

THE GSMA

14 OFFICES
WORLDWIDE



SHANGHAI



SAN FRANCISCO



BEIJING



NAIROBI



NEW DELHI



LONDON



DUBAI



ATLANTA



BRUSSELS



BARCELONA



HONG KONG



BRASILIA



BUENOS AIRES

Intelligently Connecting
Everyone and Everything to a
#BetterFuture



The mobile industry is the
first to formally commit
to the UN Sustainable
Development Goals



nearly
9.3 bn

MOBILE CONNECTIONS
WORLDWIDE
(including IoT)



The GSMA
represents
the interests
of mobile
operators
worldwide



MORE
THAN
750
MOBILE
OPERATORS



WITH NEARLY
400
COMPANIES
in the broader mobile ecosystem



Driving industry
programmes that
add value to the
digital economy

The GSMA works to deliver a regulatory environment that
creates value for consumers by engaging regularly with:



MINISTRIES
OF
TELECOMS



TELECOMS
REGULATORY
AUTHORITIES



INTERNATIONAL &
NON-GOVERNMENTAL
ORGANISATIONS



The world's leading mobile industry
events, MWC Barcelona,
MWC Los Angeles, MWC Shanghai and
the Mobile 360 Series, together attract
nearly

200,000
people from across the globe each year

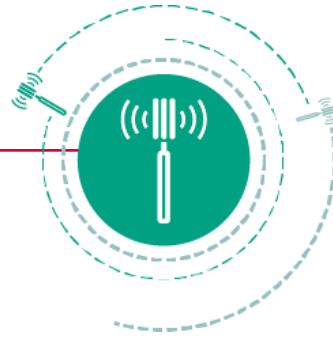



Mobile IoT – LTE-M & NB-IoT



Cellular Technology in IoT

IDEAL SOLUTION FOR LOW POWER WIDE AREA (LPWA)



KEY FEATURES	KEY BENEFITS		CHOICE OF TECHNOLOGIES
Low Cost Module	3GPP Standards	Global Coverage	<div>LTE-M</div> <div> NB-IoT™</div>
Better Coverage	Secure	Scalable	
Long Battery Life	Integral Part of 5G: complimentary technologies	Long-Term Status: 3GPP has confirmed Mobile IoT to evolve with 5G standard	
Low Data Needs			
2-Way Communication			



Mobile IoT Global Impact & Adoption

Mobile IoT = Trusted IoT



- 150 million new connections for mobile operators
- 60 leading mobile operators have invested in Mobile IoT
- 131 launches of NB-IoT & LTE-M networks
- 2600 Mobile IoT innovators / developers
- Marketing campaign has built global industry support
- Multi-country roaming agreements
- 10th Mobile IoT Summit 500+ industry delegates
- Mobile IoT Summits & demonstrations at all major MWC events

Mobile IoT roaming available in
18 European countries





Mobile IoT Global Coverage





5G



What about Enterprises and 5G in IoT?

Evolution to 5G NR, while being backward compatible
Rel-13 enhanced features up to Rel-16

Mobile IoT - NB-IoT & LTE-M

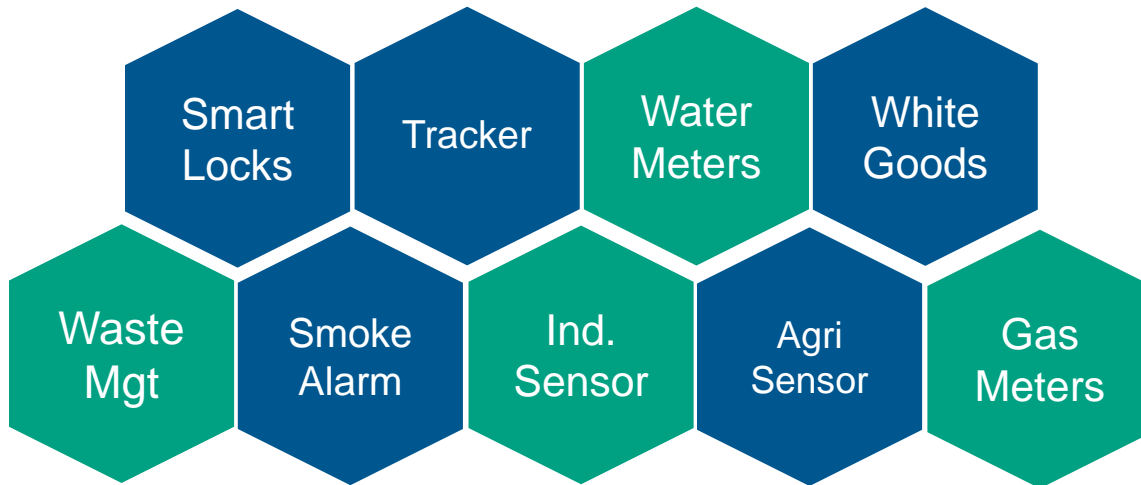
5G era Massive MTC & eMBB

**3 things
carriers must
do for success**

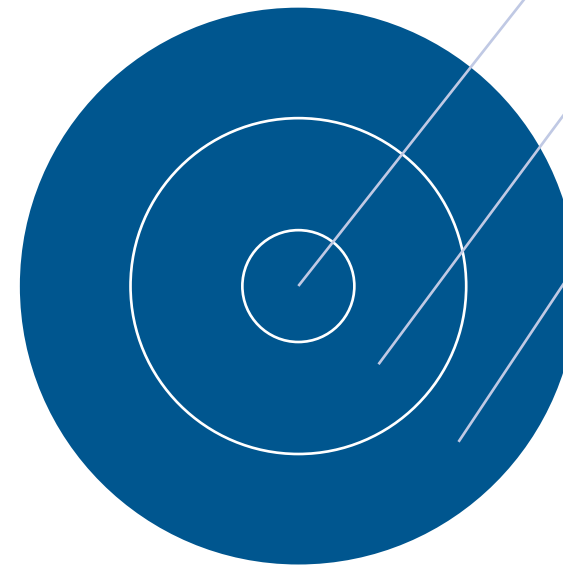
Enterprise
Engagement

Be Technically
Ready

Must
Collaborate



Leading Enterprise Manufacturers adopting LTE-M & NB-IoT



Meeting customer needs of 15 yr+ lifecycle



Mobile IoT is Part of 5G



LTE-M and NB-IoT, as deployed today, are part of the 5G family

Fulfills 5G requirements for Massive IoT

LTE-M and NB-IoT will continue to co-exist alongside other 5G components

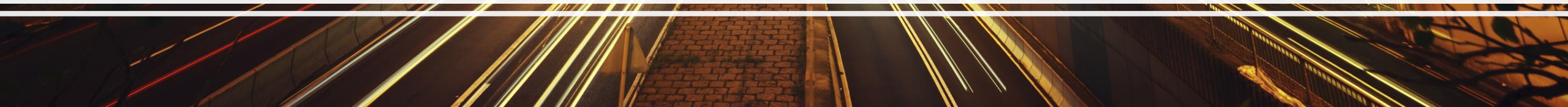
Can be deployed as part of a 5G network

LTE-M and NB-IoT can operate in a 5G NR band

Enables smooth operator migration path to 5G NR bands

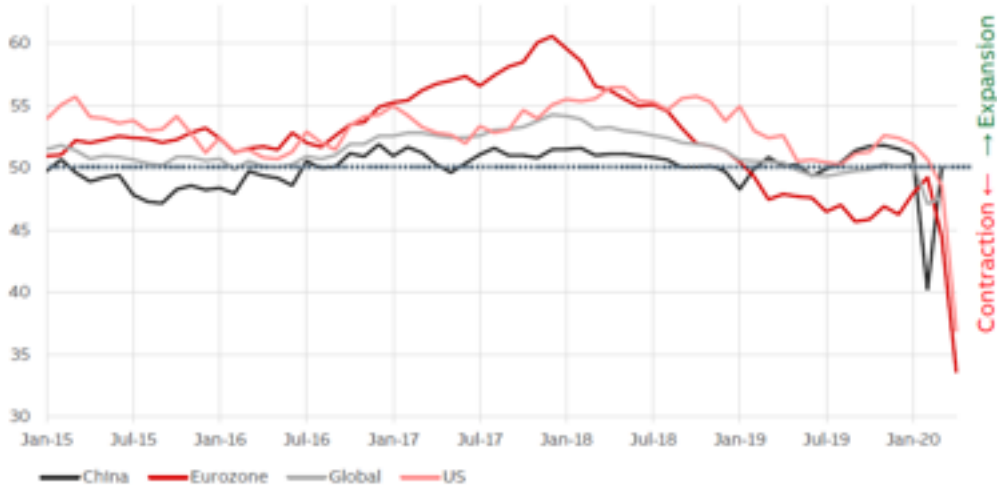


Covid-19 and IoT & 5G



Extraordinary Macro-Environment as a Result of COVID-19

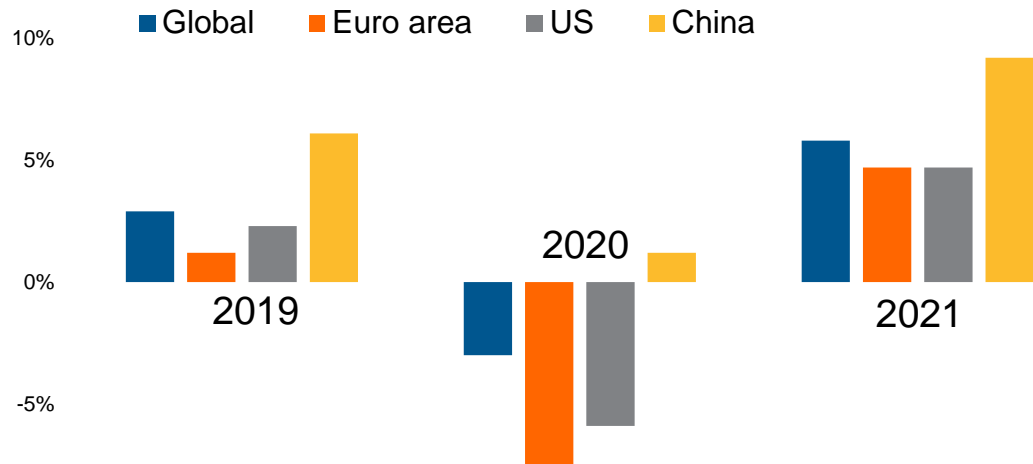
Manufacturing PMI (% YOY)



Demand

- Weaker demand led by automotive and consumer facing sectors
- China stabilised through March, rest of world deteriorating
- Rise in unemployment, reduced consumer purchasing power

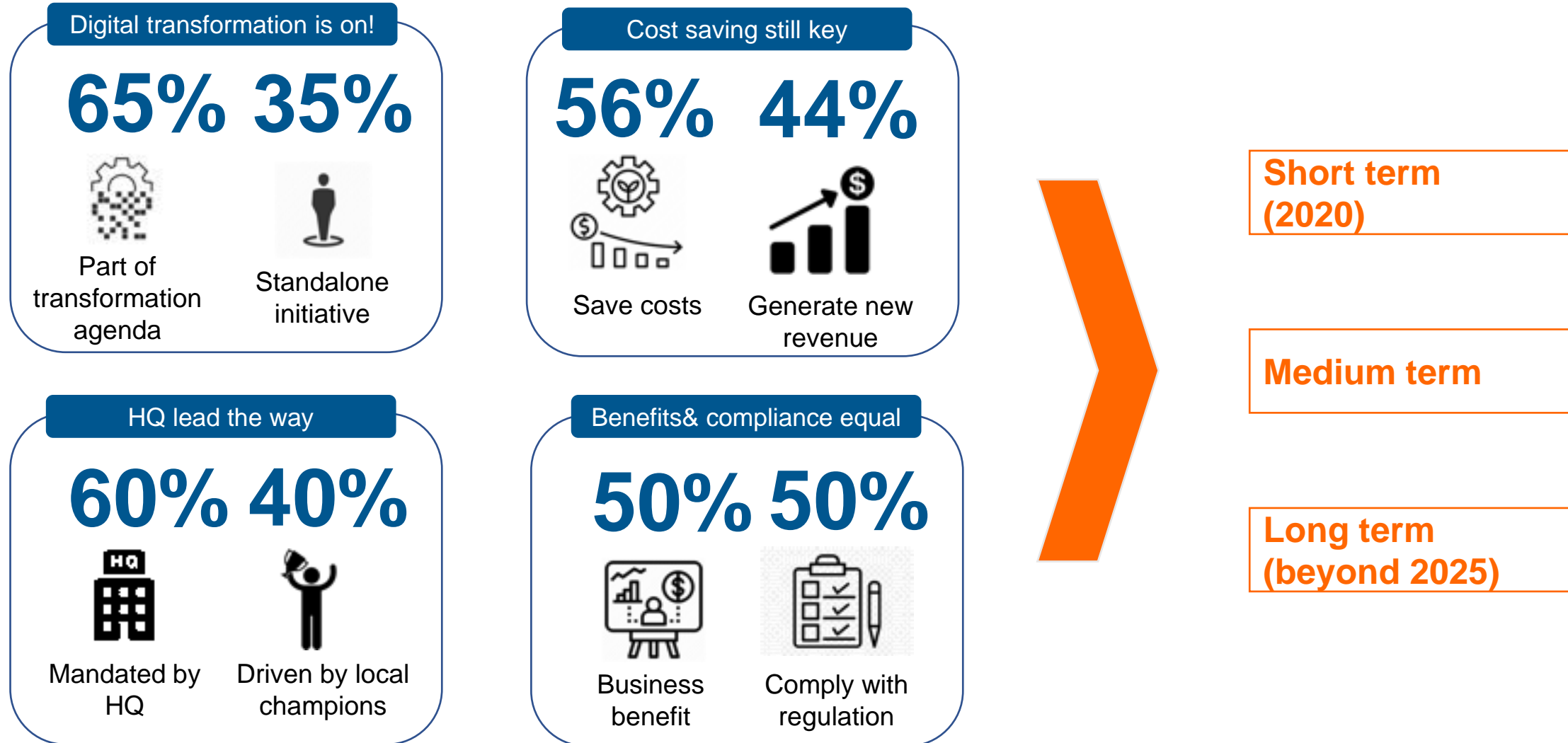
GDP Contraction



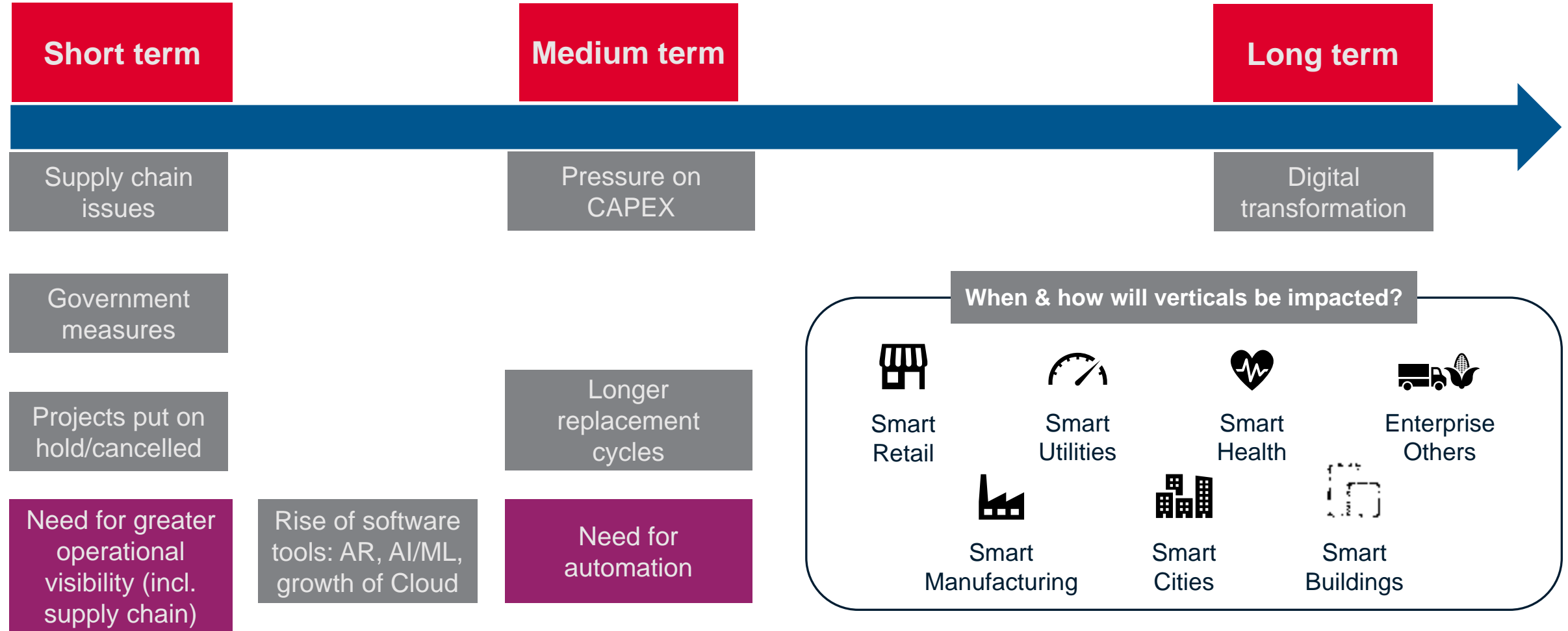
Supply

- Production impacted – sector dependent
- Supply chain, logistics constraints
- Travel and site restrictions hold back services and project installations

Digital Transformation was on Enterprises' Agenda



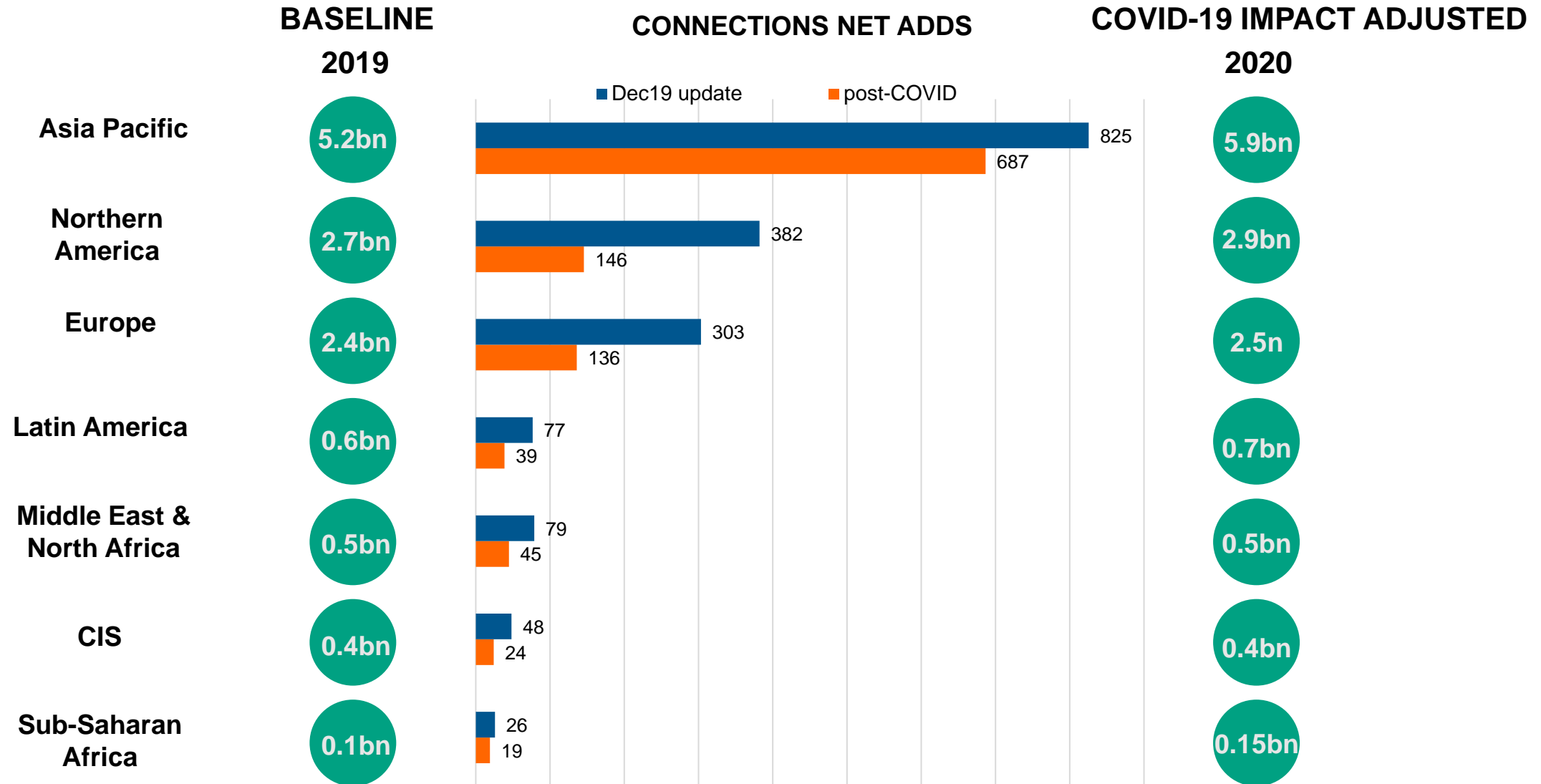
And Still Will ... But Timelines Might be Impacted





Most Growth Will Still Come From APAC

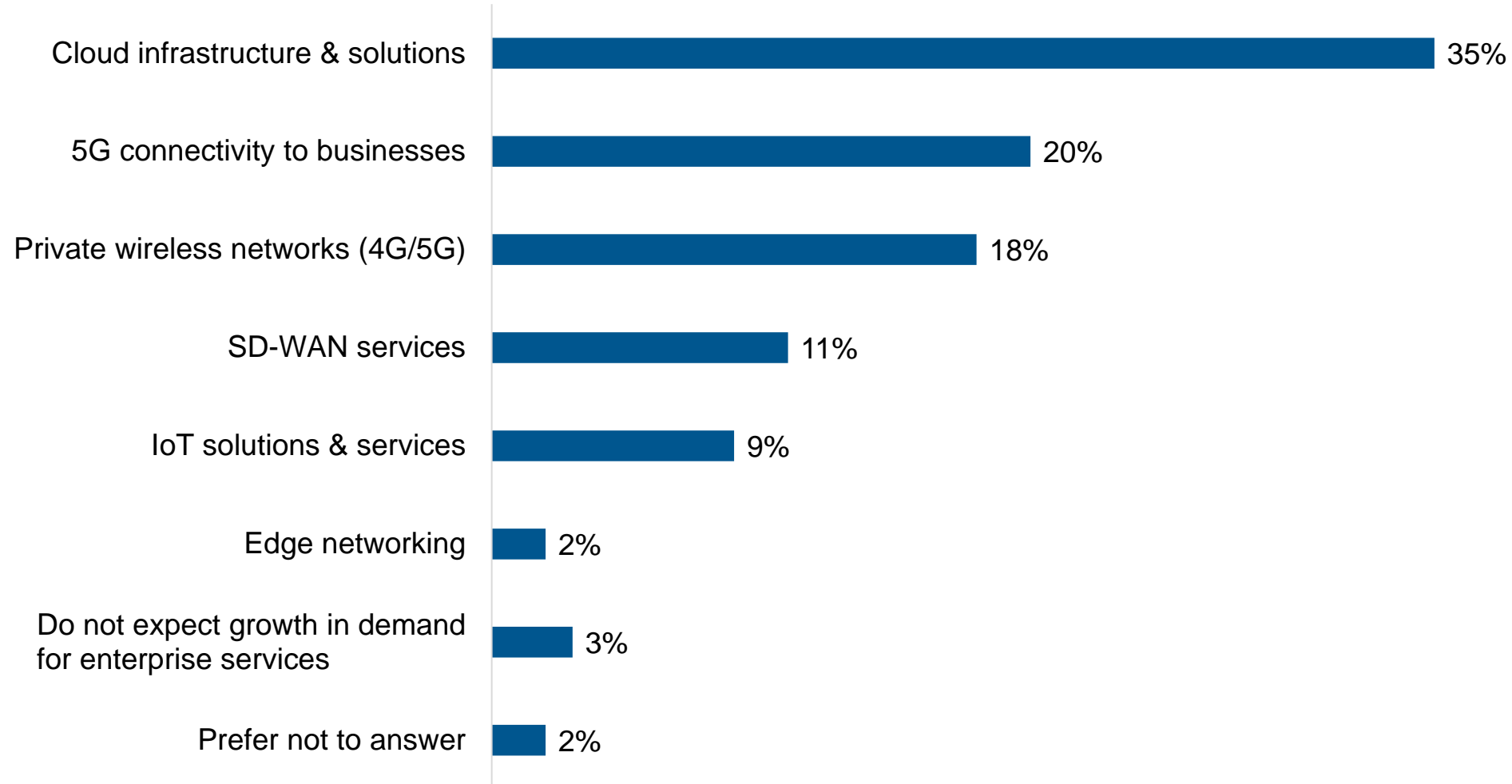
IoT connections by region, 2019 – 2020 (pre and post COVID-19)



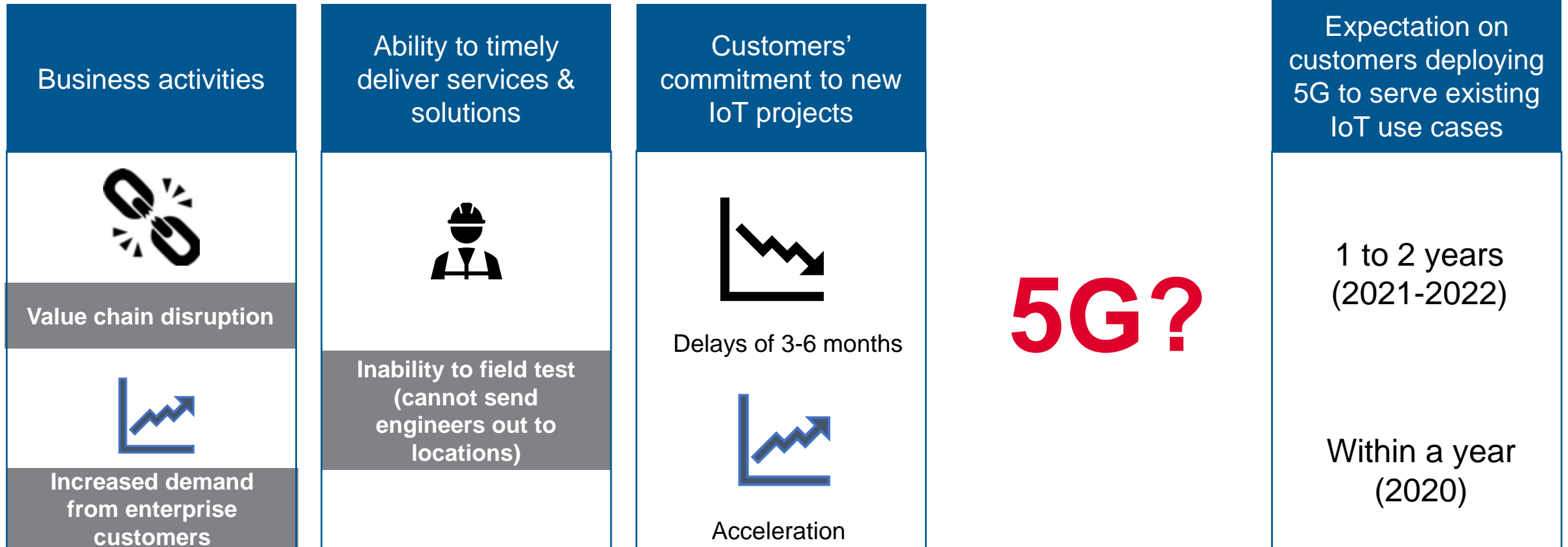


Carriers' Perspective on COVID-19 Impact on Enterprise Demand

Operator Perspective on Growth in Demand from Enterprise Customers due to COVID-19



Carriers' Perspective on COVID-19 Impact on IoT



5G?



About GSMA Intelligence



**3 Global
Offices**

📍 Delhi 📍 Barcelona 📍 London



Serves over
800
organisations



40,000
users worldwide



**Extensive
Datasets**

Over 30 million data
points, updated daily.



**Topical and
Timely
Research**

Over 100 reports and
exclusive analyses
published annually.



**Pinpoint
Accuracy**

Five-year forecasts
consistently accurate
within +/- 2.5 % of
reported data,
updated quarterly.



**Industry
Trusted**

Serving businesses across
the mobile ecosystem and
many other vertical
industries.



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Get in Touch: [**iot@gsma.com**](mailto:iot@gsma.com)
Stay Up to Date: [**gsma.com/iot/newsletter**](https://gsma.com/iot/newsletter)