

A person with short dark hair, wearing a blue jacket, is seen from behind, sitting on a boat. They are holding a black smartphone in their hands and looking at the screen. The background shows the water of the boat, which is blurred, suggesting movement. The person is wearing a blue jacket and a white shirt underneath. The boat's interior is visible, including a metal railing and a textured surface.

2020: Defining the Path to 5G

Vishant Vora

5G – A paradigm shift

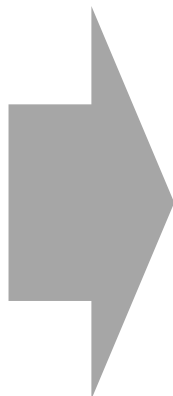
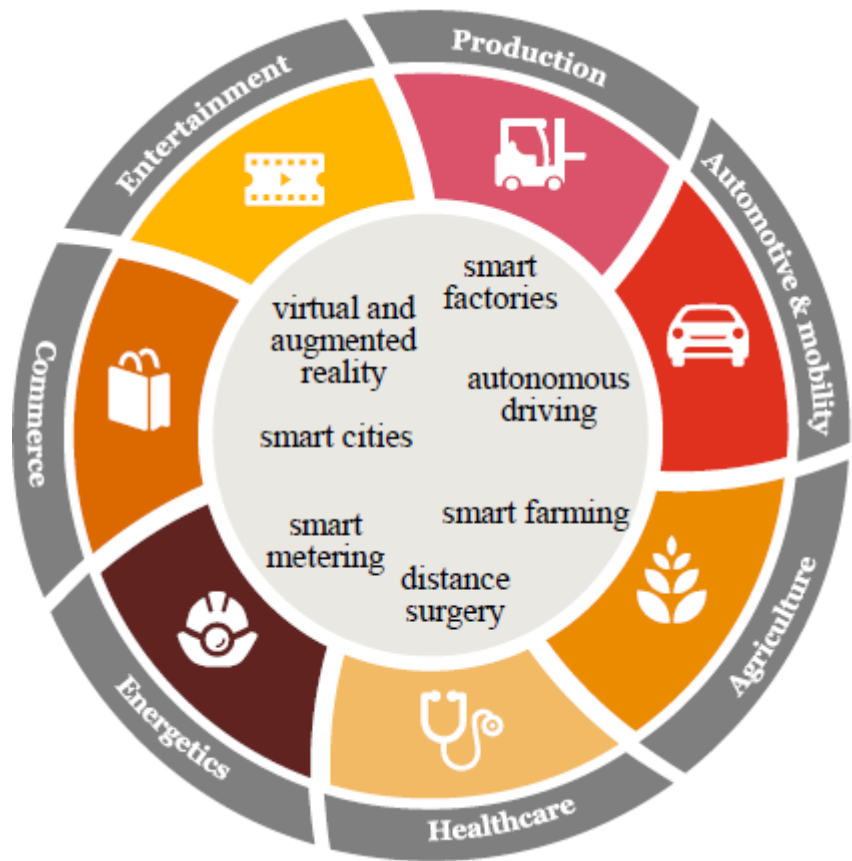
Network will no longer be just a “Connectivity Layer”

It will be a “Platform for Digital Society”

5G will enable
“New Use cases”

Emergence of
**“New Business Models
& Cross Industry
partnerships”**

5G - What it means to telecom industry...

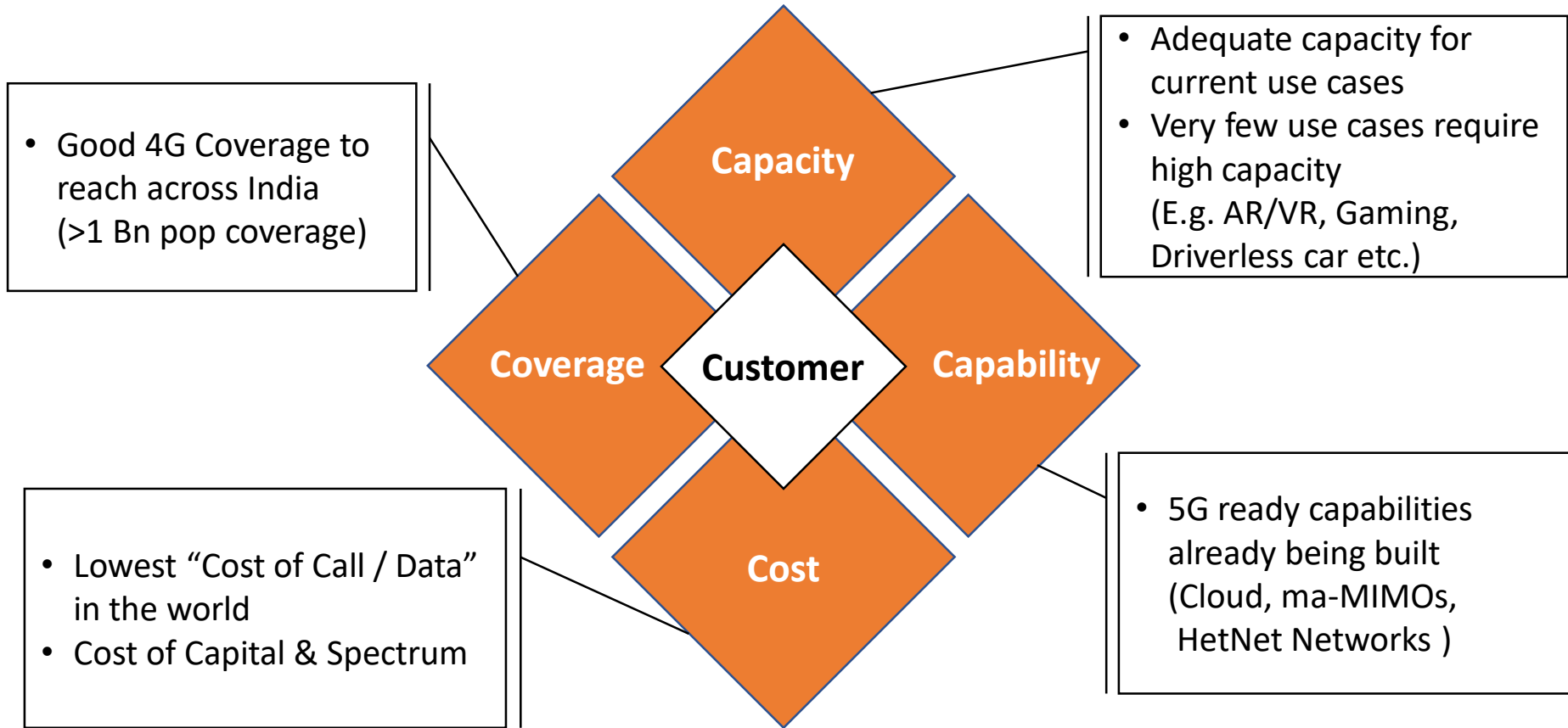


- **Connect Billions of Devices**
- **Delivered at fraction of cost**
- **Huge volume of traffic**
- **Real-time service**
- **Elastic Network**
- **Agile & Secure Network**

Implications to policy makers...

- **Develop India specific Use cases** before Spectrum Auction
- **Telecom sector health** –
 - The immediate need is to make the telecom sector strong and sustainable
 - Rationalizing taxes and levies and viewing the telecom sector with due respect for its contribution and potential
- **Spectrum**
 - Harmonized, contiguous “Spectrum”, made available at reasonable prices
 - Use the China model for Spectrum allocation – 5G Spectrum for free?
- **Backhaul availability** –
 - Public / shared fiber infrastructure
 - “E-band” to be made available for backhaul

5C strategy : A reality check on the need for 5G



How network will be different with 5G...

Radio

- Use of spectral efficient technologies such as ma-MIMO
- Dense, distributed network of base stations in the small cell infrastructure

Core

- Massively scalable, highly reliable & automated
- Common cloud, generic VNF-M lifecycle managing IT & NW applications
- NW slicing, e2e orchestration, catalogue based provisioning

Transport

- Automation, intent based provisioning, change management synchronized across layers & vendors
- Simplified, Service Aware (enabled by SDN), Segment routing

High speed(>1 Gbps), Low power, Low latency (<5 ms)

Vodafone Idea is already embedding key 5G technologies in 4G+ deployments

- **Massive MIMO** – largest deployment of ma-MIMO in India (2nd largest in the world)
- **Cloud** - Early move to Cloud, for key NW applications, embedding agility and efficiency advantage. Largest edge cloud locations in India.
- **Automation** - Analytics enabled fabric design, efficient, automated
- **Local Caching , Hyper-scale Transport Architecture** - Deploying the TX and core network in line with the 5G design principles.

Vodafone is about to launch 5G in Europe

Vodafone is 5G Ready

The screenshot shows a news article on the website telecom.economictimes.indiatimes.com. The article title is "Vodafone to switch on 5G network in UK on July 3". The sub-headline reads: "Vodafone on Tuesday announced that its 5G network would go live in the UK for both common consumers as well as business customers on July 3, giving the UK its first official 5G launch date." The article is dated May 14, 2019, at 17:26 IST. The main text of the article states: "London: Vodafone on Tuesday announced that its 5G network would go live in the UK for both common consumers as well as business customers on July 3, giving the UK its first official 5G launch date." It also mentions that "Birmingham, Bristol, Cardiff, Glasgow, Manchester, Liverpool and London will be among the first cities in the world to receive 5G and Vodafone will price 5G the same as 4G." The article is powered by Ciena, with a sub-headline "THE ADAPTIVE NETWORK™ How does a smart city get smarter?" and a "Get smart" button.

EU sites are being enabled for 5G (SRAN & backhaul)

First to announce 5G launch in the UK

Roll-out to 50+ cities in 9 markets by end of FY 20

<https://telecom.economictimes.indiatimes.com/news/vodafone-to-switch-on-5g-network-in-uk-on-july-3/69326713>

Thank you