

**Why device connectivity  
depends on network settings?**

# **Networks and Devices Market Update: Key Trends and Drivers**

DATE  
11<sup>th</sup> July 2023

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Head of Research and Commercial Content

# Mobile industry is transforming faster than ever before

*Growth and evolution of mobile devices and networks are at the heart*

- Handsets
- Tablets and laptops
- Consumer IoT devices
- XR devices
- 5G FWA CPE
- Connected vehicles
- Enterprise IoT devices and machines

**Proliferation  
of connected  
devices**

**New  
networks  
and  
capabilities**

- 5G mobile networks
- 5G FWA networks
- IoT networks
- Private networks
- Network sunsets (2G, 3G)
- VoLTE and Vo5G
- ViLTE and Vi5G
- eSIM and iSIM
- Satellite

**Network settings are essential to help OEMs, MNOs and MVNOs deliver a fast, complete and seamless user experience**

# Consumers going digital is a major force driving change

*Network settings ensure consumers get the most from digital services*

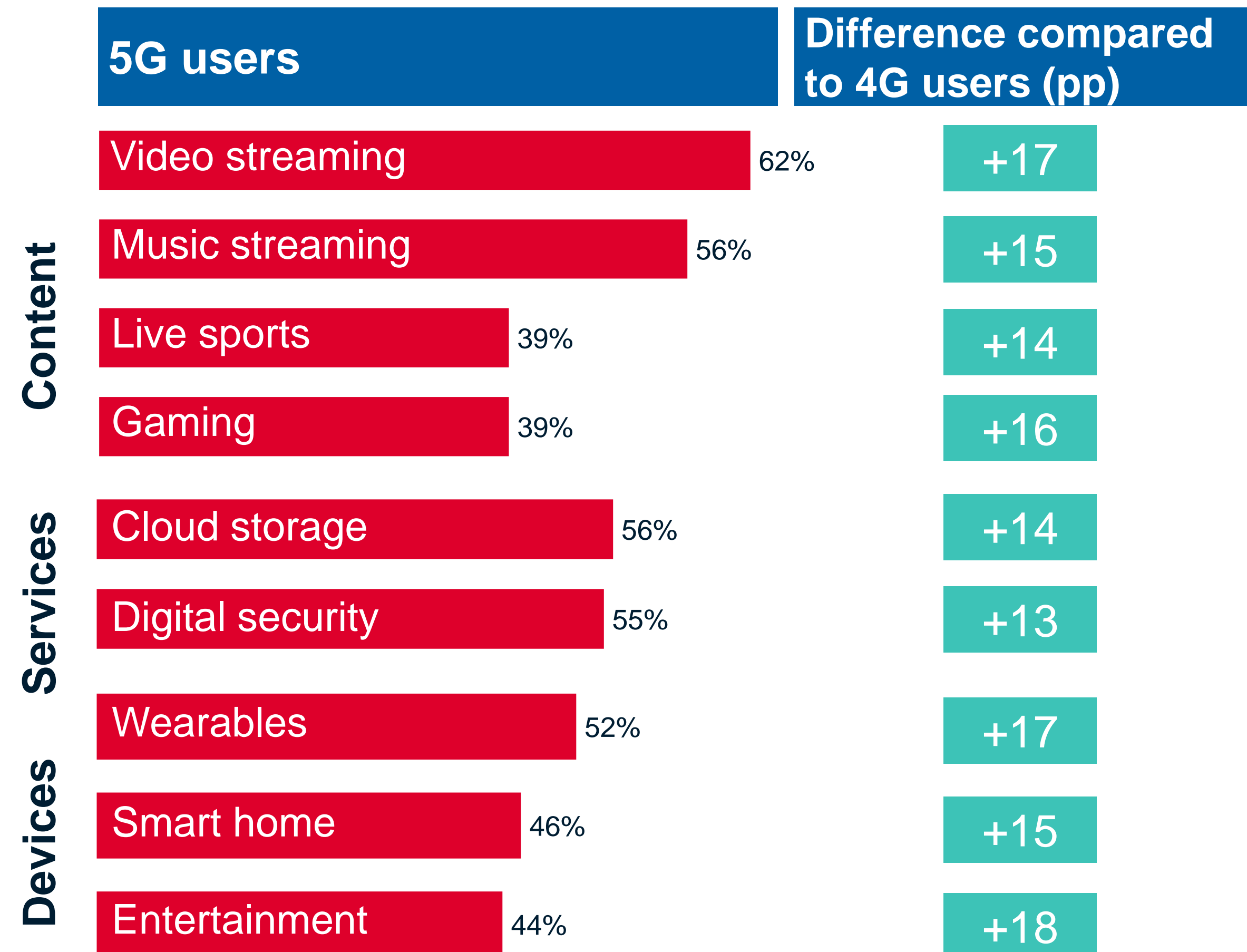
**Smartphone is the leading central platform**

**More and more subscriptions to digital services**

**Smooth and full control (via apps)**

**5G raises the bar**

## Consumer interest in adding non-connectivity offerings to their mobile subscriptions



### Consumer behaviour: comparing 5G vs. 4G users

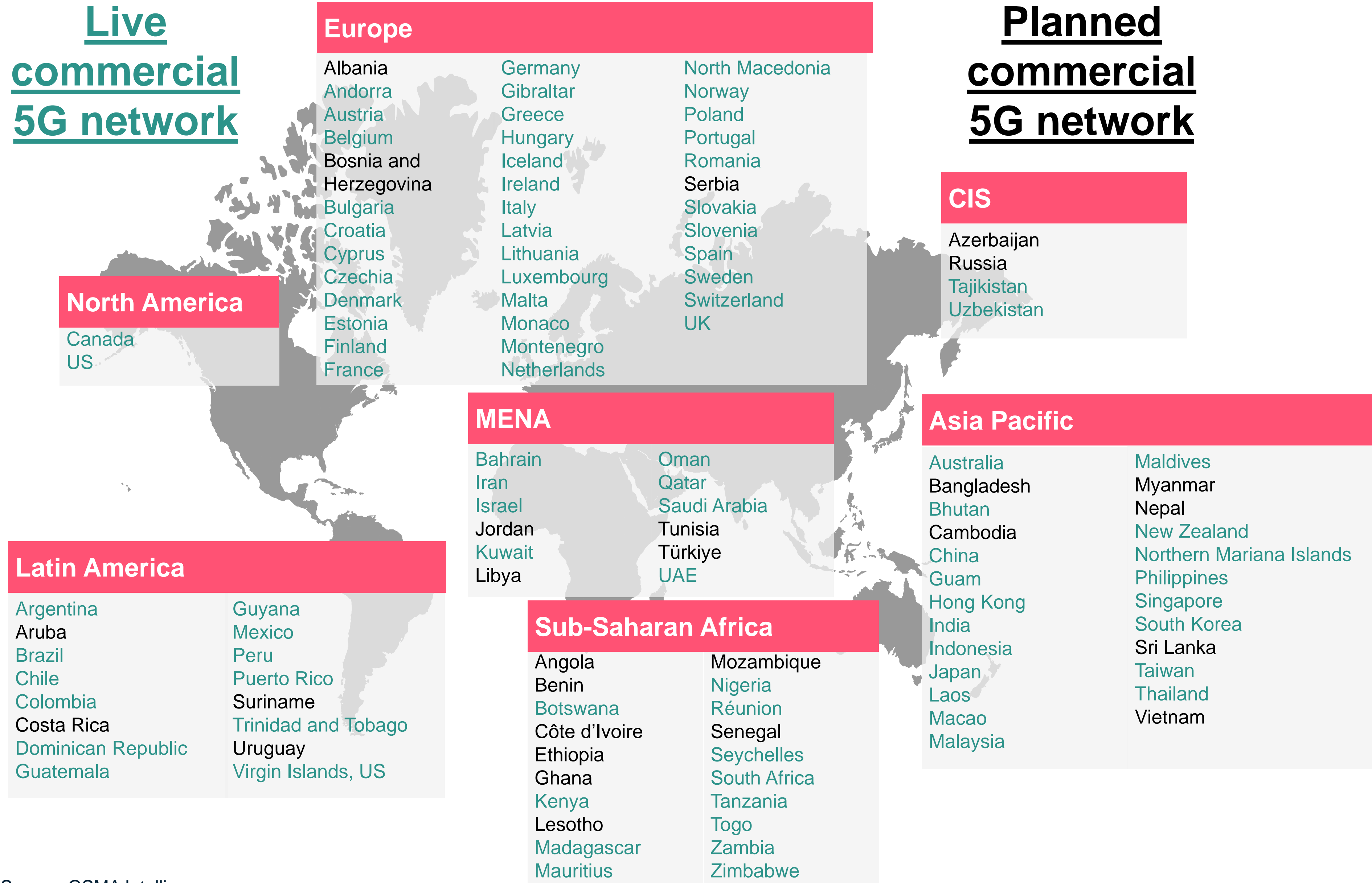
#### Key findings from our global consumer survey

- **Bundling:** 5G subscribers are more interested in adding non-connectivity offerings to their mobile subscription contracts
- **Content:** 5G subscribers make greater use of digital entertainment services (e.g. video, gaming) on their smartphones

# 5G commercialisation keeps growing

*5G is now a global trend*

## Live commercial 5G network



## Planned commercial 5G network

**As of 31<sup>st</sup> March 2023**

**228** Operators have launched mobile 5G services



**62** Operators have announced plans to launch mobile 5G services



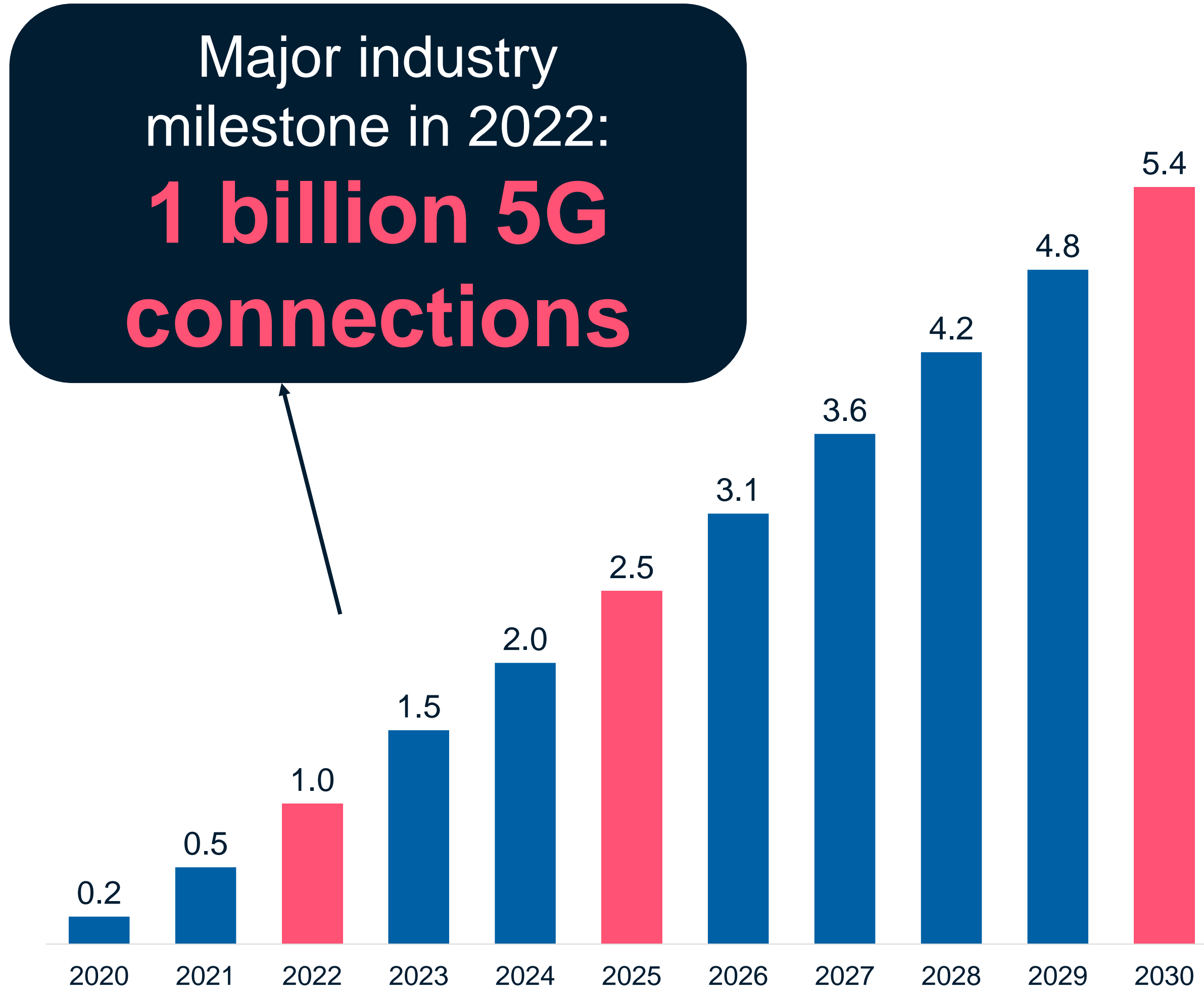
**290** Operators in total across **113 countries worldwide**

# 5G adoption is faster than that of previous networks

*Scaling beyond the first 1 billion*

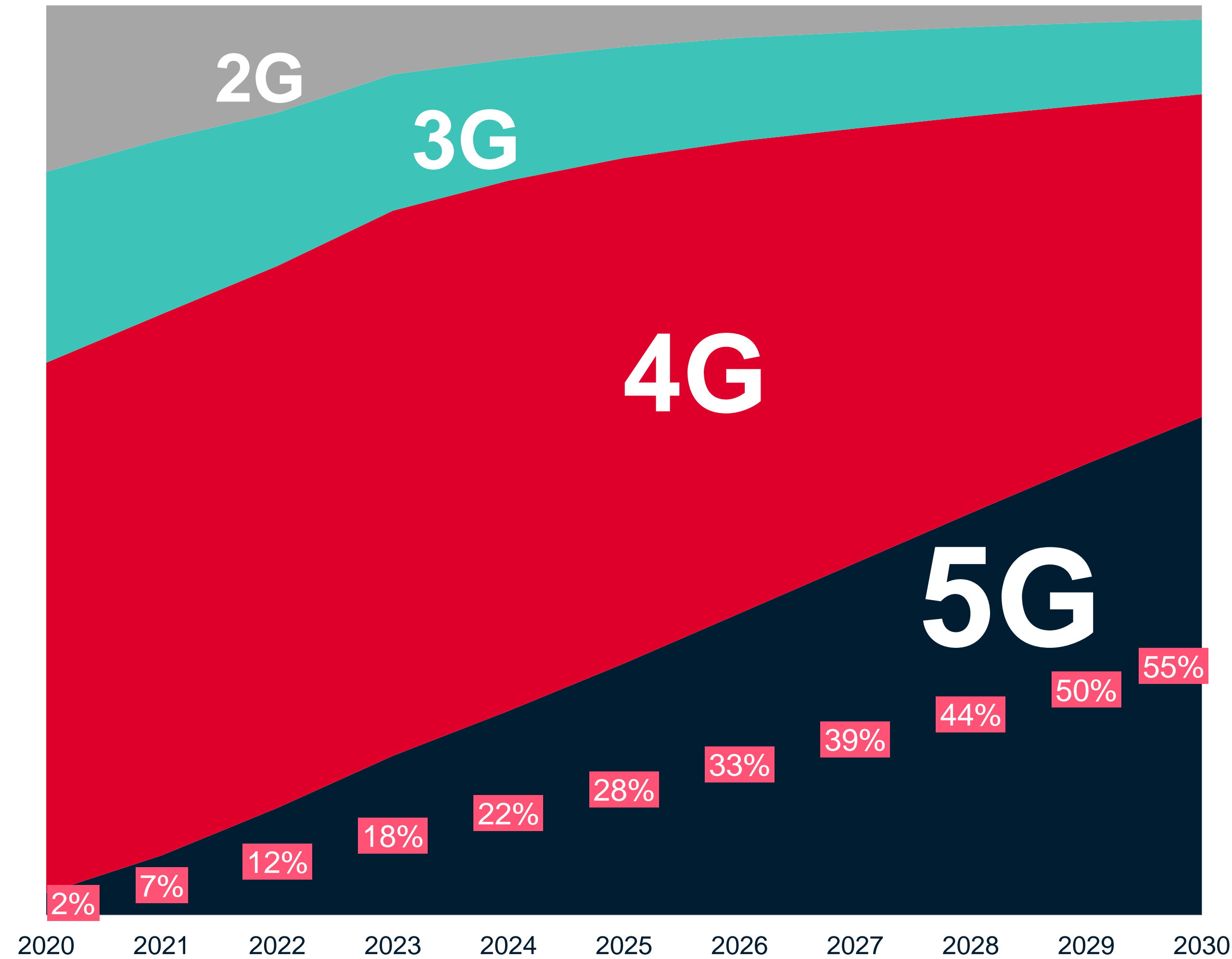
## Global 5G connections

Billion\*



## 5G share of mobile connections

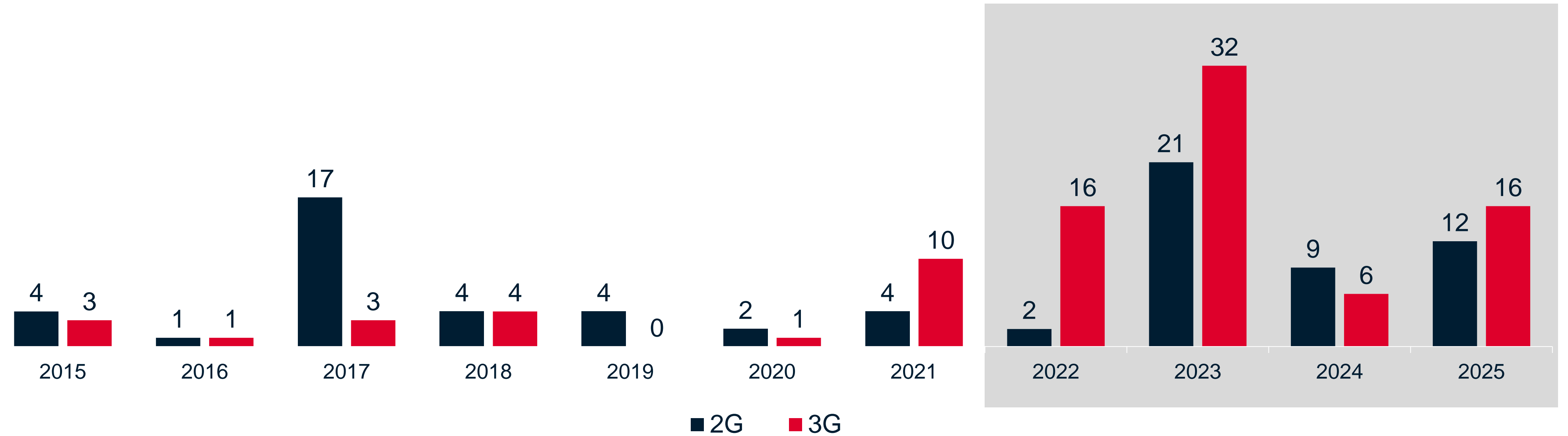
Globally\*



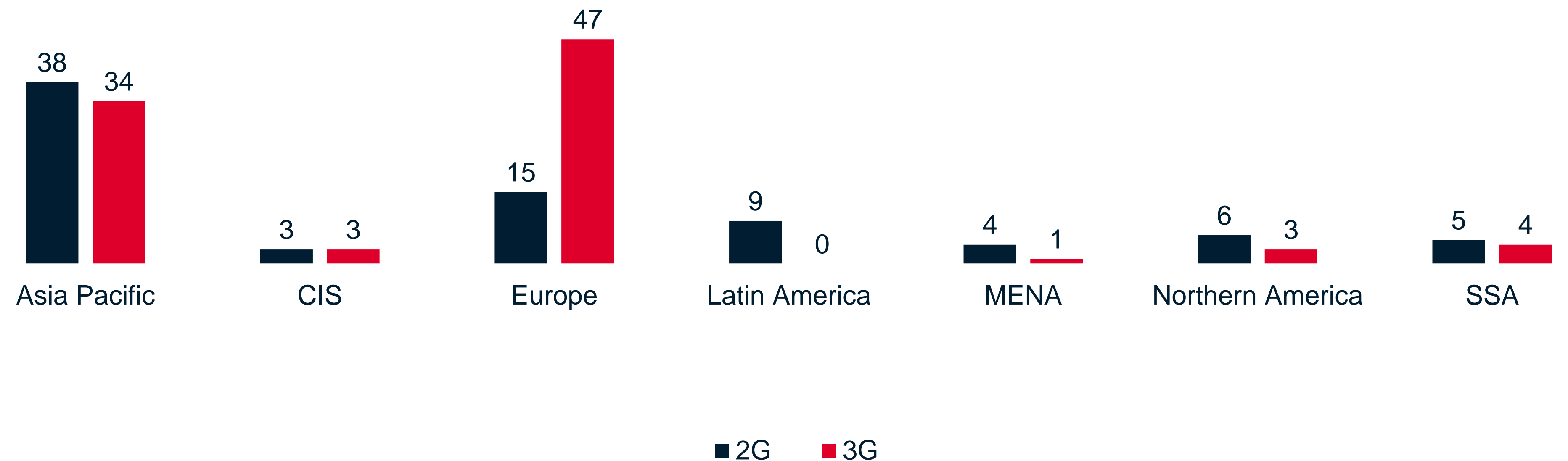
# The arrival of 5G has accelerated network sunsets

*3G shutdowns are more popular than 2G shutdowns*

## 2G and 3G network sunsets (globally)



## Completed and planned sunsets, by region (2015–2025)

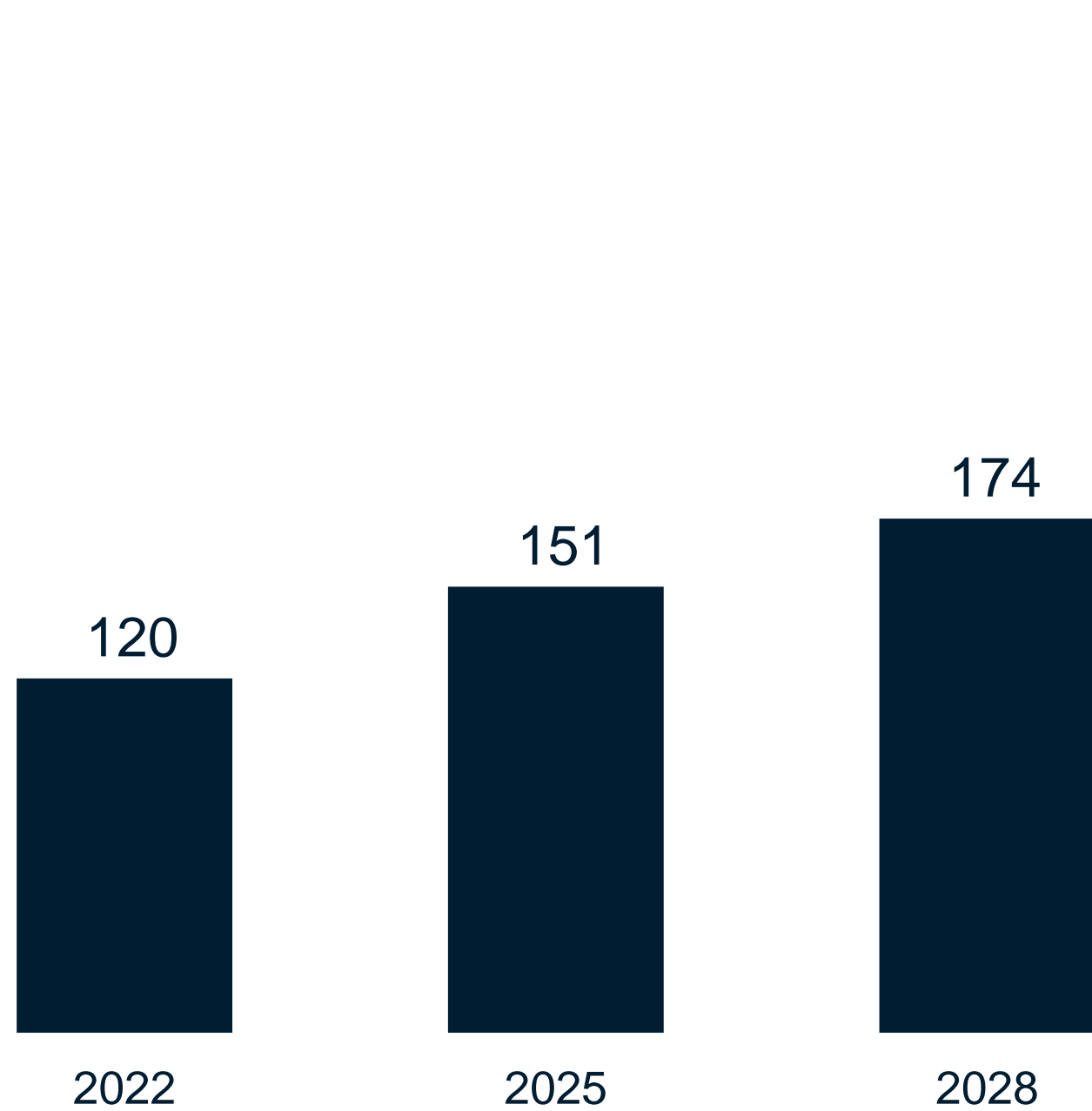


# 5G and network sunsets are driving VoLTE/Vo5G up

*Voice and video going over 4G and 5G*

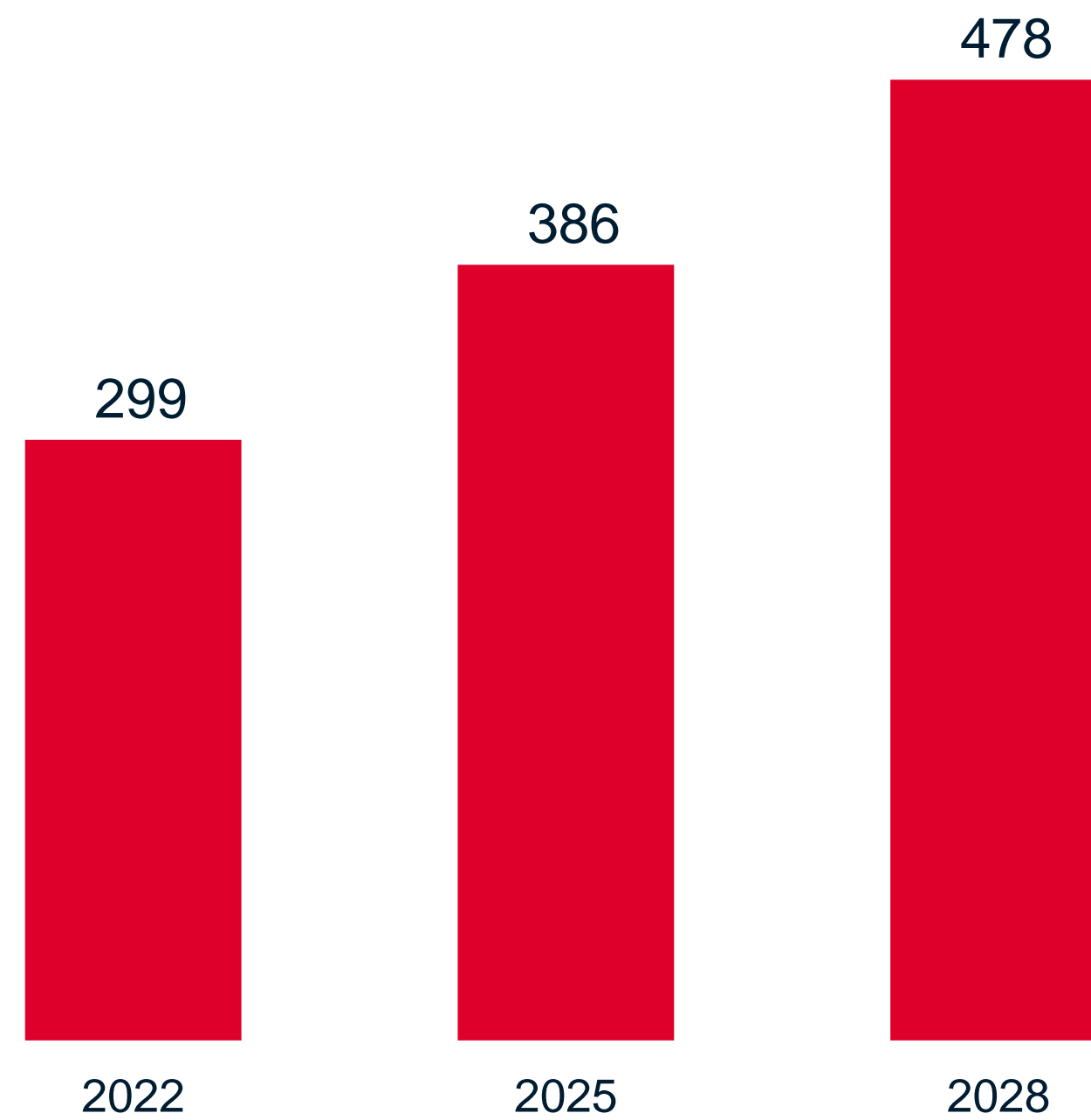
**Number of countries providing VoLTE service (including Vo5G) – Globally**

## COUNTRIES



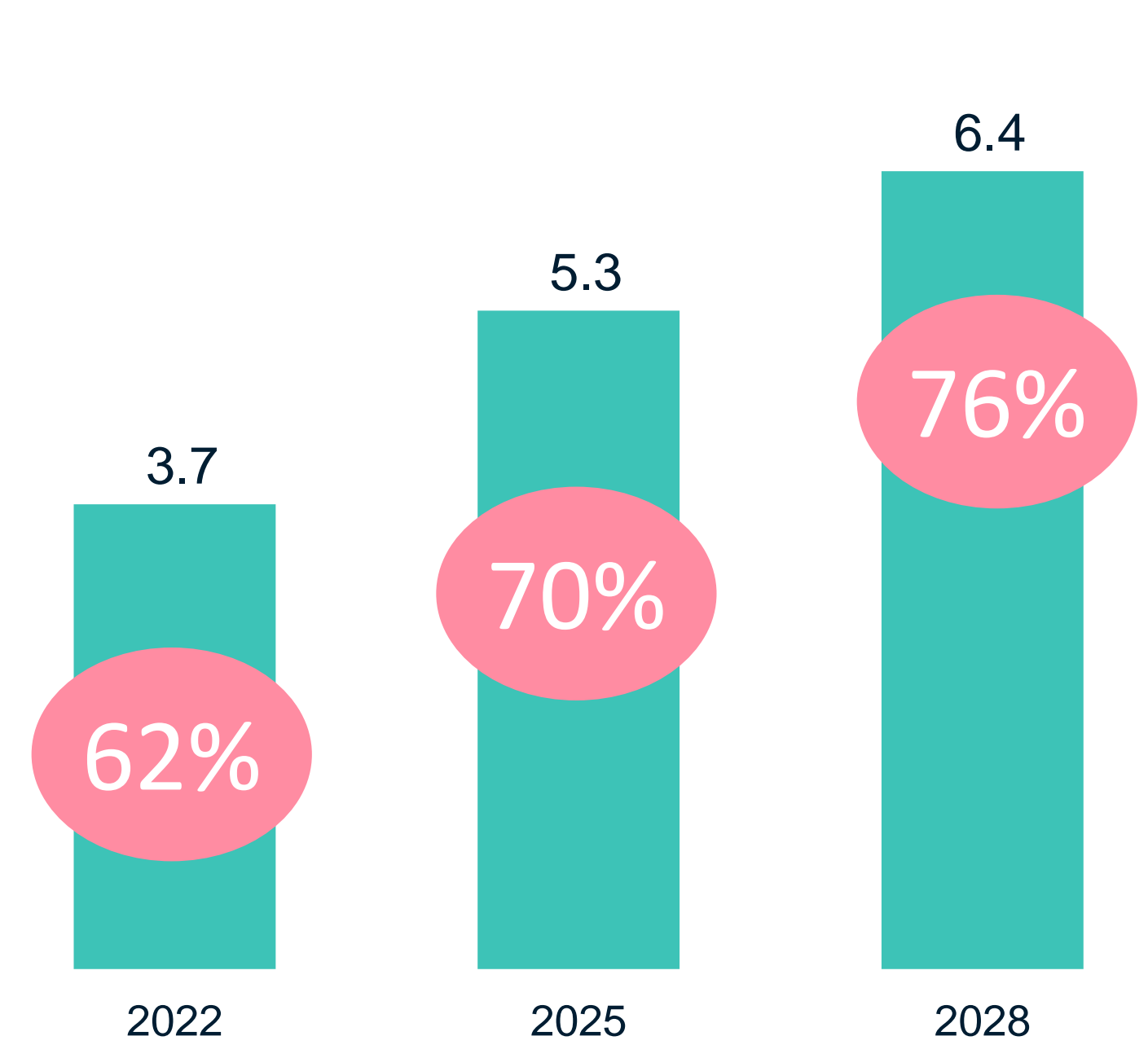
**Number of MNOs providing VoLTE service (including Vo5G) – Globally**

## MNOs



**Number of VoLTE connections (including Vo5G) – Globally, billion**

## CONNECTIONS



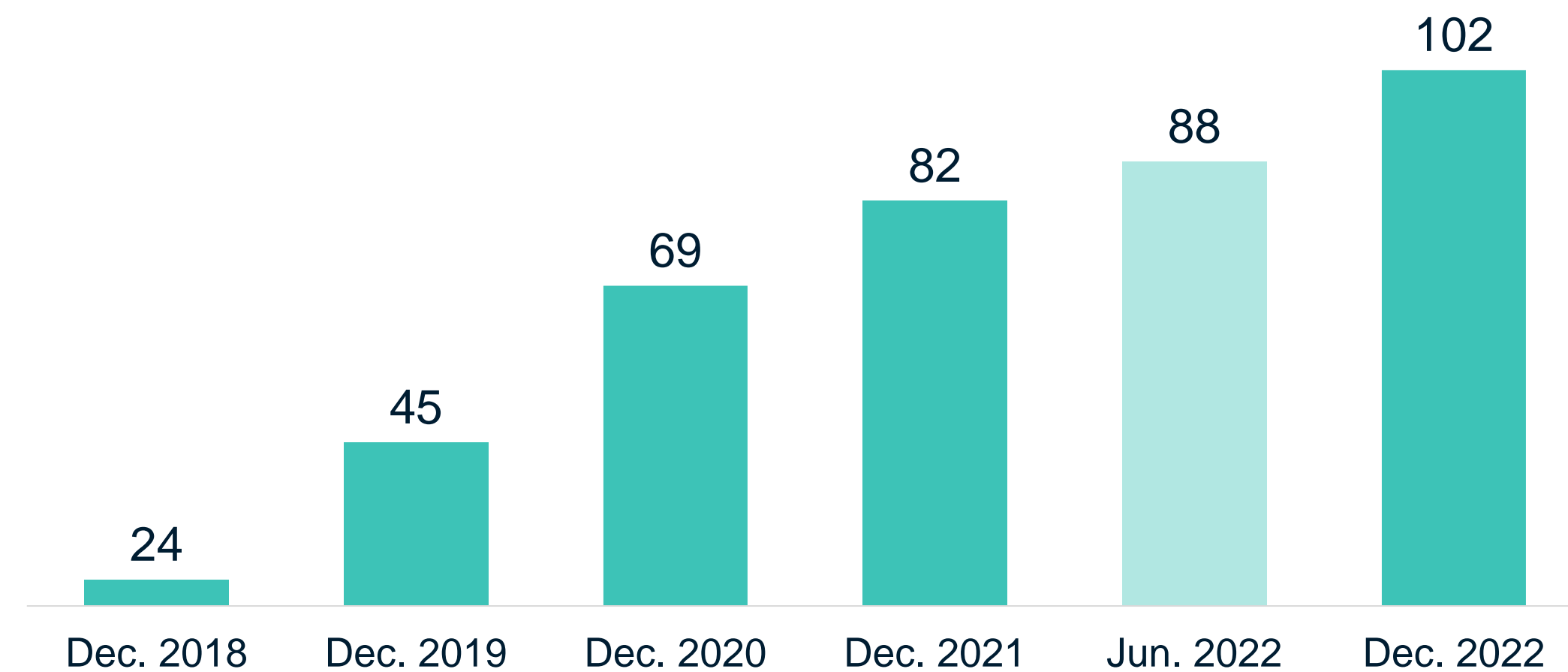
VoLTE connections as % of 4G+5G connections

# eSIM is now mainstream...and global

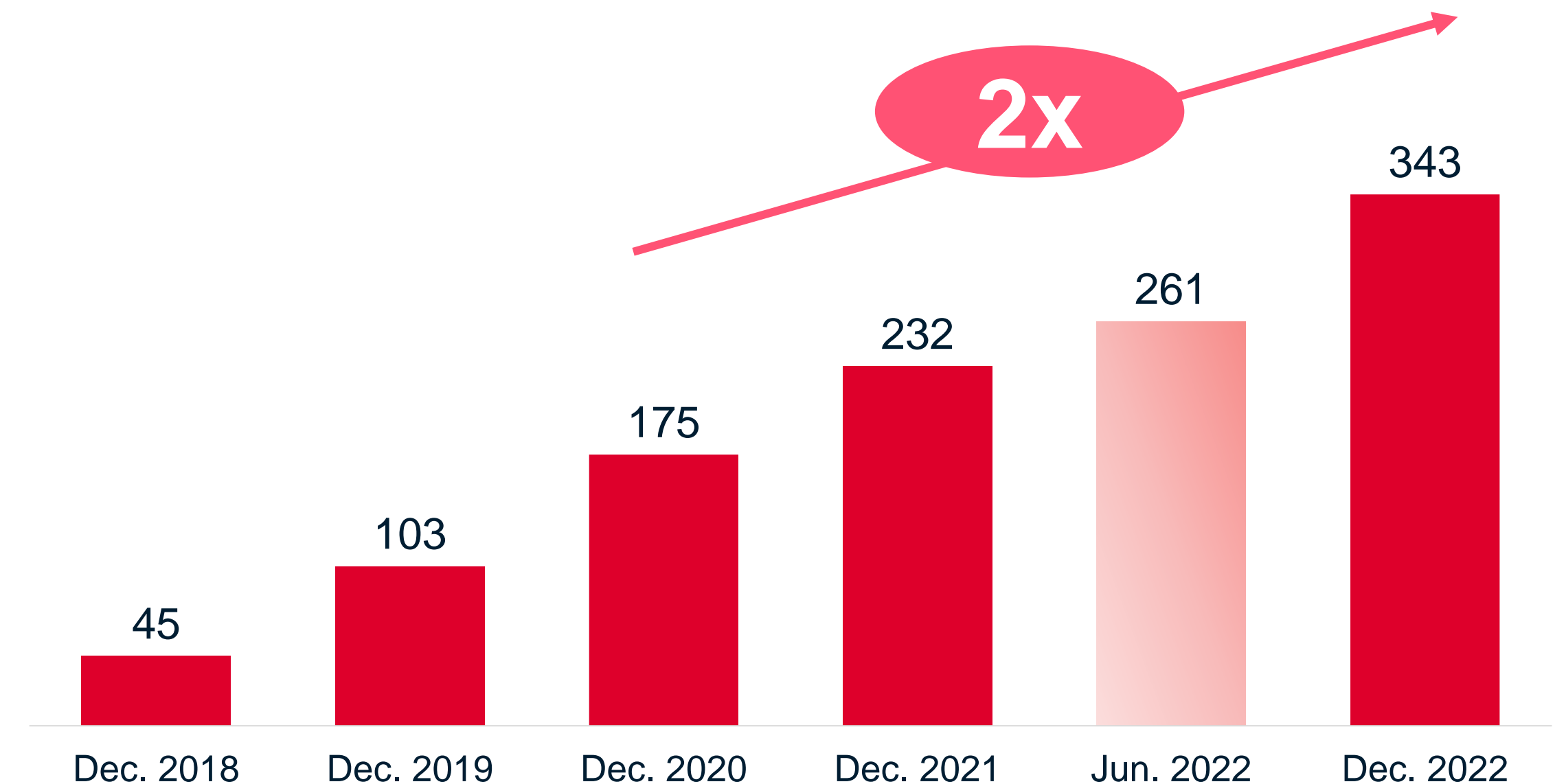
*Momentum is accelerating: eSIM-only smartphones a major milestone*

## Commercial availability of eSIM service for smartphones

### Number of countries



## Number of mobile service providers (MNOs and MVNOs) offering commercial eSIM service for smartphones

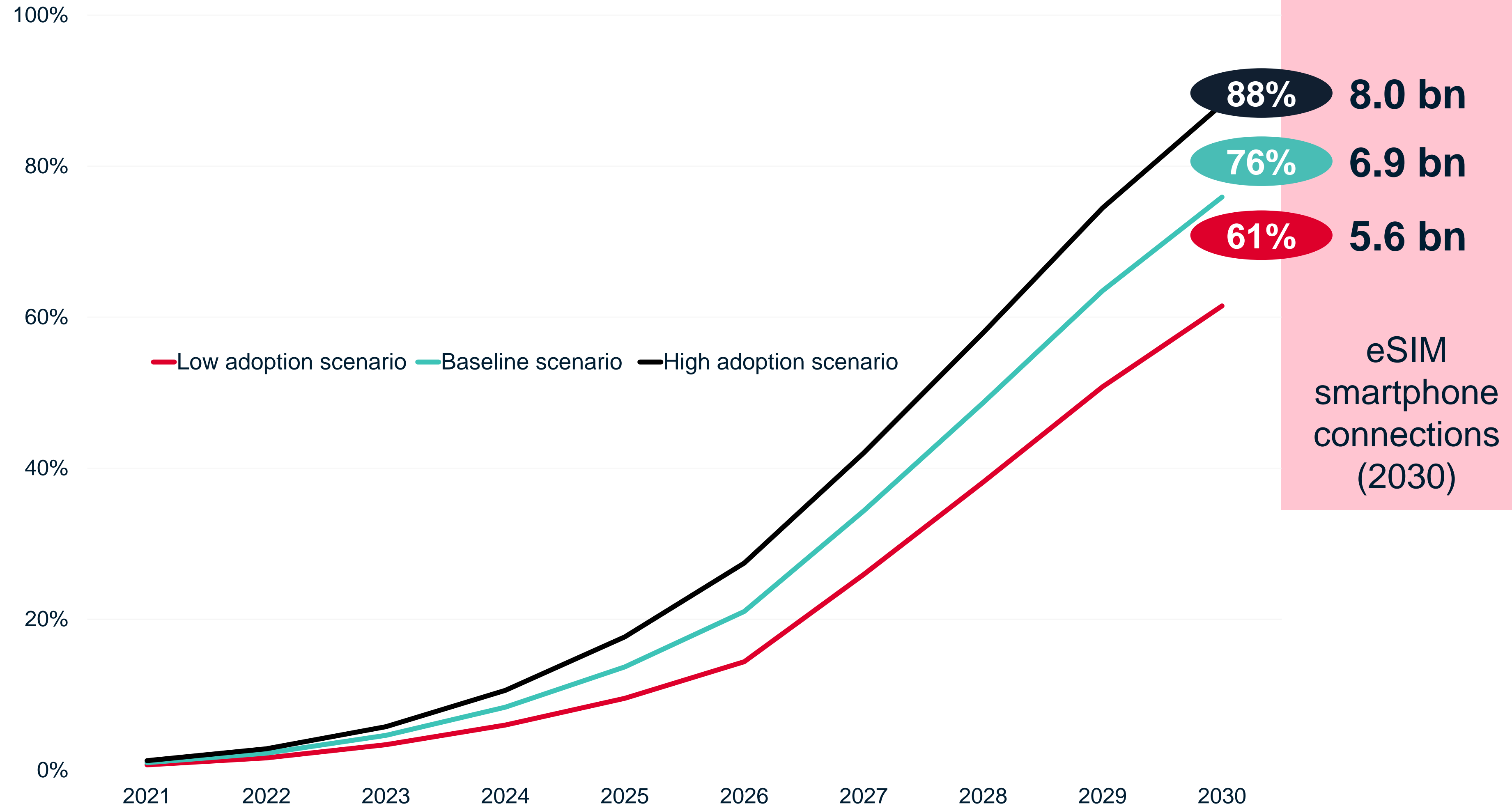


**eSIM-only effect:** eSIM commercialisation has accelerated after the launch of eSIM-only iPhones in the US in Sept. 2022



## eSIM smartphone connections to 2030

Percentage of total smartphone connections (installed base) globally



### Key milestones: Baseline scenario (globally)

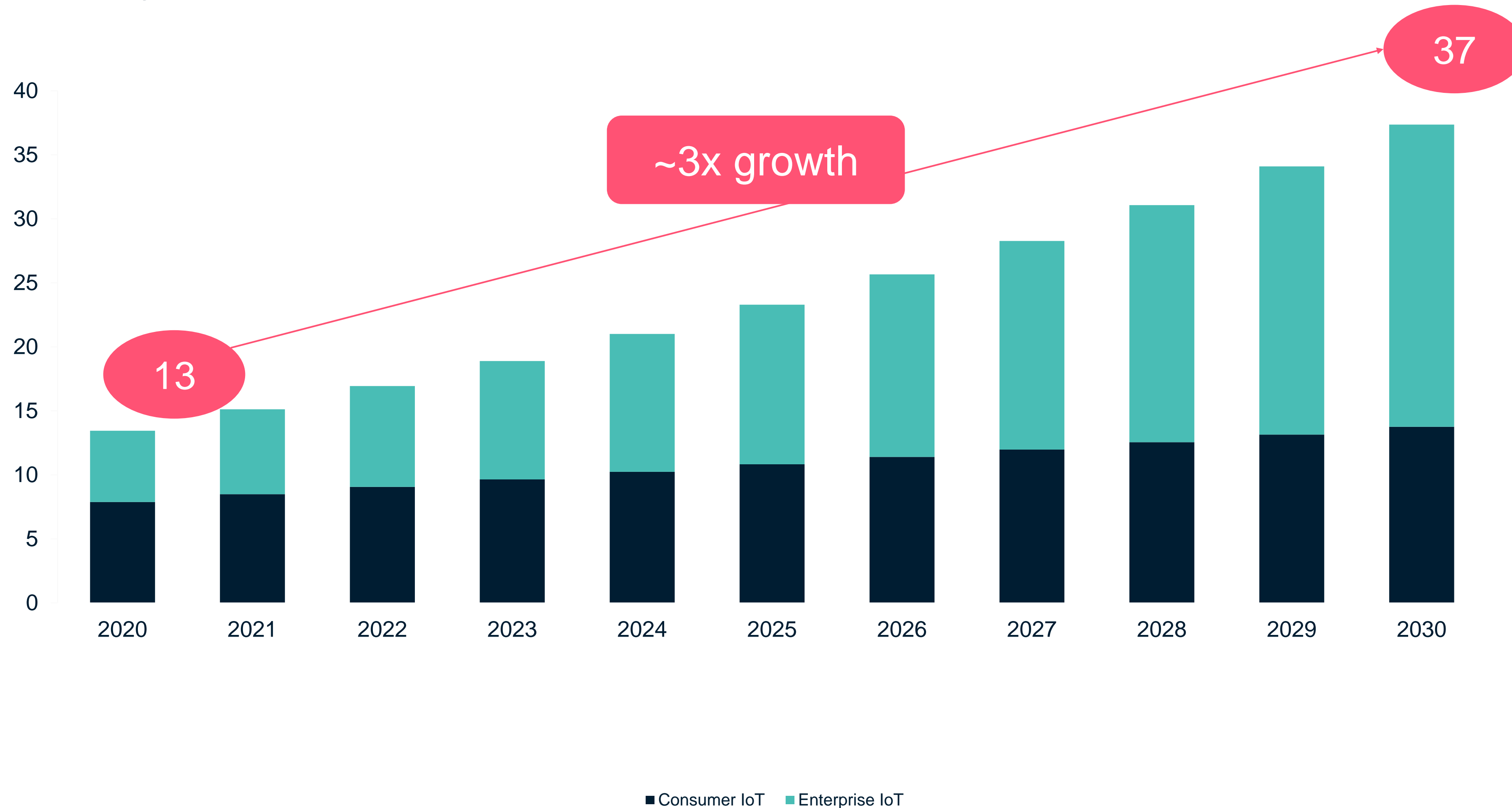
- **1 billion** eSIM smartphone connections by **2025**
- By 2028, **half** of smartphone connections will use eSIM
- North America will be leading by far (**eSIM-only effect**). Europe follows

eSIM  
smartphone  
connections  
(2030)

*~3x growth through to 2030*

## Global IoT connections

Billion, globally



- **Enterprise driving IoT growth:** across all vertical sectors
- **Consumer trends:** smart home drives growth. Smartwatches overtaking fitness trackers
- **Cellular on the rise:** nearly 6 billion licensed cellular IoT connections by 2030

## Enterprise demands for Private Networks

**22%**

of enterprises deploying or planning to deploy IoT solutions require location-specific network coverage (i.e. a factory or campus)

of which **88%**

have invested or are likely to invest in a private network for that location

## Trends in Private Networks deployments

- **Network vendors and operators are the main contractors so far...but new players are emerging**
- **4G was the leading network tech in the early days; 5G is now taking the lead**
- **Industrial sectors lead...but there are deployments in all sectors of the economy**

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**30+**

analysts &  
industry experts



**44K+**

users  
worldwide



**150+**

reports published  
annually



**50m**

data points  
updated daily



**350**

data metrics  
tracked



**170**

data metrics modelled  
and forecasted up to  
2030



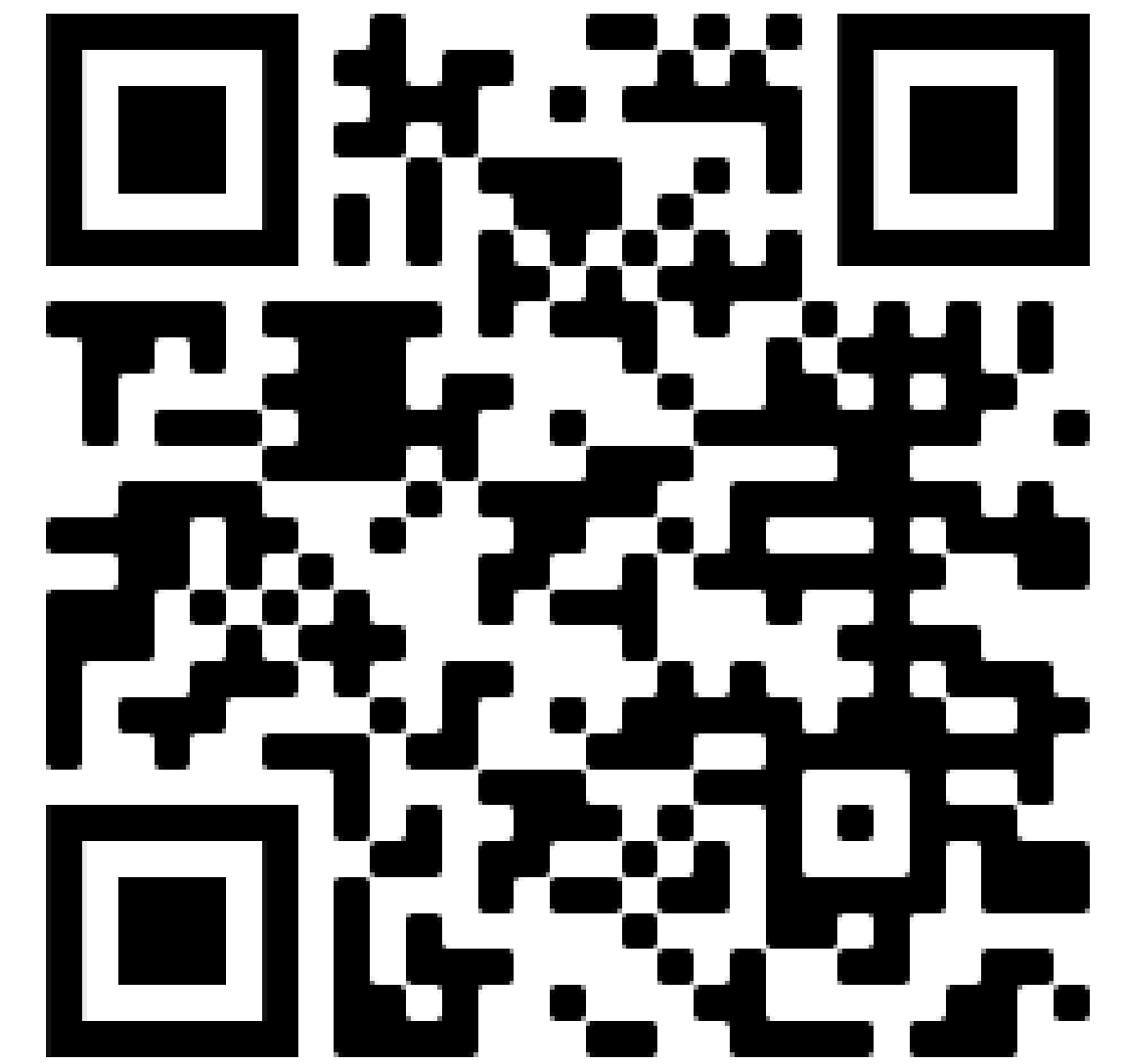
**2k+**

news items curated  
on our platform,  
updated quarterly



**6K+**

operator  
networks  
tracked





# THANK YOU!

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**Intelligence**