



*Partnership on Measuring ICT for
Development*



ICT Household Statistics

The Case of Rwanda

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ECA-ITU-UNCTAD Regional Workshop on
Information Society Measurements in Africa
Addis-Abeba
7-9 March 2007



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Background environment:

How ICTs will have an impact on Poverty Reduction in Rwanda?

© 1998 GoR initiated - "An Integrated Framework for Socio-Economic and ICT Policy and Plan Development and Implementation for Rwanda".

© this document was fine-tuned and adopted in 2000. ICT was identified as a tool "to transform a subsistence economy into an information-rich, knowledge-based one, and accelerate economic growth."





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Introduction:

- **General overview of Information Society Statistics in Rwanda, focusing on the ICT usage surveys (enterprises and households):**
 - **Framework (background)**
 - **Contents (main variables and breakdowns)**
 - **Methods**
 - **Strengths and weaknesses**

ICT indicators sources:

- 2002 : Rwanda Population & Housing Census 2002 (EU-UNFPA)
- 2003 : ICT usage intensity Survey (OTF)
- 2006 : ScanICT Baseline Survey (ECA)
- 2007 : Comprehensive baseline survey (Comesa)
- 2007 : E-USAGE & Access BASELINE SURVEY (researchICTafrica.net)



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ICT Surveys:

Indicators mainly collected via public sector, private sector and household/individuals surveys conducted by National Institute of Statistics, NGOs and Universities, coordinated by NISR

2003: ICT Usage Intensity Survey (public & private sectors)

- Sampling approach: 163/407 units, national level, urban vs rural
- Indicators: fixed lines, mobiles phones, PC, Internet usage, connectivity, networking, IT staff, etc...
- Data collection: face to face interviews
- Explanatory variables (breakdowns):
 - Size class (number of employees):
5–50 (SME: Small&Medium), More than 50 (L.E :large enterprises).
- Categorie:
 - Public**: National Gov, Local Gov. **Private**: SME , LE

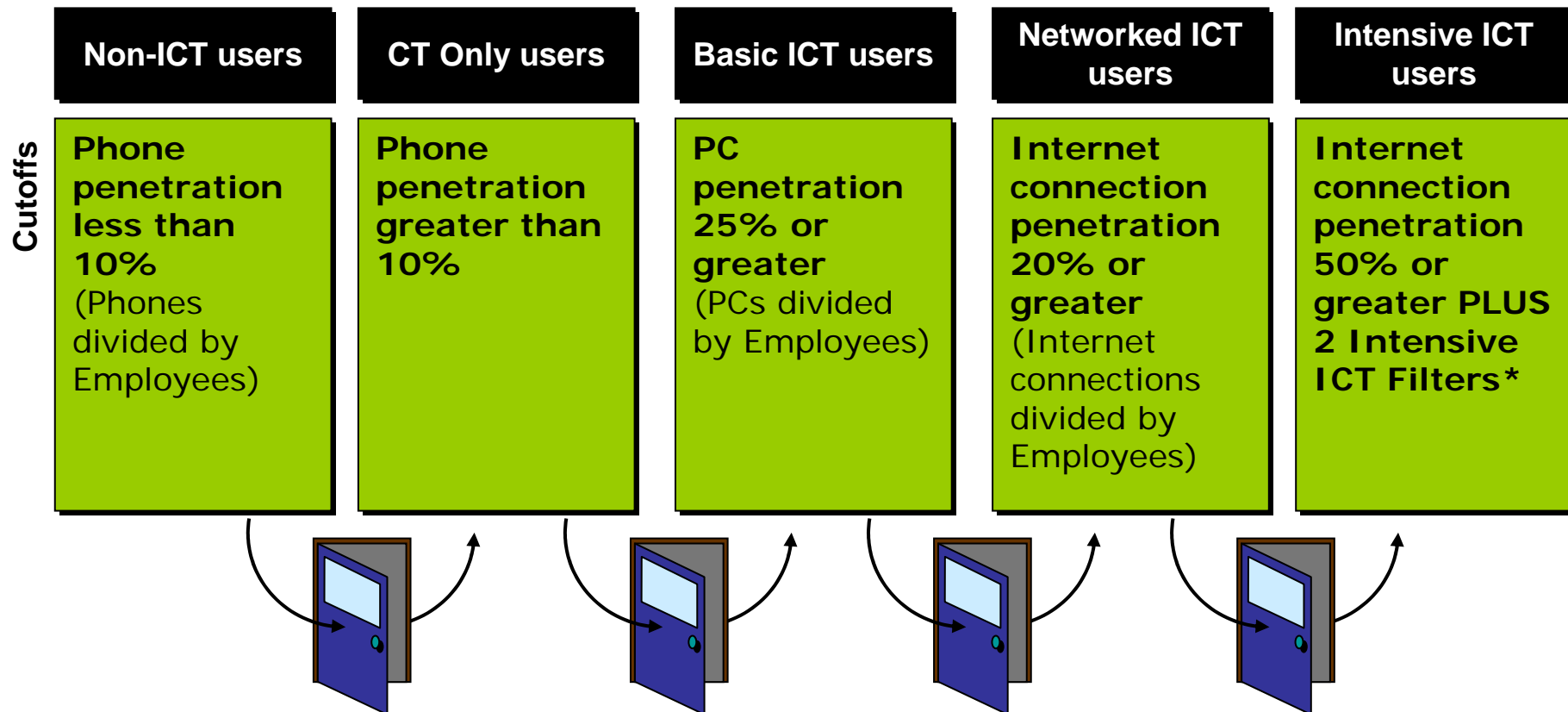


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2003: ICT Usage Intensity Survey (findings)

Applied Concepts Methodology



*ICT Filter 1: Positive response to 6 out of 8 questions related to specialized hardware & software

*ICT Filter 2: Greater than 20 out of 25 points on questions related to attitudes towards ICT



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2003: ICT Usage Intensity Survey Situation analysis – Summary of Results

Economic Sector	Sector	Estimated Level of ICT Engagement*				
		Non-ICT	CT Only	Basic ICT	Networked ICT	Intensive ICT
Public Sector	Nat. Government	0%	20%	33%	47%	0%
	Local Government	58%	36%	5%	1%	0%
Private Sector	Large Businesses	39%	44%	10%	5%	2%
	SMEs	16%	58%	15%	10%	1%

- Nat. Government reports the highest levels of ICT Access, but 20% still have achieved the level of CT Only
- Local Government falls into the two lowest categories (94%), driven by lack of access to basic ICT infrastructure.
- Large Businesses are concentrated (83%) in the two lowest levels of ICT engagement.
- SMEs are the most evenly distributed across the spectrum, reflecting the varied conditions under which SMEs operate in Rwanda. However, 74% are classified as Non-ICT or CT-Only, indicating that they have not integrated PCs into their operations.



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2006: SCANICT Baseline Survey

CORE INDICATORS ON USE OF ICT BY BUSINESSES

- B1 Proportion of businesses using computers
- B2 Proportion of employees using computers
- B3 Proportion of businesses using the Internet
- B4 Proportion of employees using the Internet
- B5 Proportion of businesses with a Web presence
- B6 Proportion of businesses with an intranet
- B7 Proportion of businesses receiving orders over the Internet
- B8 Proportion of businesses placing orders over the Internet
- B9 Proportion of businesses using the Internet by type of access:
- B10 Proportion of businesses with a Local Area Network (LAN)
- B11 Proportion of businesses with an extranet
- B12 Proportion of businesses using the Internet by type of activity



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2006: Scan ICT Baseline Survey (phase2)

Sectors covered: Health, Education, Administration, Private Sector, Law regulation,

Sampling approach: national level, urban vs rural

100% big ICT users, 50% medium ICT users &
10% small ICT users.

Phase 1: total enumeration of units (all sectors)

Phase 2: sampling and interviews

Phase 3: measuring impact (Education & Health)

- Indicators: ICT usage by gender, age and education level / all sectors, IT staff by gender and origin, urban vs rural, penetration rate, etc...
- Data collection: face to face interviews
secondary data compilation
- Survey period : 1 month, 34 enumerators (40% from National University of Rwanda – Master Program Comp. Science
- Data Analysis : NISR, NUR (in progress) – Preliminary report (04/2007)



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2006: Scan ICT Baseline Survey (phase2) Situation analysis – Summary of Results

Estimated level of computers usage by staff				
Sectors/institutions	0 - 25%	50%	75%	100%
Public sector	30	11	22	37
Private sector	35	15	23	27
NGOs	9	23	26	42
UN system	14	0	14	71
Total	29	14	23	34
	Low	mediun	intensive usage	

- The UN System reports the highest levels of ICT intensive usage with 71% staff (of total usage= 100%)
- The private sector (total) has two lowest ICT intensive usage rate with 50%



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2006: Scan ICT Baseline Survey (phase2) Situation analysis – Summary of Results

Estimated level of Internet usage by staff				
Sectors/institutions	0 - 25%	50%	75%	100%
Public sector	69	5	14	12
Private sector	71	6	9	14
NGOs	42	14	19	26
UN system	0	0	0	100
Total	65	7	12	17
	Low	medium	intensive usage	

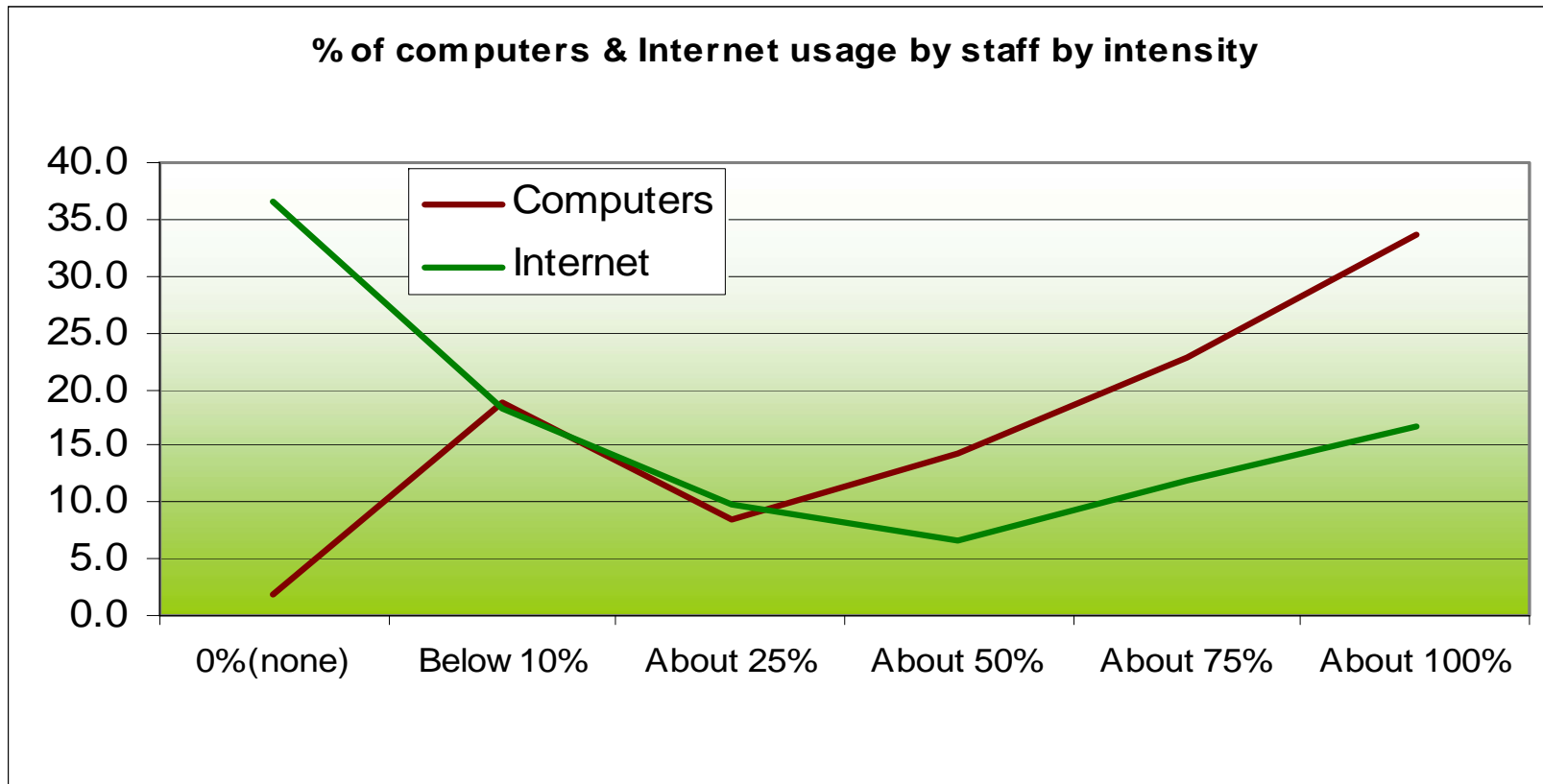
- The UN System reports the highest levels of Internet intensive usage with by 100%
- All other sectors & institutions have two lowest Internet usage rate with an average 25%



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2006: Scan ICT Baseline Survey (phase2) Situation analysis – Summary of Results

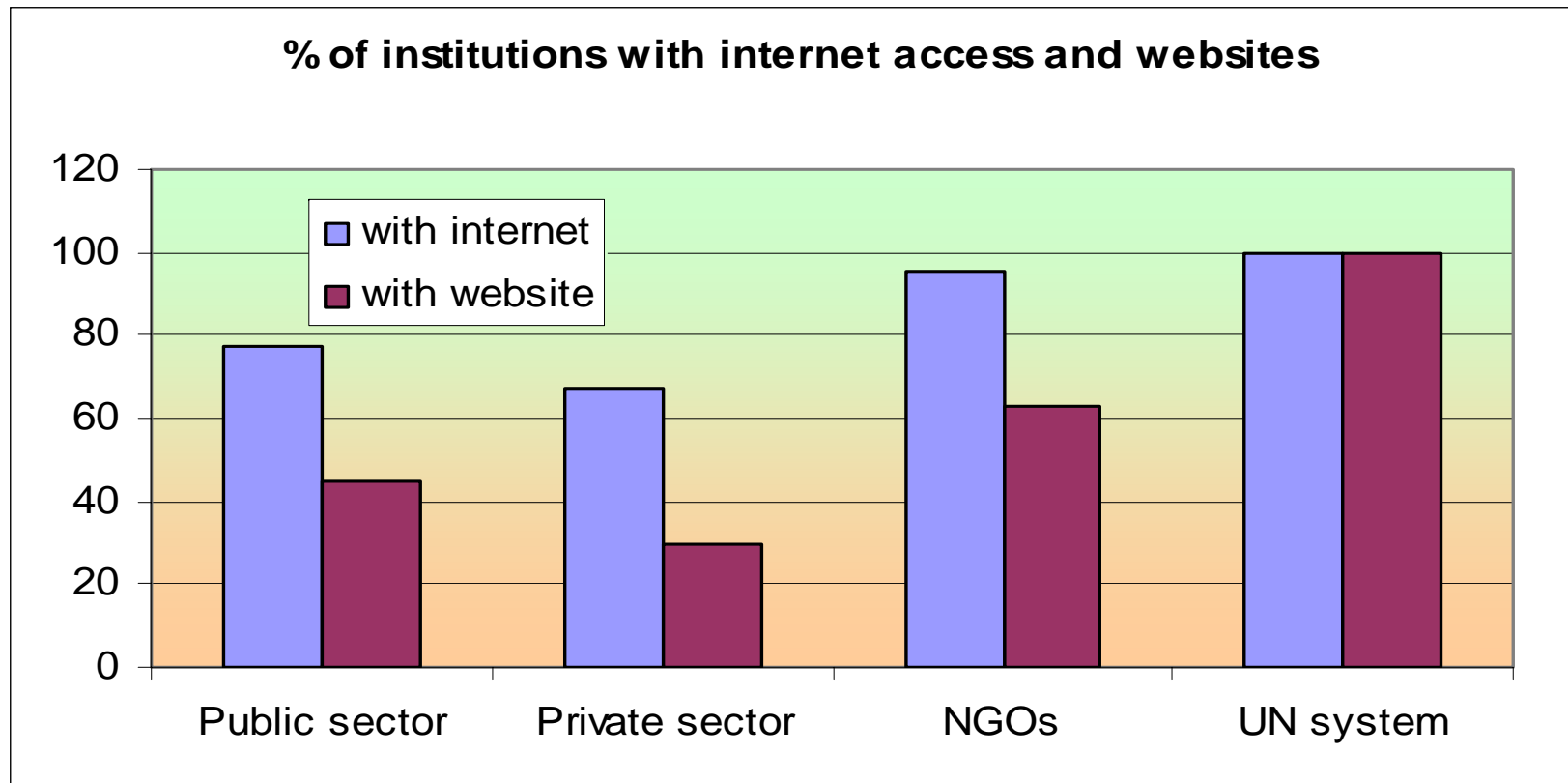




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2006: Scan ICT Baseline Survey (phase2) Situation analysis – Summary of Results



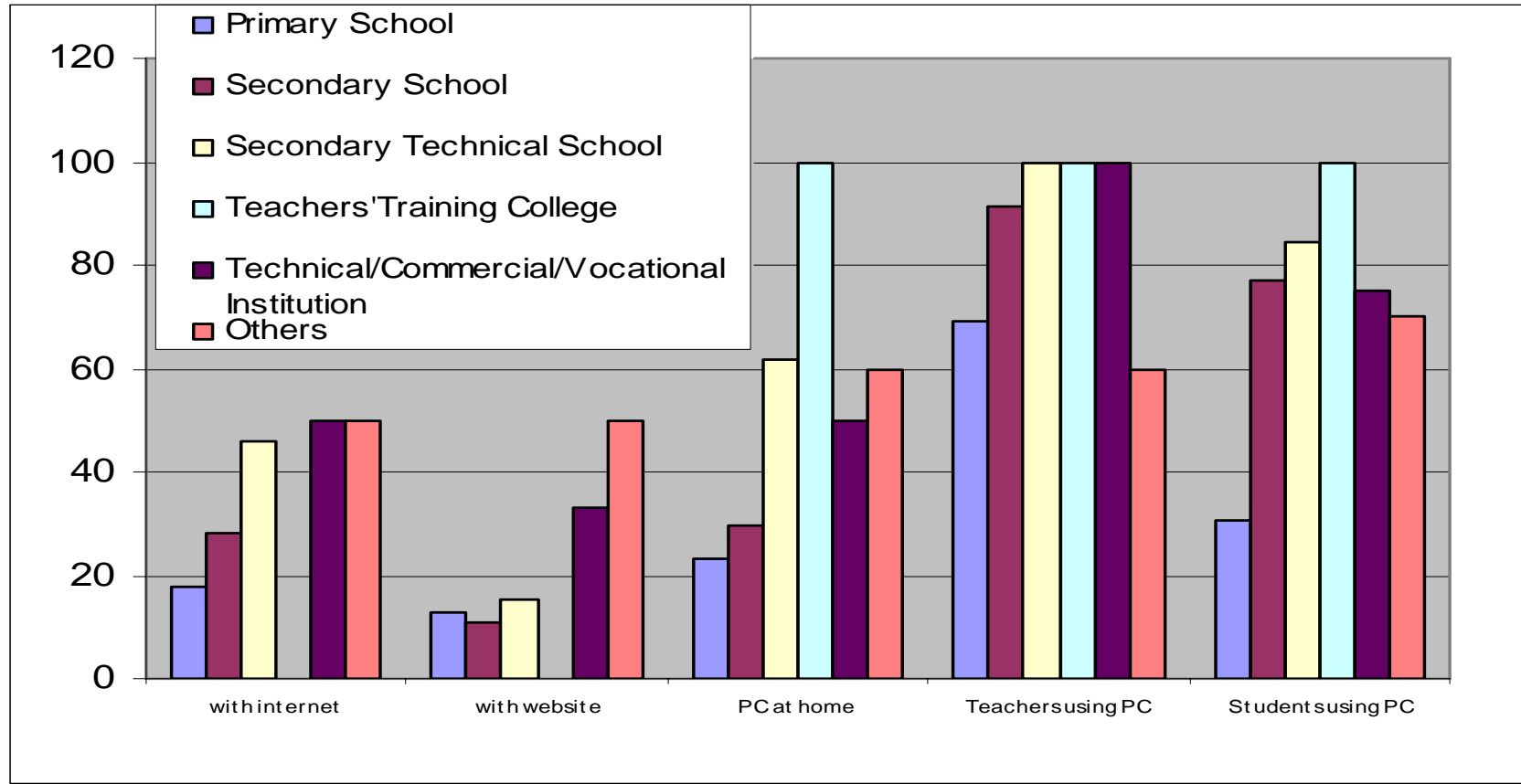


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2006: Scan ICT Baseline Survey (phase2)

Education sector – Summary of Results



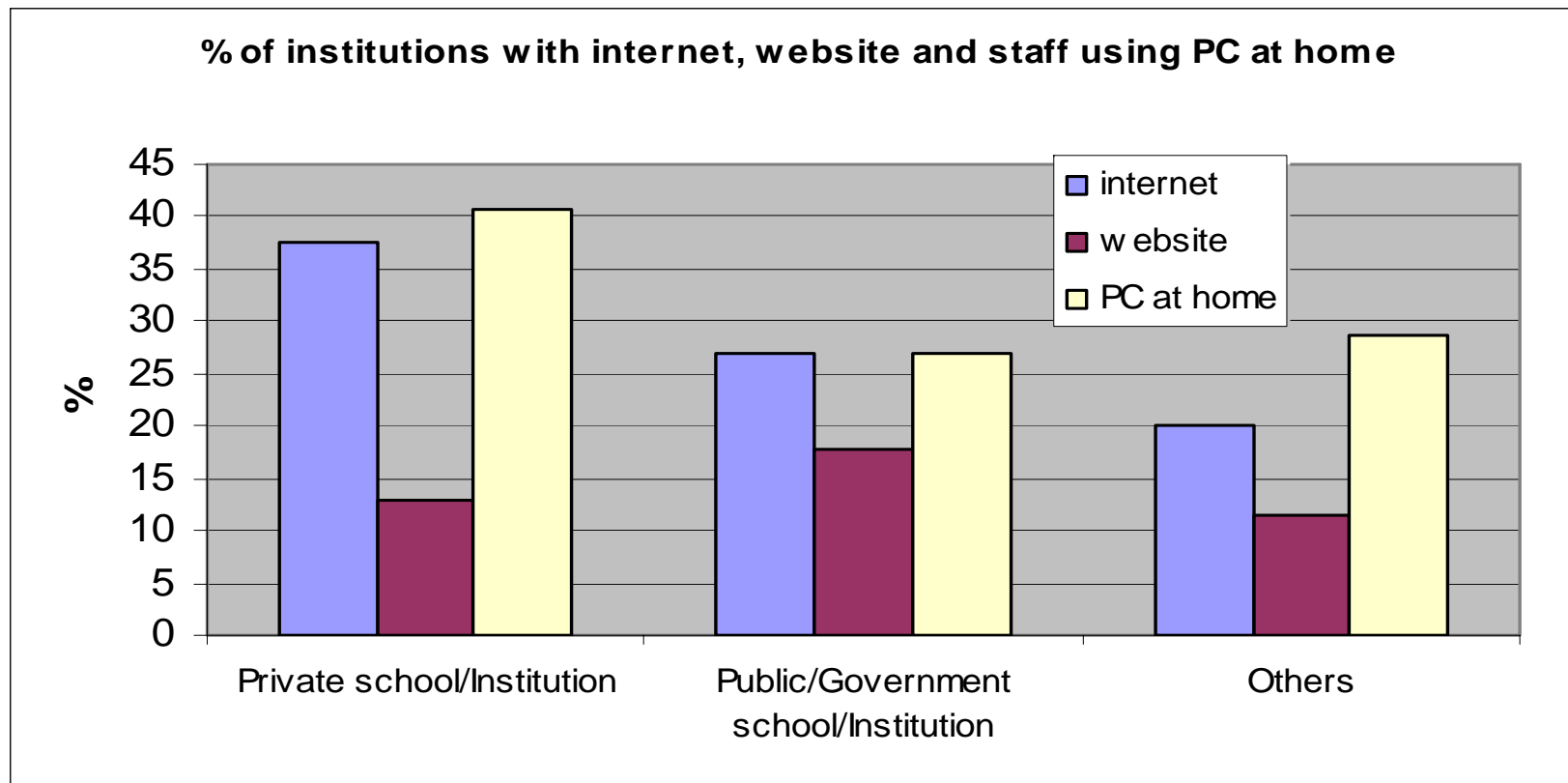


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2006: Scan ICT Baseline Survey (phase2)

Education sector – Summary of Results



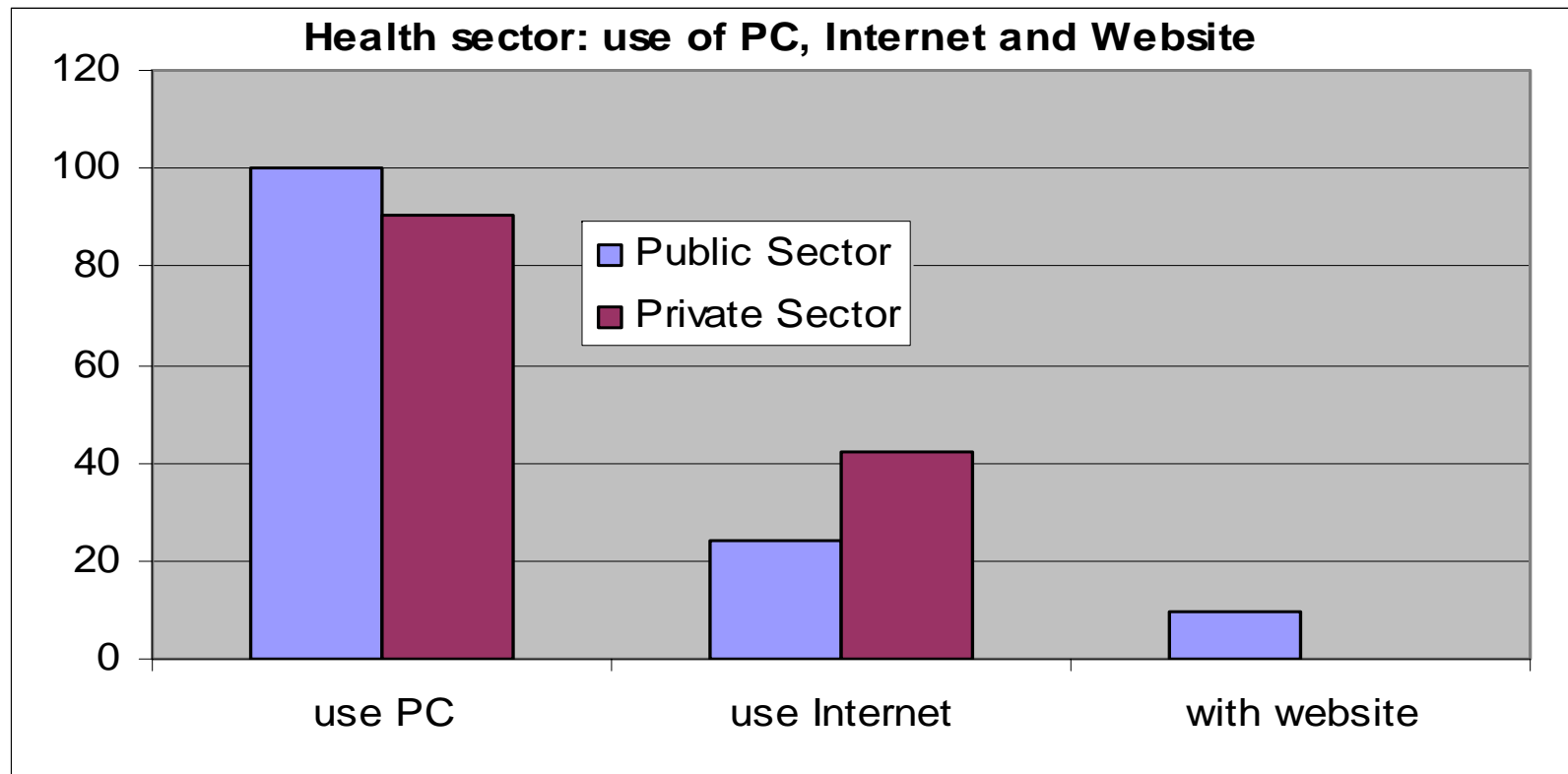


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2006: Scan ICT Baseline Survey (phase2)

Health sector – Summary of Results





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2002: RWANDA POPULATION & HOUSING CENSUS

Sectors covered: Population (dwelling, individual) and Housing,

Sampling approach: national level, urban and rural

100% enumeration

14.000 enumerators and supervisors

• **ICT indicators:** phone, radio, internet, computer (penetration rates)

• **Variables:** age, sex, economic activity, level of instruction, etc...

Housing: roof material, walls, water, cooking energy,...

• **Data collection:** face to face interviews

Survey period : 4 days (2002)

• **Data Analysis** : NISR. UNFPA



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RWANDA POPULATION & HOUSING CENSUS 2002

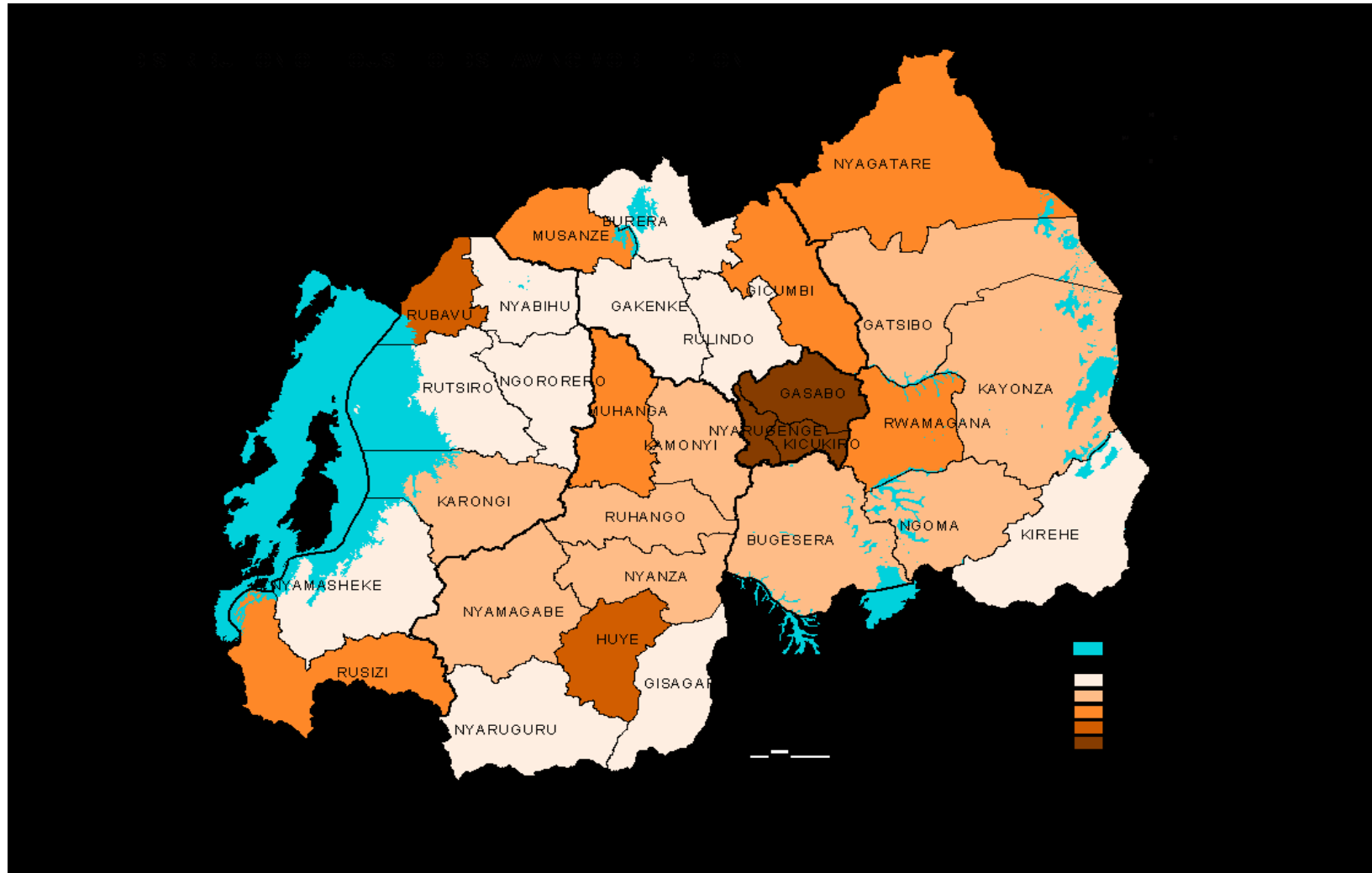
Summary of Results

% Households with fixed and mobile phones				
Provinces	fixed phones	Mobile phones	fixed and mobile	Total HH with phones
Ville de Kigali	1.2	11.3	2.9	15.4
Southern Prov.	0.3	0.8	0.3	1.4
Western Prov.	0.3	0.7	0.3	1.2
Northern Prov.	0.3	0.5	0.1	0.9
Southern Prov.	0.3	0.6	0.2	1.1
Total	0.4	1.8	0.5	2.7



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Mobile phones density





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RWANDA POPULATION & HOUSING CENSUS 2002

Summary of Results

% Households with computers and computers + internet				
Provinces	computers	computers + internet	Total HH	% HH with PC + Internet / Total HH
Ville de Kigali	62.8	37.2	100.0	1.05
Southern Prov.	68.5	31.5	100.0	0.06
Western Prov.	58.2	41.8	100.0	0.03
Northern Prov.	67.5	32.5	100.0	0.02
Southern Prov.	77.4	22.6	100.0	0.02
Total	63.8	36.2	100.0	0.14



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RWANDA POPULATION & HOUSING CENSUS 2002

Summary of Results

% Households with radio, TV and both Radio + TV				
Provinces	Radios	Televisions	Radio + TV	HH with Rad + TV
Ville de Kigali	81.9	0.8	17.2	50.0
Southern Prov.	98.5	0.1	1.5	44.0
Western Prov.	98.4	0.1	1.5	35.5
Northern Prov.	99.3	0.0	0.7	40.2
Southern Prov.	99.3	0.0	0.7	43.7
Total	96.4	0.2	3.4	41.9

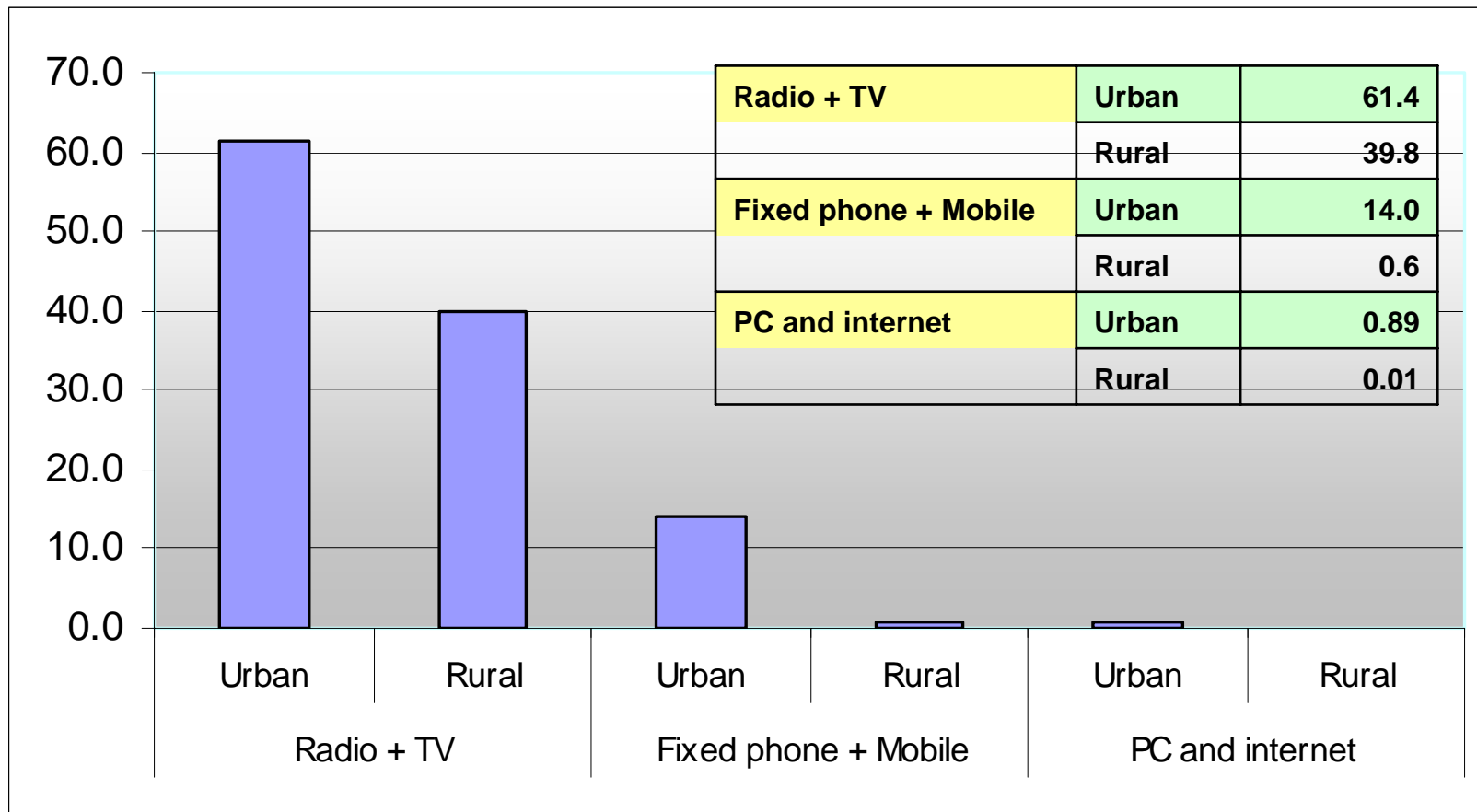


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RWANDA POPULATION & HOUSING CENSUS 2002

ICT penetration Urban vs Rural

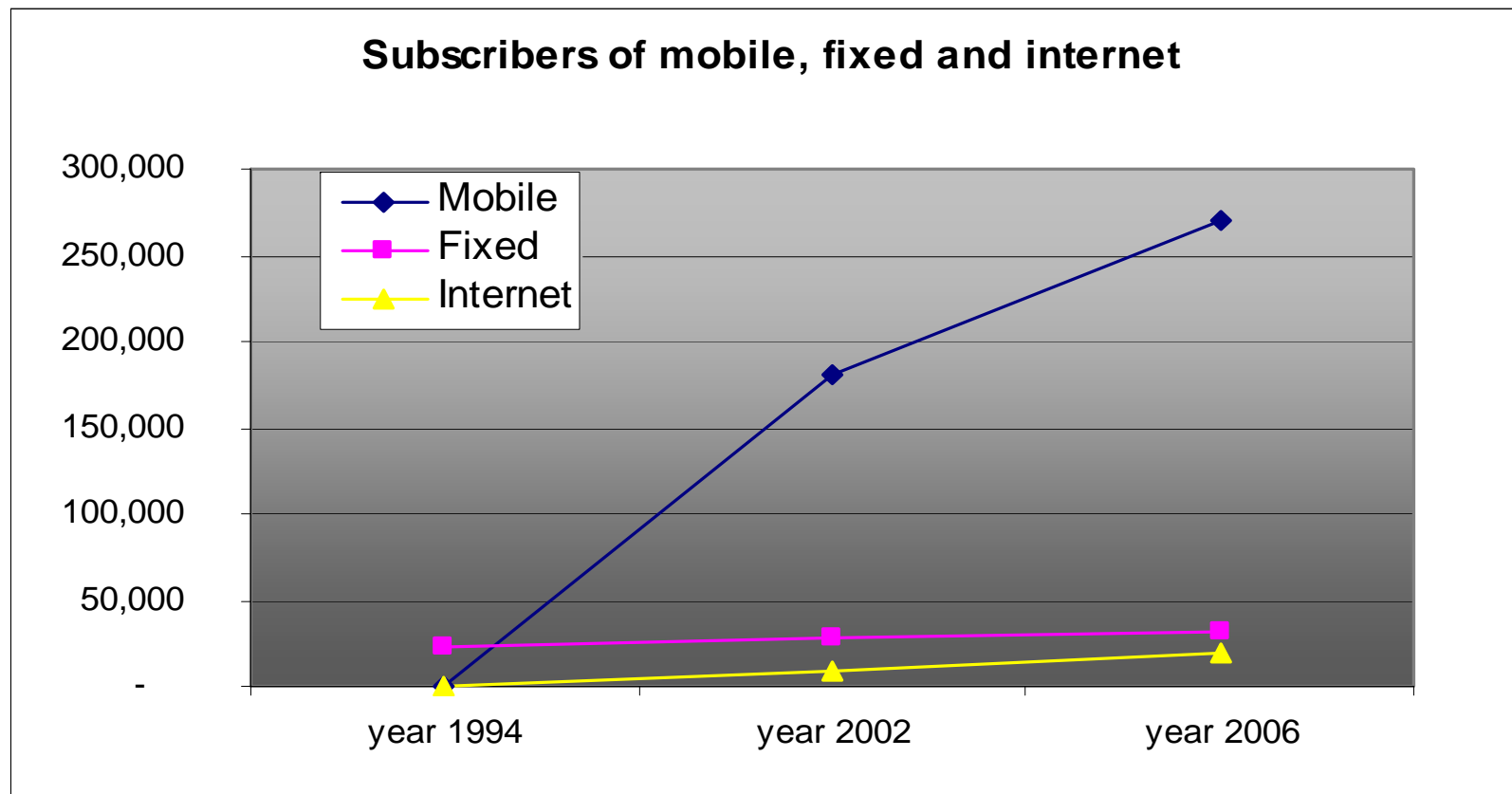




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ICT penetration and progress





Partnership on Measuring ICT for Development



RWANDA
INSR - NISR
Towards Greatness

Thank you for your invitation

