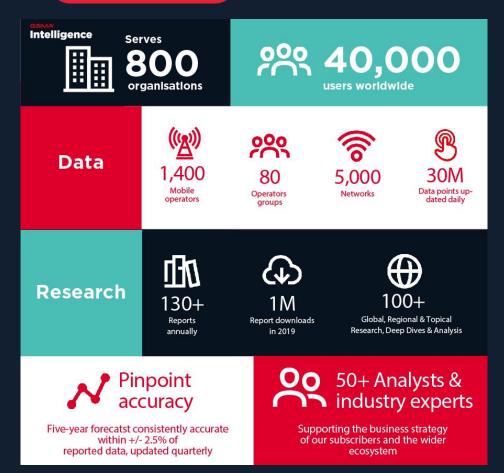
## eSIM in the **Enterprise Market**

- 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



GSMA

Intelligence

## info@gsmaintelligence.com





## THANK YOU!

Pablo Iacopino

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Can eSIM be the Linchpin of Massive IoT?

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KORE.





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## AGENDA



MARCO BIJVELDS

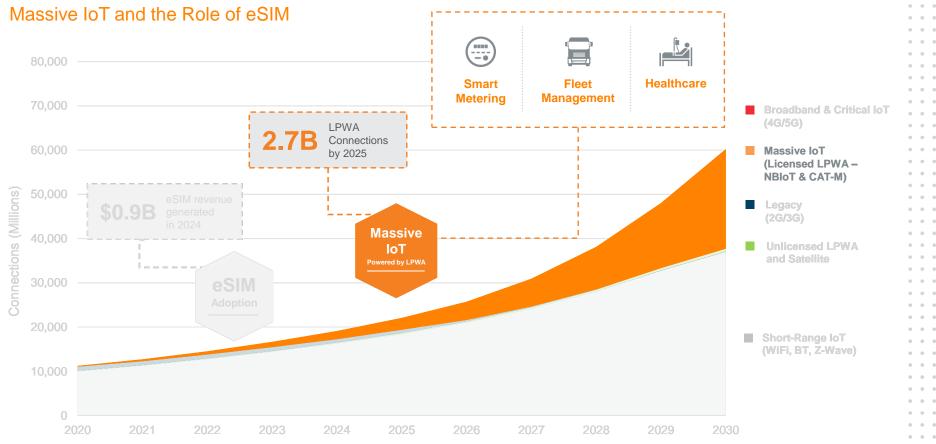
SVP, EAP KORE

Can eSIM be the Linchpin of Massive IoT?

KORE discusses where this technology fits in opening the globe to extensive IoT enablement, and how to optimise a technology that is rapidly developing in a competitive market.

**KORE** 

## The State of Connectivity

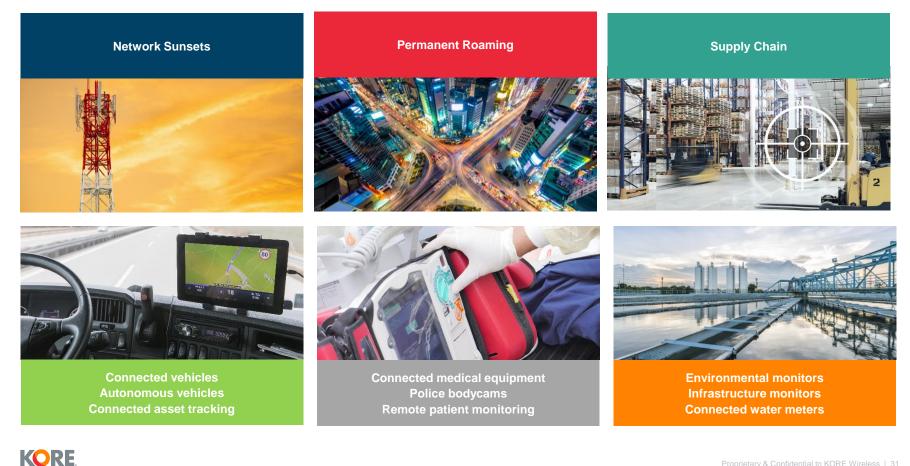


KORE. Sources: GSMA (IoT Revenue: State of the Market 2020)

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#### Industry and Customer Drivers to eSIM



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## Mitigating Roadblocks in Massive IoT with eSIM





#### Finding the True eSIM



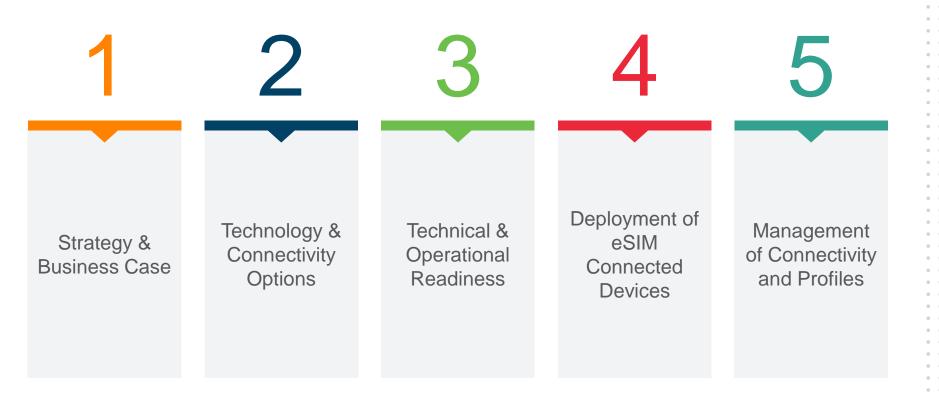
# What Characteristics Sets Apart the Real eSIM?

- eSIM or eUICC
- Switching options
- Carrier availability

- GSMA version and features
- Device compatibility
- Multi-vendor compatibility



## 5 Stages to eSIM Deployment





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. . .

#### eSIM as the Linchpin to the Future

## KORE. Kigen

Global eSIM Connectivity

OPEN IOT SAFE

Blockchain

energy web



. . .



MARCO BIJVELDS SVP, EAP - KORE



LOIC BONVARLET VP PRODUCT AND MARKETING - KIGEN

## AGENDA



eSIM in Action: How to accelerate and keep Massive IoT SAFE?



KORE and Kigen address adoption and acceleration of eSIM and how to make most of standards-based security schemes such as IoT SAFE.







# **THANK YOU**



**SCAN ME** 





eSIM

eSIM Adoption and Global Market Trends

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### Part 2 - eSIM Revolution







#### Part 2 – eSIM revolution

The inconvenient truth – 6 years as an eSIM partner with Apple

TRUPHONE

Unleash the power of the eSIM

THALES





The inconvenient truth – 6 years as an eSIM partner with Apple

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**KEYNOTE SPEAKER** Michael Moorfield, Chief Technology Officer, Truphone



THA







## Unleash the power of eSIM

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KEYNOTE SPEAKER Antoine Thomas, eSIM solutions Director, Thales DIS KEYNOTE SPEAKER François Bogusz, Digital Telco Director Thales DIS

KORE.









The inconvenient truth – 6 years as an eSIM partner with Apple

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THA



# THE INCONVENIENT TRUTH



6 years as an eSIM partner with Apple

# IT ALL STARTED WITH AN iPAD...





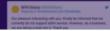
# 6 YEARS ON eSIM IS NOW AT THE HEART OF EVERY FLAGSHIP CONSUMER DEVICE



## HOWEVER, THE INDUSTRY IS STILL IN LOVE WITH A PIECE OF PLASTIC

#### We are just as reliant on the SIM card today as we were 6 years ago.





#### Replying to

Hello, thanks for reaching out. Currently, we don't support eSIM transfer yet. So you will need to buy a new eSIM from our store. :) Hope this helps. bk

J

#### Replying to

It's definitely on the cards this year - our tech peeps haven't finalised a date but as soon as we do we'll let you know! LJ

## AND WE ARE HOLDING CUSTOMERS BACK...

Our plea

we are ta

Hi Chris, thanks for doesnt' currently of



Following a successful trial in a small number of retail stores, we're pleased to tell you that we will be launching eSIM in 2022. We don't have a date right now, but rest assured we'll inform you when this is available for both consumer and buisness customers. -lain

#### Replying to

Please note we currently support eSIM for cellular capable, wearable devices only. Please view more here:

# ...AND WHAT'S THE HOLD UP?

## NOT ENOUGH DEVICES SUPPORT eSIM

### eSIM WILL BE AVAILABLE JUST AFTER OUR DIGITAL TRANSFORMATION IS COMPLETED

#### eSIM WILL DESTROY ROAMING REVENUES

OEM'S WILL BECOME THE GATEKEEPER BETWEEN OUR NETWORK AND THE CUSTOMER

# THEMAGPIE

# THE BULL~

**THE GOAT** 

## WHERE DO YOU SIT?

# THE DSTRICH

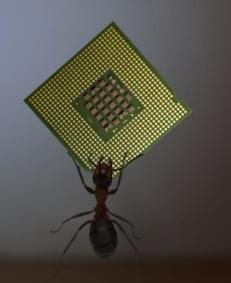
# THE INCONVIENT TRUTH IS: THE SIM SLOT VIENT DISAPPEAR



Image source: Evosmart.it

## WE BELIEVE IN THE eSIM PROMISE

# Smaller, efficient and faster devices



Simple logistics and reduced distribution costs

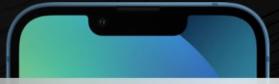
Choice and flexibility for customers

# eSIM IS SAVING MONEY



// Launch Truphone Connect
const Connect = require('./connect.js')
const connect = new Connect({})

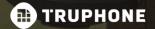
# eSIM IS ENABLING NEW esim is on it's way! EXPERIENCES



SETTINGS

NOL

Cellular Plan Ready to Be Installed Tap this notification to finish your Cellular plan set up.



# eSIM IS MAKING THINGS EASIER





Transfer from iPhone Transfer directly so this iPhone will be ready with your data when you finish setting up. Time to transfer: 5-10 minutes



Download from iCloud You can start using your iPhone in about 15 minutes. Your data will download later over Wi-Fi.



And we are at the forefront of this acceleration

O TO 18M eSIM ACTIVATIONS IN 3 YEARS







# TRUPHONE

IF NOT

NO

Visit us at Stand 5A32, Hall 5





## Unleash the power of eSIM

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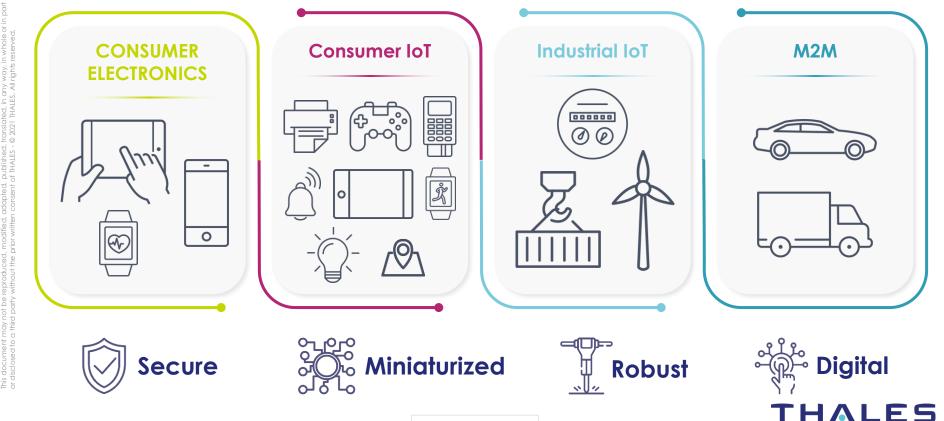


### Unleash the power of eSIM

eSIM summit at MWC 22



## Multiple devices types need connectivity



63

Building a future we can all trust

## The IoT market needs



Building a future we can all trust

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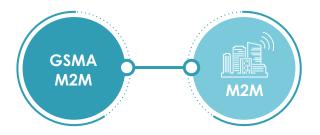
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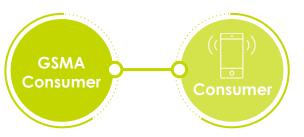
### IoT dilemma: How to boost cellular connectivity for IoT devices?

65



#### GSMA M2M

- > Offers fleet management
- > Deployment can be seen as complex



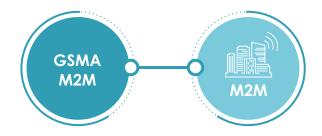
#### **GSMA** Consumer

- > Simple deployment
- Needs an End-user consent
- No fleet management



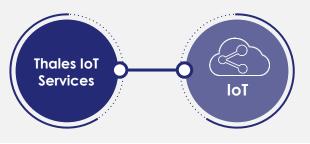
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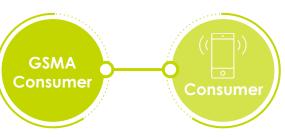
#### GSMA M2M

- > Offers fleet management
- > Deployment can be seen as complex



### Thales for IoT

- Relies on the Consumer eSIM ecosystem (SM-DP+)
- Leverages on the best of the two models Consumer & M2M



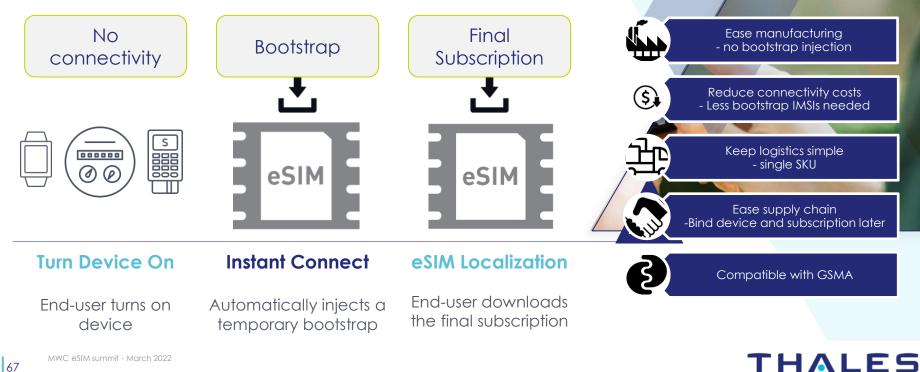
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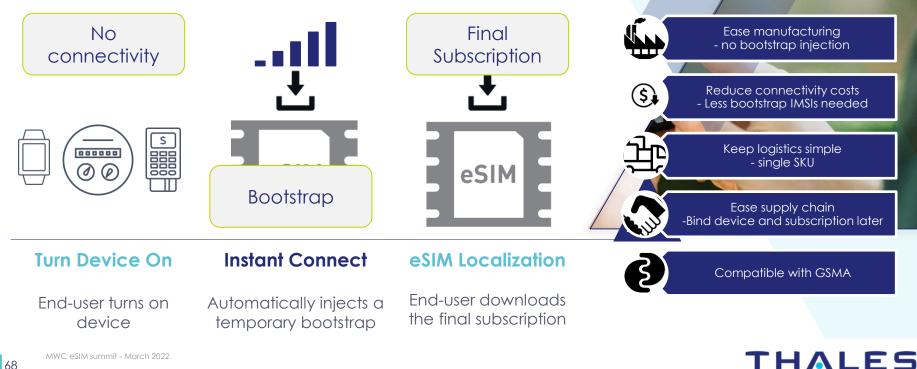
## Thales Instant Connect

Bootstrap connectivity for eSIM localization available in 186 countries with 383 roaming partners



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Bootstrap connectivity for eSIM localization available in 186 countries with 383 roaming partners



## Thales Instant Connect

Bootstrap connectivity for eSIM localization available in 186 countries with 383 roaming partners Ease manufacturing No - no bootstrap injection connectivity Reduce connectivity costs \$, - Less bootstrap IMSIs needed \$ Keep logistics simple 000000 - single SKU 1 Final Bootstrap Ease supply chain Subscription -Bind device and subscription later **Turn Device On** Instant Connect eSIM Localization Compatible with GSMA End-user downloads End-user turns on Automatically injects a the final subscription temporary bootstrap device

THALES

### "MAKE THE IOT CONNECTED WORLD A PLACE WE CAN ALL TRUST"

eSIM / iSIM Smartcard software packaged to be embedded into devices at manufacturing time

#### eSIM Cloud Platform

Service to MNOs, OEMs and SPs to remotely distribute and manage cellular subscriptions

#### **Thales Adaptive Connect**

A connectivity management service to allow enterprises to manage their IoT devices

#### **Thales Instant Connect**

Bootstrap connectivity to enable eSIM localization

#### Join us at MWC Barcelona 2022

28 February - 3 March 2022 | Hall 2 - Stand 2J30





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# Thank you

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## **Trusted Digital Telco**

# Unleash the power of eSIM to launch your digital-first brand

eSIM summit at MWC 22



## A Bigger Digital Transformation for Telco



#### **Empower** customers by providing a full service mobile app



Go **cloud-native** to reduce deployment time & cost-to-acquire and cost-to-serve Get rid of legacy IT Stack and adopt a greenfield approach

> THALES Building a future we can all trust

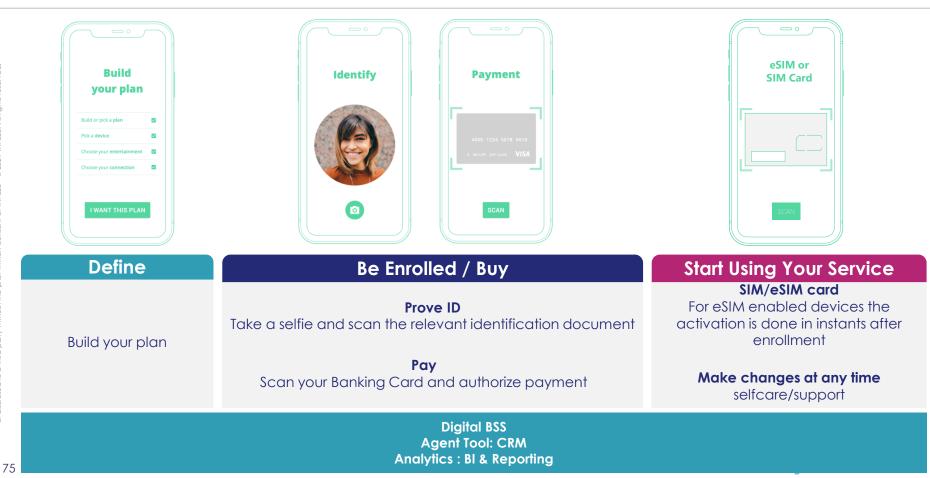
published of THALES

## Anywhere, Anytime, in a Snap!



Building a future we can all trust

## Customer Empowered to Build, Enroll and Manage His/Her Services



## One Step Ahead of the Disruptors



Building a future we can all trust



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# Thank you

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### **Closing session**











# THANK YOU

