



Broadband for All

ITU Regional Development Forum for the Asia-
Pacific (RDF-ASP) ICT④SDGs
21-22 May 2018

Broadband Development Challenges in Less Connected Geographies

Infrastructure Cost

High CAPEX

- Tower, Satellite, D.G., Foundation, Fence, Transportation, installation, Site access (Road)

High Opex

- Fuel fee, Transmission rental fee, site rent, maintenance, Site Access (Road)

Spectrum **

Deployment Challenges

Site Access
(Road/land)

Grid
Connectivity

Backhaul

Security

Affordability

User Devices

Data Service
Cost

Adoption

Digital
Awareness

Low
Penetration

Complex
Service
delivery

Operations and Scalability

Operations
and
Maintenance

Technology
Evolution

Community
Engagement

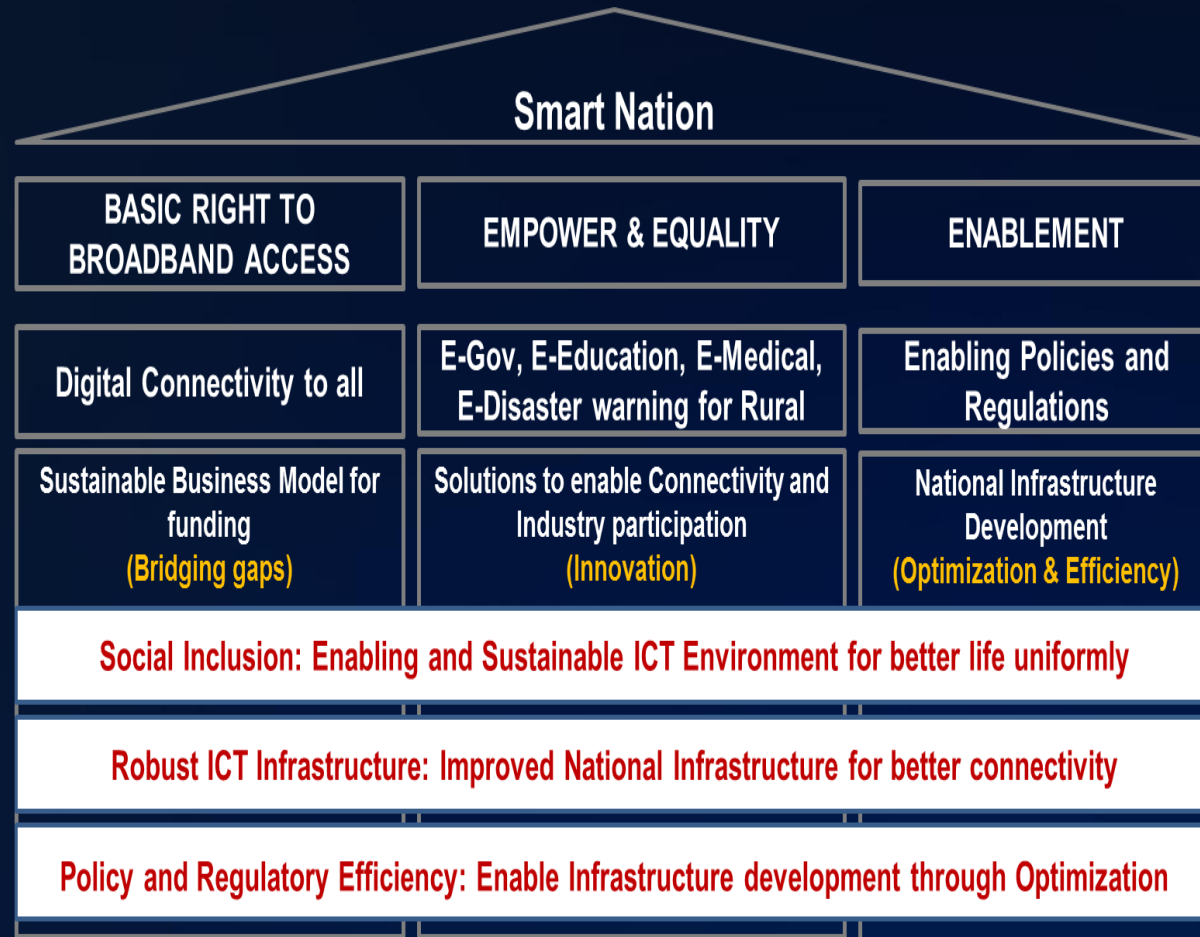
Service
Inclusion

Maturity of National Broadband plans, Policies and Regulations

Collaboration based on Sustainable Business Model (Funding) and Right-fit coverage solution only can address the challenges



The Fundamental Need of a National Broadband Plan



Current Status of National Broadband Policy

9-20 October

ITUWTC BUENOS AIRES 2017

- 8 countries fully approved the NBP at the highest level while the rest are close to finalizing
- All these policies set out clear vision, key objectives and principles as well as short/mid-term goals
- Provided with thorough BB Implementation Action Plans with responsible organizations and targets) including:
 - Broadband availability targets
 - Plans for reducing regulatory burdens
 - Review of licensing/spectrum management
 - Improving adoption, affordability
 - Universal Service Obligations
 - Sector-specific application (e-gov, e-health, e-education, etc.)
 - Fostering innovation and local service/contents

Approved

Bhutan, Brunei, Fiji, Indonesia, PNG, Nepal, Pakistan, Samoa

Under Review

Bangladesh, Cambodia, Lao PDR

In Draft

Philippines, Myanmar, Marshall Islands, Vanuatu

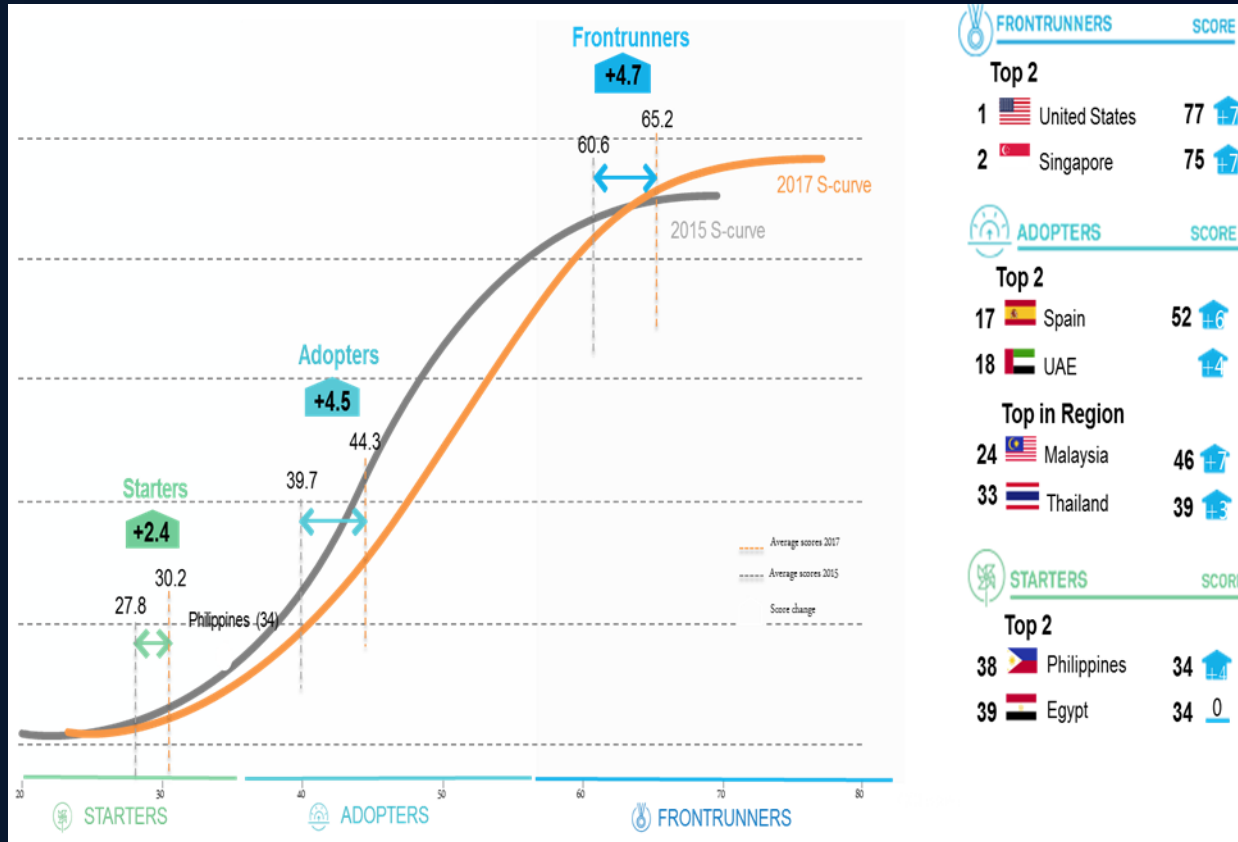
CELEBRATING 25 YEARS OF ACHIEVEMENTS

National Broadband Plan lays the foundation for ICT development focus

Ecosystem Responsibility

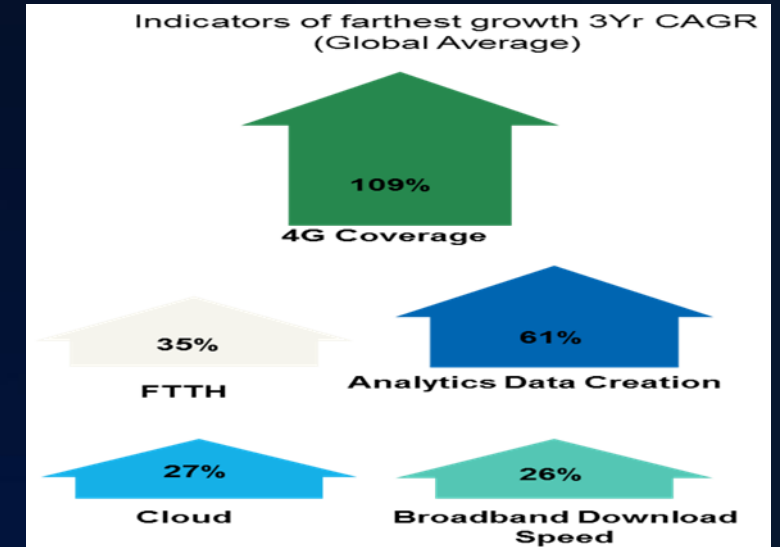
To go Fast, run alone, To go Far run together – African Proverb

Enabling the ICT Infrastructure Development



ICT Fuels Economic Growth

More Coverage
Key to Faster
Growth



Affordability Key to Sustained Growth

Source: GSMA 2017 Mobile Industry Impact Report : Sustainable Development Goals, GCI 2017

Connectivity through ICT Infrastructure development results in Inclusive, Sustainable Economic Growth

Establishing a sustainable Universal Access and Service Fund (UASF)

Universal Service - services covered and operator obligations (Latest data available: 2017)	
Definition of universal service/access exists	Yes
Universal access/service policy adopted	Yes
Voice services included in Universal service/access definition	• Voice telephony services
Internet services included in Universal service/access definition	• Broadband as part of universal service definition
Other services included in Universal service/access definition	• Telecentres as part of universal service definition • Schools (primary, secondary post secondary) ; • Services for impaired/ elderly • Women and girls
Operators under universal access/service obligation	• All operators
Operators/service providers required to offer below-cost prices	No

Country I

Universal Service - services covered and operator obligations (Latest data available: 2002)	
Definition of universal service/access exists	Yes
Universal access/service policy adopted	*
Voice services included in Universal service/access definition	• Fixed line public payphone service as part of universal service definition
Internet services included in Universal service/access definition	*
Other services included in Universal service/access definition	• Emergency services as part of universal service definition
Operators under universal access/service obligation	*
Operators/service providers required to offer below-cost prices	*

Country P

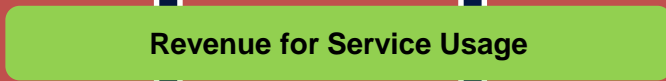
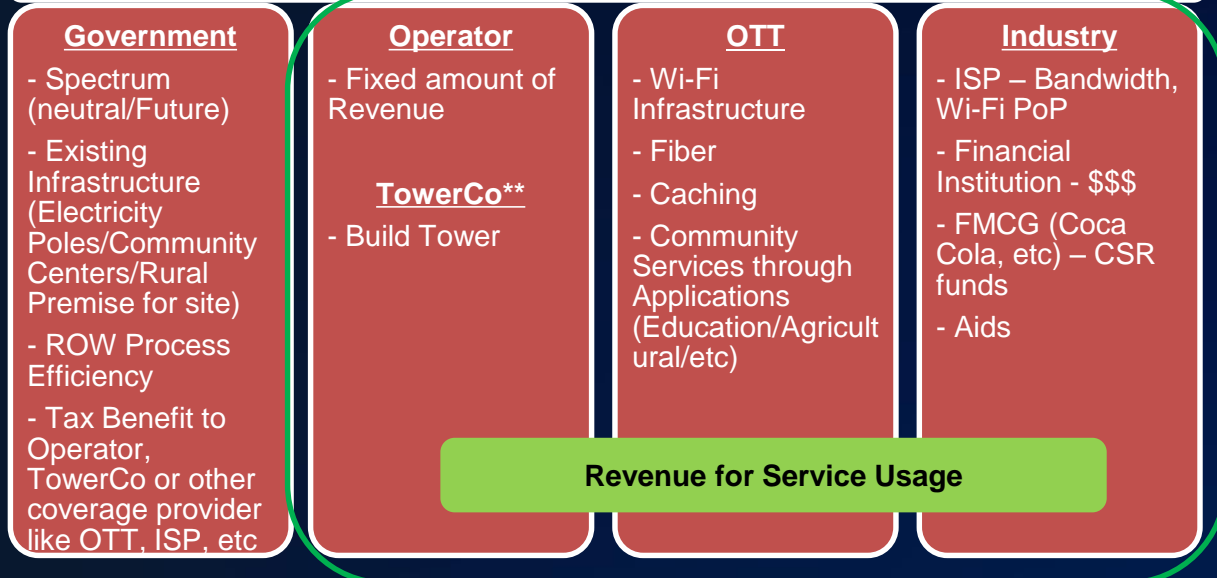
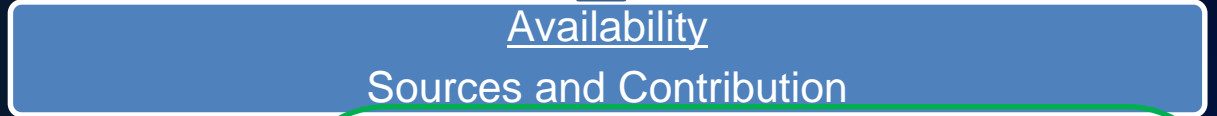
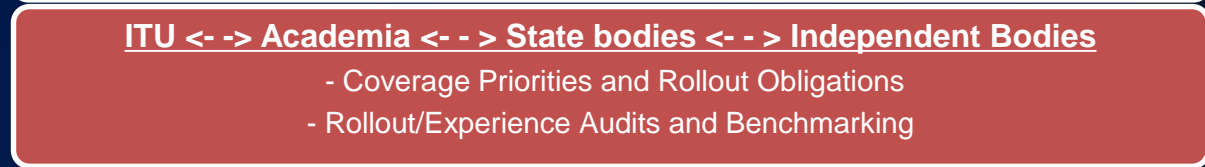
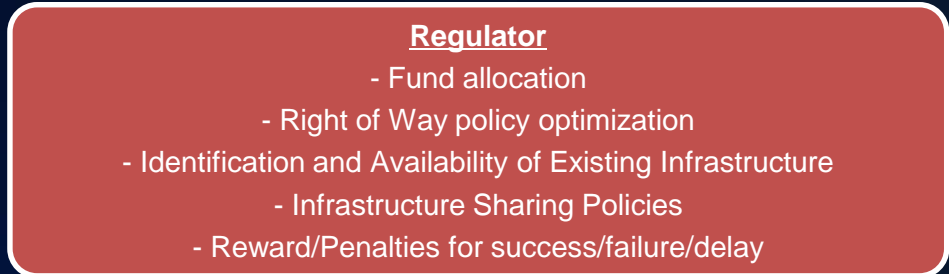
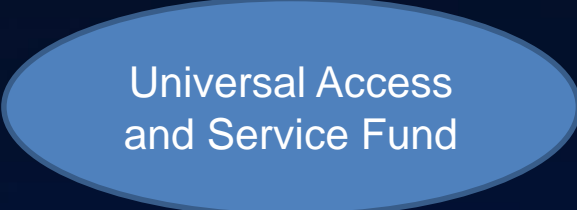
Financing of Universal Service activities and/or Universal Service Funds (Latest data available: 2017)	
Means of financing operator(s) universal access/service obligations	• Universal service funds
Operational Universal Service Fund	Yes
If Yes, when?	
Operators/ service providers required to contribute to USF	• All operators
Means of calculating USF contribution amounts	• Percentage of total gross revenues (turnover) Percentage: 1.25%,
USF financed by other sources	No
USF budget financing by source (in percentage)	
Regulator administrating USF	No
If No, name the entity responsible [2004]	Ministry of finance
Other financing mechanisms for the provision of Universal service	No
If Yes, please explain	

Financing of Universal Service activities and/or Universal Service Funds (Latest data available: 2002)	
Means of financing operator(s) universal access/service obligations	• Cross-subsidy between own services (internal financing) • Access interconnection charges
Operational Universal Service Fund	*
If Yes, when?	*
Operators/ service providers required to contribute to USF	*
Means of calculating USF contribution amounts	*
USF financed by other sources	*
USF budget financing by source (in percentage)	*
Regulator administrating USF	*
If No, name the entity responsible	*
Other financing mechanisms for the provision of Universal service	*
If Yes, please explain	

Important for tapping on Global Fund sources

Business Model – For Accelerated Connectivity

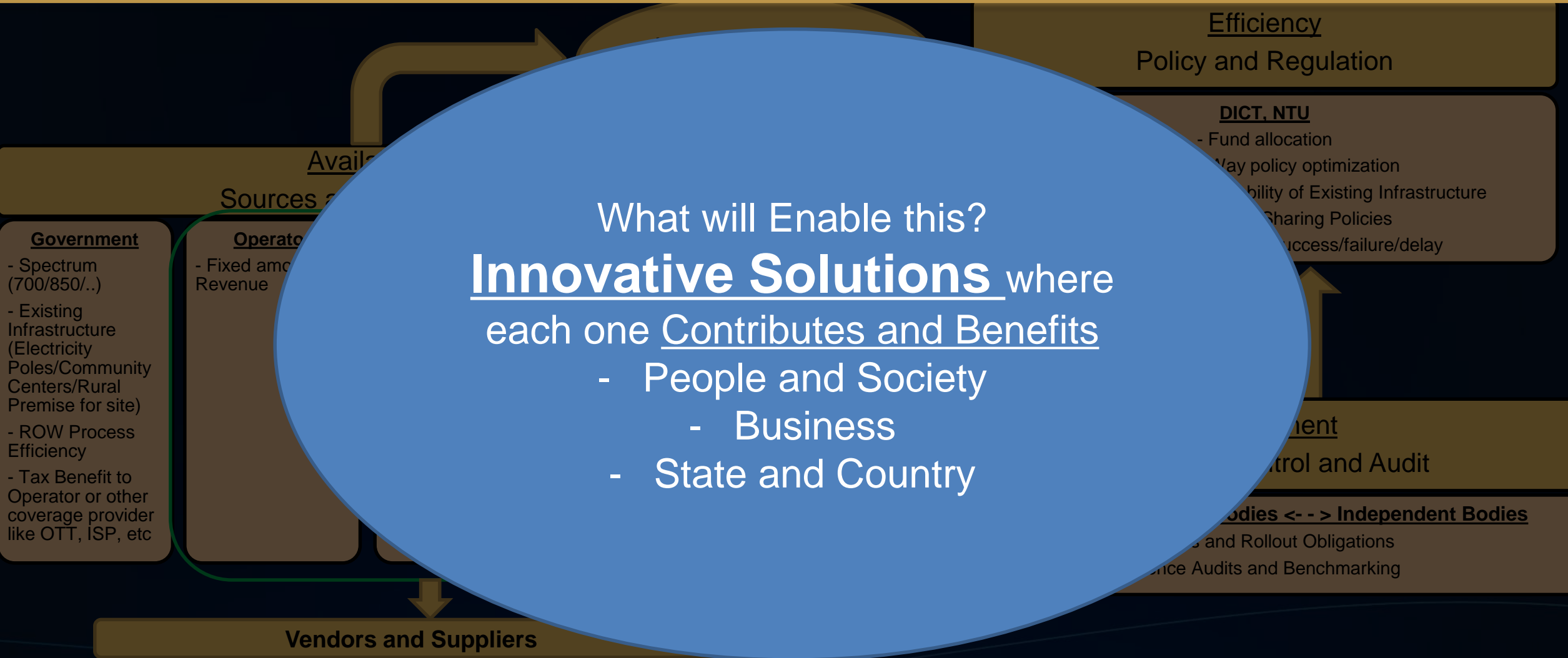
Establishing a sustainable Universal Access and Service Fund (UASF)



Government + Communities + Operators + Business + Industry + Universities + Associations + = Enable Integrated Society

Business Model

Establishing a sustainable Universal Access and Service Fund (UASF)



What will Enable this?

Innovative Solutions where each one Contributes and Benefits

- People and Society
- Business
- State and Country

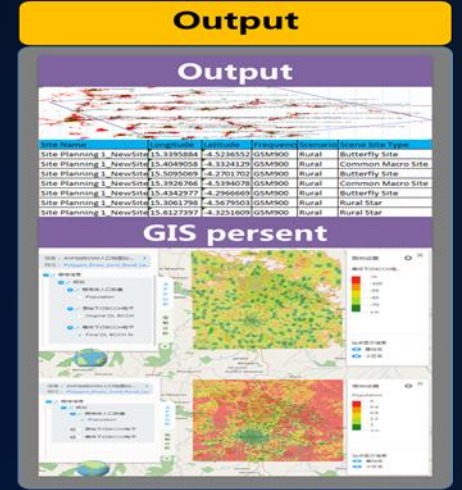
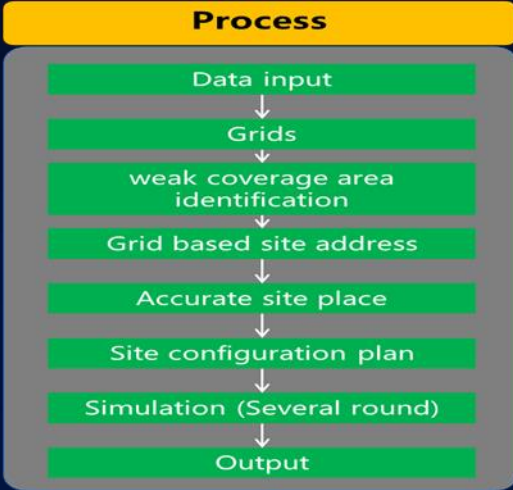
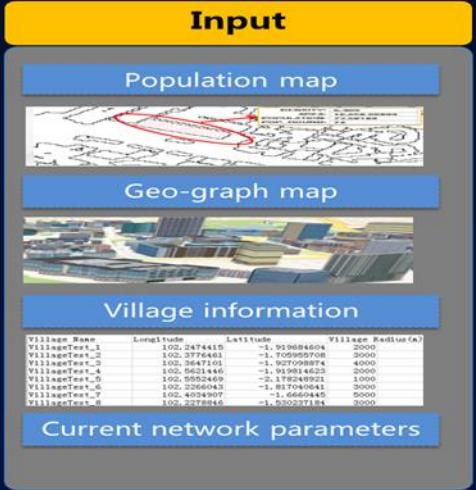
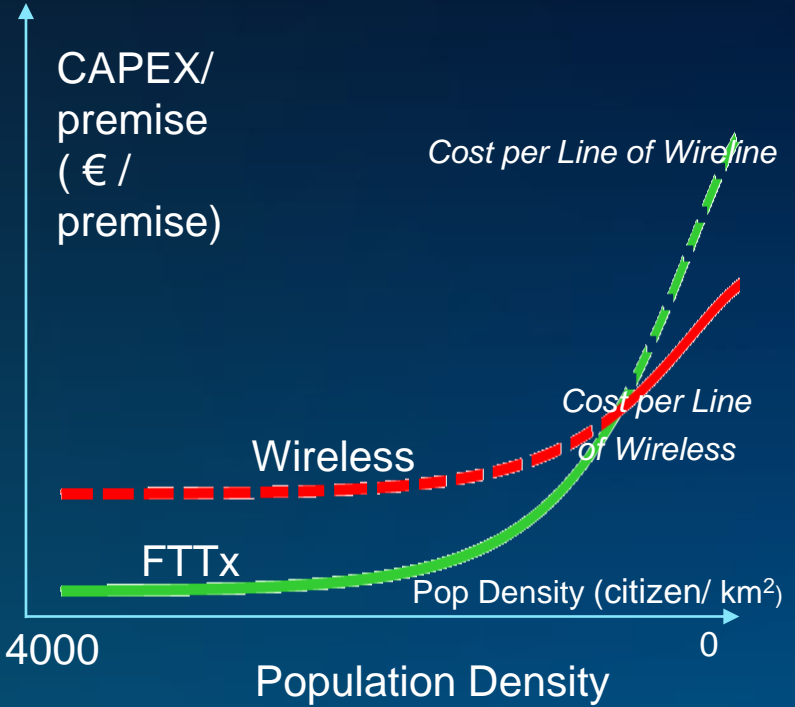
Government + Communities + Operators + Business + Industry + Universities + Associations + = Enable Integrated Society

To go Fast, run alone, To go Far run together – African Proverb

Wireless Solution – Key to Connecting the unconnected

Precise Planning: For Investment Protection and Maximize reach

Cost Trend of FTTx & WBB



- Sparsely pop areas
- WTTX ~ 40Km coverage
 - Up to 100Mbps experience



- Island and Remote areas
- Easy Deployment
 - Low CAPEX

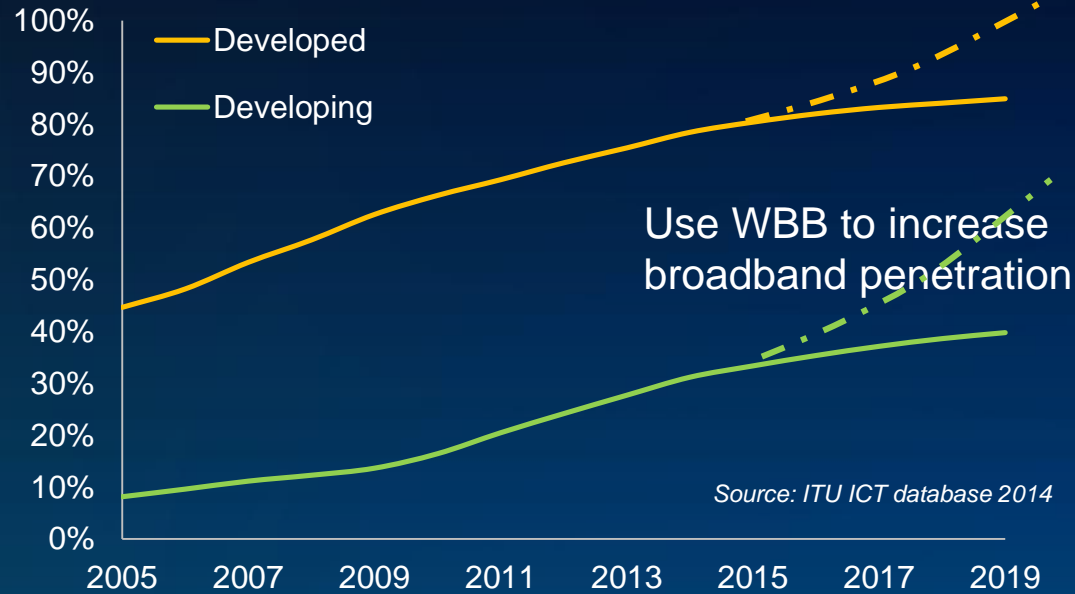


- Future Readiness through ICT
- Fast TTM
 - Abundant service: VOIP, home video, IPTV etc
 - Attractive enterprise business

Wireless Broadband Solution key to ICT development in the Islands for both Home and other areas

WBB Speeds Up Broadband Development

Households broadband penetration



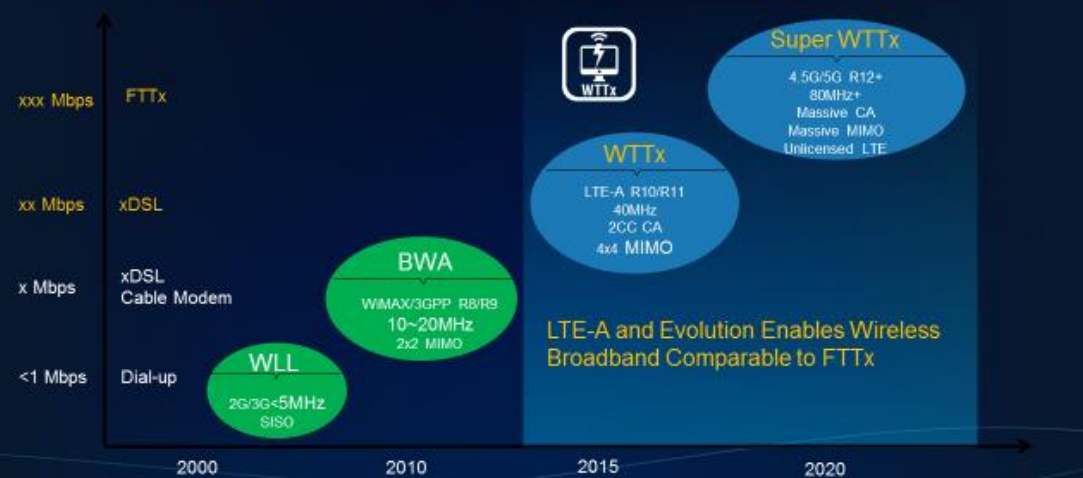
Developed country: High FBB penetration, low growth rate.

Demanding new broadband to cover more scenarios.

Developing country: Low FBB penetration, demanding

quick available and low cost broadband.

WTTx: New Era of Wireless Broadband



Deployment in Srilanka and Philippines have led to inclusive Broadband growth

Utilizing Existing Infrastructure For Cost savings and efficiency



Scenario 1:

9-11m Pole (Existing)

- Hotspot site
- Leverage on existing pole infra
- BTS Fibre



Scenario 2:

16-18m Pole (Existing)

- Hotspot site/blind-spot
- Leverage on existing pole or new infra
- BTS Fibre



Scenario 3:

>30m Tower

Rural site, driven by coverage demand

Leverage on existing pole or new infra

BTS Fibre

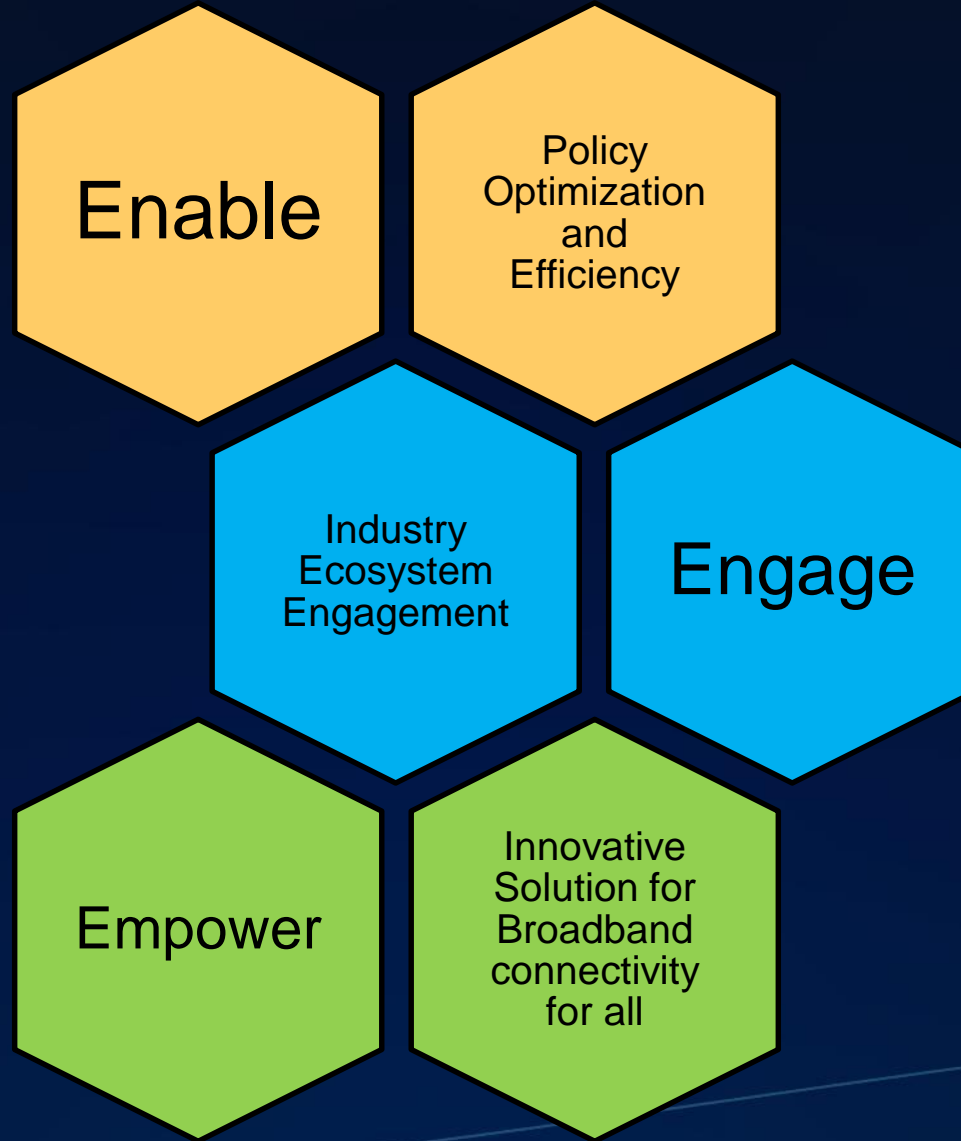
Reduce Deployment Cost

Expedite TTM

Efficiency in Resource Plan

Inclusive Broadband coverage

Summary





Thank You.

Copyright©2018 Huawei Technologies Co., Ltd. All Rights Reserved.

The information in this document may contain predictive statements including, without limitation, statements regarding the future financial and operating results, future product portfolio, new technology, etc. There are a number of factors that could cause actual results and developments to differ materially from those expressed or implied in the predictive statements. Therefore, such information is provided for reference purpose only and constitutes neither an offer nor an acceptance. Huawei may change the information at any time without notice.