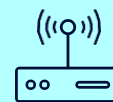# telenor IoT

IoT Connectivity Technology Availability Maps

Key Takeaways

LTE Cat-1 and Cat-1 bis deliver consistent coverage without requiring special radio spectrum or roaming setups, making them the default option today.

Legacy 2G/3G sunsets drive urgent migration to 4G; where LPWA is unavailable, enterprises can rely on LTE Cat-1/Cat-1 bis for reliable global reach.
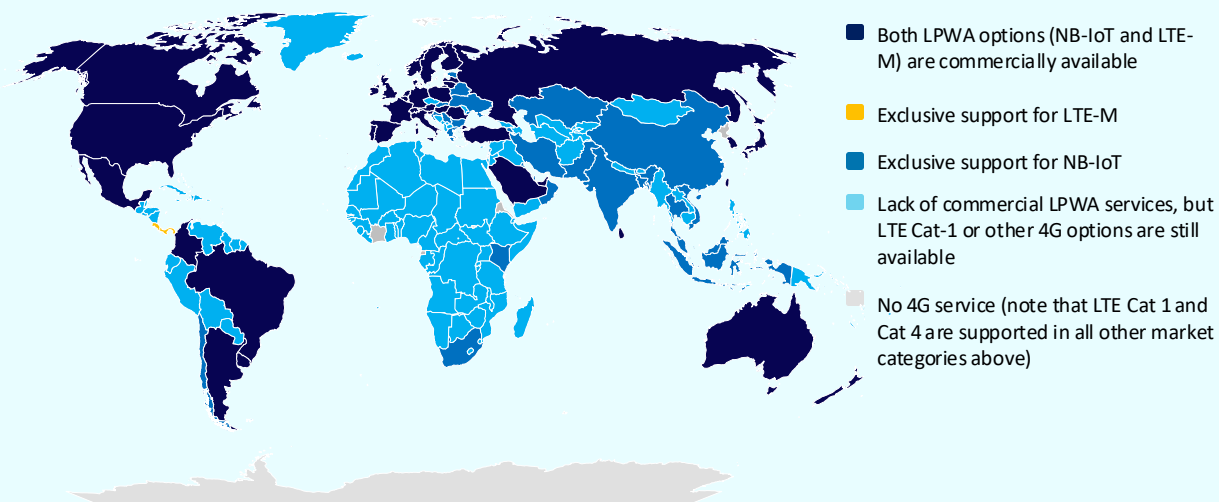
LPWA coverage remains fragmented: NB-IoT dominates in China and Asia, dual model is supported in theory in EU and US, but LTE-M is far more popular in these markets.
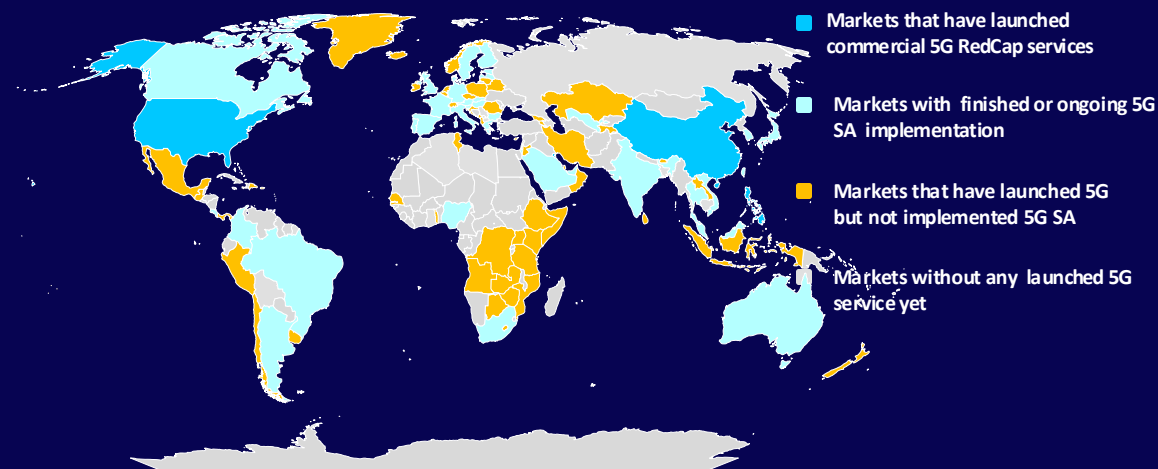
5G Redcap rollout is at a very early stage, with only 4 markets with commercial services; its adoption will take time as it hinges on the complex implementation of 5G standalone core first.

4G & LPWA Availability 2025

- Both LPWA options (NB-IoT and LTE-M) are commercially available
- Exclusive support for LTE-M
- Exclusive support for NB-IoT
- Lack of commercial LPWA services, but LTE Cat-1 or other 4G options are still available
- No 4G service (note that LTE Cat 1 and Cat 4 are supported in all other market categories above)

5G and RedCap Availability 2025

- Markets that have launched commercial 5G RedCap services
- Markets with finished or ongoing 5G SA implementation
- Markets that have launched 5G but not implemented 5G SA
- Markets without any launched 5G service yet

Cellular IoT Technology Comparison and Use Case Mapping

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Technology	Coverage	Throughput	Latency	Energy efficiency	Global availability
NB-IoT	Very good (deep, indoor coverage)	~20kbit/s	Poor	Very good	Available in most regions but adoption mostly in China
LTE-M	Very good	~200 kbit/s+	Good	Very good	Most EU and American markets and Australia
LTE Cat-1/Cat-1 bis	Good	~3 Mbit/s+	Good	Good	Nearly universal
LTE Cat-4 /4+	Good	~100Mbit/s+	Good	Poor	Nearly universal
5G NSA	Good	~300Mbit/s+	Very good	Poor	In most developed markets
5G SA	Good	~300Mbit/s+	Very good	Poor	Available at scale in n major APAC and US carriers
5G RedCap (and eRedcap)	Good	~10Mbit/s+	Very good	Very good	Early stages in the USA and China, Kuwait, Philippines
Satellite (NTN)	Good in remote outdoor areas	~10kbit/s–1Mbit/s+	Poor	Solution dependent	Limited to trial markets

Note: the throughput and latency listed above are indicative for typical performance not peak performance

Use case	NB-IoT	LTE-M	Cat-1	Cat-4/4+	5G NSA	5G SA	5G RedCap	Satellite (NTN)
Smart metering	⊘	⊘	⊘					
Asset tracking	⊘	⊘	⊘				⊘	⊘
Industrial automation				⊘	⊘	⊘		
Connected vehicles		⊘	⊘	⊘	⊘	⊘	⊘	⊘
Video surveillance			⊘	⊘	⊘	⊘	⊘	
Smart agriculture	⊘	⊘						⊘
Wearables		⊘	⊘				⊘	
Emergency response				⊘	⊘	⊘		⊘

Recommendations from Telenor IoT

Begin with available networks:
Deploy LTE where they're already live to secure reliable coverage immediately.

Align technology to actual requirements:
Define your must-have criteria (coverage, latency, bandwidth, global reach) and choose the simplest solution that
meets them; defer 5G RedCap or NTN until broadly available.

Plan for legacy sunsets:
Audit 2G/3G dependencies, track each operator's shutdown dates, and validate multi-mode device fallbacks with tested firmware and roaming settings.

Build in future flexibility:
Select modular hardware and over-the-air SIM management so you can switch profiles or networks as options evolve.

Start small and scale:
Pilot new connectivity in a controlled setting, refine integration, then expand only after performance is proven.