

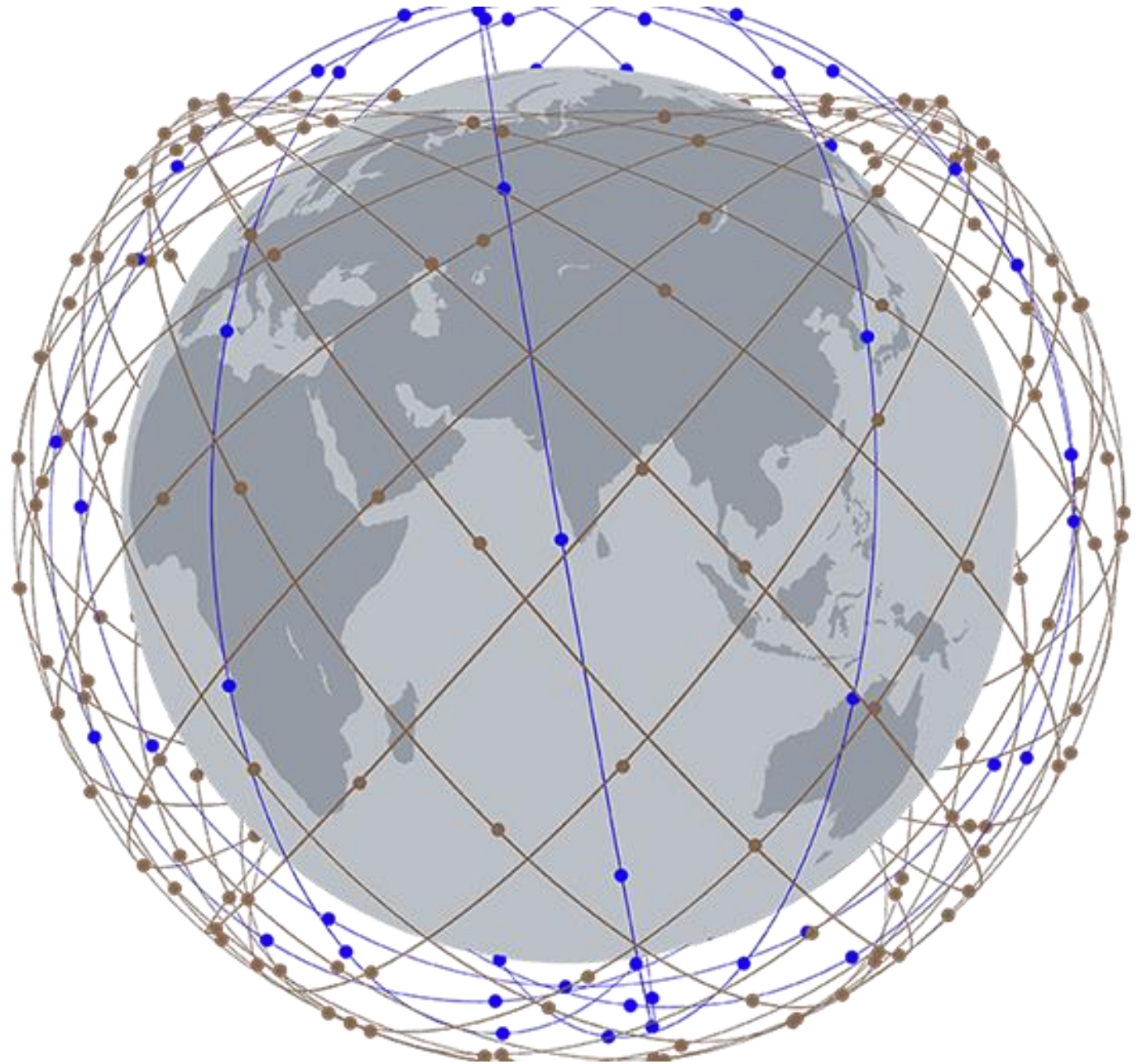
Rural Broadband – Satcom’s role

from
Digital Inclusion
to
Universal Connectivity

TELESAT™

Manik Vinnakota

November 2020



Latent demand of 2+ Tbps satellite capacity in India for rural broadband (~20x of current capacity)

Latent demand segments In Rural & Remote areas



Mobile Backhaul



Community Wi-Fi

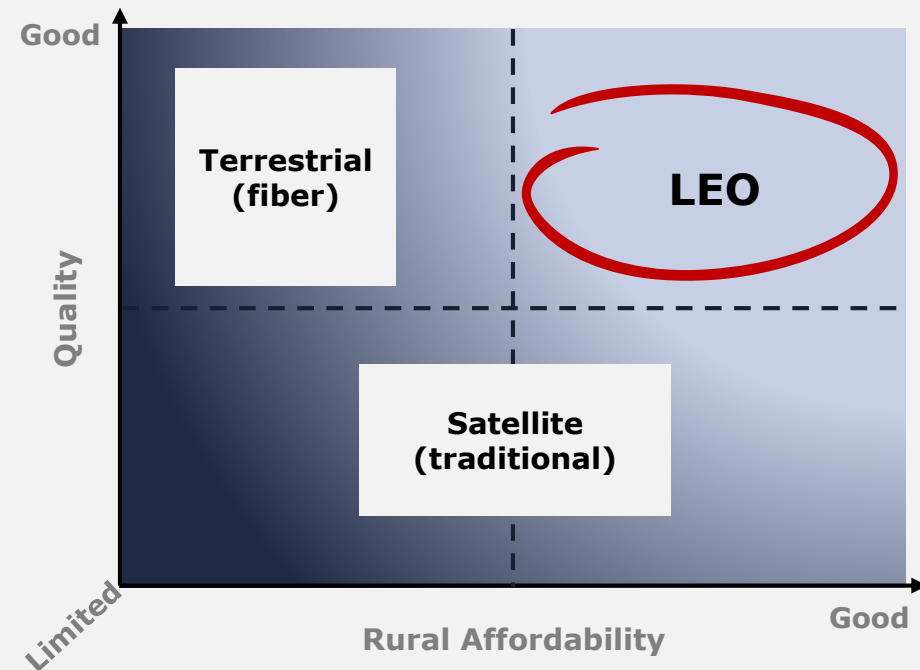


Schools & Hospitals



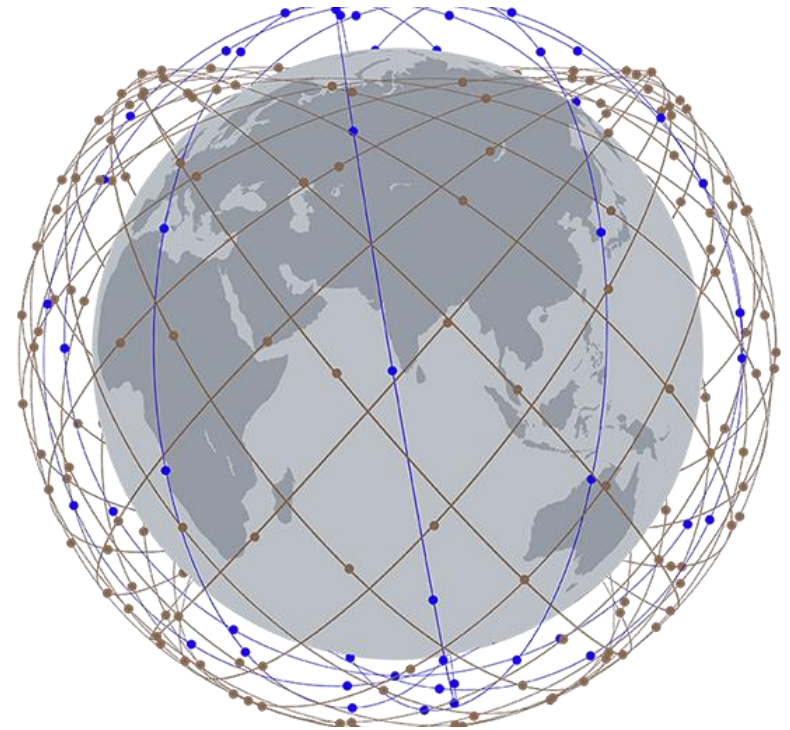
Remote Institutions

LEO complements enabling High speed, Low latency, Affordability



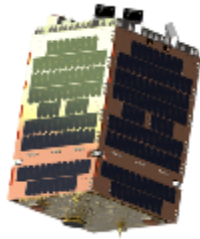
Telesat LEO: State-of-the-art global network

- **298 Satellites**
- **Low latency (sub-50 ms)**
- **Small, efficient terminals for 1 Mbps to 7,500 Mbps per site**
 - Ka-band interoperable (LEO/MEO/GEO) antennas
- **Enterprise-fit design, carrier-grade resilience**
- **Lower cost than any other planned satellite system or multi-hop microwave**



 Polar Orbit  Inclined Orbit

Multiple successful demos completed globally, looking to test in India



LEO Phase-1 Satellite



Indian PSLV Launch



User Terminal Antennas in Test

Feb '20



Telefonica

4G backhaul, HD video streaming, video conferencing, VPN testing, large file transfers

Jan '20



Motorola Solutions

First responder network

Sep '19



Optus

4G LTE backhaul

April '19



Vodafone

First ever, 5G backhaul over LEO

~\$1B Government of Canada and Telesat LEO partnership for universal connectivity in Canada

Backhaul on Telesat LEO



Affordable Access

Cost-effective for ubiquitous coverage, more affordable than fibre and wireless alternatives for remote communities



50/10 Mbps Unlimited

High speed, true broadband experience



5G and LTE Services

Reliable, affordable and rapidly deployed wireless services

Eliminating the digital divide



Empowering Communities

Providing underserved communities with fibre quality broadband



Expanding Healthcare

Real-time access to medical specialists, electronic records and management systems



Creating Opportunities

With state-of-the-art online learning, access to government services, and the global economy