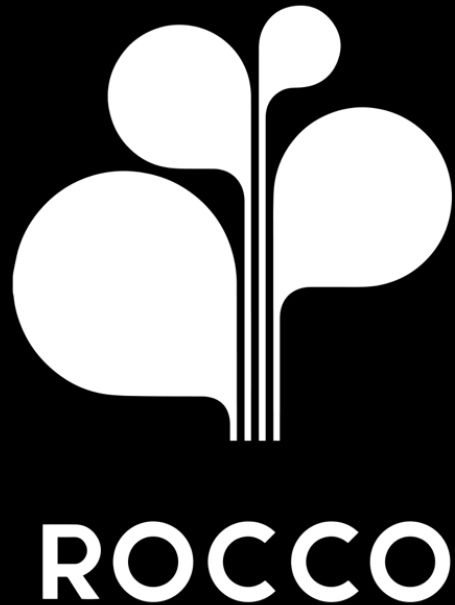


WAS#10  
VoLTE & 5G ROAMING  
ROUNDTABLE

October 28, 2019 | Valencia, Spain





# VoLTE and 5G – A TRANSITION BETWEEN GENERATIONS

Dhiraj Wazir, ROCCO  
Strategy

# ABOUT ROCCO



## BACKGROUND

- ROCCO is 7 years old.
- We are a team of 8, spread over Spain, UK, Italy, Hong Kong and the USA.



## VISION

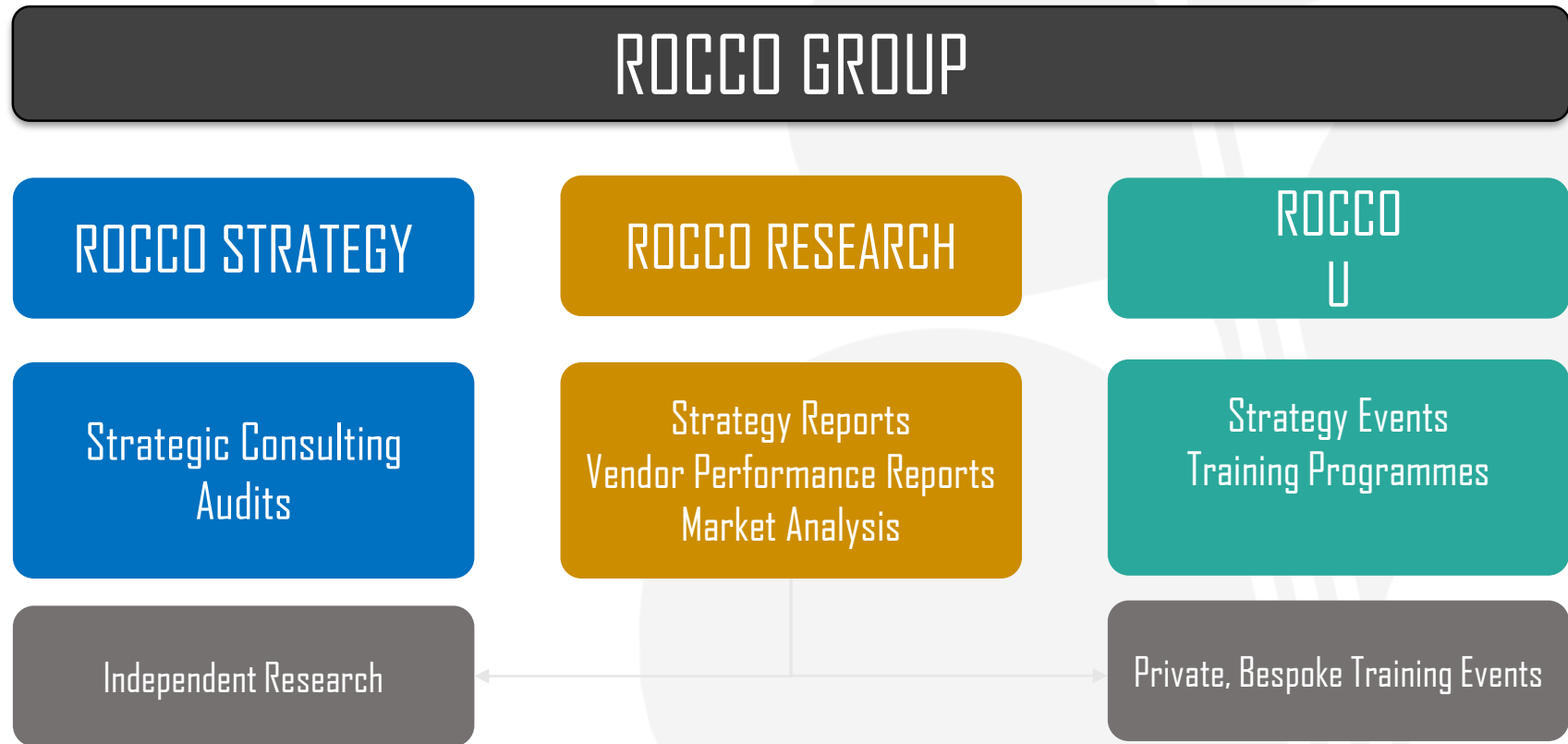
- To be a Team with Enterprises, MNOs and Vendors.
- To **Innovate and Inspire** the Industry with Strategic Insights.
- To help reach the truth about where we are and where we are going.



## ETHICS

- Strong trusted Engagement with MNOs (500 per year) and with Enterprises (200+ per year).
- We are neutral.
- We don't have sponsors for our research.

# INTRODUCTION





ROCCO

# ROCCO RESEARCH

ROCCO™ 2019

# END TO END PROCESS



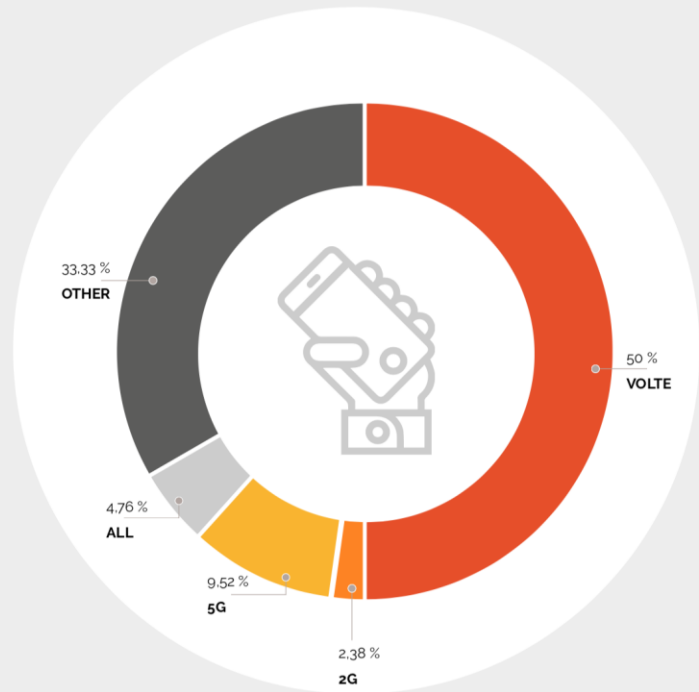


# THE DECOMMISSIONING CONUNDRUM

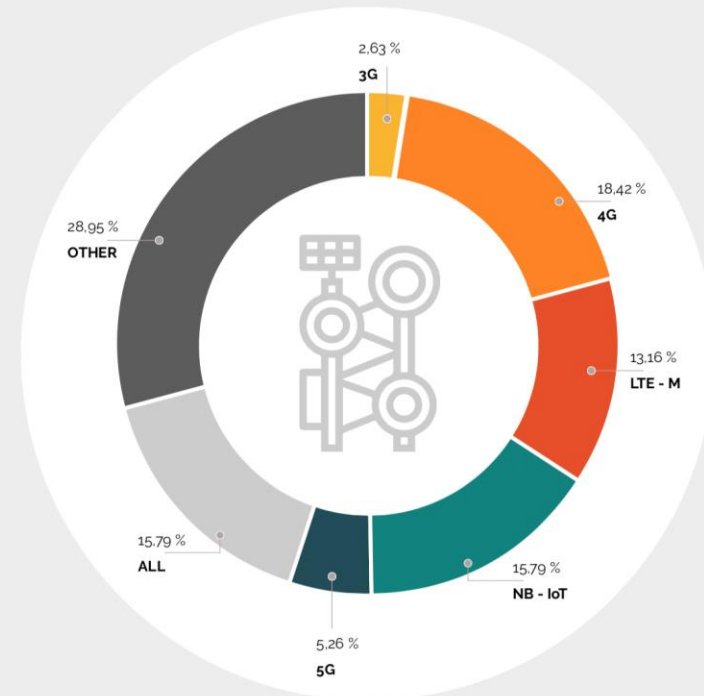
ROCCO™ 2019

# PLANS POST DECOMMISSIONING

## VOICE SERVICE CONTINUITY

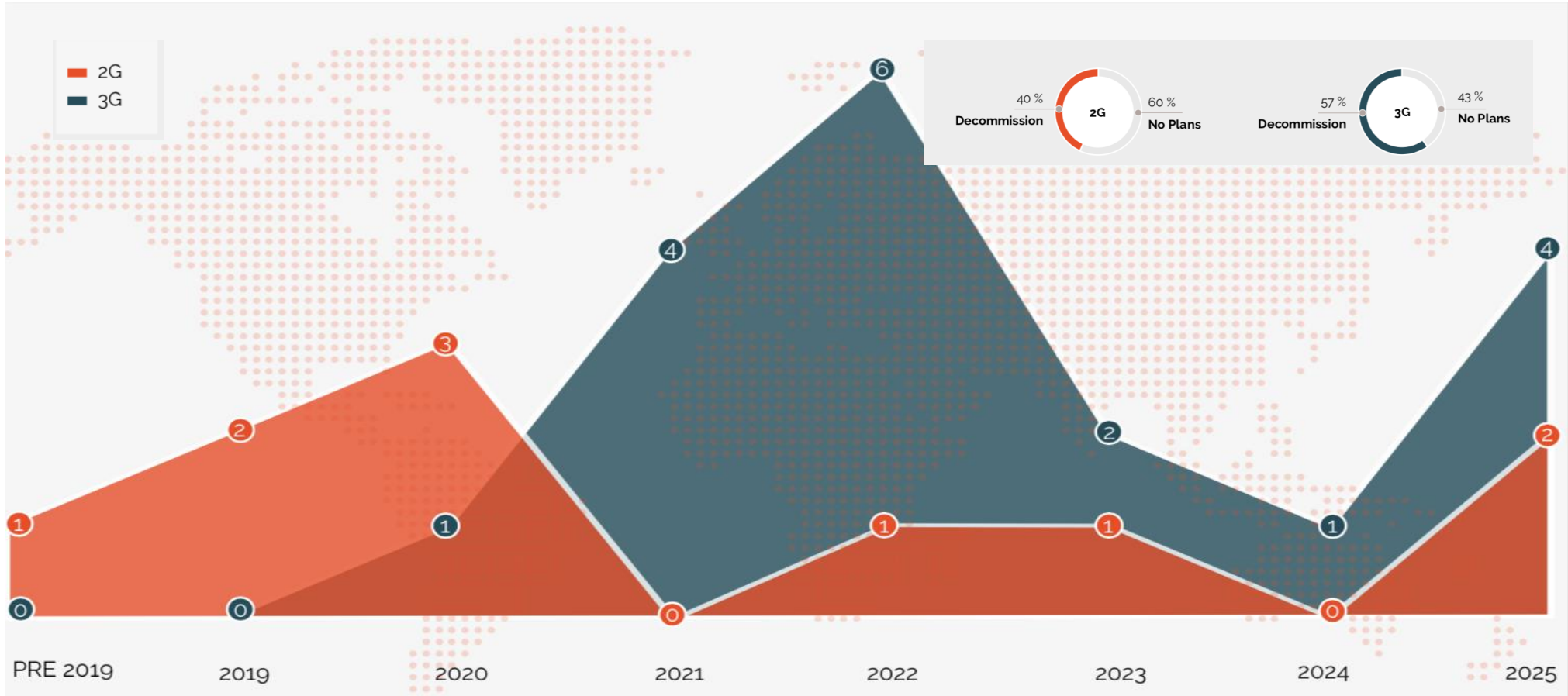


## M2M / IoT SERVICES CONTINUITY

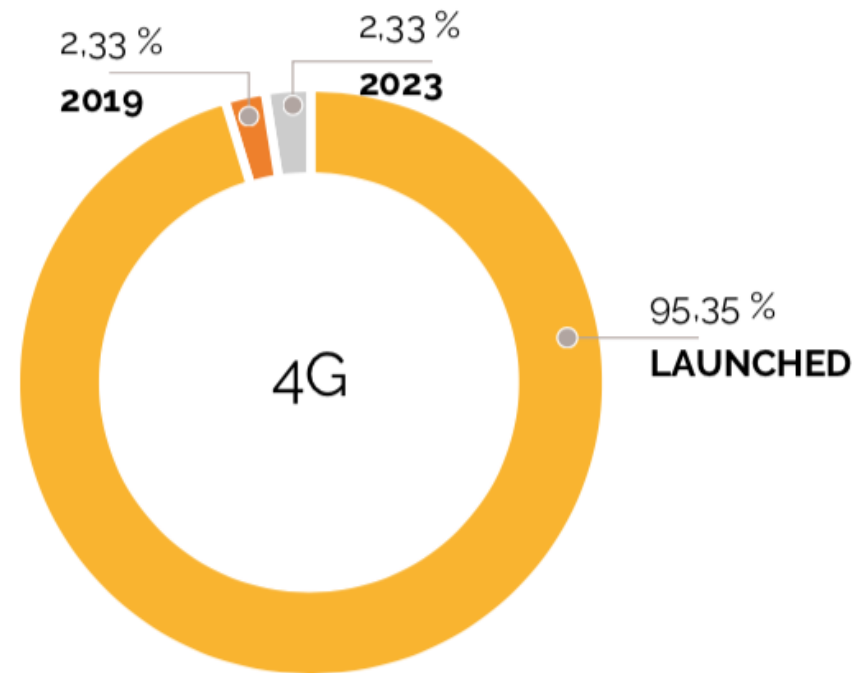
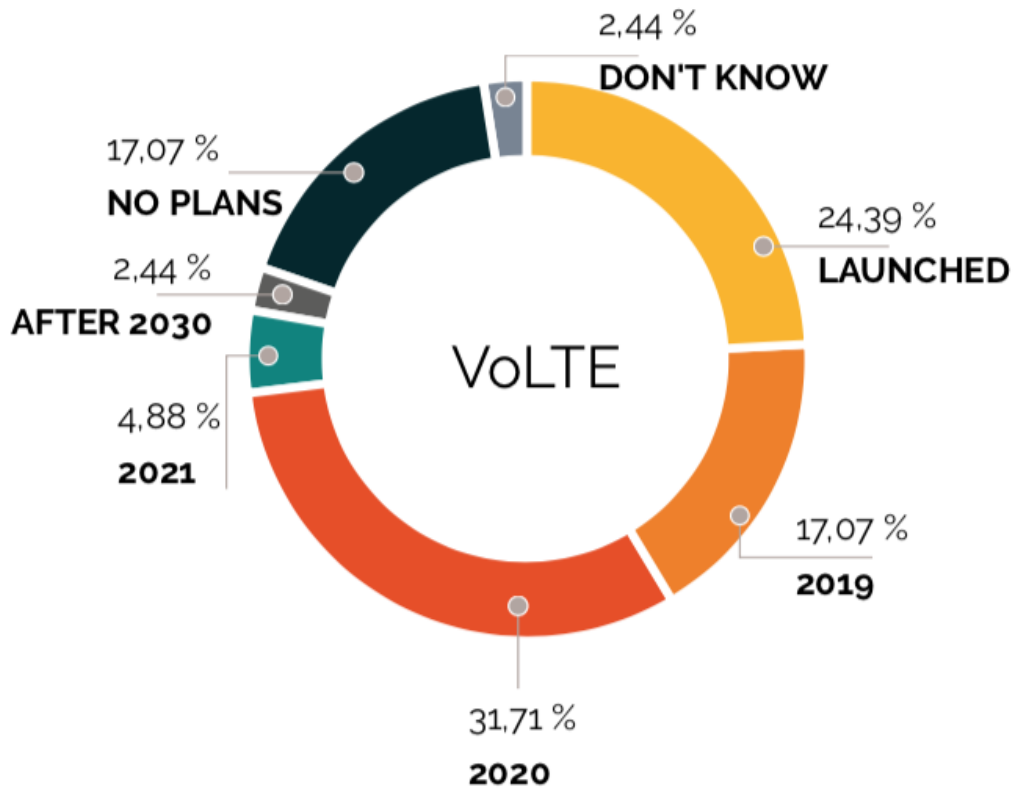




# DECOMMISSIONING ANNOUNCEMENTS



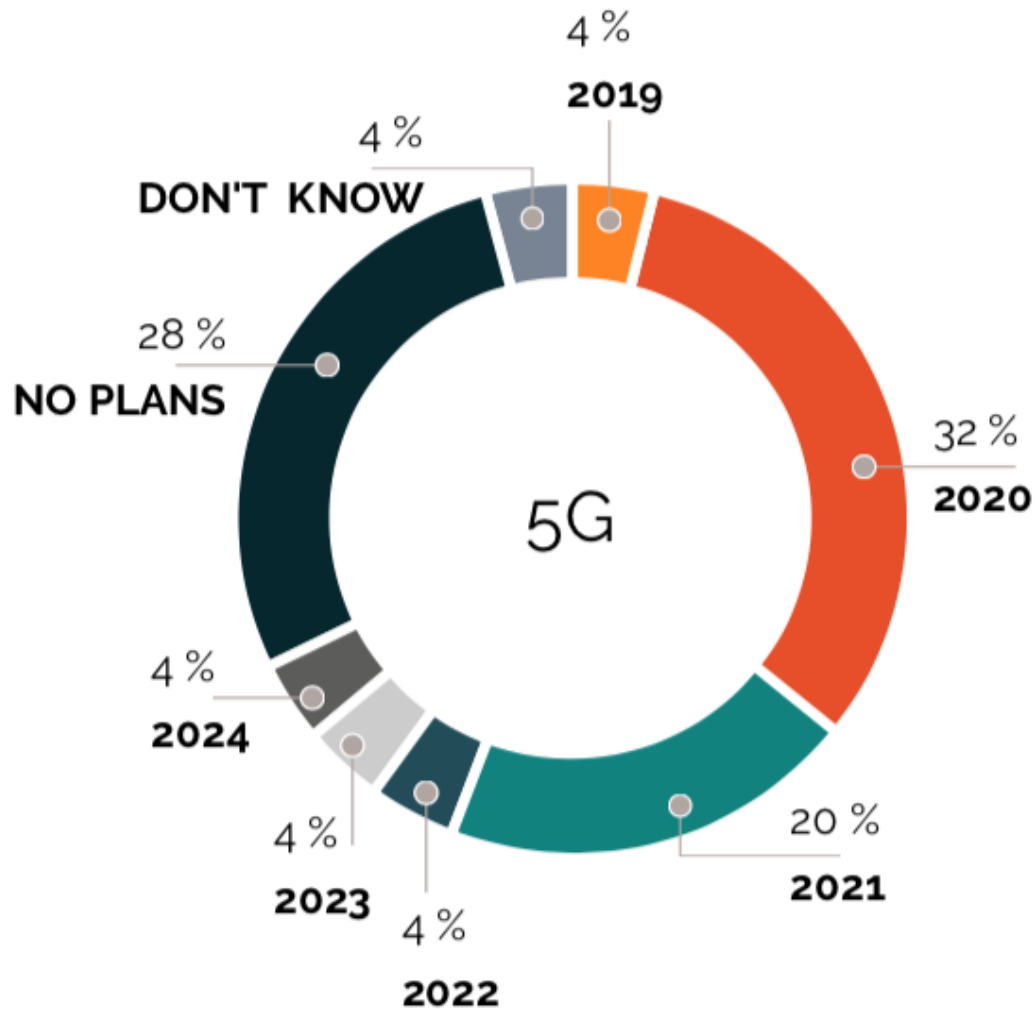
# ROAMING SERVICE LAUNCHES



# 5G ROAMING LAUNCH PLANS



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# IPX SURVEY



**ROCCO**

**THE LEADING IPX NETWORKS OF 2019**

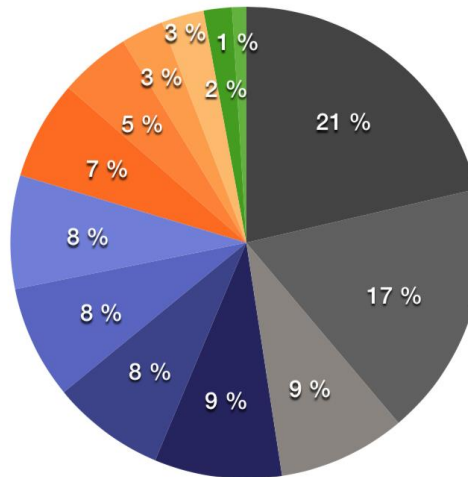
RATED BY MNOS BETWEEN JULY AND SEPTEMBER 2019

**211** THIS NUMBER OF MNOS

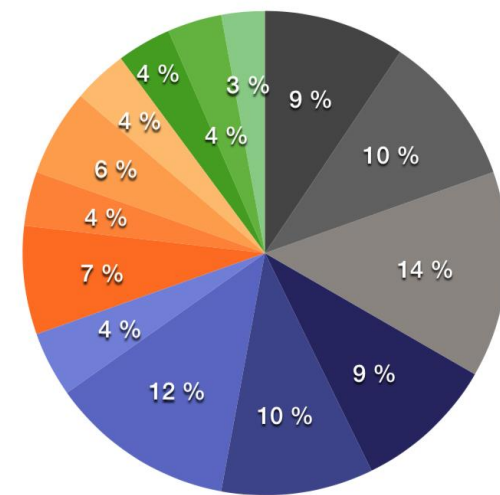
**113** IN THIS MANY COUNTRIES

**27** RATED THIS MANY VENDORS

The top 3 requirements MNOs have for IPX Networks 2018



The top 3 requirements MNOs have for IPX Networks 2019



- Peering with other IPX relevant to your needs
- Network Coverage (number of IPX access POPs)
- Security of the IPX Network
- Quality of Service: #of Classes of service, SLA
- Intelligence about compatibility issues (with other Operators or IPX)
- Speed of Connection to New Roaming Partners (after initial set up)
- Readiness for VoLTE
- LTE Roaming service reach (on-net coverage and % of on-net vs off-net)
- Offering of Value Added Services (e.g. Roaming, IoT Ecosystem, Security, Fraud Management, Data Clearing)
- Diameter Signalling service reach (on-net coverage and % of on-net vs off-net)
- Support for Local/Regional Breakout and IPX Roaming Hub
- Connectivity Options (Single /dual access, MPLS, IPSec)
- Support for Local / Regional Breakout and IPX Roaming Hub
- Readiness for 5G

# MNO FOCUS & CHALLENGES WITH IPXs



Question: What are your key business focuses for the coming year and how could IPX support them?

**“VoLTE Roaming” x 58 MNOs**

**“5G Roaming” x 21 MNOs**

**“LTE Roaming” x 14 MNOs**

Question: What are the biggest challenges you have with IPX?

**“Security” x 32 MNOs**

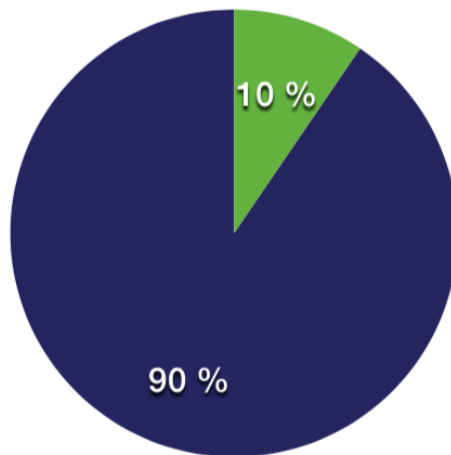
**“Peering” x 19 MNOs**

**“Bandwidth” x 9 MNOs**

**“5G Readiness” x 7 MNOs**

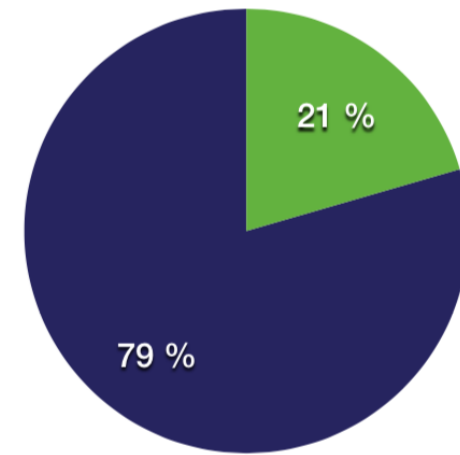
# CHANGE IN THE USE OF BI SYSTEMS

2018: Do you use BI Systems?



- Yes, we use them
- No, we don't use them

2019: Do you use BI Systems?



- Yes, we use them
- No, we don't use them



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SHAPE THE FUTURE

