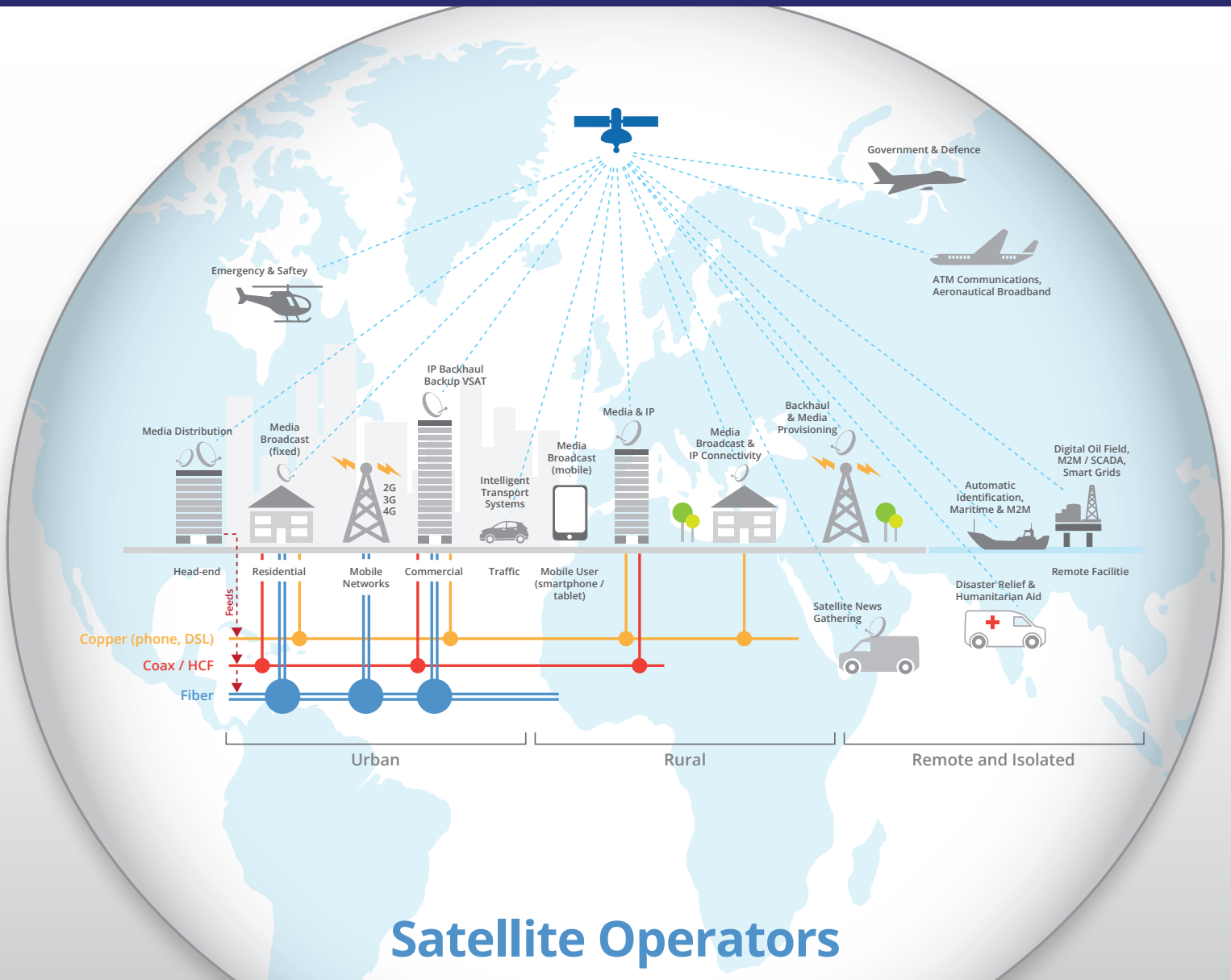


SATELLITE AND 5G

Ubiquity, resilience and reliability



Satellite Operators

From wholesale providers of bandwidth



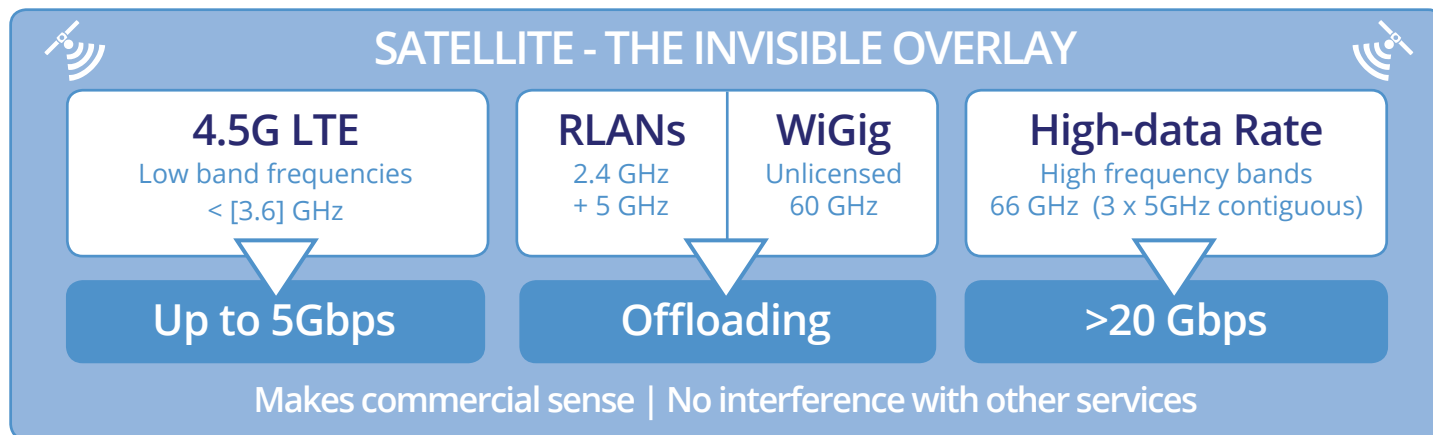
To value-added partners

- ▶ 5G is a combination of new technology working hand-in-hand with existing technology: a “network of networks”
- ▶ Today satellite already delivers mobile backhaul, push data services, linear and non-linear TV, converged media, broadband services and many M2M services that will be part of the 5G ecosystem
- ▶ In a hyper-connected world of Smart Cities, Internet of Things and Connected Transport Systems reliability is key - satellite adds vital redundancy to territorial networks, enhancing the resilience of the overall 5G network
- ▶ Satellites will make use of all core satellite bands when delivering current and planned next generation 5G services

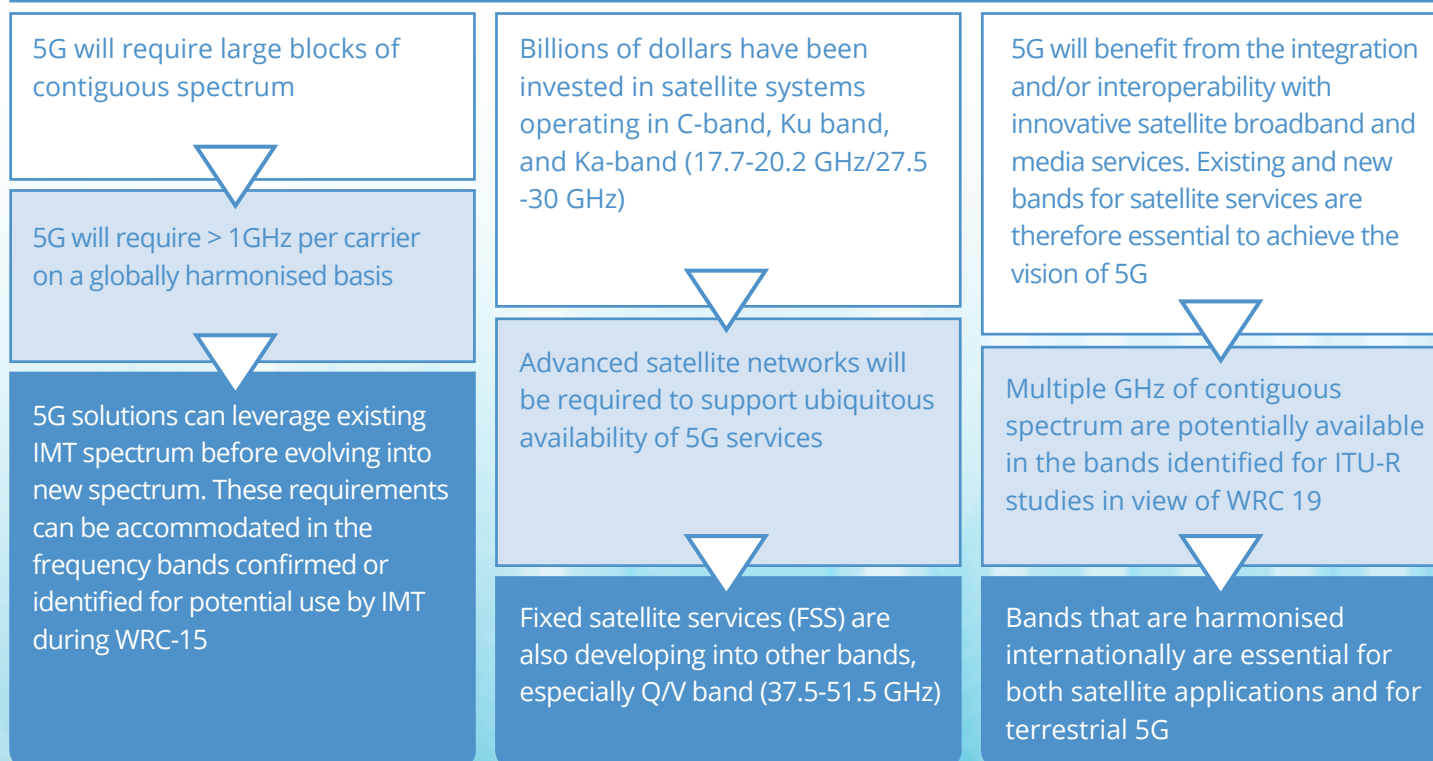
5G - A Network of Networks

Commercially & Technically Viable Solution

The 5G/IMT-2020 ecosystem will be dominated by 5G mobile devices using MULTIPLE RADIOS



Sustainable & Viable Spectrum Access for all components of the 5G ecosystem



Spectrum for 5G

With the outcome of WRC15, world administrations have given a clear signal that different technologies, fixed and mobile, terrestrial and satellite, will all continue to play a vital role in enabling next generation communications around the world. Policymakers should ensure that studies and plans for development of terrestrial 5G / IMT- 2020 services

/ systems are implemented either in the frequency bands currently identified by the ITU for IMT or possible new bands that might be identified by WRC-19 under Agenda Item 1.13

- ▶ In either case, existing services in the same and adjacent bands must be protected from interference.
- ▶ The use of bands for terrestrial 5G which are not harmonised

internationally is not beneficial and would likely cause harm to other services.

Governments should also enable exploitation and use of multi-frequency-band radio devices in 5G equipment to leverage of 4G+/LTE evolution and new 5G radio-access standards as well as hybrid terrestrial - satellite networks.