GSMA Intelligence

Mobile devices: Trends shaping the device ecosystem in the 5G & loT era

DATE Pablo lacopino 15th 2023 **February Head of Research and Commercial Content**

GSMA Services Showcase Live #7 The value of device identification and verification

Future of mobile devices *Trends shaping the device ecosystem in the 5G & IoT era*

Proliferation of connected devices

- A growing and diverse range of devices
- For consumer and enterprise use cases
- Spurring adoption of digital services and content

New device technologies and requirements

- 5G (SA and NSA)
- eSIM and iSIM
- Al capabilities
- VoLTE
- Satellite
- Security
- Identity

Device identification and verification is more important than ever before

Changing customer behaviour

- Smartphone as a central platform
- Shift to digital and convergence of digital & real worlds
- Always connected
- Multi-device access
- Multi-subscription
- Bundling

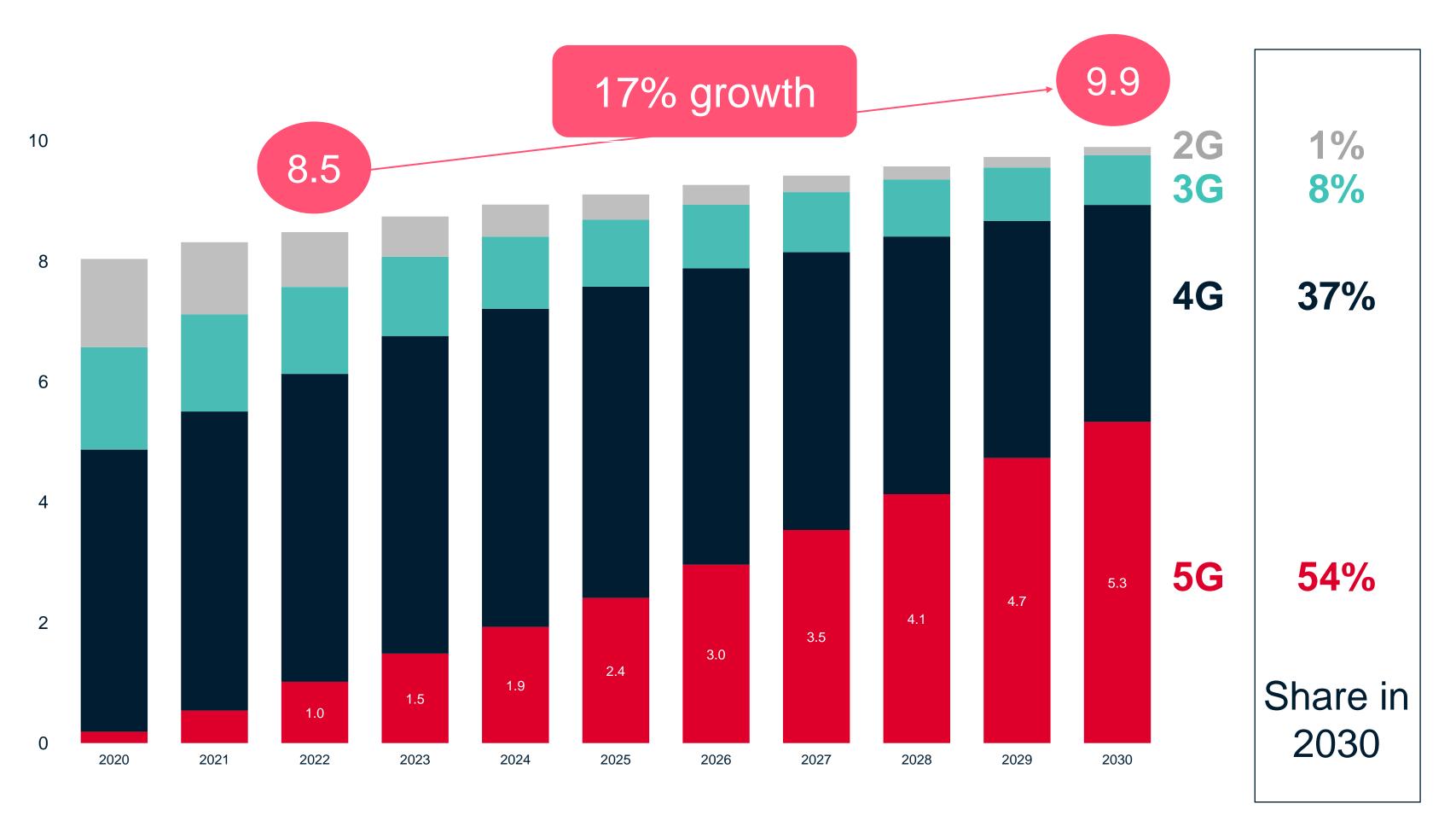




Mobile connections growth never stops 5G is now a global trend. 1.5 billion 5G connections by the end of 2023

Global mobile connections

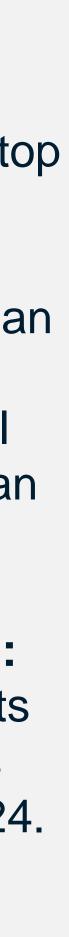
Billion, excluding IoT



Source: GSMA Intelligence

- 17% growth: 1.4 billion new mobile connections through to 2030 – this means new devices (on top of replacement)
- All eyes on 5G: more than 200 operators have launched 5G commercial services across more than 80 countries
- **5G road to mainstream:** in the 5G pioneer markets 5G adoption will surpass 4G adoption in 2023-2024. Globally in 2029

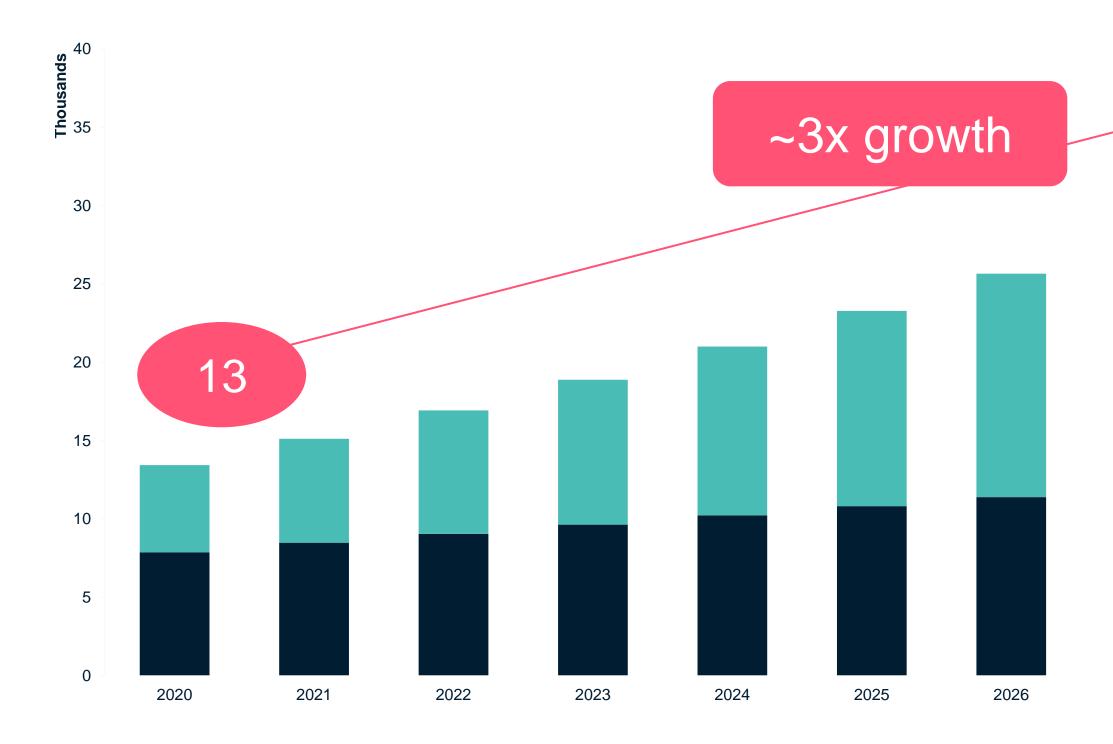




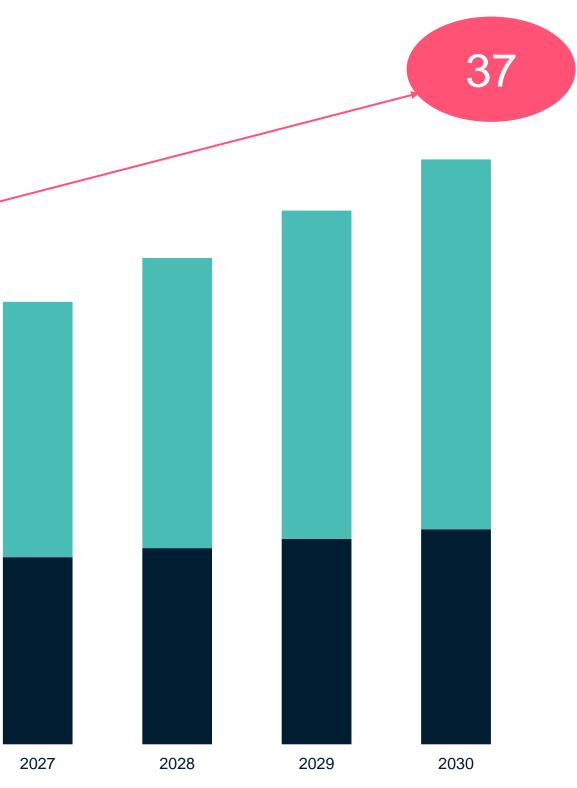


IoT market: explosion of connections and devices ~3x growth through to 2030

Global IoT connections Billion, globally



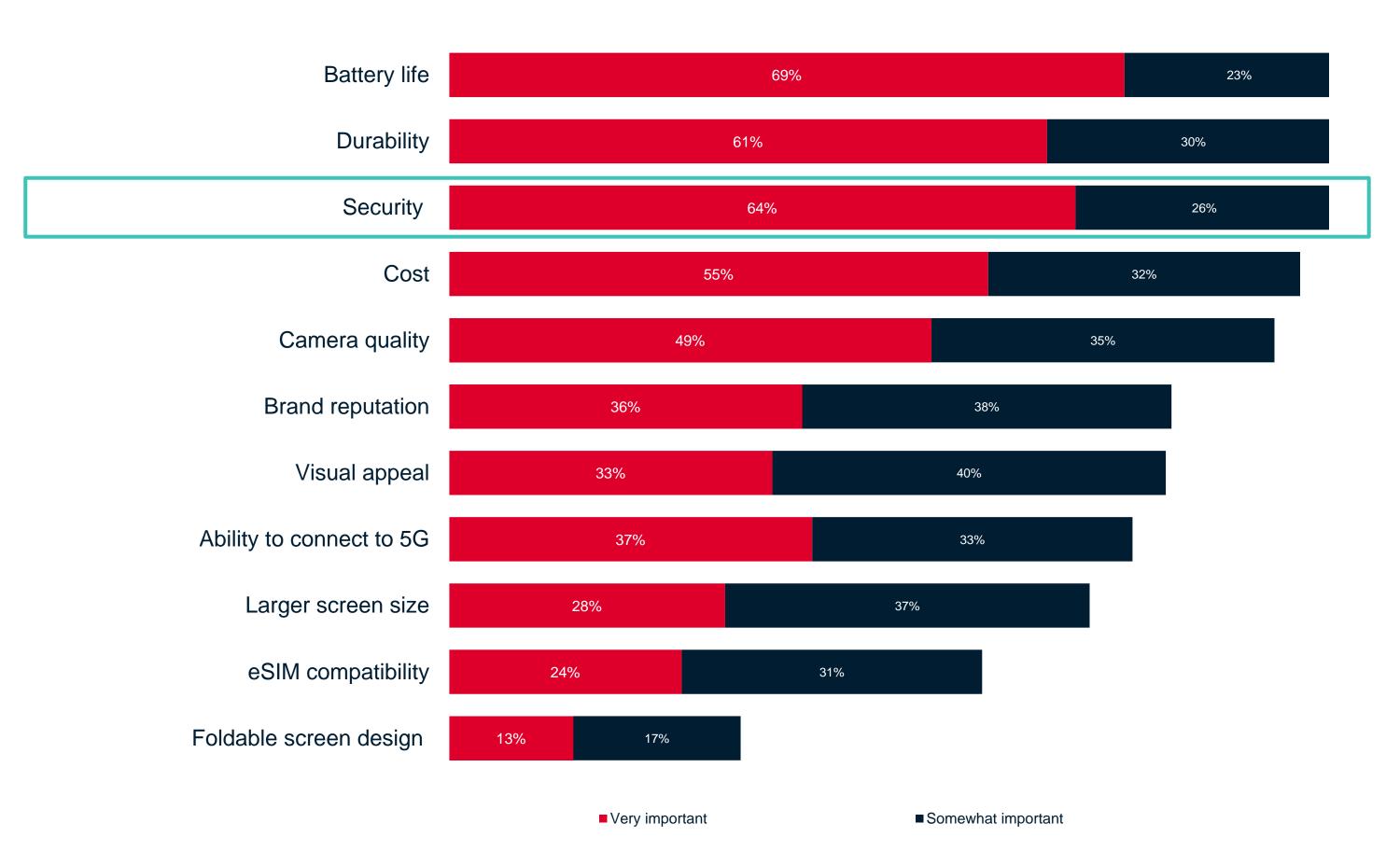
Consumer IoT Enterprise IoT



- Enterprise driving IoT growth: ~70% of IoT connections growth will come from enterprise use cases in 2022
- Consumer trends: smart home drives growth.
 Smartwatches overtaking fitness trackers
- Cellular on the rise: more than 5 billion licensed cellular IoT connections in 2030

Smartphone purchasing criteria Security in the top 3

Importance of features when choosing the next smartphone Percentage of respondents



Base: Smartphone users who intend to replace their smartphone. Aggregate figures for the 10 countries analysed (Brazil, China, France, Germany, India, Italy, Japan, South Korea, UK, US).

Source: GSMA Intelligence Consumers in Focus Survey

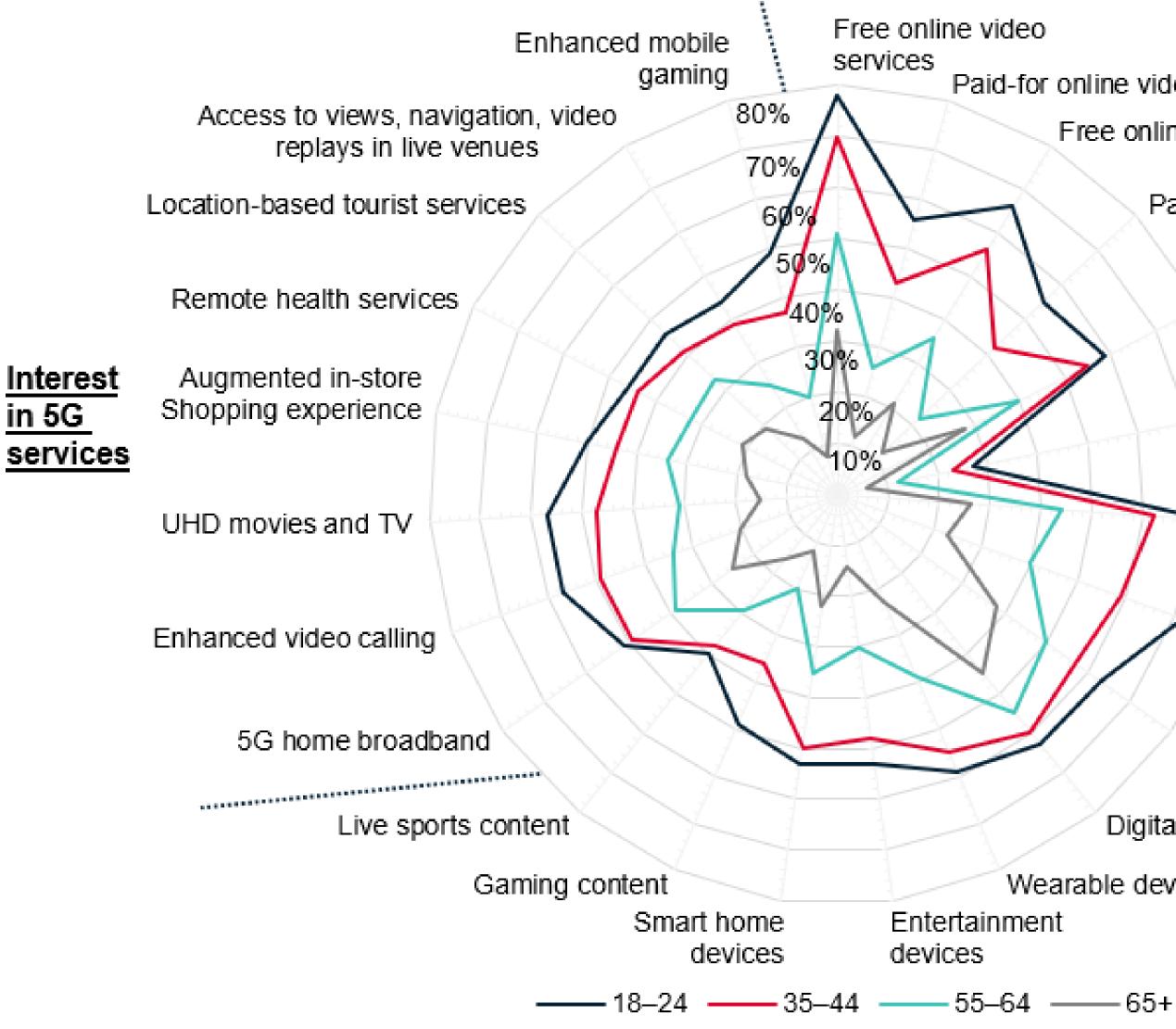
- Core features driving choices: consumers are still focusing on the fundamentals such as battery life, durability and camera quality
- Security ranks high for all age groups: growing importance of privacy, security and data protection as devices are used for the sharing of personal or sensitive data (e.g. health, financial information) or for connecting on social media, or for access to digital services



Digital services on smartphones: frequency of consumption and interest by age group

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Value for consumers shifts from hardware to services

That makes device identification and verification even more important

Paid-for online video services

Free online music services

Frequency of consumption of digital entertainment services

Interest in

services

value-added

bundled with

mobile subscriptions

Paid-for online music services

Free online games

Paid-for online games

Video streaming content

Music streaming content

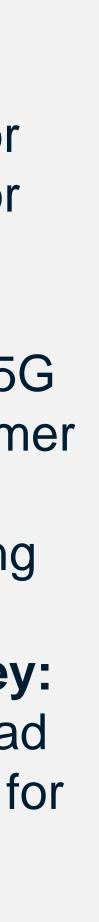
Cloud storage

Digital security services

Wearable devices

Smartphones as a central platform: for other devices and for digital services

- **5G raises the bar:** 5G brings higher consumer interest in digital services and bundling
- Segmentation is key: different lifestyles lead to different priorities for each age group





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Smartphones and beyond: device innovation continues but incremental value lies in digital services

eSIM: market progress, consumer behaviour and adoption to 2030





IoT market update: assessing disruption and opportunities, forecasting connections to 2030





About GSMA Intelligence info@gsmaintelligence.com



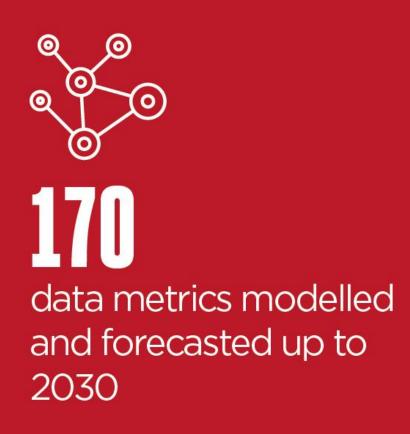
30+ analysts & industry experts





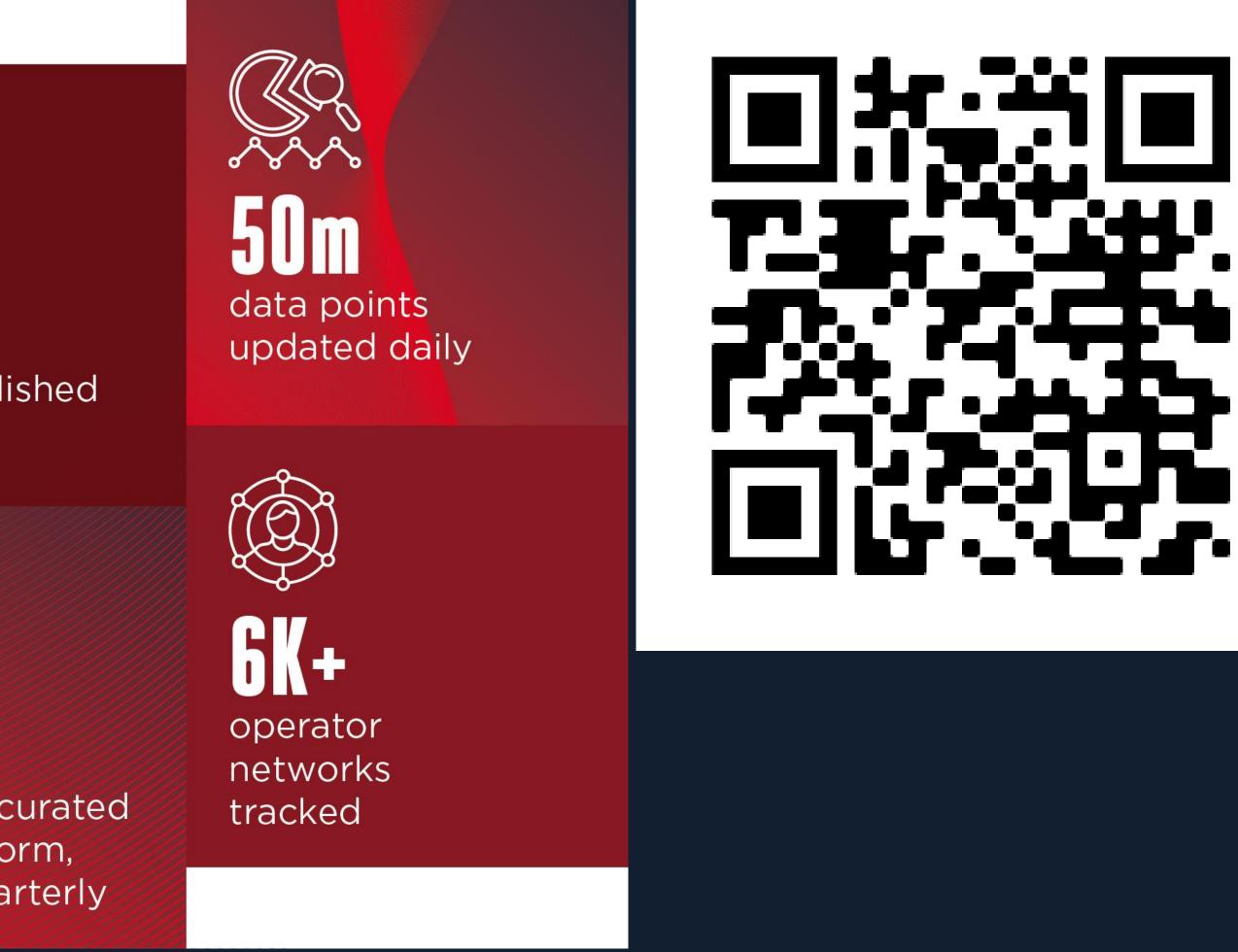
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2023 Research Themes

Operator growth strategies in the digital era

Together with connectivity and beyond connectivity

The next wave of telco network transformation

Strategy and technology priorities Balancing investments and returns

The rise of digital industries and the B2B opportunity

The role of enabling technologies The challenge of scaling deployments

A new value story for devices

Hardware innovation and digital services in support of incremental value

From hype to reality Preparing for the next big thing

The unique value of mobile for socioeconomic development

Reducing the internet usage gap Driving social and economic impact

5G acceleration in the consumer market and for FWA

Monetisation routes Scaling adoption to 1.5 billion users

The changing shape of digital entertainment

Gaming is the new video Immersive is the new end game

The emerging metaverse in practice

Spectrum for growth and impact

Optimising the use of spectrum to deliver its full potential

The sustainability imperative in full force

Advancing network and device sustainability The rise of the circular economy





THANK YOU!

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