



# **ROLE OF GOVERNMENT IN FOSTERING INSTITUTIONAL ICT RESEARCH CAPACITY**

# PRESENTATION OUTLINE

-  Rwanda Development Board/IT: Background
-  National ICT Policy
-  Role of Government in fostering institutional ICT Research
-  Challenges to ICT R&D
-  Conclusion/Critical success factors for Research



# 1. INTRODUCTION: RWANDA DEVELOPMENT BOARD/RITA

- RDB/RITA was established in 2002.
- MISSION:
  - The facilitate use of ICT to support national transformation and service delivery.
  - The efficient use of ICT resources and services.
  - To coordinate and monitor the implementation of national programs in ICT outlined in the national ICT policy and plan.
  - To provide advise and services on ICTs to the government.
  - To sensitize the Rwandan population to use ICTs.



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# INFORMATION AND COMMUNICATIONS INFRASTRUCTURE (NICI) PLAN

- 5 year rolling plan from
  - NICI I 2000-2005,
  - NICI II 2006-2010,
  - 2011-2015, 2016-2020.
- ICT projects to be implemented in the country.



# Research capacity

- Qualified researchers
  - research groups
  - laboratories, libraries, ICT
- Institutions
  - universities, research training
  - research institutes
  - research management
  - Private sector led ICT research
- System
  - policy, organization, resources
  - Research Councils



### 3. ROLE OF GOVERNMENT IN FOSTERING INSTITUTIONAL ICT RESEARCH

- 1) Providing strategic directions and setting priorities with regard to the ICT R&D priorities
- 2) Intellectual Property: comprehensiveness, transparency and strong enforcement of intellectual property rights. This provides certainty and security for multinational firms developing new technologies in the country.
- 3) Supporting collaborative ICT research between industry and universities. Encourage the private sector to take a leading role in ICT research



# ROLE OF GOVERNMENT IN ICT RESEARCH.. CONTD

## 4) Strengthening R&D capabilities

- Development of human resource capital

## 5) Strengthening the national ICT Research infrastructure

- Creation of major national research centers
  - Management of R&D funds and venture capitals
  - Coordinate all initiatives of R&D activities

## 6) Promoting commercialisation of R&D outputs and Innovation

- Encouraging ICT innovation and entrepreneurship
- The government has set-up a pilot ICT Park in Kigali to encourage ICT R&D in private sector.



# ICT RESEARCH IN THE NATIONAL ICT POLICY AND PLAN

The Government of Rwanda has taken seriously ICT Research within the National ICT Plan/Policy.

- 1) Strengthening and building capacity in ICT research in universities:
  - Setting up ICT related Campus companies to incubate and commercialise ICT research output.
  - Universities to pursue academic and research collaboration and twinning arrangements with external universities
  - Universities to set up ICT R&D centers to encourage cutting edge research.



# ICT RESEARCH AGENDA IN THE NATIONAL ICT POLICY

- 2) Setting up a national ICT Institute for research and innovation currently under KIST
- 3) Establish ICT research and competency centers: Technical level colleges have been established with ICT units that would lead to increased HR research capacity.
- 4) Setting up a Kigali ICT Park. A pilot project is underway. There is a need for linkage between universities and industry.
- 5) Putting in place and strengthening enforcement of an IP Law



## 4. R&D CHALLENGE FOR ICT RESEARCH

1. How to create and foster the development of a national IT ecosystem
2. How to ensure that there is maximum opportunity for every computer literate person in Rwanda to get involved and to create and take advantage of emerging IT opportunities
3. Ensure that the **ICT R&D** will match with the industry need



# NATIONAL 'IT ECOSYSTEM'

- ❖ IT Industry - provide recognition and leadership for the industry, and serve as a coordinator and advocate for the IT industry within **government**
- ❖ Entrepreneurial Opportunities – champion the **role** of entrepreneurs and small businesses in applying IT to create and develop industrial and commercial opportunities for the local knowledge-based economy.
- ❖ Linkages – forge new links based on 'Open Source' IT among industry, commerce, the education system, utilities, public development agencies and the IT community.



## ENSURE MAXIMUM PARTICIPATION OF IT LITERATE POPULATION

Ensure there is maximum opportunity for every computer literate person to get involved and to create and take advantage of emerging IT opportunities. This specifically includes:

- ❖ Education – provide leadership, recognition and support.
- ❖ IT Careers – foster educational, employment and entrepreneurial opportunities for computer literate young people.
- Provide entrepreneurial opportunities and access to business. This will create demand for innovative products and services which in turn creates a market driven ICT research.



## 5. CONCLUSION

- Critical success factors for research
  - *Quality,*
  - *Pertinence to societal or business needs or economic growth, and*
  - *Sustainability.*
    - **Source Research, Innovation and Knowledge Management: the ICT Factor** Submitted to UNESCO, July 20, 2007, Diem Ho



## CRITICAL SUCCESS FACTORS:

- Quality: Increase HR capacity in ICT research/ collaborations with international universities/organisations
- Pertinence to societal or business needs or economic growth: Government to set out Strategic ICT areas in alignment with the national economic plan.
- Sustainability: Government of Rwanda to set aside resources, financial, infrastructure etc to ensure ICT Research agenda in the country is sustainable.



○ THANK YOU FOR YOUR  
ATTENTION!!

