

“Emerging Technology Trends 6G and Beyond”

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We are the global association representing the entire satellite industry



GSOA provides a platform for collaboration between member companies involved in the satellite ecosystem globally and a unified voice for the sector

By 2030.....

More than 500 million people will connect via Satcom, twice as much as today

81 million students will benefit from satcom tele-education

74 million people will benefit from satcom tele-medicine

Today's society relies on **connectivity**

Terrestrial infrastructure is limited and leaves a **connectivity gap**

Satcom bridges gap & provides universal and meaningful connectivity to all

6G: Towards a fully integrated ecosystem

4G & Before

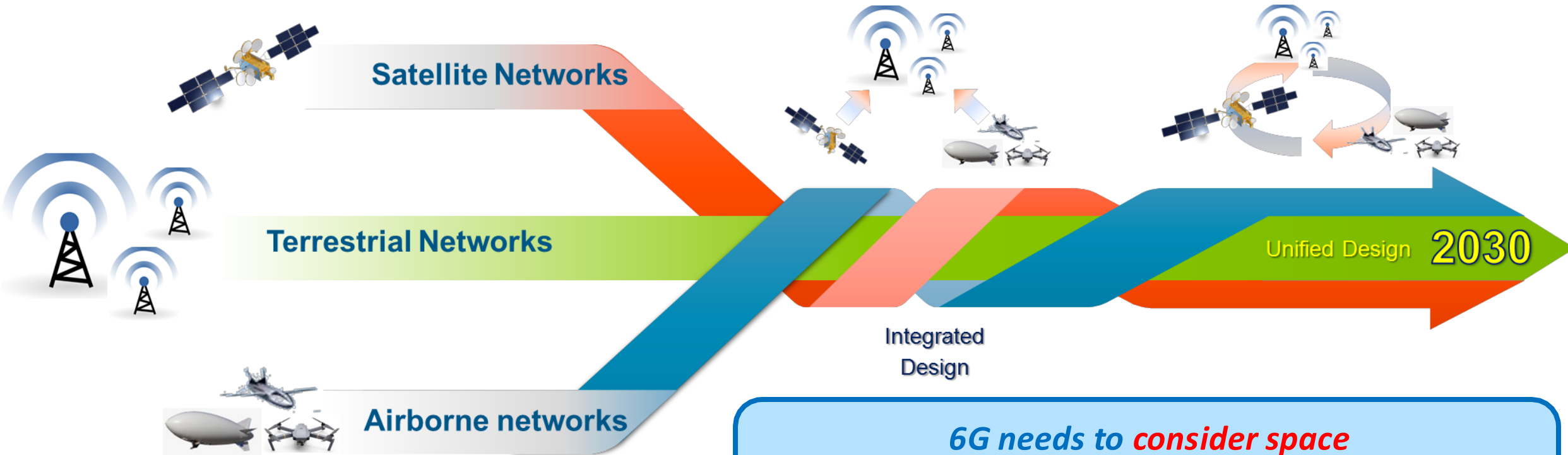
Little or No Integration

5G & B5G

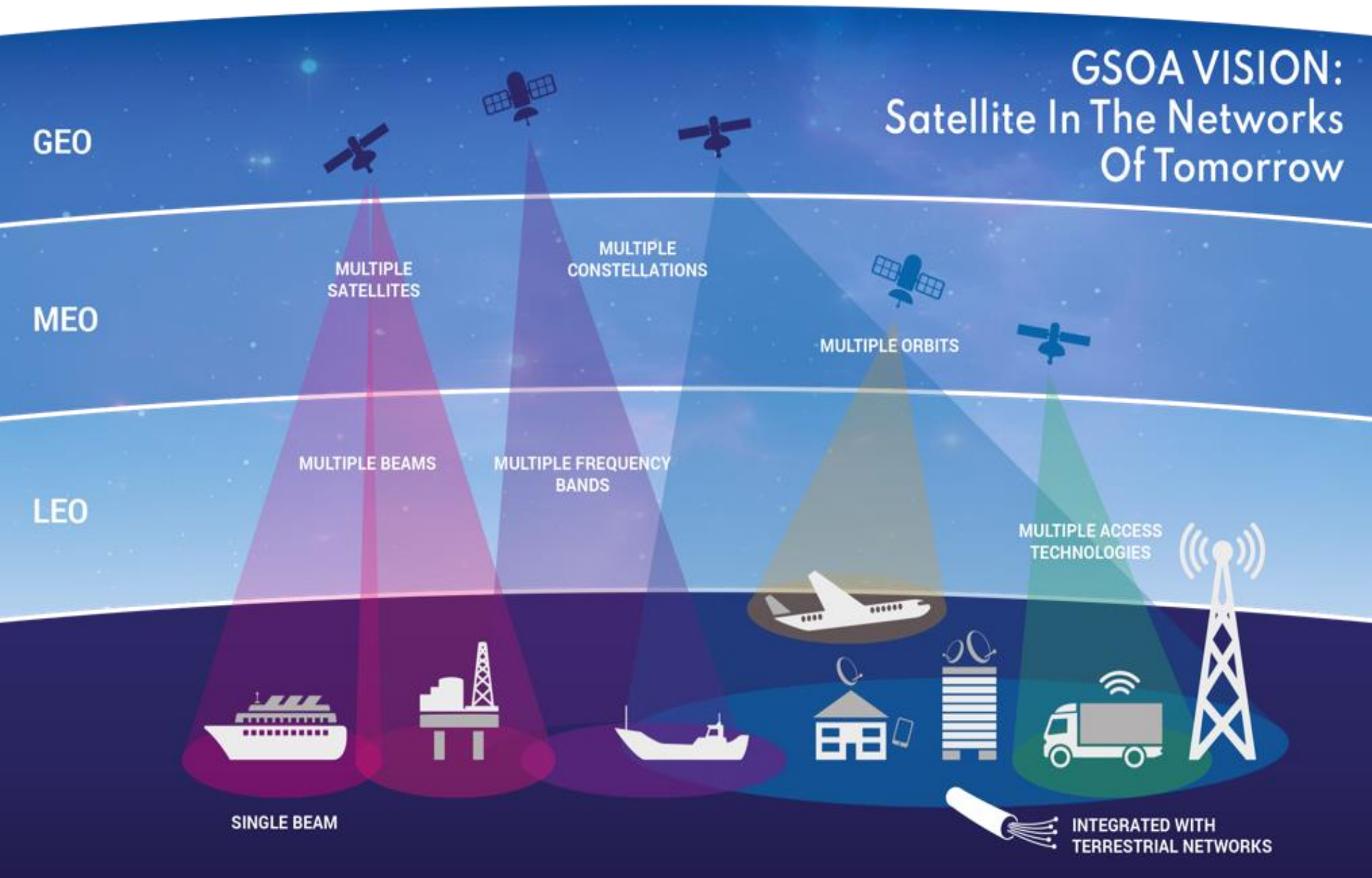
Move towards Partial Integration

6G & beyond

Full Space & Terrestrial Integration



*6G needs to **consider space**
from **beginning** in definition of
new protocols and network architecture*



- ⇒ 6G should build on joint evolution/
interoperability of 5G
NTN & TN to leverage
the most advantageous
characteristics of
satellite & terrestrial
systems
- ⇒ 6G will support &
combine TN & NTN
components for users to
benefit from both
network components
added value
- ⇒ 6G network will be able
to dynamically
reconfigure itself to
adapt to traffic
load/distribution &
operational conditions

Satellite-Mobile Regional Outlook **What Satellite Brings**

Coverage

Reliability

Resilience

Reaching everyone, everywhere, at all times

COLLABORATION IS KEY

Cooperation Agreement



Memorandum of Intent



Partnerships & Collaborations

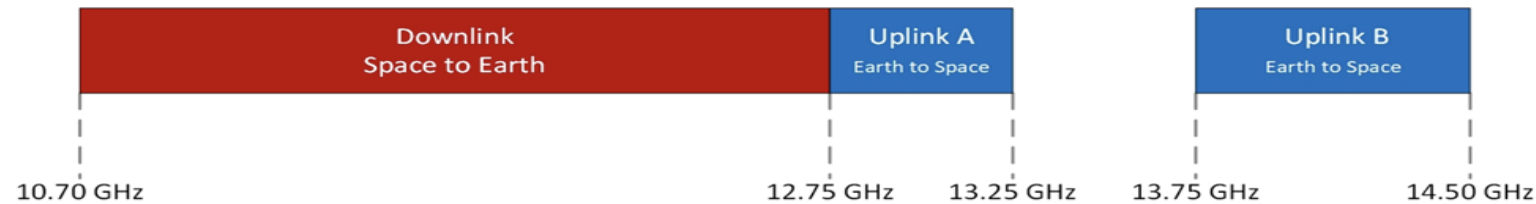


...and many more

Existing NTN NR bands

REL	WI	NR band	Uplink (UL) operating band Satellite Access Node receive / UE transmit $F_{UL,low} - F_{UL,high}$	Downlink (DL) operating band Satellite Access Node transmit / UE receive $F_{DL,low} - F_{DL,high}$	Remarks
REL-17	NR NTN solutions	n256	1980 – 2010 MHz	2170 – 2200 MHz	FR1, FDD, S-band
REL-17	NR NTN solutions	n255	1626.5 – 1660.5MHz	1525 – 1559 MHz	FR1, FDD L-band
REL-18	NR NTN LSband	n254	1610 – 1626.5MHz	2483.5 – 2500MHz	FR1, FDD, LS-band
REL-18	NR NTN enh	n512*, n511*, n510*	27.5 – 30.0GHz 28.35 – 30.0GHz 27.5 – 28.35GHz	17.3 -20.2GHz 17.3 -20.2GHz 17.3 -20.2GHz	FR2, FDD, Ka-band

Ku-band also included for Rel-19

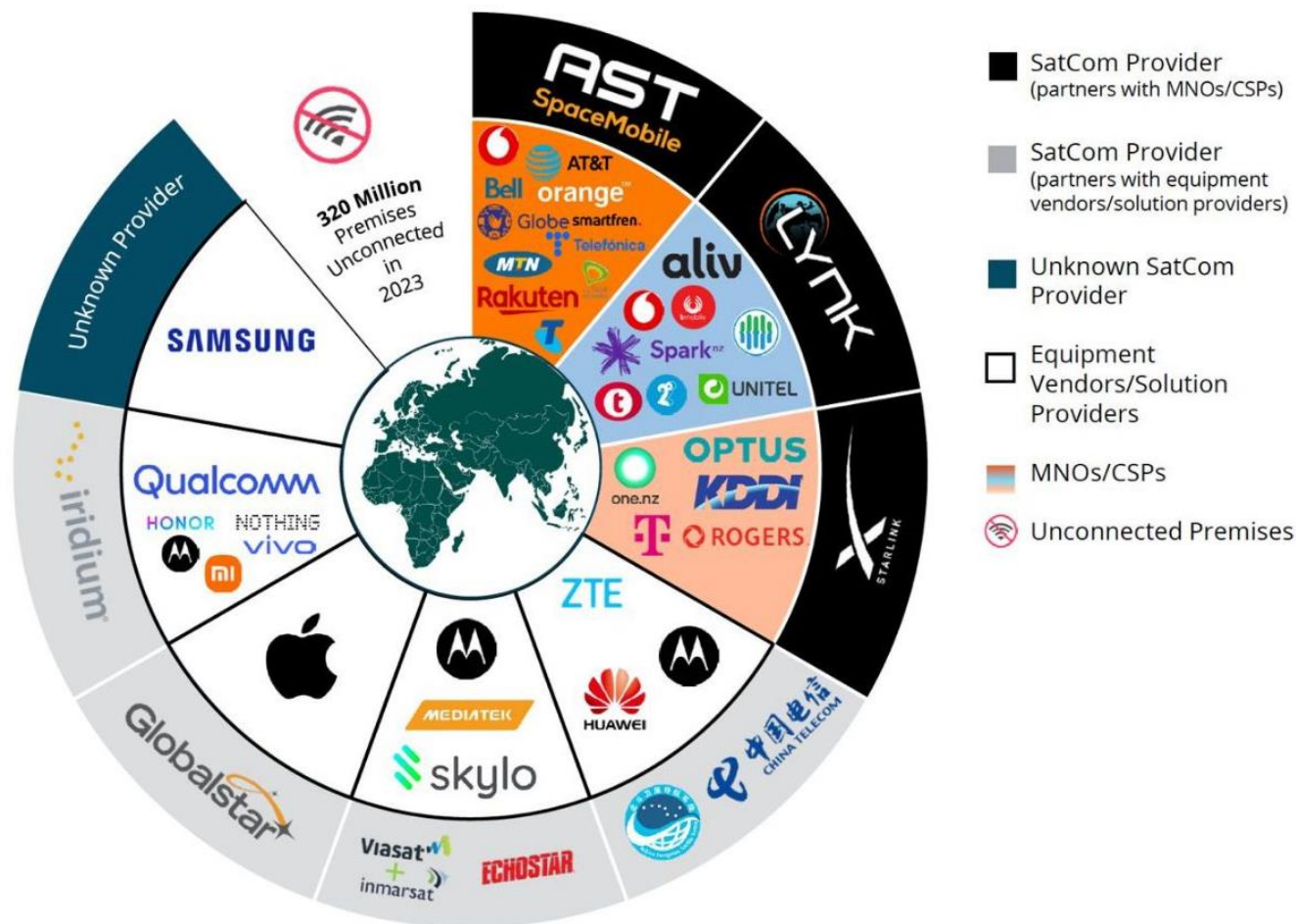
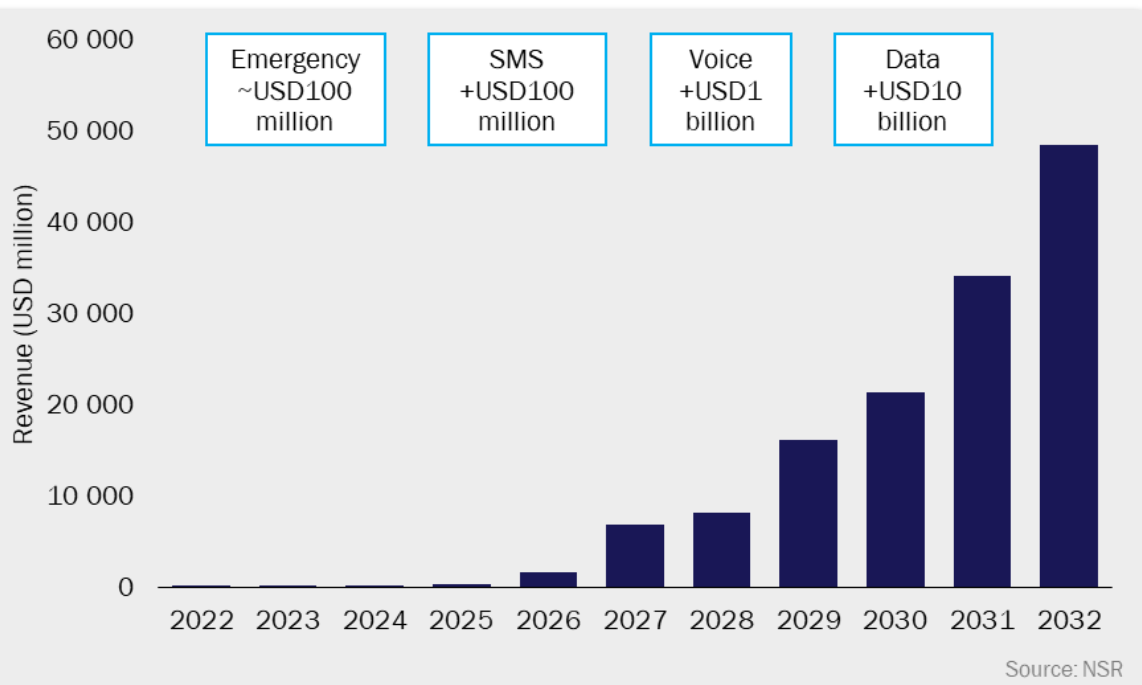


Existing partnerships between telecoms & satellite operators have a potential coverage footprint of more than 2 billion subscribers

Figure 1: NTN-Mobile Ecosystem

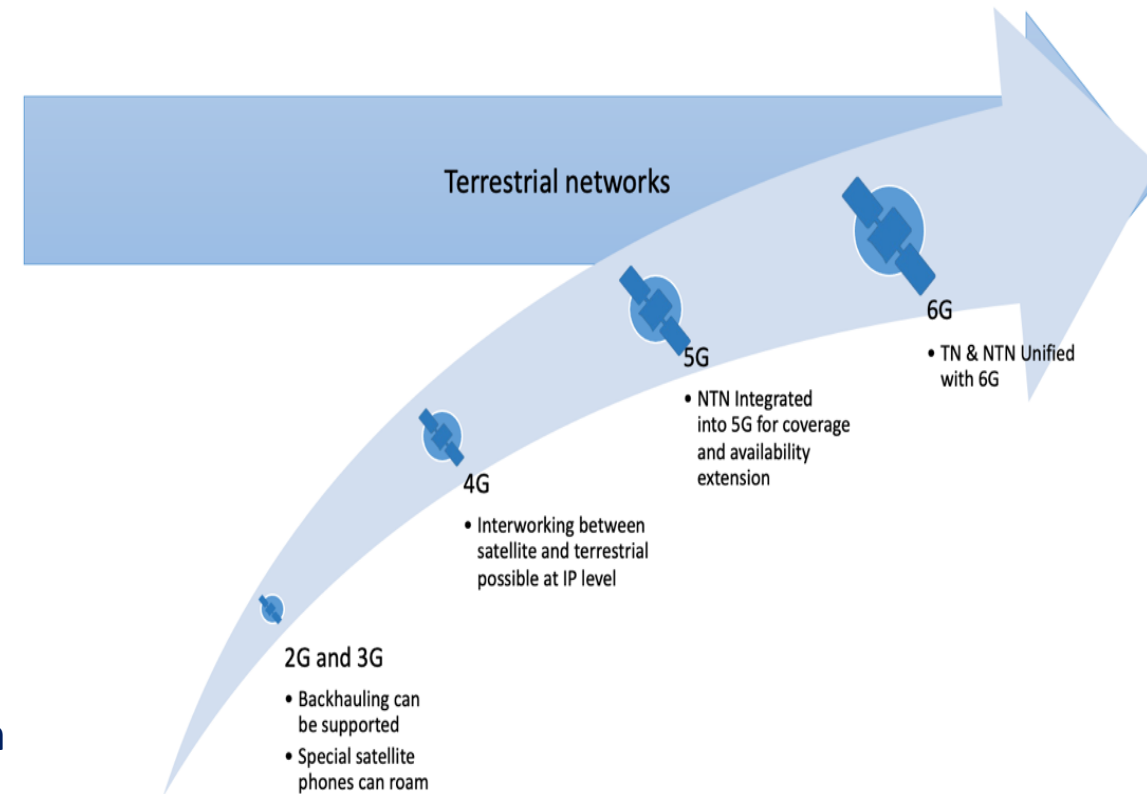
(Source: ABI Research)

Satellite D2D service revenue, worldwide, 2022–2032



Future-looking strategy for the benefit of the Caribbean

- ❖ **Technology neutral & inclusive national regulation & broadband policy**
- ❖ **Predictable, affordable and interference free access to spectrum**
- ❖ **Strong commitment from satellite & mobile industry to advocate & work together in several areas, especially in Standard Development Organisations such as 3GPP, ETSI & ITU**
- ❖ **Policy-makers & industry collaboration to bring the full benefits of next-generation communications to all and serve the interests of citizens and enterprises**





Thank you!

