

Towards 5G enabled Gigabit Society

Chaesub LEE
Director, ITU/TSB



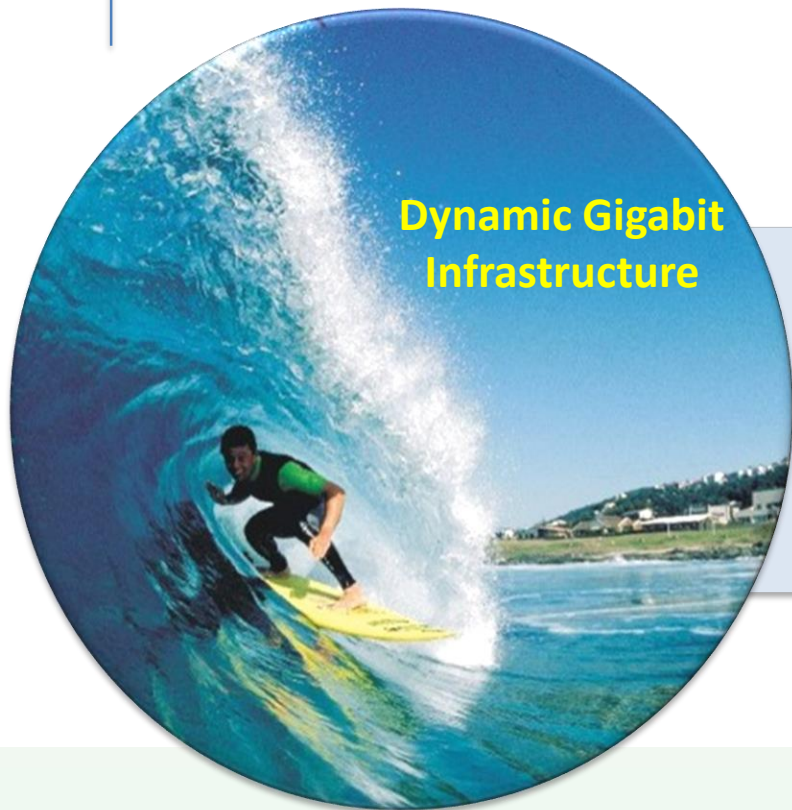
Contents

1. Near Future

2. IMT-2020/5G

3. Set the Context

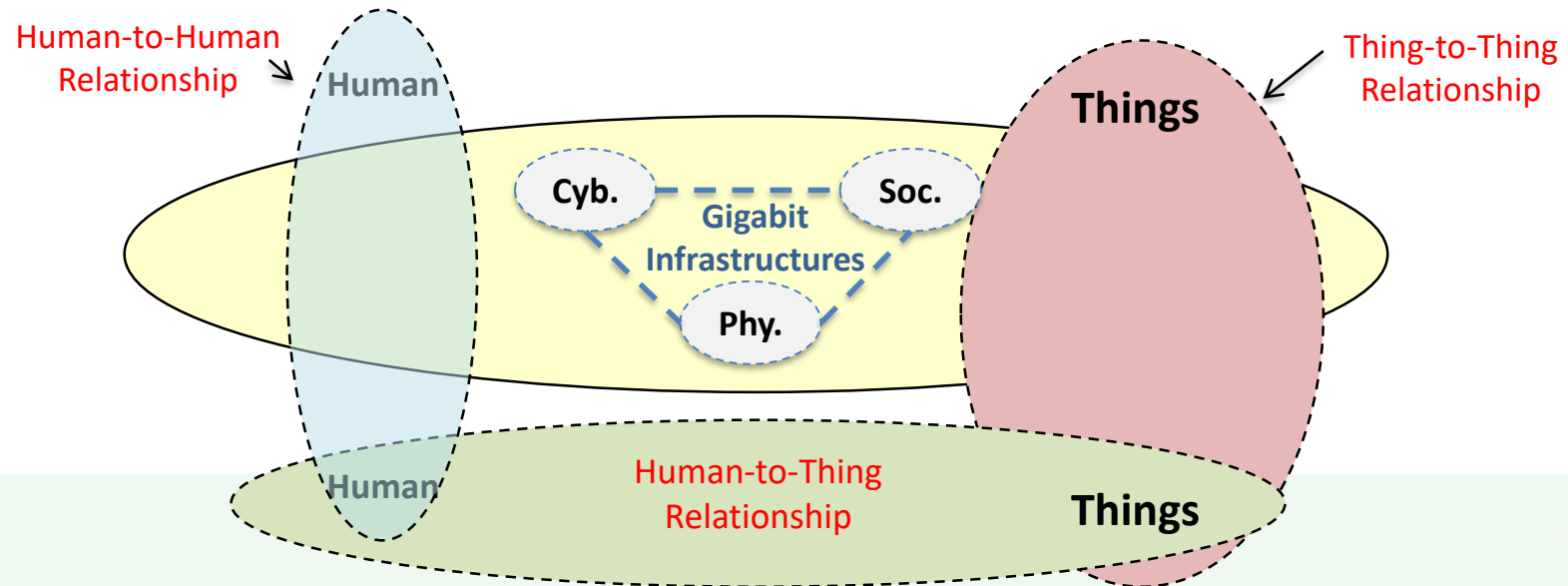
Near Future (1): Vision of Gigabit Society



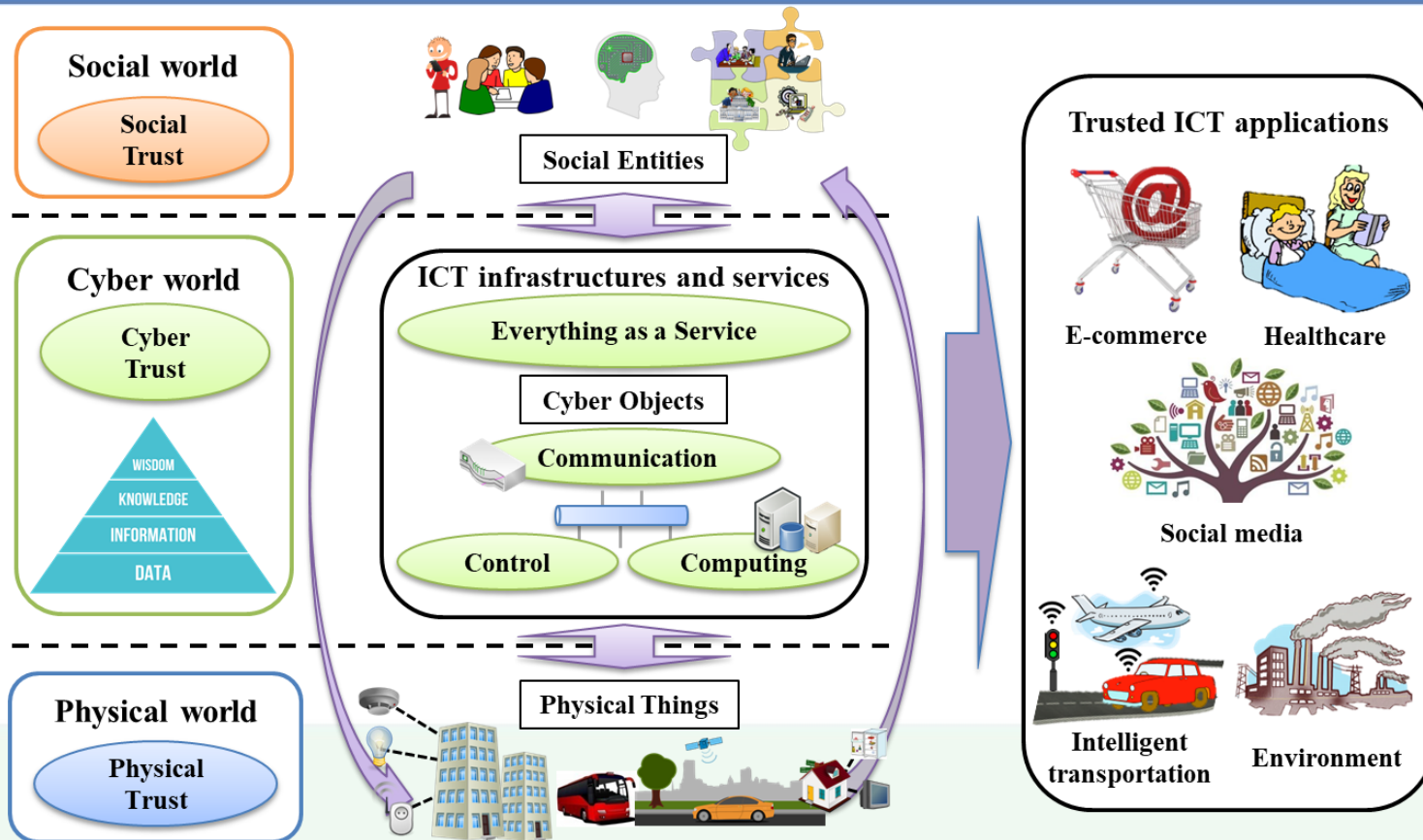
Being **Smart**
Building **Trust**

Near Future (2): Diverse Living Environments

- **Diverse of communications: Human and Things (inc. Objects)**
- **Less human intervention: Autonomous**
- **New living spaces over Gigabit Infras: Cyber and Social spaces**
- **E-Society (Cyber & Social society) becoming basic form of life**



Near Future (3): Trusted SCPs



Near Future (4): ICTs for being Smart

Being
Smart

Collaborative Knowledge (Op)

Compatibility (Ser/App)

Integrity (Platform)

Interoperability (Data)

Interconnectivity (Infra)

Quality of
Smartness

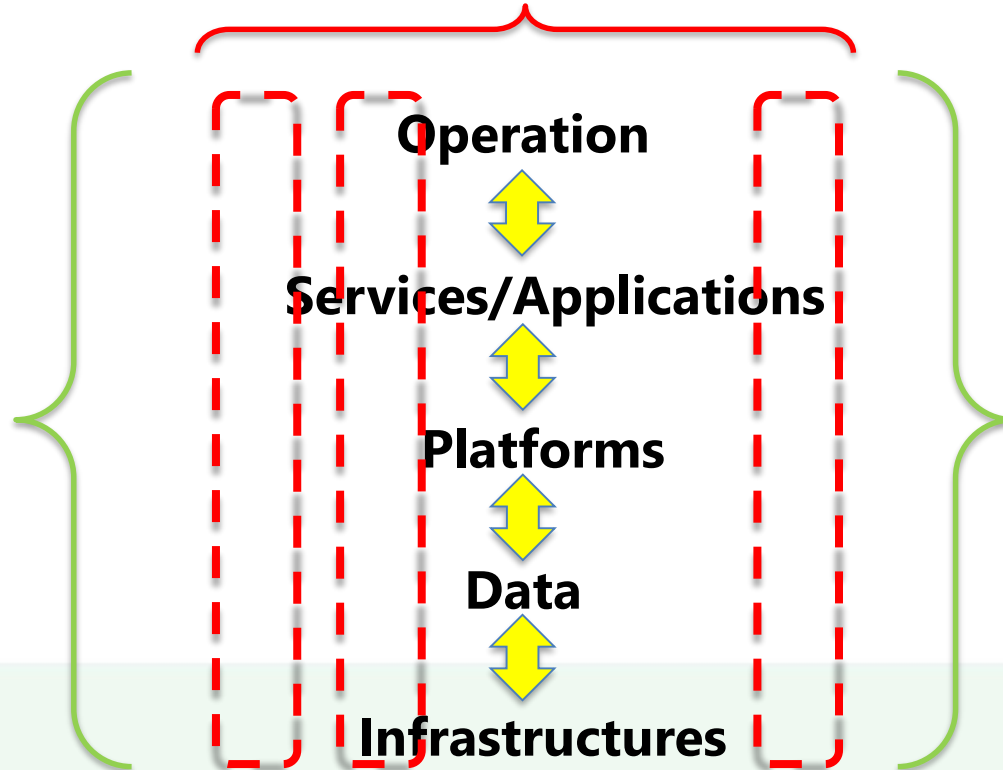
Quality of
Convenience



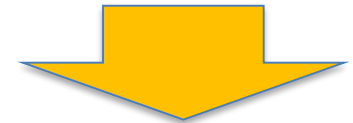
Near Future (5): Today ICTs

Industry by Vertical (Silo Structures)

**ICTs
Today**



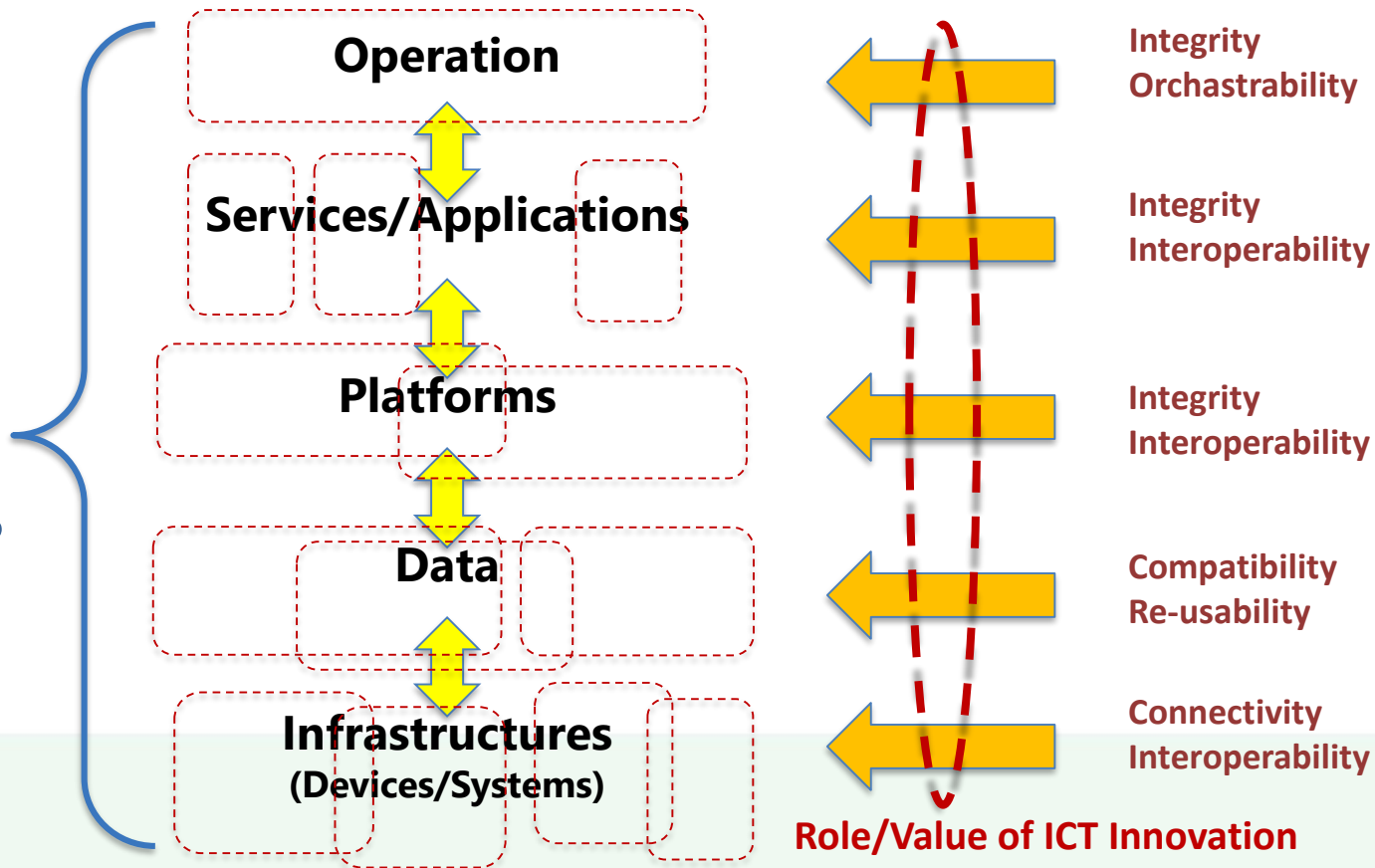
Fragmented
Restricted Knowledge
In-Efficiency
In-Effectiveness



**Difficult being
Smart**

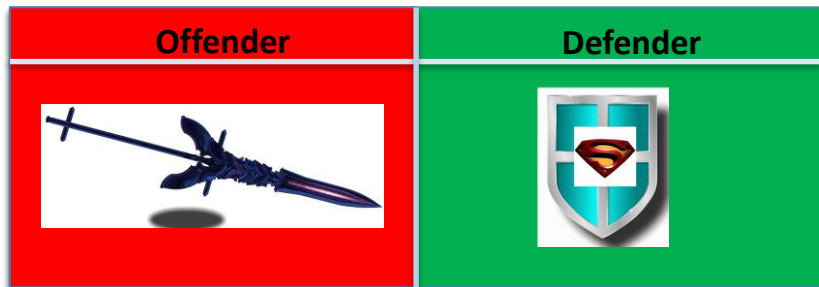
Near Future (6): Role of ICT innovations for being Smart

Smart
Verticals
+
Today
Societies

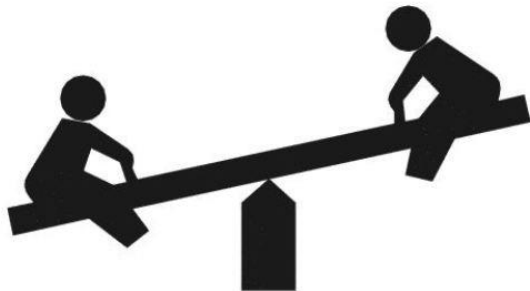


Near Future (7): Trust with Security and Privacy

Ensure security is never ending story

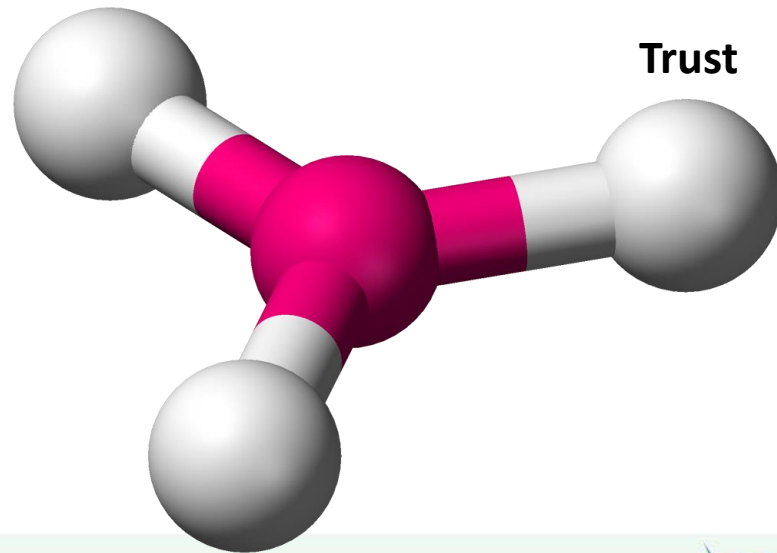


Security and Privacy is a seesaw game



Privacy

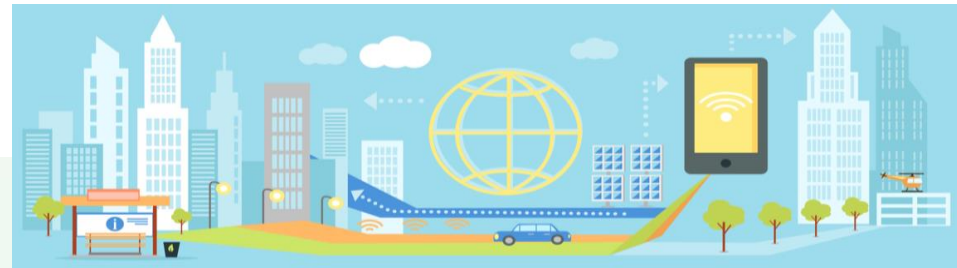
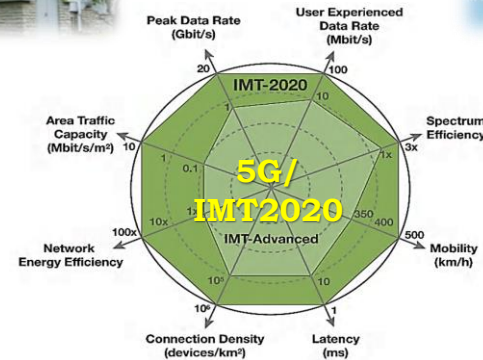
Trust



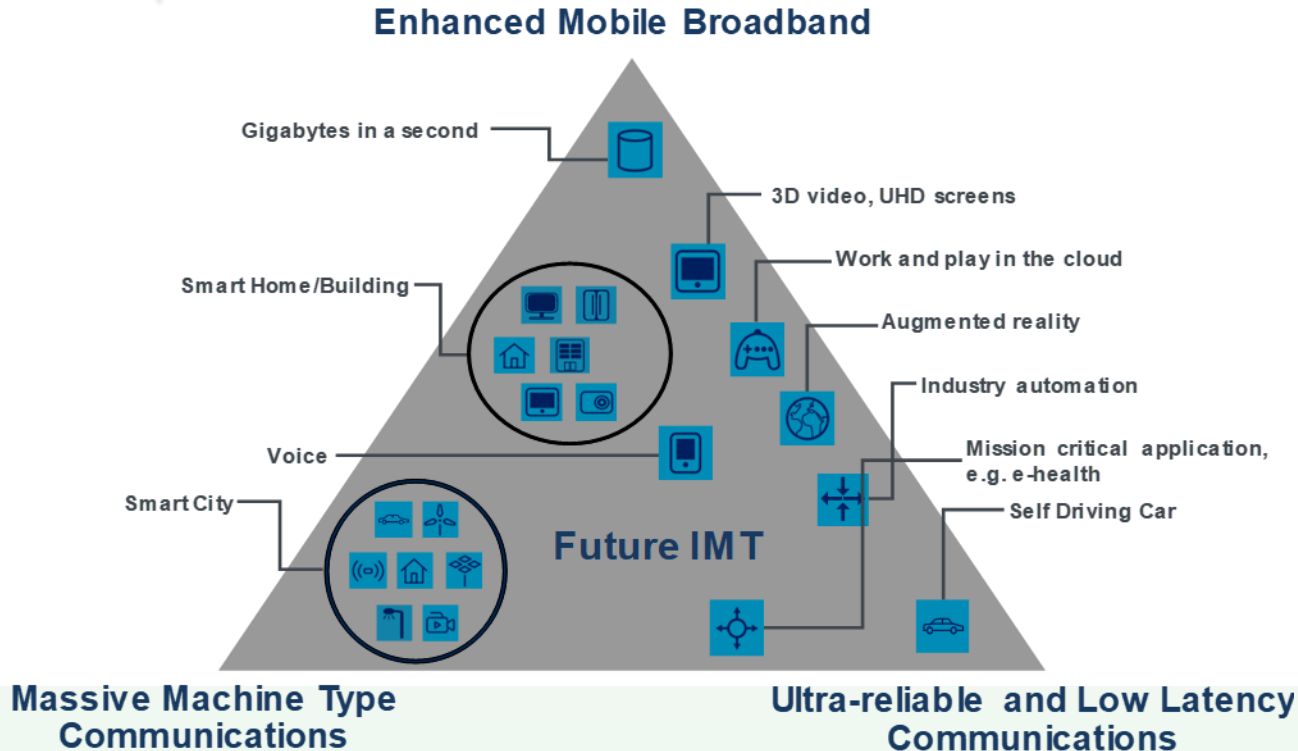
Security

IMT-2020/5G: Value and Usage of 5G (1)

- **Connected Cars, Intelligent Traffic Systems, Automatic Driving/Drone**
- **Smart Sustainable City / Village / Community / Islands with IoT**
- **e/m-health, e/m-education and e-farming with Virtual Reality and Augmented Reality**
- **Waste/water management, early warning and disaster relief**
- **Integrated platform for Mobile and Fixed Telephony, Broadband and Internet**



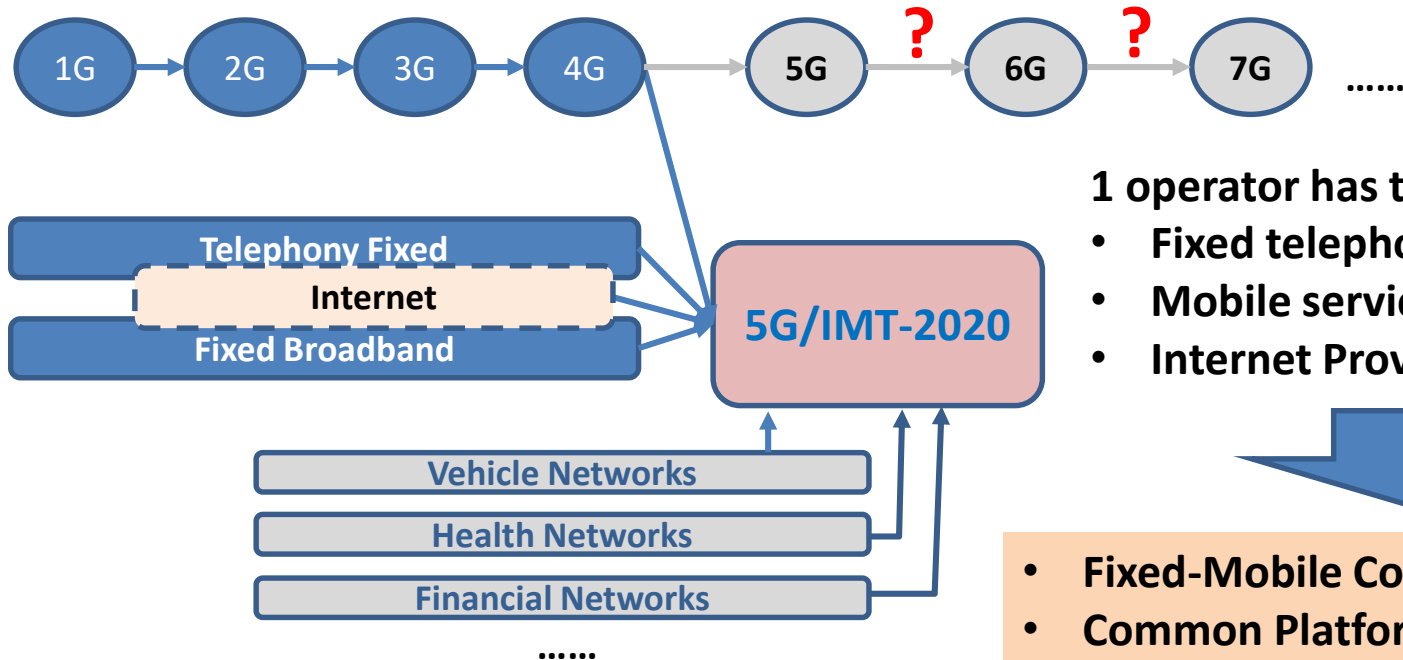
IMT-2020/5G: Value and Usage of 5G (2)



Values of 5G for:

- **Administrations & Users**
- **Operators**
- **System manufacturers**
- **Service/Application developers & providers**

IMT-2020/5G: Value and Usage of 5G (3)



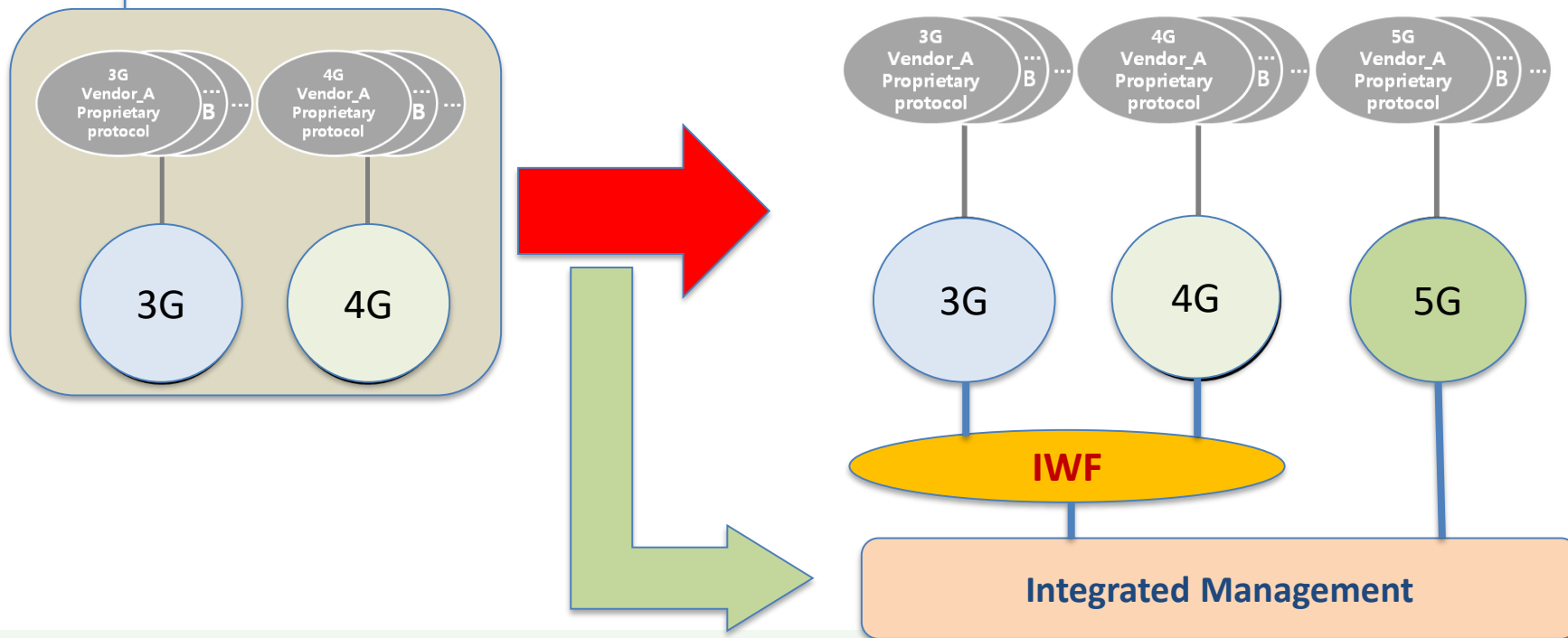
1 operator has three provider roles:

- Fixed telephony and Broadband
- Mobile service provider
- Internet Provider



- Fixed-Mobile Convergence Network
- Common Platform for Verticals
- Integrated Services Flexible Smart Managed Network

IMT-2020/5G: Value and Usage of 5G (4)

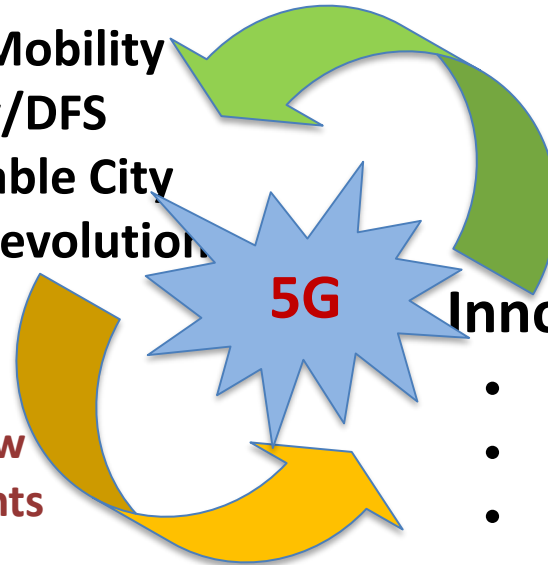


Set the Context (1): Expected role of 5G

Innovation by ICTs

- Smart Grid & Mobility
- Mobile Money/DFS
- Smart Sustainable City
- 4th Industrial Revolution

Collect new
requirements



Bring new
capabilities

Innovation of ICTs

- Cloudrization
- Softwarization
- IoT/Data PM
- AI & ML
- Emerging Networks

Set the Context (2): Equality vs Equity over 5G



Set the Context (3): Key issues for the days

Day
1

- Session 1: National Policies and Strategies for 5G
- Session 2: Evolving Regulatory Frameworks Fostering 5G Implementation
- Session 3: Future Networks and 5G
- Session 4: Implementation of 5G Pilot Projects

Day
2

- Session 5: Spectrum Issues Related to 5G
- Session 6: Challenges and Opportunities in the Telecom Sector Implementing 5G
- Session 7: 5G for Smart Cities
- Session 8: 5G for Connected and Automated Vehicles
- Session 9: Fostering 5G Innovation Ecosystem



www.itu.int