UNITED NATIONS
Commission on Science and Technology for Development

ICTs for Inclusive Social and Economic Development

CSTD 2013–2014 Inter-sessional Panel
2–4 December 2013
Washington, D.C. USA

DNTA

**Prepared by
David N. Townsend**

DNT@dntownsend.com

GBi
Global Broadband
and Innovations

GBI is a USAID funded program

Overview:

- Effective Policies for Promoting ICT Development

- Kenya National Broadband Strategy

- Colombia Vive Digital Program

- Indonesia Broadband Plan

- I, ME, MINE

Effective Policies for Promoting ICT Development

- Best Practices = Best <u>Processes</u>

  ➢ National Broadband Strategies/Plans, Digital Agendas, etc.:
    Getting from Objectives to Outcomes

    ✓ Structured, formal processes (Steering Committee)
    ✓ High level authority and support
    ✓ Open, inclusive, consultative
    ✓ Establish objectives, targets, timetables
    ✓ Market status and gap analysis
    ✓ Costs and financing
    ✓ Action Plans

Effective Policies for Promoting ICT Development

- Ecosystem Approach
  - ➢ Ensure comprehensive and coordinated incorporation of all inter-related elements

    - ✓ Supply and demand
    - ✓ Infrastructure, access, services, devices
    - ✓ Policy and regulation
    - ✓ Applications, content
    - ✓ Capacity building, digital literacy
   - ✓ Funding sources and mechanisms

Effective Policies for Promoting ICT Development

- Stakeholder Roles

  ➤ Provide inputs to the planning process

  ➤ Make commitments to participate in implementation

    ✓ ICT suppliers (networks, services, equipment, software)
    ✓ Government (national, local)
    ✓ Public institutions (education, health, security, postal, community, libraries, etc.)
    ✓ End users (consumers, businesses, govt as user)
    ✓ Financial sector (banks, investors)
    ✓ NGOs, donors, international partners, etc.

Kenya National Broadband Strategy

➢ Cooperative policy development framework
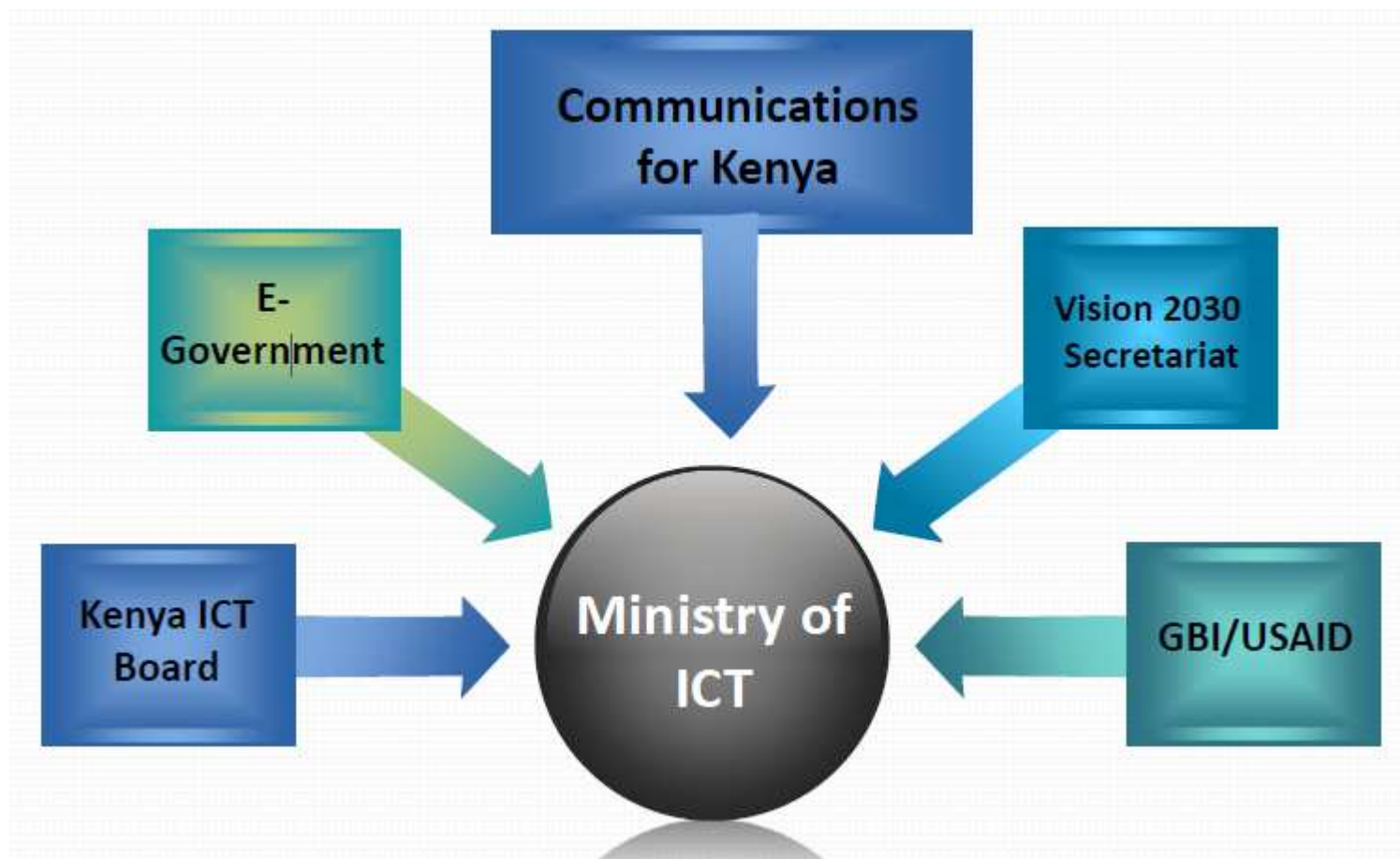
Kenya National Broadband Strategy

➢ Steering Committee leadership, oversight

▪Responsible for guiding the overall development of a comprehensive Strategy

▪adopt a consensus based approach through a shared vision and coordinated activities with stakeholders

1	Establish the key principles and objectives
2	Define and appoint the Working Groups
3	Oversee and advise Working Group deliberations
4	Establishing evaluation procedures to monitor and oversee execution of the Action Plans
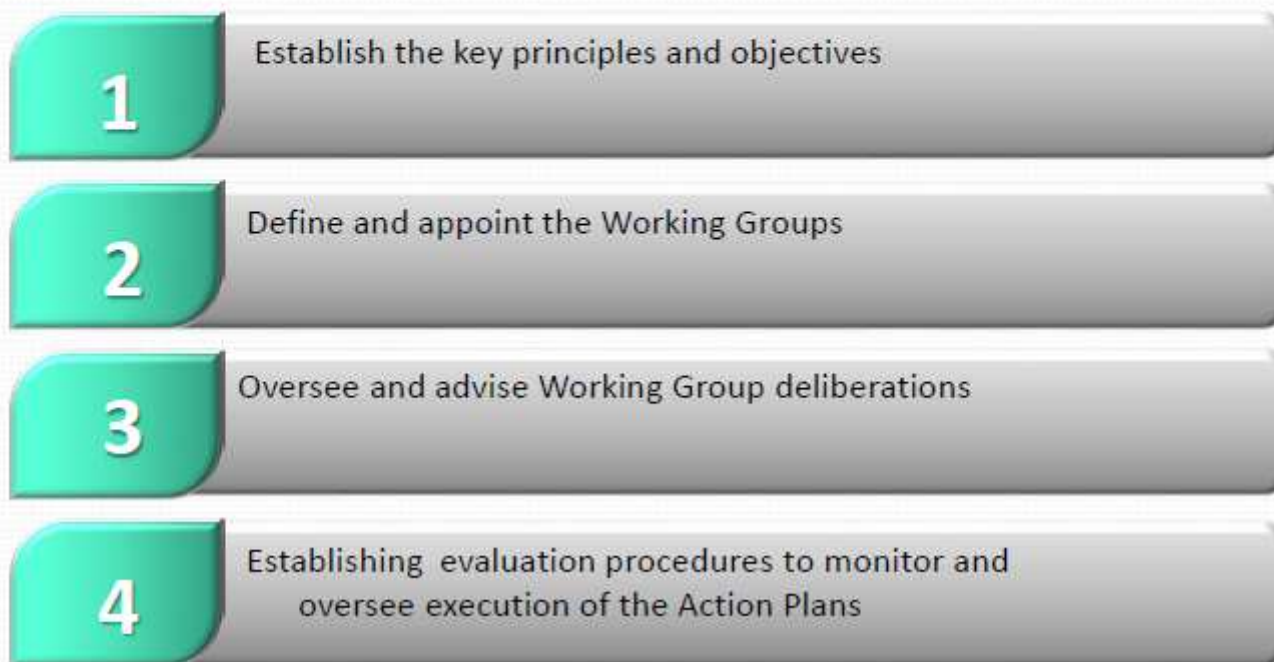
Kenya National Broadband Strategy

➤ Formalized, structured process

1. Key concepts
Principles, objective
and definitions

Q2 2012

2. Stakeholders Roles
Identify Stakeholders and
categorize into TWGs

Q3 2012

Q4 2012

3. Technical workings Group
1st Draft NBS

Q1 2013

4. Public Consultation
Solicit Inputs and comments,
analyze

Q2 2013

5. Final NBS
Consolidate and include
stakeholder inputs
Adopt in VISION 2030

2013 2030

6. Implement
Performance targets
Monitor & evaluate
Continuous review
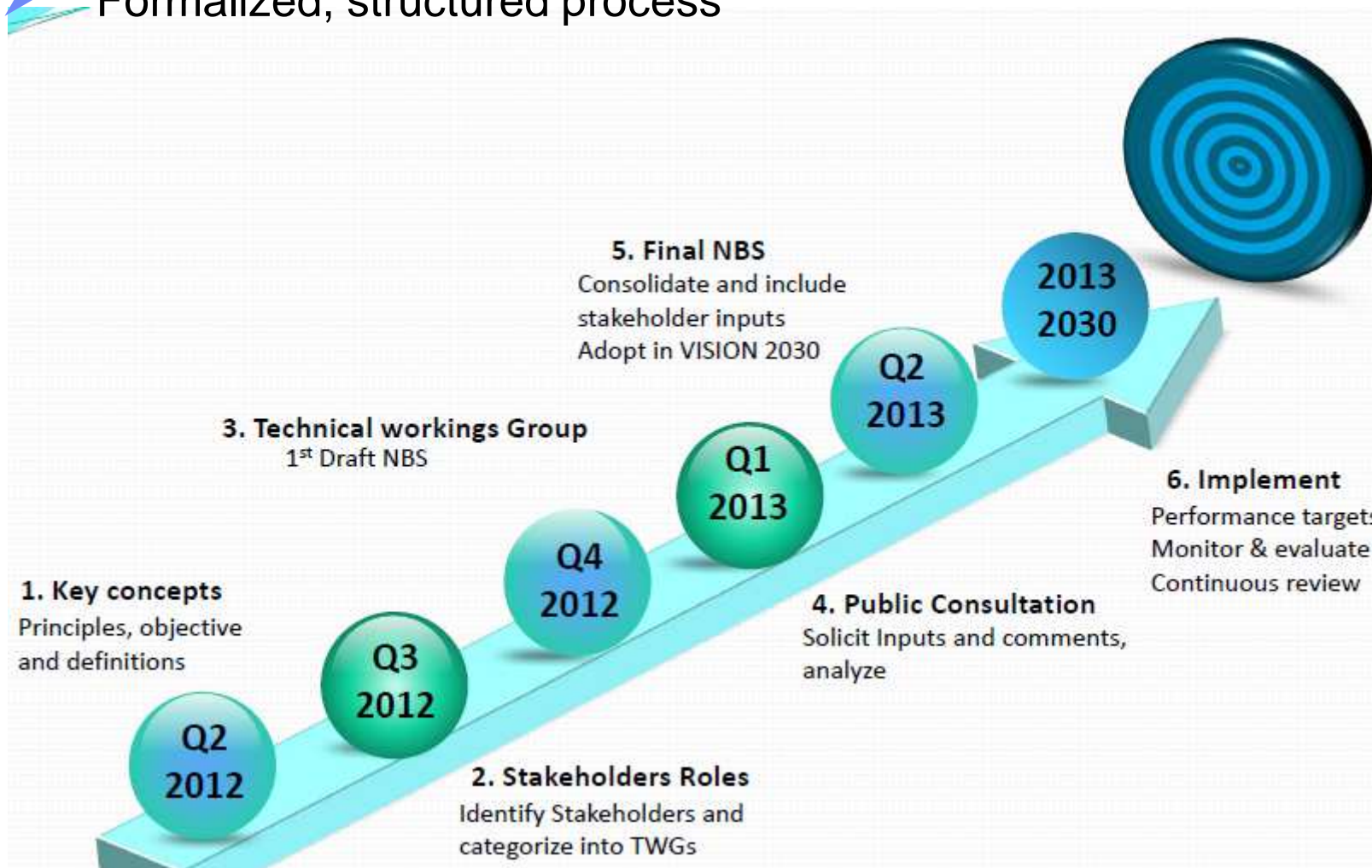
Kenya National Broadband Strategy

➢ Ecosystem approach
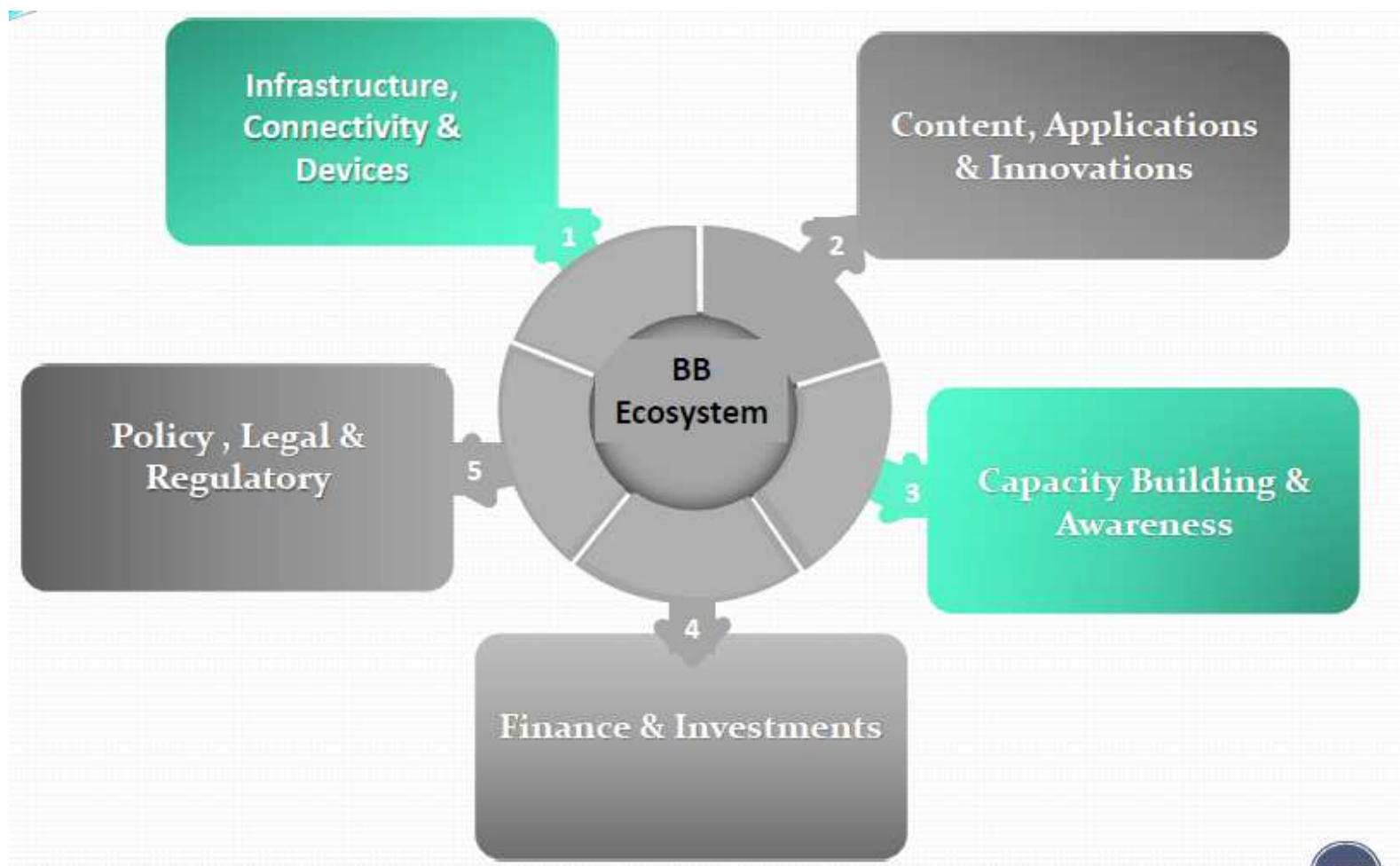
ICTs for Inclusive Social and Economic Development

Kenya National Broadband Strategy

Table 3: Strategy for Infrastructure, Connectivity and Devices
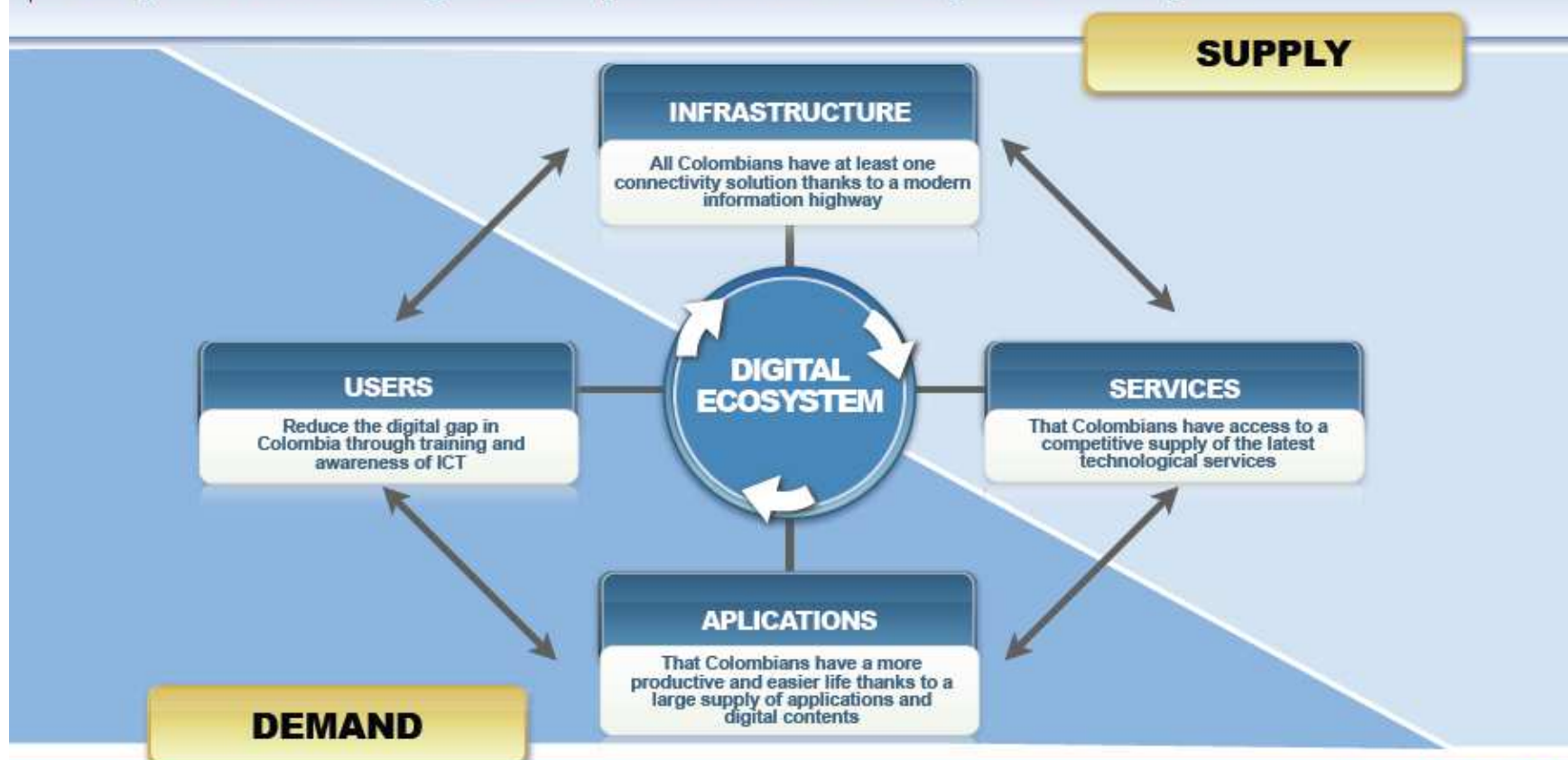
Sub-Issue	Objectives	Outcomes	Strategies
Quality broadband network	Provide quality broadband services to all citizens	Improved quality of life in the way citizens work, live and learn	• Avail sufficient spectrum for Wireless Broadband Networks. • Government sponsored PPPs to fund infrastructure development. • Use of Universal Service Fund to extend broadband network penetration. • Enhance regulatory oversight with respect to quality of service.
Coordination and complimentary services	Provide a harmonized and enabling environment for infrastructure deployment	Reduced cost of deploying and operating broadband networks	• Provide a framework for synchronized planning of civil and ICT data projects. • Promote and ensure operators share common infrastructure. • Government to provide rebates/tax incentives for operators providing complimentary services (utilities) in marginalized areas.
Accessibility and affordability	Provide accessible and affordable broadband services to all citizens	Increased demand for and use of broadband services	• Government to provide subsidies for access devices. • Promote local production of access devices. • Promote and avail online local content (e.g. e-Govt. information and services) to spur demand. • Continued expansion of power, road, security infrastructure across the country. • Review regulatory framework to optimise spectrum. • Re-farm and avail additional spectrum to enhance last-mile solutions.
Availability and reliability	Develop a robust and reliable back-bone for the broadband network	A rich, interruption-free broadband experience	• Establishing redundancy at the International gateways and Landing Points. • Establishing redundancy within the domestic network (county level). • Building data-centres of international standards. • Enhance capabilities of Local Exchange Points.

ICTs for Inclusive Social and Economic Development

Colombia Vive Digital Program

➢ Ecosystem approach

In the year 2014 the Digital Ecosystem of the country will accomplish:

SUPPLY

INFRASTRUCTURE
All Colombians have at least one connectivity solution thanks to a modern information highway

DIGITAL ECOSYSTEM

USERS
Reduce the digital gap in Colombia through training and awareness of ICT

SERVICES
That Colombians have access to a competitive supply of the latest technological services

APLICATIONS
That Colombians have a more productive and easier life thanks to a large supply of applications and digital contents

DEMAND

SOURCE: World Bank "Building broadband: Strategies and policies for the developing world", Enero 2010

vive digital
Colombia

ICTs for Inclusive Social and Economic Development

Colombia Vive Digital Program

ICTs for Inclusive Social and Economic Development

Colombia Vive Digital Program

APPLICATIONS

OBJECTIVE
Colombians have a more productive and easier life thanks to a wide range of applications and digital contents

STRATEGIC OBJECTIVES

GOAL

❖ Achieving greater efficiency, transparency and citizen participation, by making that 100% of entities of national order and 50% of the local entities provide government services online, keeping the leadership in e-government in Latin America and the Caribbean

National e-Government
0%   50%   100%

Local e-Governmnet
0%   50%   100%

❖ Articulate and support efforts of the technology plan from the other ministries

Projects from other ministries

❖ Develop applications for the MSMEs so that 50% use internet

7%   50%

● Basseline   ● Goal
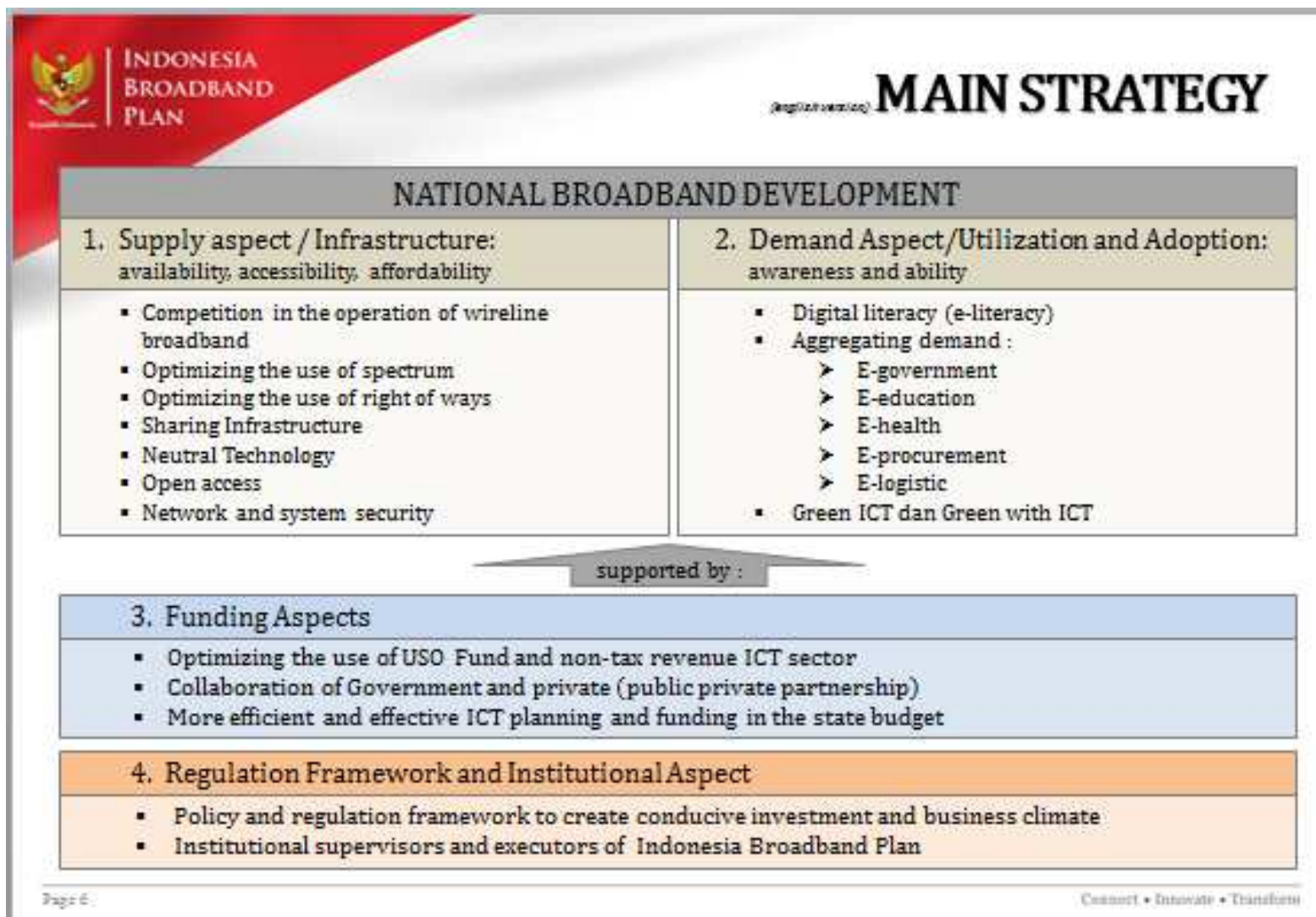
vive digital
Colombia

13

Colombia Vive Digital Program

➢ "Puntos Vive Digital" (PVDs): public access ICT centers

ICTs for Inclusive Social and Economic Development

Indonesia Broadband Plan

INDONESIA BROADBAND PLAN

MAIN STRATEGY (english version)

NATIONAL BROADBAND DEVELOPMENT

1. Supply aspect / Infrastructure: availability, accessibility, affordability	2. Demand Aspect/Utilization and Adoption: awareness and ability

• Competition in the operation of wireline broadband
• Optimizing the use of spectrum
• Optimizing the use of right of ways
• Sharing Infrastructure
• Neutral Technology
• Open access
• Network and system security
	• Digital literacy (e-literacy)
	• Aggregating demand :
	  ➤ E-government
	  ➤ E-education
	  ➤ E-health
	  ➤ E-procurement
	  ➤ E-logistic
	• Green ICT dan Green with ICT

supported by :

3. Funding Aspects

- Optimizing the use of USO Fund and non-tax revenue ICT sector
- Collaboration of Government and private (public private partnership)
- More efficient and effective ICT planning and funding in the state budget

4. Regulation Framework and Institutional Aspect

- Policy and regulation framework to create conducive investment and business climate
- Institutional supervisors and executors of Indonesia Broadband Plan

Page 6

Connect • Innovate • Transform

15

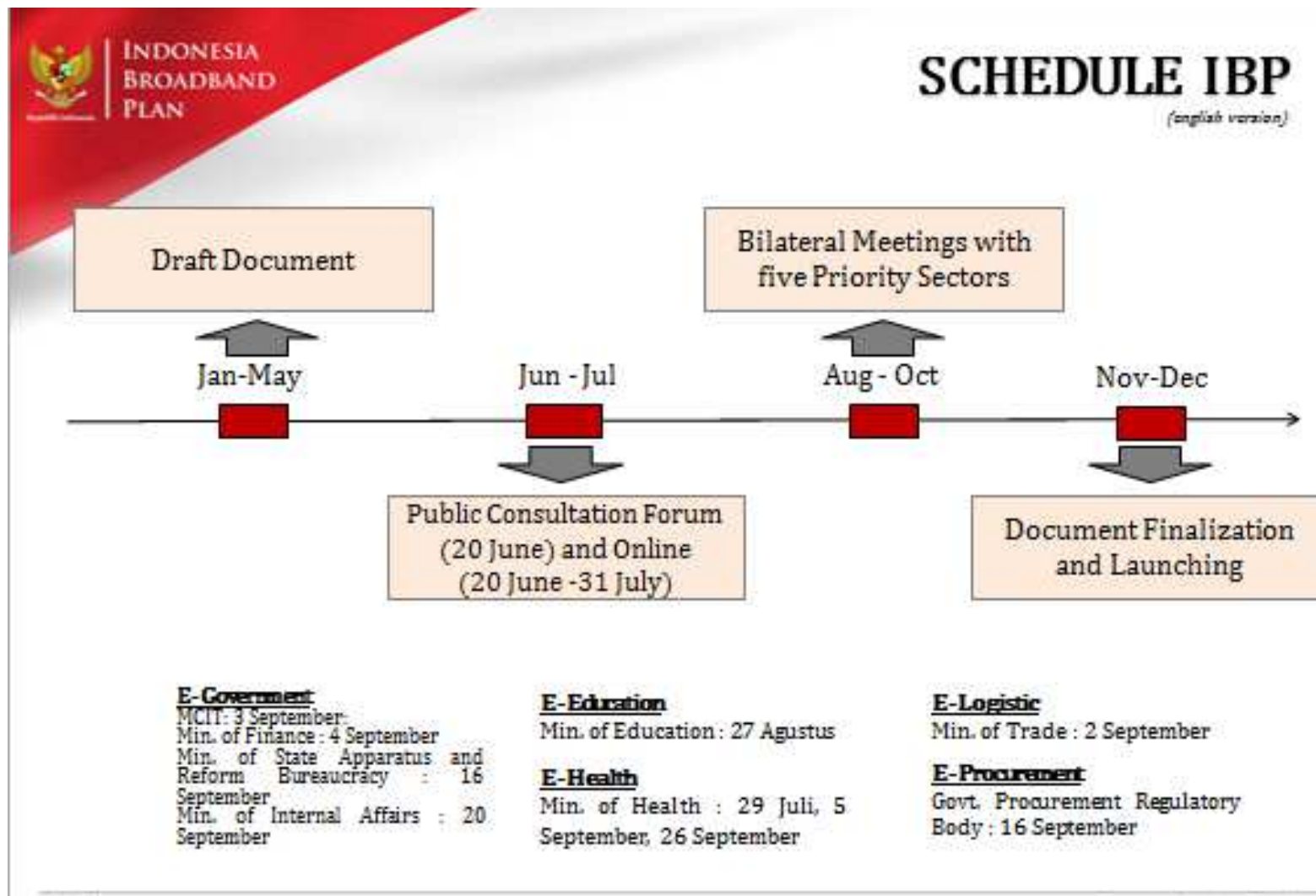## ICTs for Inclusive Social and Economic Development

Indonesia Broadband Plan

ICTs for Inclusive Social and Economic Development

Indonesia Broadband Plan

INDONESIA BROADBAND PLAN

e-Health Objectives and Strategies

(english version)

Objectives	Outcomes	Strategies	Time Frame	Institutions
National e-Health Network	Nationwide connection to all hospitals, clinics, health facilities	Connect all locations virtually through e-Govt network, establish regional local nodes	Palapa Ring +1	Min. Health MCIT
National Vital Health Statistics Database	Integrate access to data on disease, treatments, patient records	Incorporate e-health module into secured national e-Gov data center, develop standardized applications	Palapa Ring, NIX + 1 ('17)	Min. Health Min. Internal Aff MCIT
Universal Health Coverage (UHC, JKN)	Equal distribution of health service in the region	Data and service integration with social security network and health insurance programme	Palapa Ring, NIX + 1 ('17)	Min. Health Min. Internal Aff MCIT
Special Treatment Coverage	Health service is expanded to underserved areas	Broadband application for telemedicine telediagnosis, teletherapy	Palapa Ring +1 – 2018	Min. Health MCIT
National Health Promotion Programme	Improvement of nutrition programmes, sanitation, health environment and maternal care	ICT broadband to disseminate public health campaign and preventive programme	2015	Min. Health Min. Internal Aff MCIT
Mobile e-Health Treatment Programme	Equal distribution of health service in the region	Mobile e-Health as an extended service area for promotion programme, preventive and curative	2016	Min. Health Min. Internal Aff MCIT
Regulations on Health Information System	Priority for promotion and preventive. Maternal care as priority target	Staff of Puskesmas (Public Health Centre) with ICT skill and task to promote and motivate community behaviour to public health	2014-2019	Min. Health Min. Internal Aff Min. State App. RB

ICTs for Inclusive Social and Economic Development
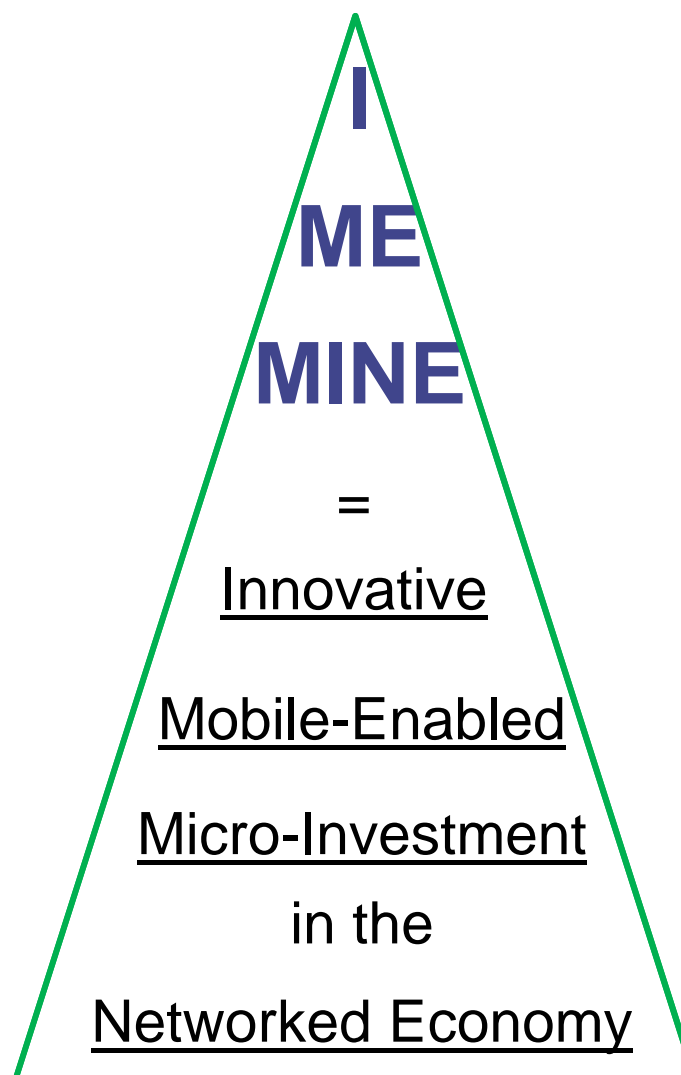
I

ME

MINE

=

Innovative

Mobile-Enabled

Micro-Investment

in the

Networked Economy

18

ICTs for Inclusive Social and Economic Development

I, ME, MINE

= <u>Innovative</u>, <u>Mobile-Enabled</u>, <u>Micro-Investment</u> in the <u>Networked Economy</u>

➢ Digital networks not only connect people socially, but can become a vital financial inclusion mechanism

  ✓ As much as 75% in developing world don't have bank accounts

  ✓ Safaricom's <u>M-Pesa</u> (Kenya, Tanzania, etc.)

  ✓ Micro payments, transfers, on-line purchases, credit

➢ ICT-driven development allows for (depends upon) E-entrepreneurs

  ✓ On-line micro-businesses: mobile apps, e-commerce sites

  ✓ Self-employed tech experts, info-tainment providers, etc.

  ✓ Need paying customers, also investors

I, ME, MINE

- ➢ E-finance, and e-investment, are not well established in most developing countries
  - ✓ ICT sectors have been built without local capital, finance
  - ✓ Banks are inexperienced, focus on safe, big investments
  - ✓ Start-ups need capital, credit, customers, time

- ➢ Innovative solutions:
  - ✓ Mobile money payments, direct e-purchases
  - ✓ Crowd-sourced micro-investment (e.g., Kickstarter)
  - ✓ Venture capital funding of e-enterprise (e.g., Savannah Fund)
  - ✓ USAF co-financing of ICT incubators
  - ✓ Micro lending (e.g., Grameen)

I, ME, MINE

Remittances

➢ International remittances are a crucial input to development

 ✓ Over $350 billion in payments into developing countries from 200 million ex-pat workers

 ✓ Philippines: 10.5 million OFWs contribute > 10% of GDP

➢ Mobile and Internet technology dramatically reduce cost and increase convenience, efficiency of remittances

 ✓ Phone-to-phone transfers

 ✓ Social network contacts, immediacy

➢ Overseas remittances can also support micro-enterprises

I, ME, MINE

Development Assistance, Aid

➢ Mobile-enabled micro payments also significantly alter the options for development assistance, donations

- ✓ Direct transfer payments via mobile money

- ✓ Contributions to and by charities (global and local)

- ✓ Reduced transaction costs, also increased performance data

➢ Disaster relief and refugee aid

- ✓ Haiti

- ✓ Syria

- ✓ Philippines

I, ME, MINE

Text "RELIEF"

to UNICEF: 864233

= $10.00 donation to

Philippines typhoon victims

Thank you

DNT@dntownsend.com