



Ministry of Communication and Information Technology

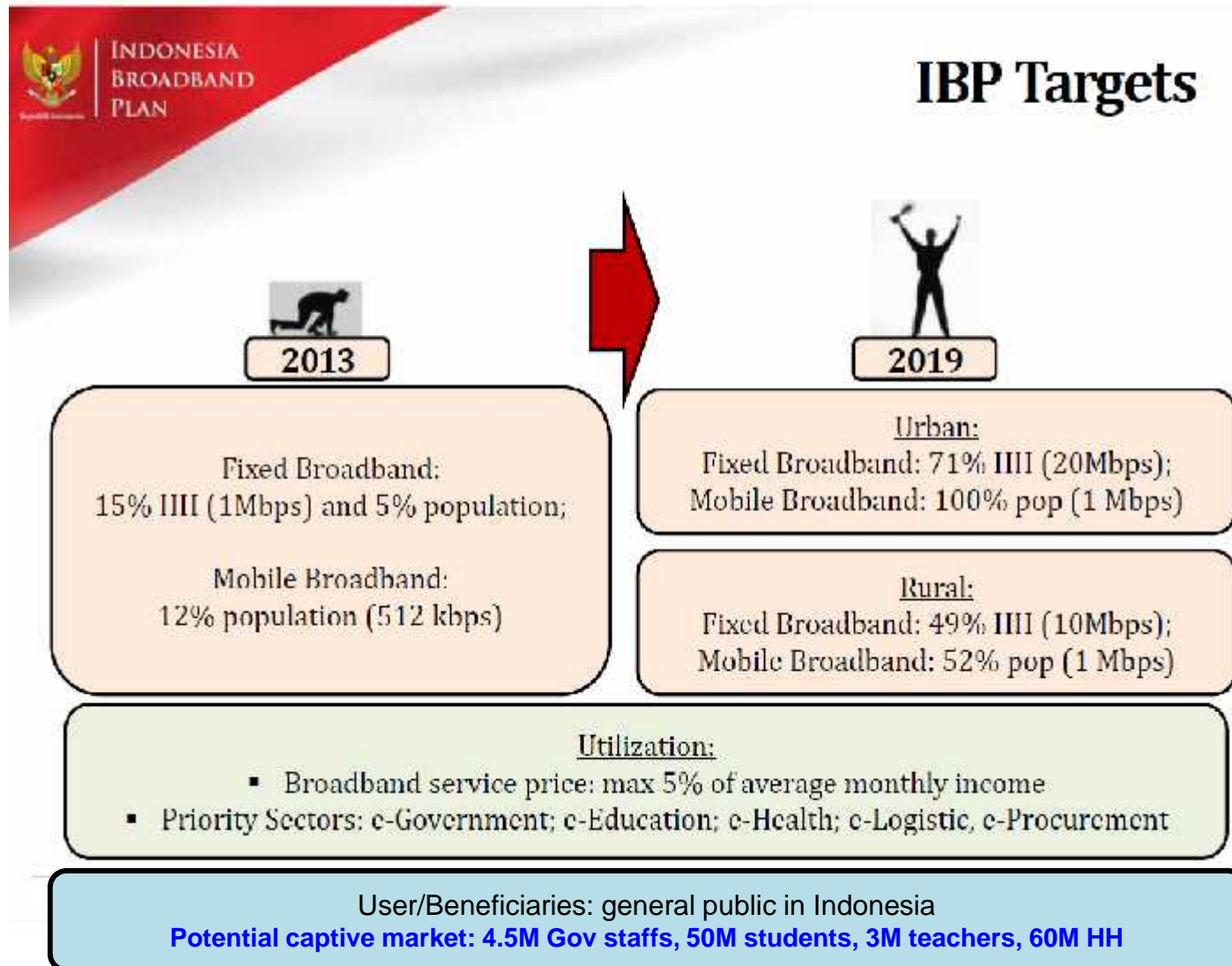
INDONESIAN BROADBAND DEVELOPMENT

ITU Asia-Pacific Regional Development Forum 2016

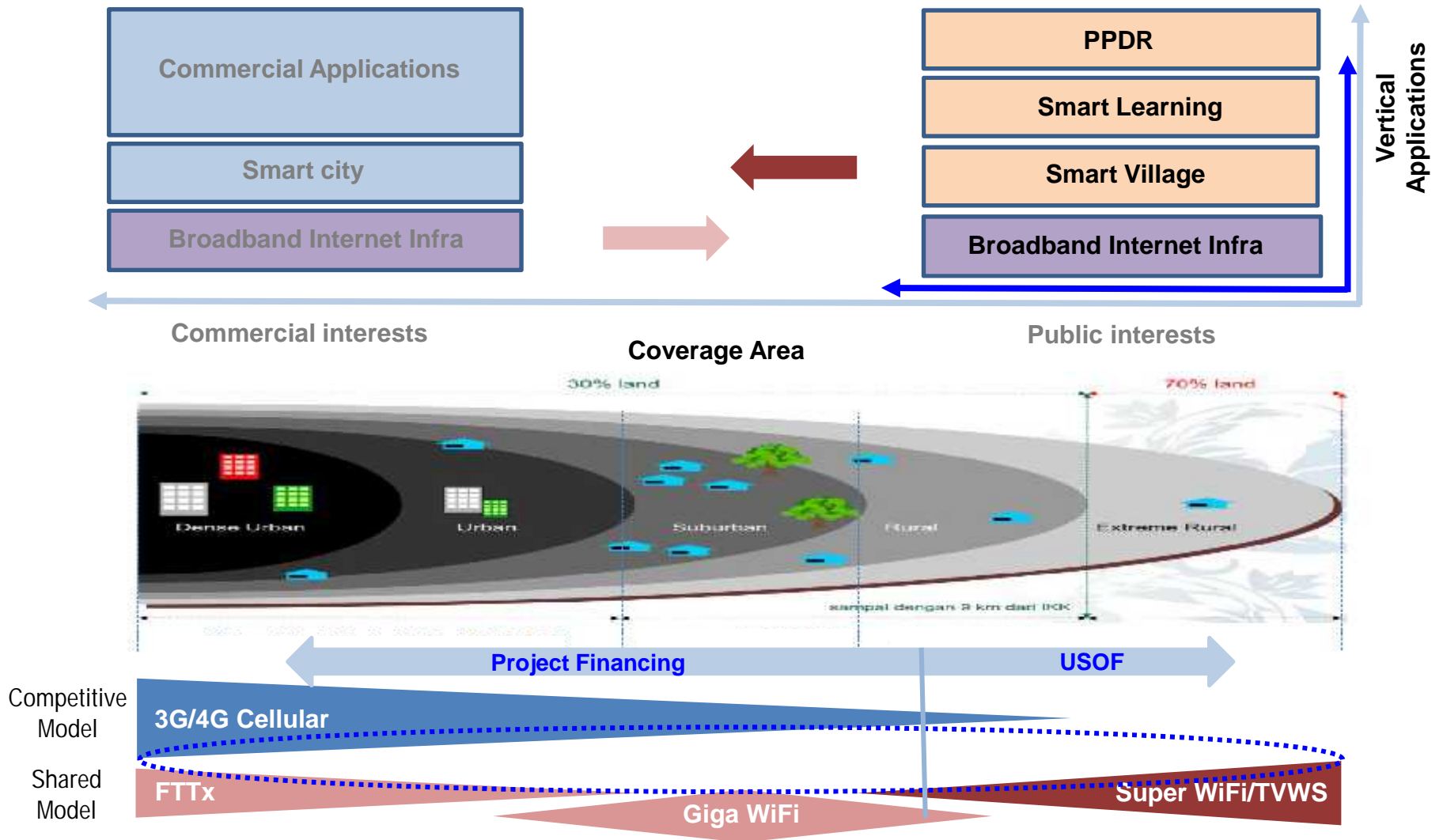
Manila, 7 June 2016

Dr. Ismail – Director of Broadband Development

Indonesia Broadband Plan



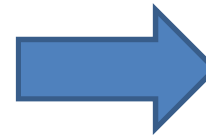
Deployment Model



STRATEGY DEVELOPMENT

Broadband Urban Infrastructure

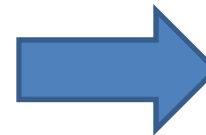
- Fix Broadband 71% Household (20 Mbps), 100 % building(1 Gbps) and 30 % population
- Mobile Broadband 100% population (1 Mbps)



- Corporate Initiative
- Market Driven
- Full Competition

Broadband Rural Infrastructure

- Fix Broadband 49 % household (10 Mbps), 6 % populasi
- Mobile Broadband 52% populasi (1 Mbps)



- Government Initiative
- USO fund
- Ecosystem approach

BROADBAND URBAN INFRASTRUCTURE

Government Policy and New Regulation to increase Industry Efficiency

- 1** Open Access
 - Incentive for non demand operator
 - To protect Public Interest
 - Optimization of Infrastructure

- 2** Infra Sharing
 - Network Efficiency
 - Cost effective
 - Speed up of infratructure development

- 3** Right Of Way
 - Support from Central and Local Government for Infrastructure Providers
 - Speed up time to market

- 4** Passive Infra sharing
 - Support from Central and Local Government for Infrastructure Providers
 - Speed up time to market
 - the beauty of the city planning

- 5** Managed Services
 - Open for non operator licences to support in operational and maintainace network
 - Operator more focus on investment and development of network

BROADBAND RURAL DEVELOPMENT

SCOPE OF USO PROGRAM

DIGITAL DIVIDE

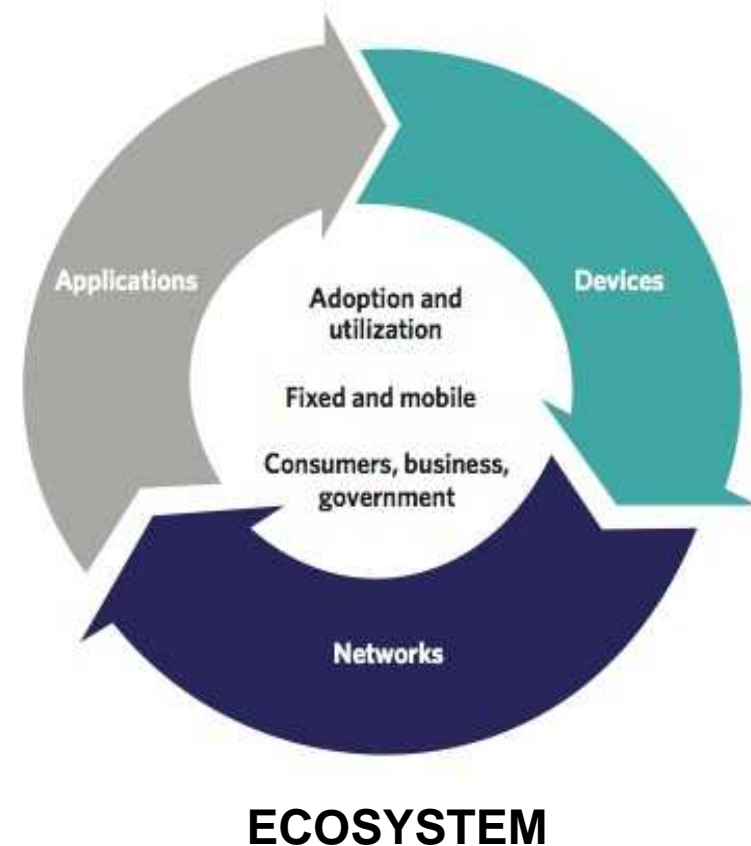
- a. Extending coverage (access) telecommunications services and information to reduce the digital gap between regions in indonesia
- b. Clustering according to the conditions and regional needs .
- c. Survey to determine the level of digital gap of each region.
- d. Working with the local government , operators , and stakeholder that support by USO Fund in sharing programme.

SUPPORTING INDUSTRY

- a. Provide a common infrastructure facilities for the industry to boost efficiency and industry.
- b. Creating demand
- c. Measuring readiness and support stakeholders
- d. Extending the use of information and endurance communities.

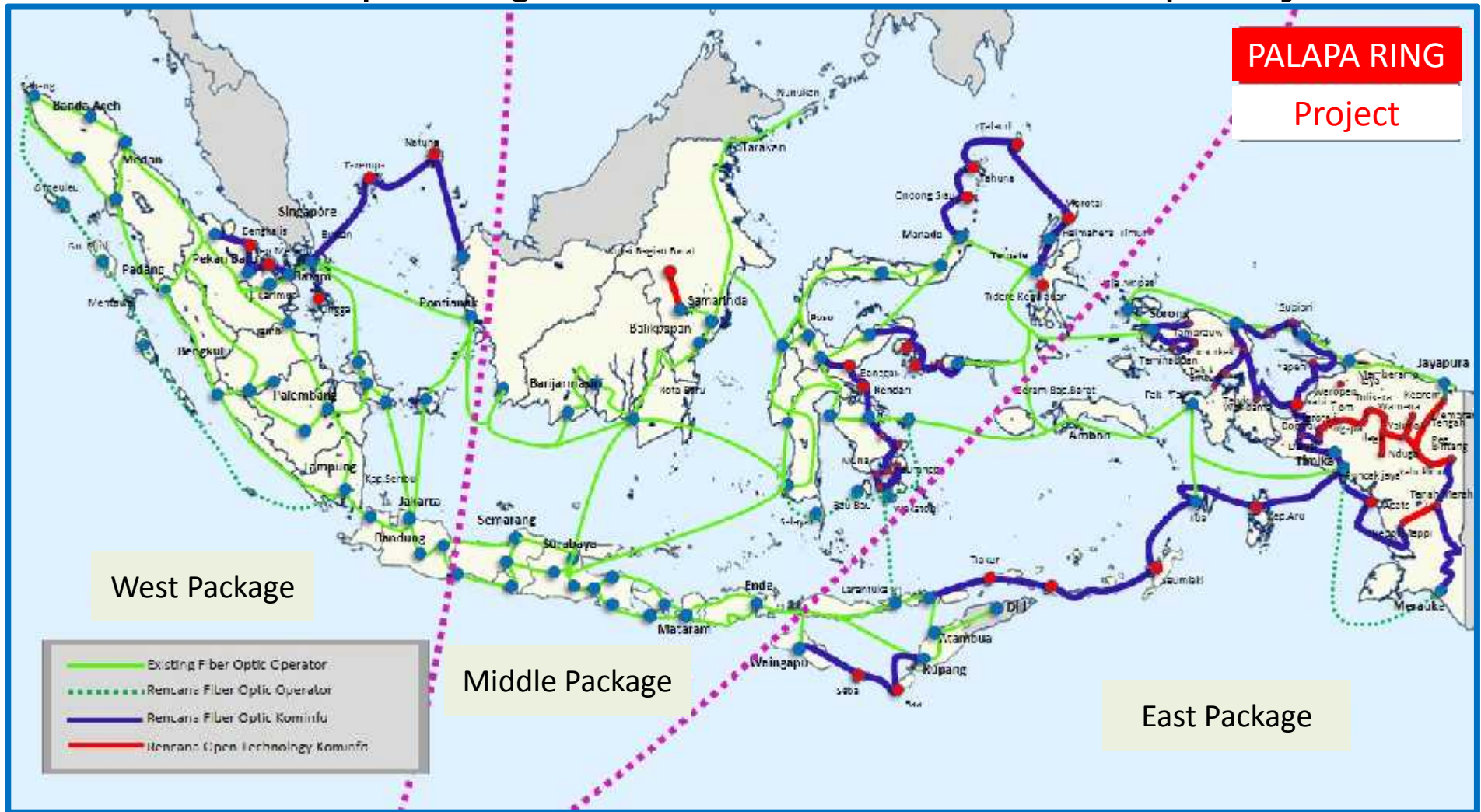
STRATEGY OF BROADBAND RURAL DEVELOPMENT

- **Comprehensive** : not only infrastructure but also ecosystem of infrastructure
- **Bottom-up**: aspiration, and involvement local government, telco operator and society.
- **Clustering** : pilot project
- **Sinergy**: multi stakeholder





BROADBAND FIBER OPTIC BACKBONE

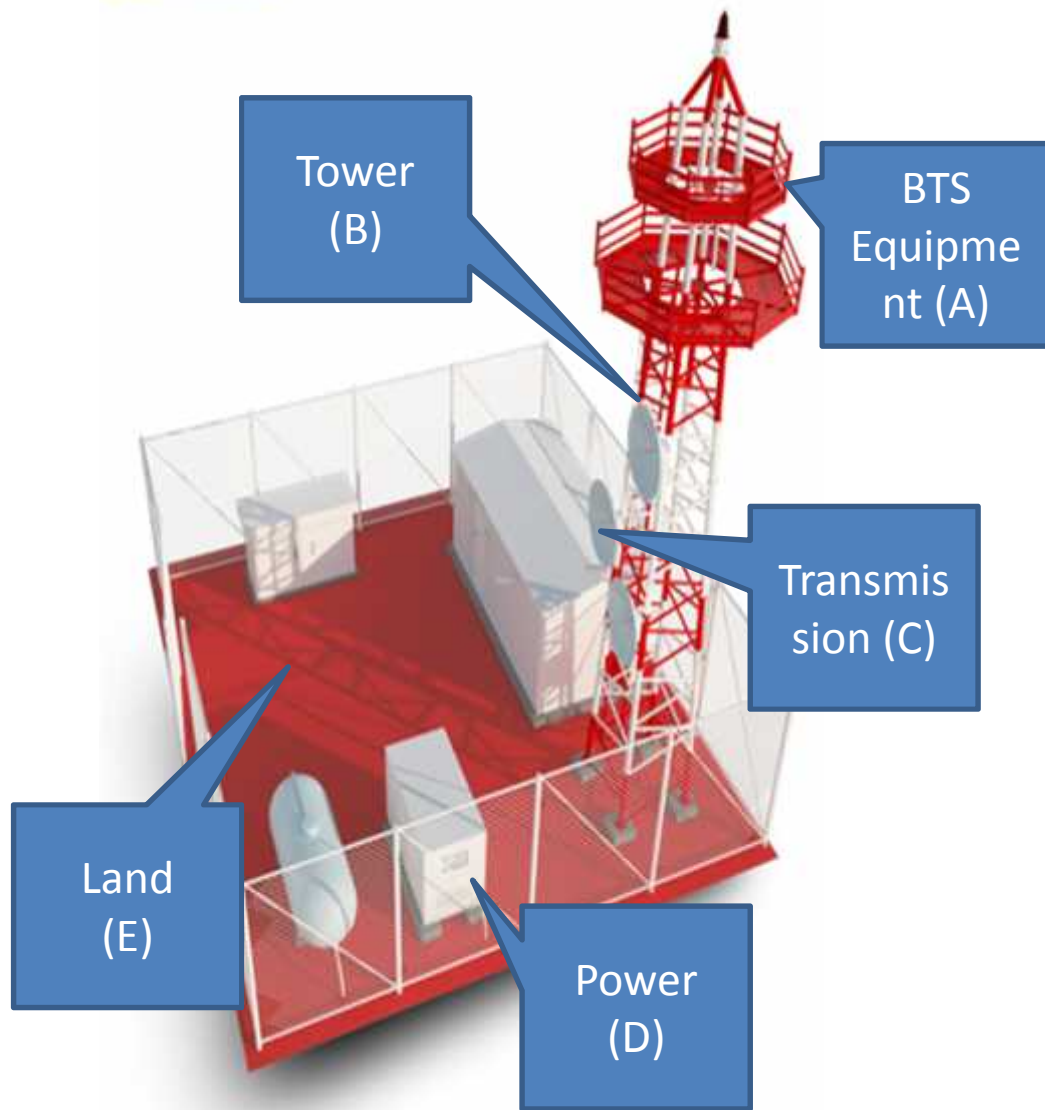
“ Palapa Ring ” : Public Private Partnership Project



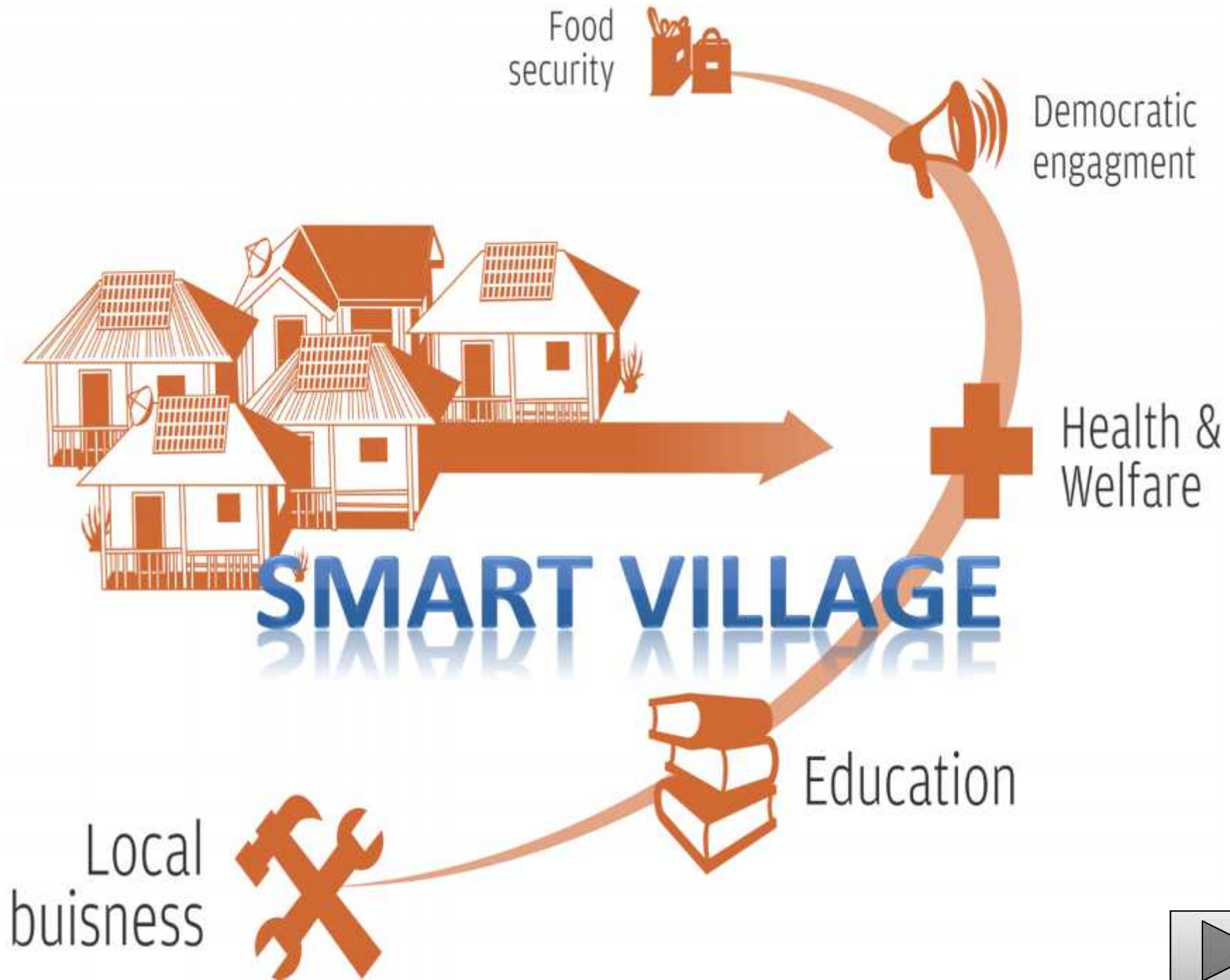
Project Scope

	West	Middle	East
 Number of Province	2	5	4
 Number of District	5	17	35
 CAPEX Estimation	USD 92,504,000	USD 99,250,000	USD 370,504,000
 Length of Cable	1.980 km 88.9% Sea Cable 11.1% Land Cable	2.647km 63.1% Sea cable 32.4% Land Cable 4.5% microwave	6.224 km 60.7% Sea Cable 22.3% land Cable 12% microwave
 Target	2018	2018	2018

BTS DEVELOPMENT IN RURAL AREA SINERGY

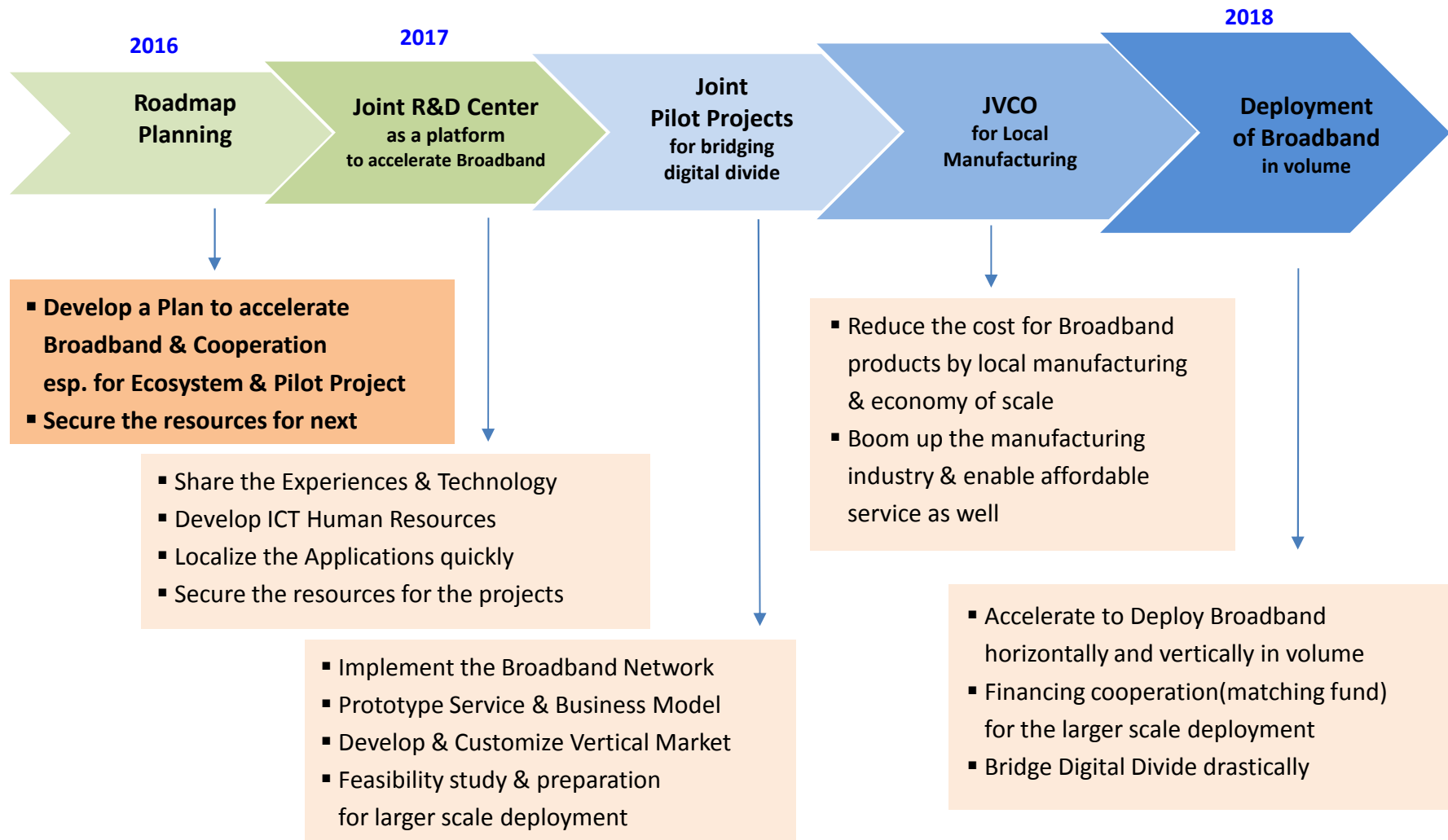


CENTRAL GOVERNMENT (USO FUND)	LOCAL GOVERNMENT	CELLULAIR OPERATOR
B,C,D	E	A



BROADBAND DEVELOPMENT IN FUTURE

BROADBAND INFRASTRUCTURE IN FUTURE



● **Joint initiative is a key to trigger the chain reactions for Broadband Big Bang**

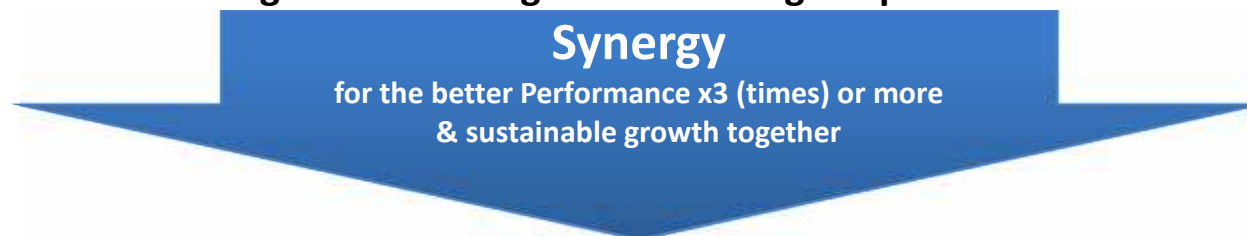
- ✓ Make it happened very small and focused at the beginning, but great for the benefits for all eventually

Benefits from the Cooperation to accelerate Broadband

- Address the Challenges for bridging digital divide more effectively, than doing alone

Challenges
• Lack of coordinated ICT effort and decentralized budgets
• Lack of connectivity
• Lack of human resources with ICT skills
• Lack of readily available applications
• Geographical difficulties for infrastructure roll out

- Minimize the trials and errors by utilizing experiences other countries
- Deploy Broadband in larger scale through the financing cooperation



- Joint R&D Center as a sustainable Cooperation Platform, expandable to many
- Develop human resources for ICT skills, including the trainings in abroad
- Develop a Pilot Project for Bridging Digital Divide esp. in suburban/rural areas
- Boom up the local industry by ICT from international partners and local production
- Accelerate to deploy Broadband horizontally and vertically in volume at lower cost

Case Study

▪ Lessons Learned in developing country to accelerate Broadband

Category	Execution
Government Policy	<ul style="list-style-type: none"> ● Laws & regulations for effective competition ● Initial investment led by Government recognizing ICT as a new growth engine <ul style="list-style-type: none"> ▪ ICT promotion fund used effectively
Supply Side	<ul style="list-style-type: none"> ● Broadband for government by PPP (Public Private Partnership) and burden sharing <ul style="list-style-type: none"> ▪ Research network, School internet, Broadband for Rural, Public WiFi ● Broadband market <u>triggered</u> by 2nd LEC, leading to <u>Economy of Scale</u> <ul style="list-style-type: none"> ▪ Started from apartment complex densely populated in the cities ▪ Followed by KT and other carriers ● Local production contributed to reduce CAPEX and to promote the industry <ul style="list-style-type: none"> ▪ Especially for Broadband access products; For example, CPE's in volume
Demand Side	<ul style="list-style-type: none"> ● e-Government Services on Broadband ● Network Service Quality Evaluation ● Cyber-building Certification Program ● Wide spread deployment of Internet Café, due to popular on-line game etc.

Thank You

