

Introduction of the Reports of the Secretary-General on the priority themes

16th Session of the CSTD



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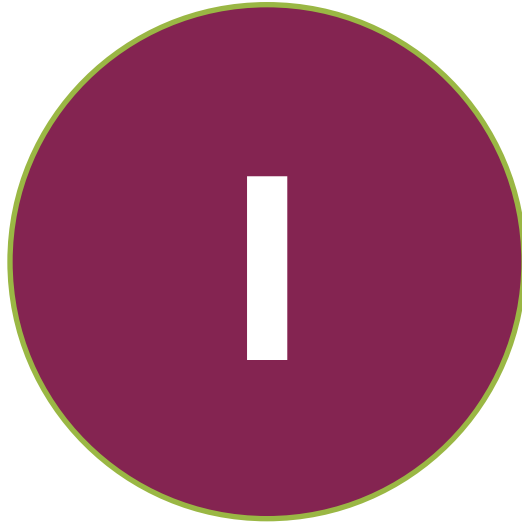
Priority themes



Science, technology and innovation for sustainable cities and peri-urban communities



Broadband for an inclusive digital society



**Science, technology and innovation for
sustainable cities and peri-urban communities**

Urbanization trends and STI

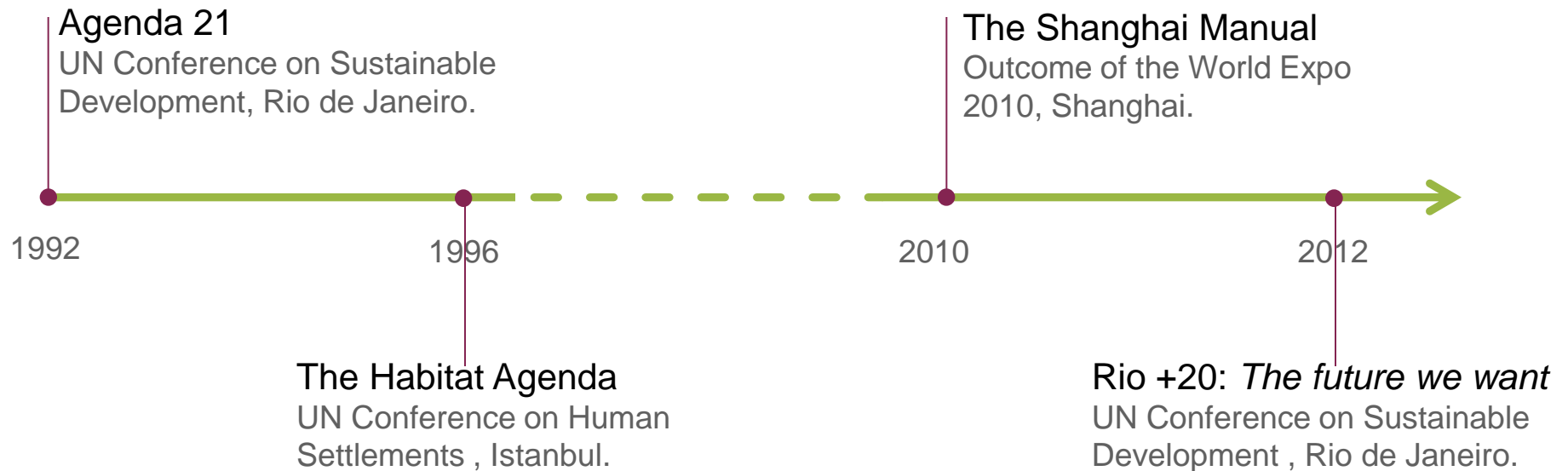
- **Urbanization: More than half** of world population now, two-thirds in 2050



Healthy cities represent a key element of sustainable development

- Large population flow from rural to urban areas in the developing world – growth of slums (1.4 billion people in 2020)
- STI can address infrastructure provision, environmental pollution, resource protection, health, sanitation and inclusive growth issues in cities

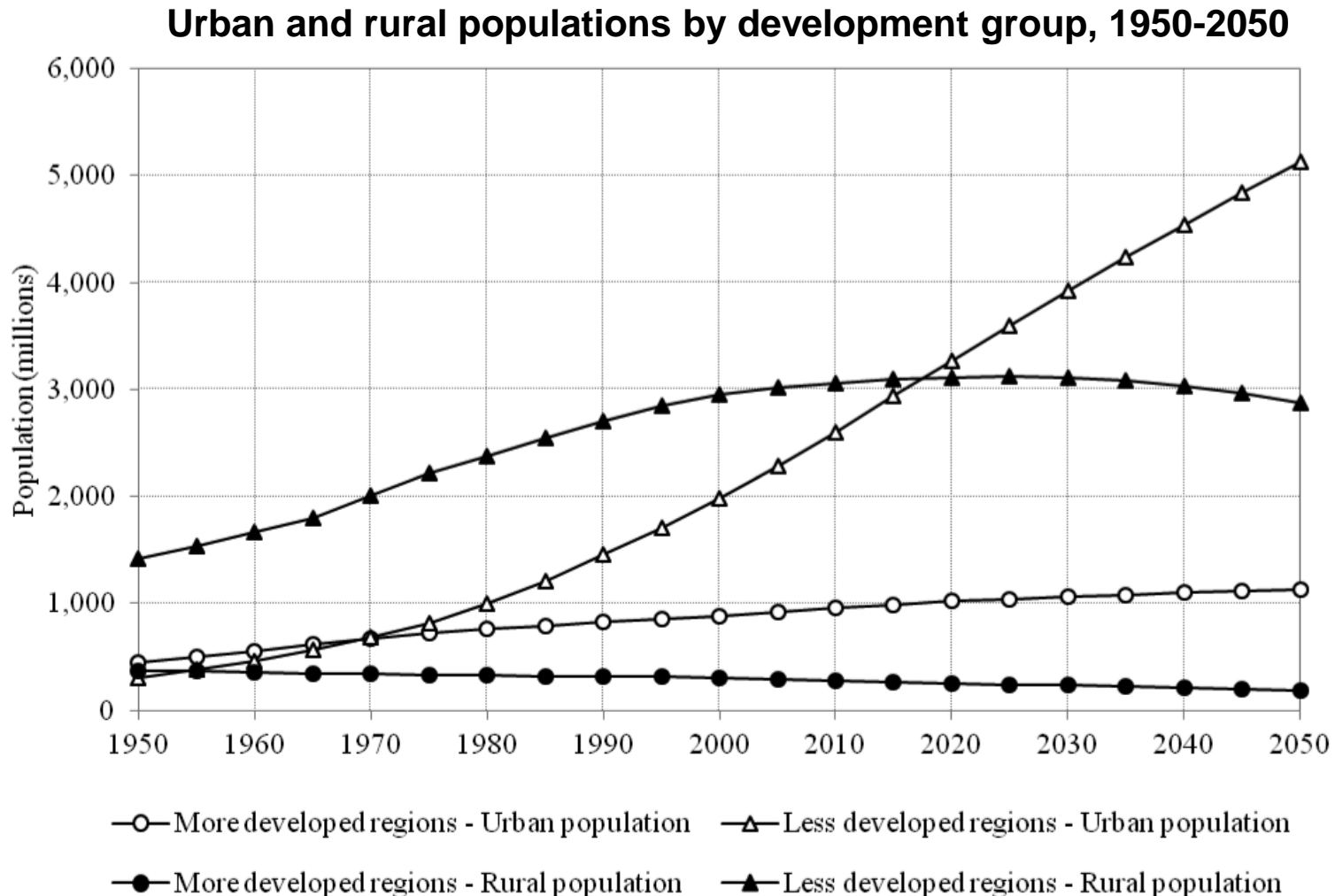
Background



“We recognize that, if they are well planned and developed, including through integrated planning and management approaches, cities can promote economically, socially and environmentally sustainable societies”.

Rio +20: The future we want

Next wave of urbanization: mainly in developing countries



Source: UN DESA (2012), *World Urbanization Prospects: The 2011 Revision*. New York.

Urbanization as challenge for the developing world

- Urban sprawl and rapid motorization
- Lack of infrastructure
- Depletion of resources (energy, water, food)
- Environmental deterioration
- Risk of natural disasters
- The challenge is particular in LDCs because of:
 - Higher rate of urban migration) In Sub-Saharan Africa urban population is expected to double by 2030
 - Migration is mostly of unskilled/low-skilled workers
 - Many regions are those that are most vulnerable to natural disasters
 - Lack of resources

Therefore, creating “epicentres” of extreme poverty

Mobilizing STI for sustainable urbanization

- STI is very pertinent to address the urban divide
- Cities across the world (developed and developing) are increasingly leveraging a broad array of STI options to address urbanization challenges.
- STI is not only about high-tech
 - Low-tech and innovation can be implemented in harmony with high-tech, according to the needs of rapidly growing cities.

STI for cities: focus areas

- **High tech-based innovations:**
 - New ICTs: Geospatial tools, simulation modeling and data analysis to aid decisions and urban planning, mobility and traffic management systems, smart grids, integrated disaster monitoring and response.
- **Low cost or less high tech based innovations:**
 - Bus Rapid Transit, low-consumption street lights, green roofs, reusing water, natural ventilation
- **Other forms of innovation abound:**
 - Innovation in the urban context
 - Urban governance, Integrated spatial planning (land use, transport, buildings), community organizations for solid waste management, market gardening, participatory budgeting.

High tech-based innovation: example

Rio Operations Centre

- Public Private Partnership between City of Rio and IBM
- Integrated information from 30 government agencies to improve responsiveness to incidents



Images source: City of Rio de Janeiro.

Low tech-based innovation: example

Bus Rapid Transit

- Can be implemented in relatively short time with lower cost
- Selective coverage not useful – can create social exclusion
- Should not run in parallel with legacy transport for a long time



Urban innovation: example

Market gardening in Maputo, Mozambique

- Urban green belt
- An employment opportunity to empower women



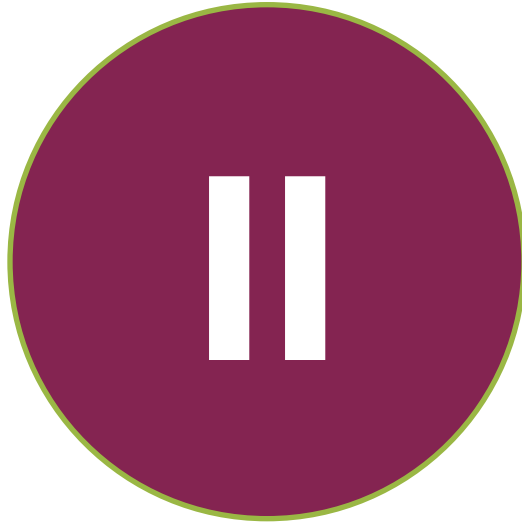
Images source: Digital Globe and Globalhort Image Library.

Findings (1)

- STI is crucial to promote solutions of relevance to sustainable urbanization in the developing world.
- Not only high technologies, but also low tech and innovative approaches to urban planning and institutional innovation
- Challenges of cities in developing countries, specially LDCs, differ widely from those in developed countries and require special attention in the context of this issue.

Findings (2)

- An intersectoral approach is necessary for sustainable cities.
- Use of local knowledge as well as local skills in regional and urban planning, covering all sectors are crucial in solving local problems.
- The needs of urban and peri-urban zones needs to be addressed in an integrated manner.

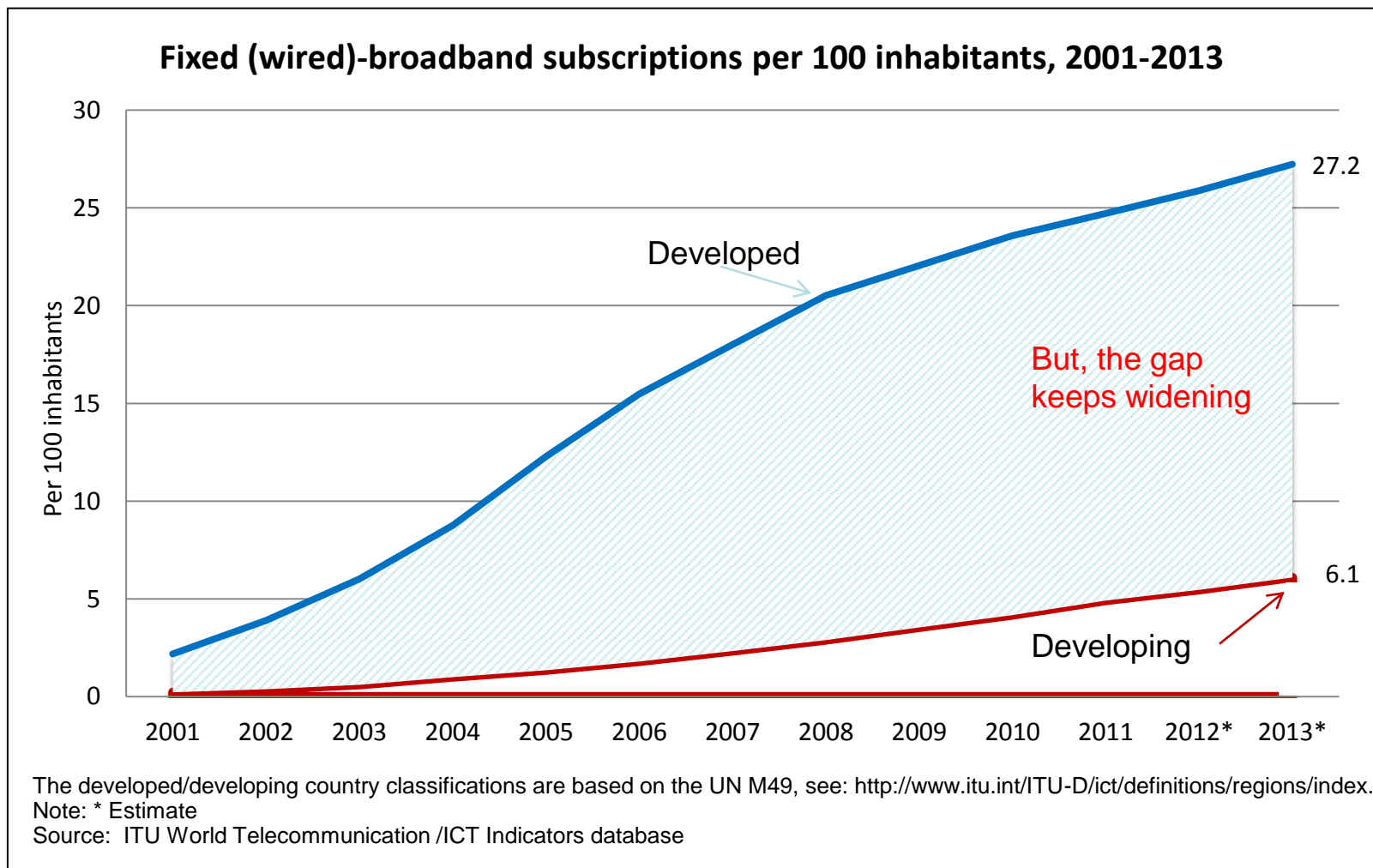


**Internet broadband for an inclusive digital
society**

The importance of broadband

- **Broadband is a prerequisite for many new developments in STI that enable economic opportunities.**
- **Broadband can also promote social goals such as education, health, gender equality and culture.**
- **Ongoing focus area in the CSTD through priority themes, panels and reports**
- **Broadband Commission**

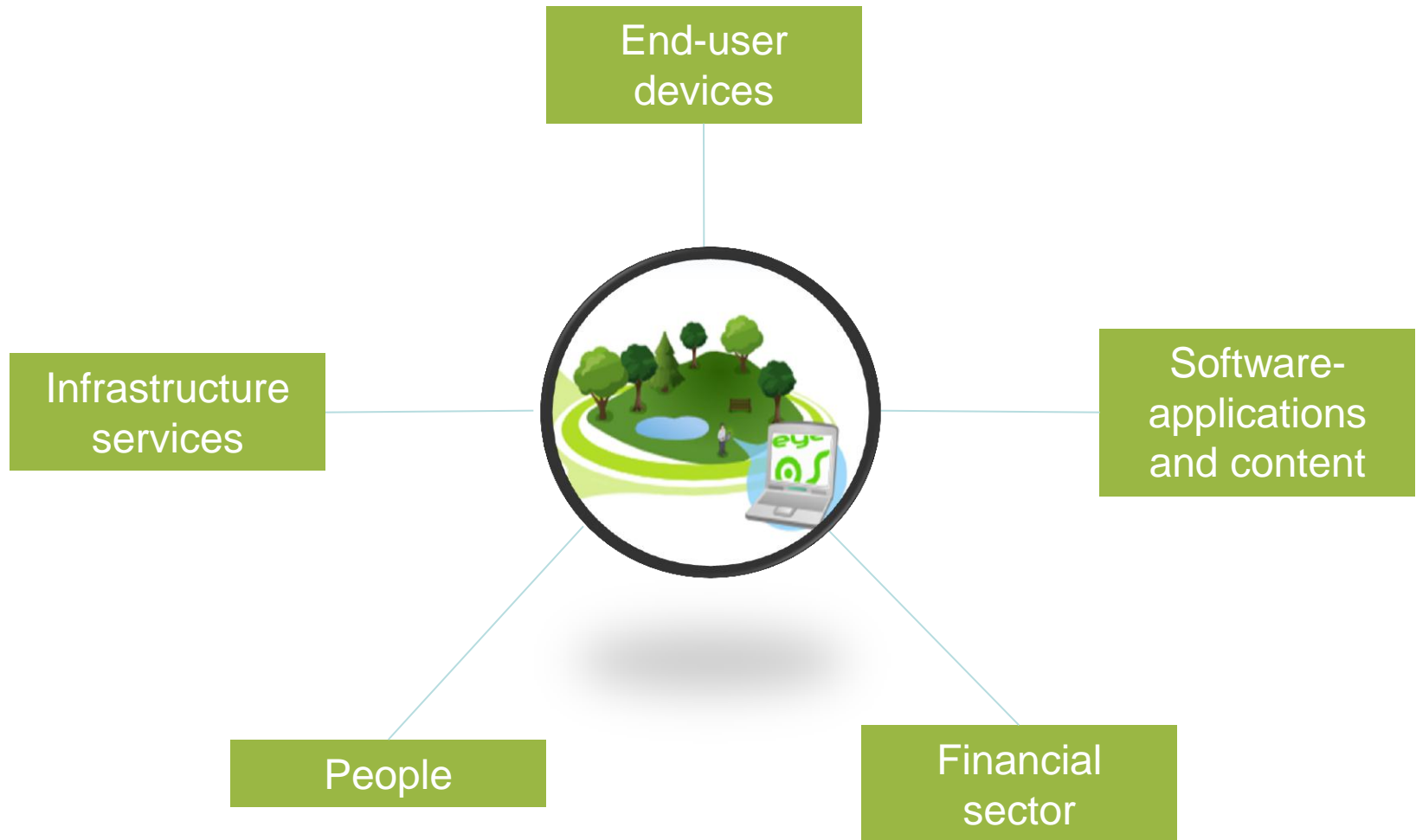
Increase in broadband subscriptions



The broadband divide

- Globally and within countries
- In developing countries, broadband penetration is mainly in urban centers
- The broadband divide is increasingly becoming a knowledge divide
- Disparity in broadband access has an impact on inclusiveness; it results in large populations missing out on benefits for:
 - Economy
 - Education
 - Health care
 - Sociocultural life
 - Political life

The broadband ecosystem



ICT Policy and regulation

- Regulation policy suited to an environment of technological convergence- Convergence of regulatory bodies
- Promoting and fostering competition to
 - Facilitate market entry
 - Competitive access to essential facilities, e.g. the telecom network
 - Ensure cost reductions are passed on to consumers
- Need for policies that expand broadband beyond the market possibilities
 - E.g. through PPPs, universal service funds for rural or poor areas)
- Promoting relevant local content

National Broadband Strategies

- Broadband policies require a strategic policy framework endorsed at the highest level
- One body should be responsible for coordination
- Some countries have developed multi-stakeholder groups, including the private sector, user groups, academia, and NGOs
- Important elements: Setting tangible objectives, prioritizing activities, defining stakeholder roles and responsibilities, funding and public awareness raising

ICT Policy in action- example

- **Rwanda's** vision is to transform the country into a knowledge-based country by 2020.



- To achieve this vision the government has among other things:
 - Improved infrastructure, the business and regulatory environments
 - Launched several ICT initiatives in areas such as health, financial services, e-government and agriculture

These initiatives have already had significant improvements for Rwandans, in terms of availability and quality of services.

Findings

- **Broadband contributes to economic and social development.**
- **Digital divide persists. Main barriers:**
 - High prices
 - Lack of enabling policy environment
 - Low revenue potential
 - Low digital literacy rates
- **Comprehensive, multi-stakeholder national strategy frameworks and policies needed**
- **Open markets, fair competition and new, innovative business models are crucial**
- **Literacy needs to be increased through investment into ICT-oriented curricula**
- **Local content should be enhanced**

Thank you

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