

# **ICT in Developing Countries**

## **- Latin America -**

**-The importance of e-gov-**

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# The ideas..

- Latin America ICT Overview
- E- gov in LA
- Understanding the results
- What comes next?

# LATIN AMERICA & CARIBBEAN



## ITC FACTS

dec 2005

## POPULATION

- 553, 908, 632  
i n h.

8, 3% worl d  
popul at i on

## GNP

USD

2. 141. 785. 400.  
000

14, 3% Worl d  
I n t e r n e t  
P e n e t r a t i o n

7, 8% Worl d  
I n t e r n e t  
U s a g e

# The World Economic forum ICT Readiness

## ITC Nations' Readiness

- Capability of main agents of an economy
  - Citizens
  - Business
  - Governments

## Combinations of factors as

- Relevant individual skills
- Access and affordability for individuals & corporations
- Government use for its own services & processes.

# key Index - Environment

- Measure the degree of conduciveness of country's ambience to promote ICT

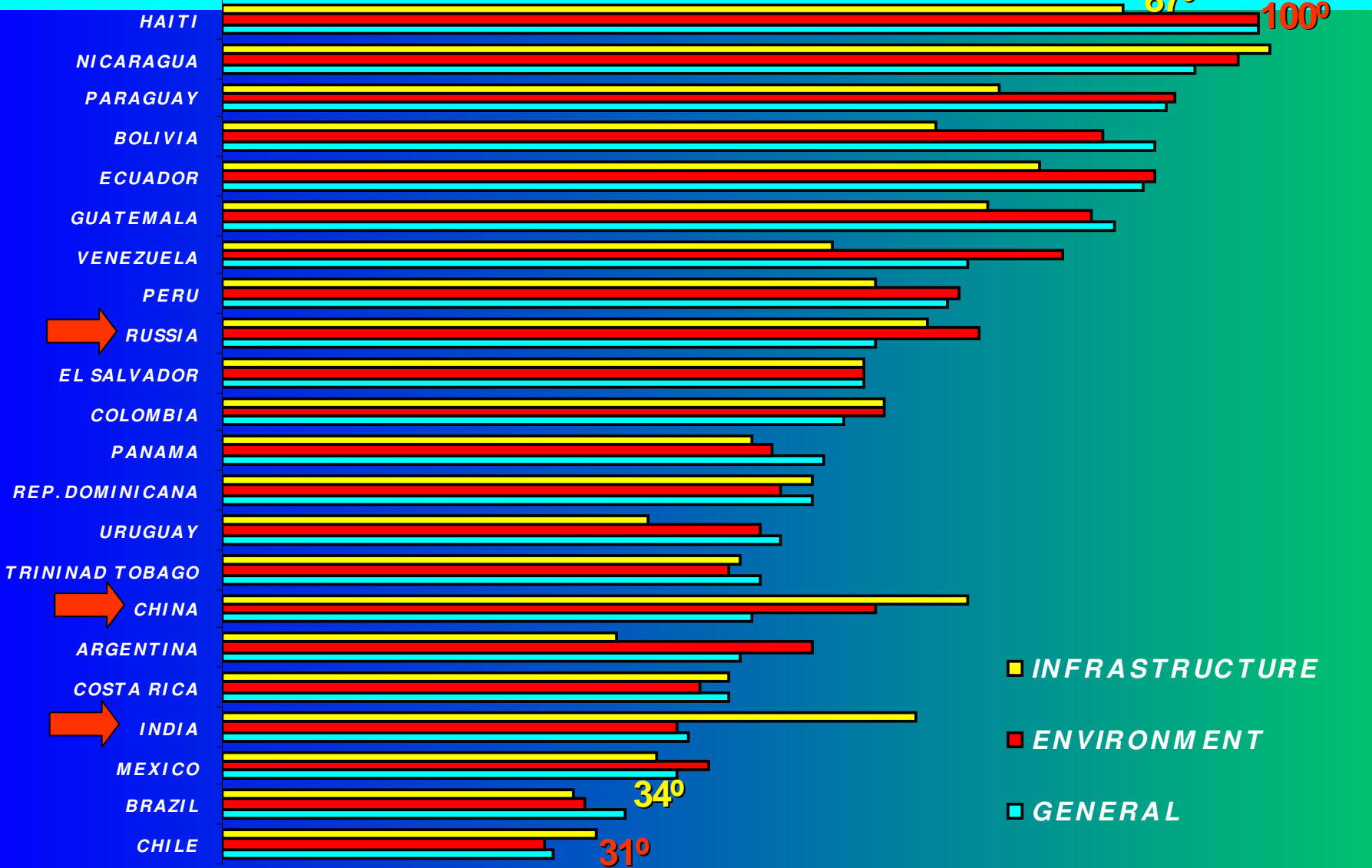
- Right policies to help expand ICT
  - Education – computers, internet and content in schools
  - Training people to reach relevant individual skills
- Public access to digital inclusion & education
- Public/ free internet centers
- Affordability to tools & services
- Competitive environment to keep prices low.
- Production, services & maintenance
- Legal framework that encourage ICT investments...

# Key item - Infrastructure

## Availability & quality of key access infrastructure for ICT within a country

- Telecommunication wired and wireless penetration
- Wideband penetration
- Internet providers around the country
- Numbers of Hosts
- IP addresses, use and availability
- PC access / penetration
- Power & electricity access / penetration

# READINESS 2005 - ITC - LA&C Rank + CHINA, INDIA, RUSSIA



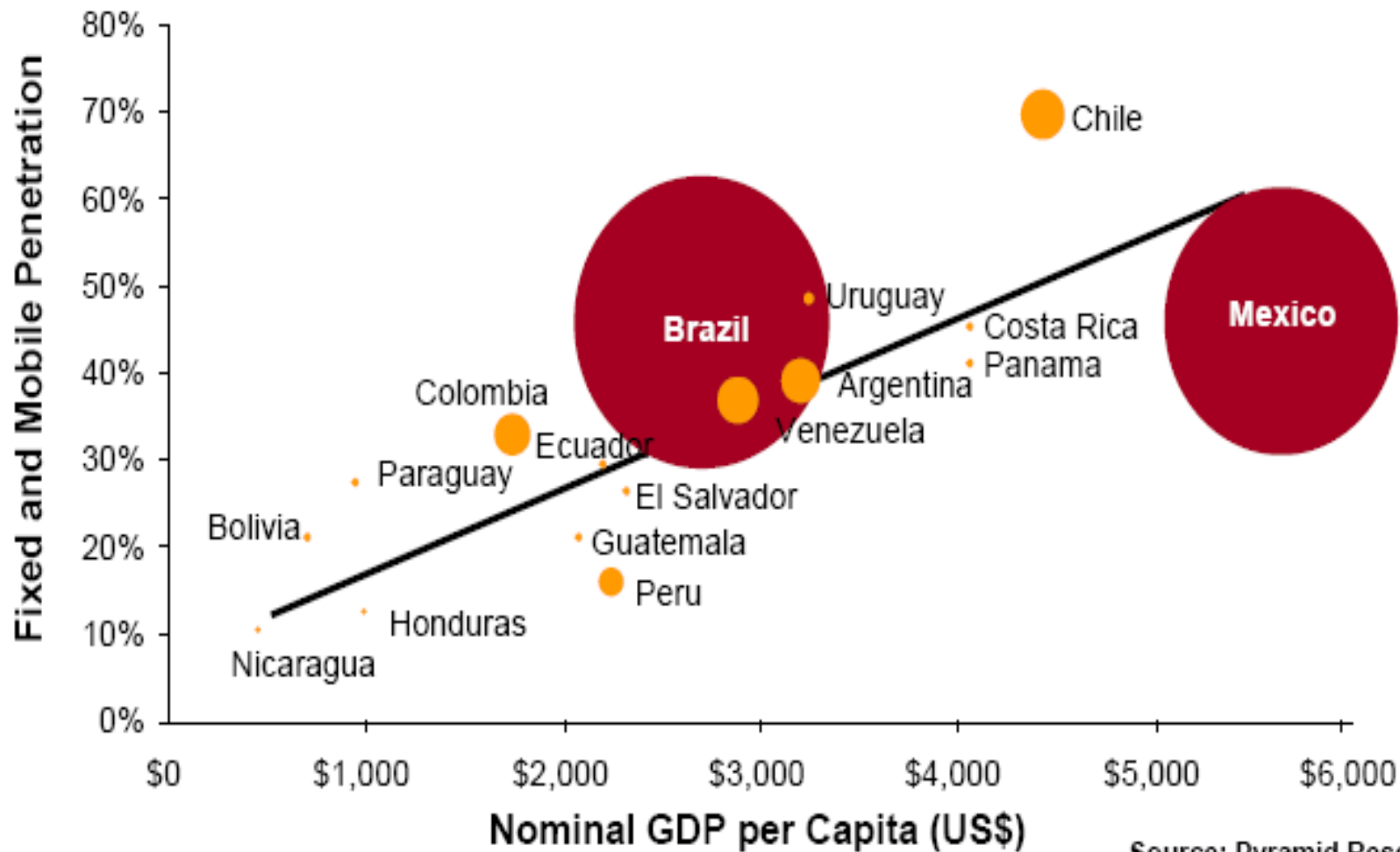
BES



S;

# Latin America Telecom penetrations

## X GNP /capita

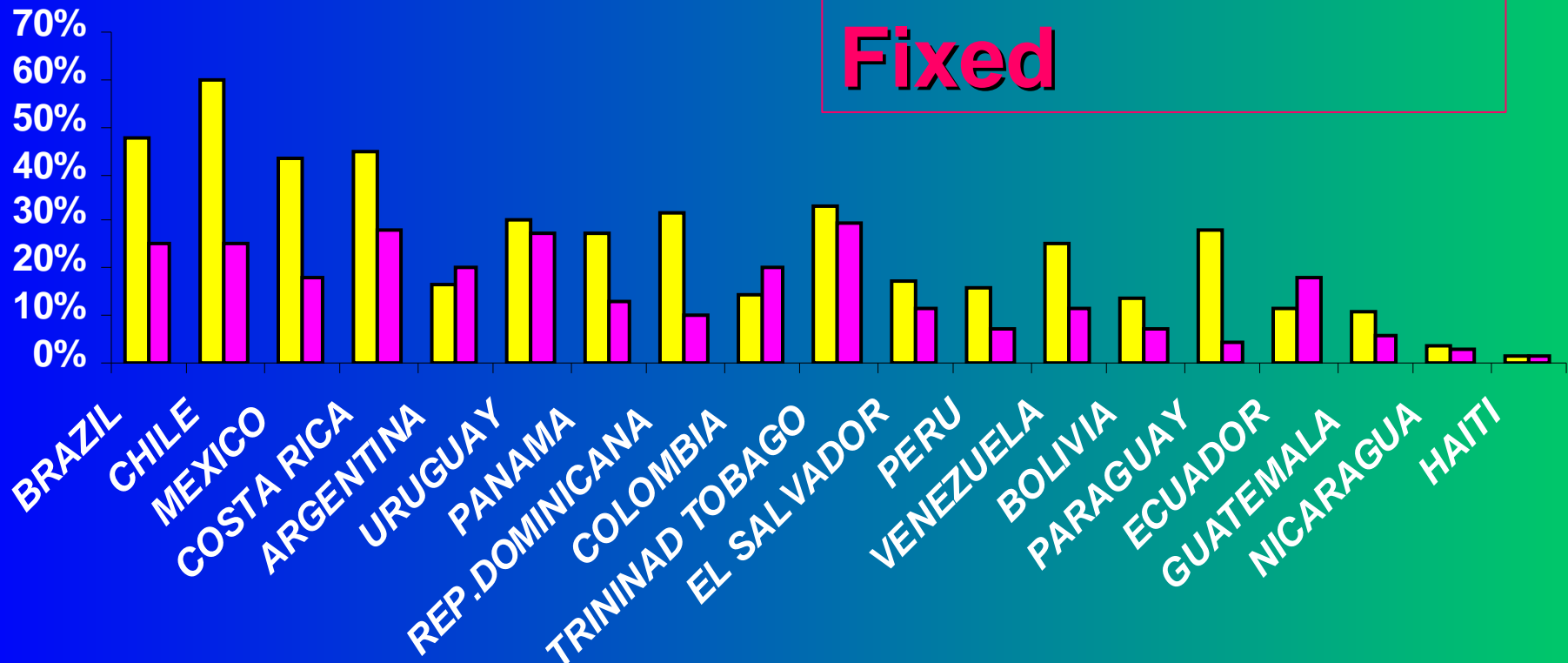


Source: Pyramid Research.

# Latin America M & F Telecom Penetrations

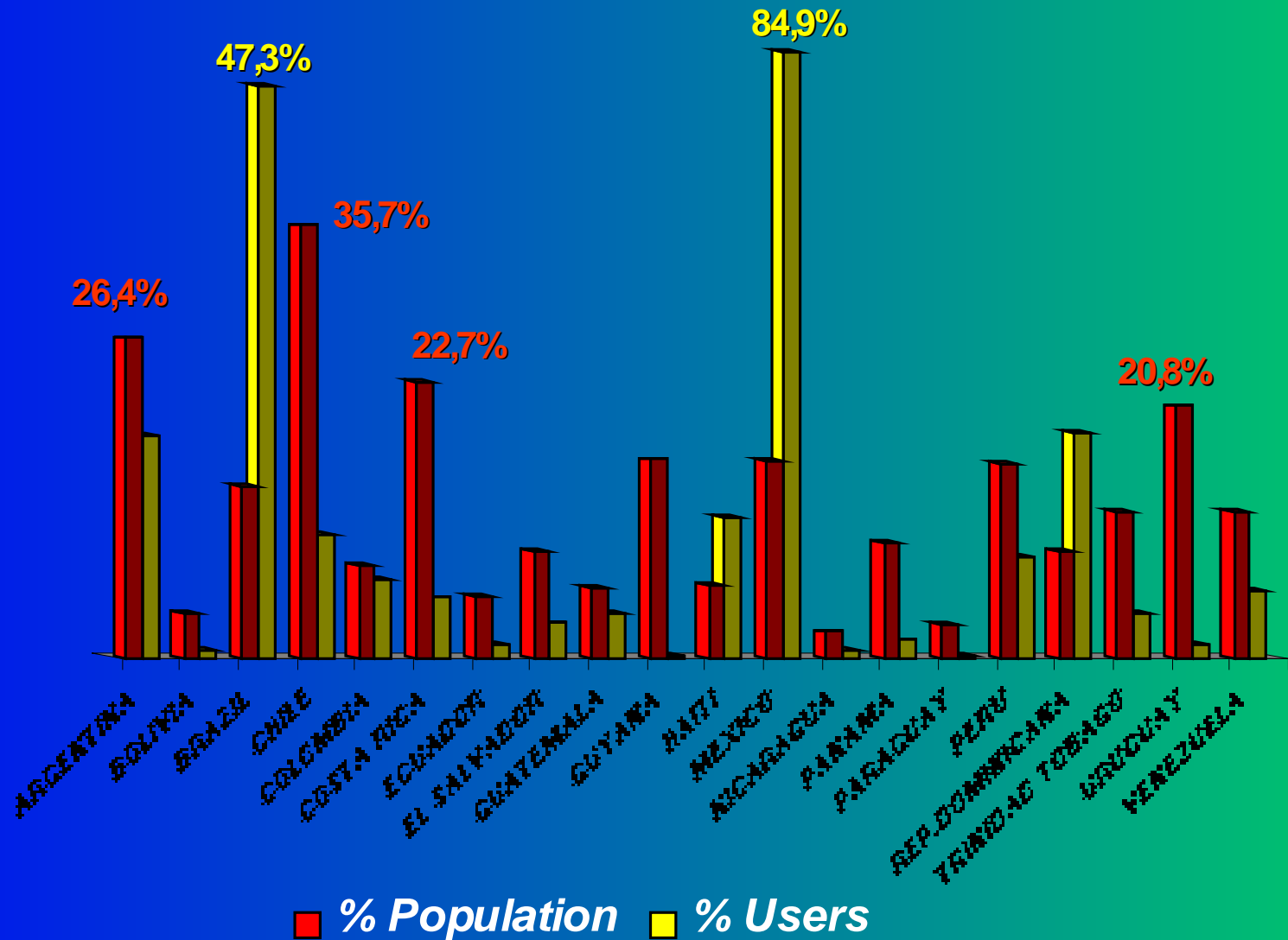


**MOBILE >>**  
**Fixed**



■ MOBILE PENETRATION ■ WIRED PHONES PENETRATION

# Latin America Internet Penetration + USERS

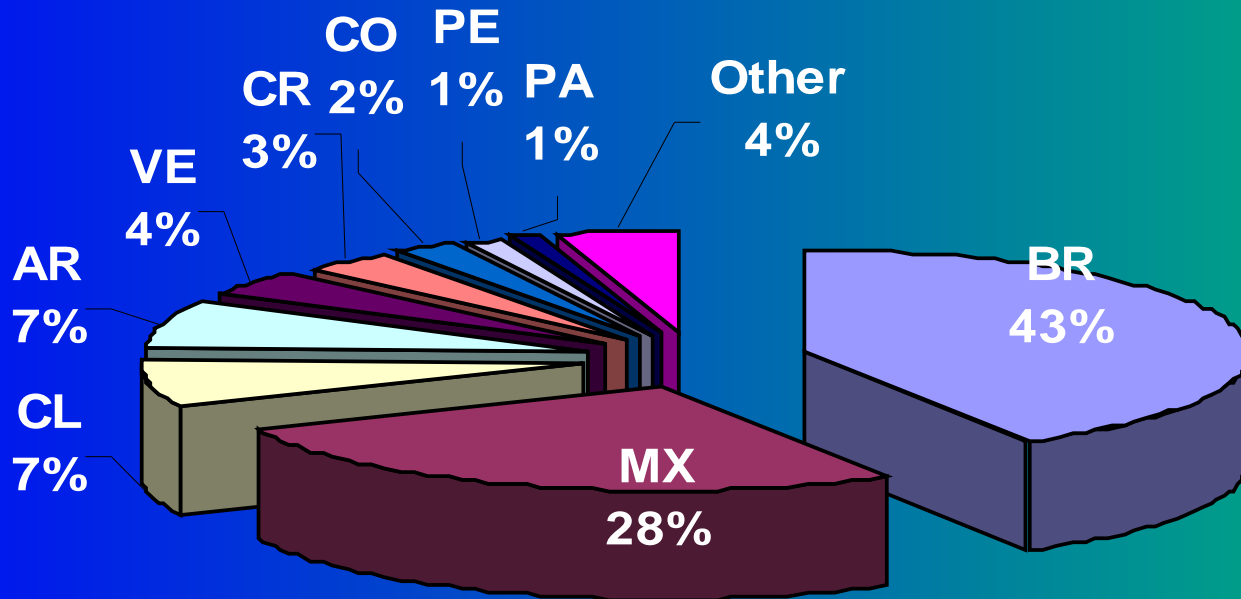


■ % Population ■ % Users

# Latin America Internet - % Users Growth

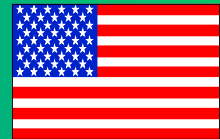
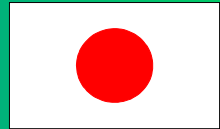
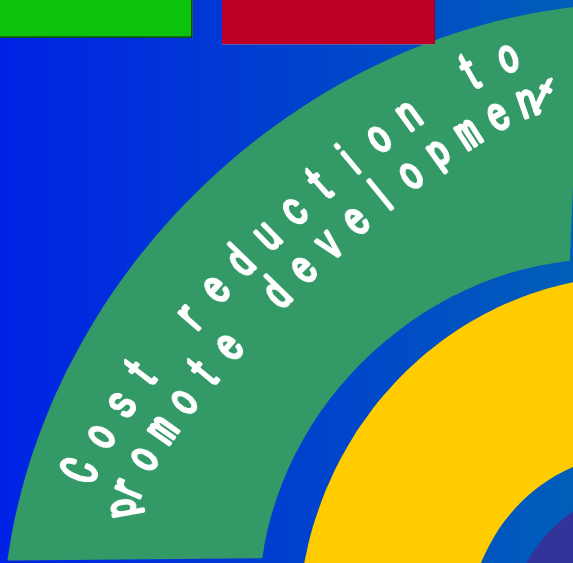
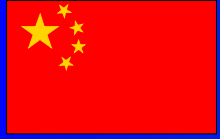


# Latin America - IP distribution



E- gov in LA

# What e - gov is about?



# Challenges when starting E-gov in developing countries

- Government' s capacity to do the evolution
  - Finances & Human Resources
  - Political time
- People' s capacity to use that evolution
  - easy and free access
  - understanding
  - skill to deal with
  - trust

# Latin America experiences

- **Mostly programs started middle of 90's beginning of 00's**
- **The most developed countries launched Information Society Programs -Brazil –Argentina, Mexico, Chile ,Uruguay**
- **Central America 2003 Task force launch IS program for that region**

# The model

## Based on Information Society Program

- Announcement & public promotion
- Involvement of whole society - Document
- Groups to evaluate Infrastructure and suggest Improvements
- Public policies for widespread application of ICT and training the society
  - Computers & Internet in Schools
  - Internet free in public centers
  - Academic networks
  - Computers in all government agencies...

## .....The model

- Information available – organization & priority
- Digital Production of as many online services as possible
  - Partnership with private companies
  - Interchange knowledge with other governments
- Full interoperability as a main goal

# Which are countries goals?

- Huge cost reduction - short pay back and continuous cost reduction
- Improve competitiveness and productivity inside & outside governments
- Strong base for e-commerce development
- Corruption reduction
- Improve general knowledge among society

Cultural integration among communities

# Understanding the results

# BINPS ® = Benefits on Investments in Public S



## Government Procurement

State Benefits + Supplier Benefits 2003  
R\$ 74 million

$$\text{BINPS}^{\text{®}} : \frac{\text{State Benefits + Supplier Benefits 2003}}{\text{Investment Depreciated in 5 years}} = 4,774\%$$

R\$ 1.56 million

**PayBack: 2 days**

**BINPS ® = Benefits on Investments in Public**

## **Vehicle Property Tax**

Benefits for the State + Benefits for Society  
R\$ 570 millions

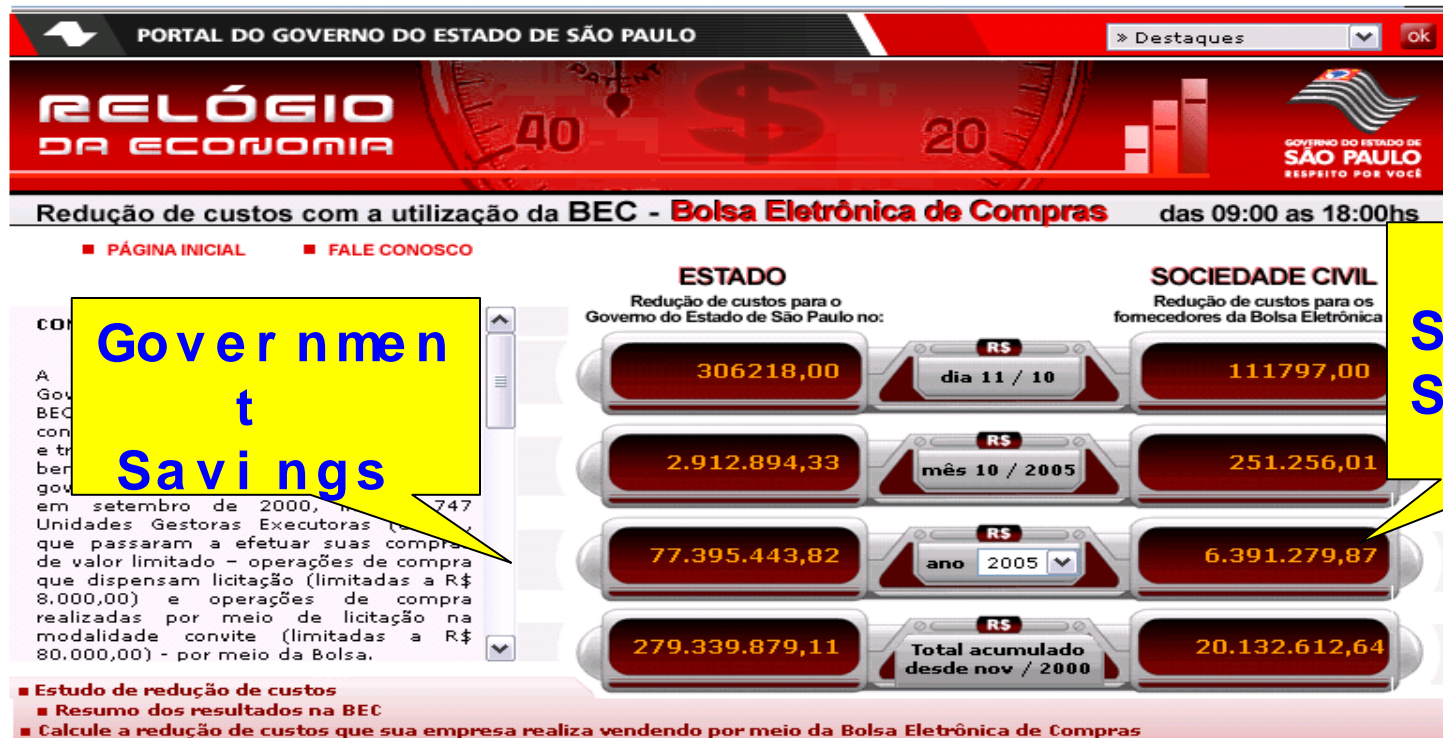
$$\text{BINPS}^{\text{®}} = \frac{\text{Benefits for the State + Benefits for Society}}{\text{Initial Investment depreciated in 5 years + annual maintenance}} = 180,852\%$$

R\$ 315,000

**Payback: 1,15 hours**

# Best Practices - e-Democracy Award - BRAZIL -2005

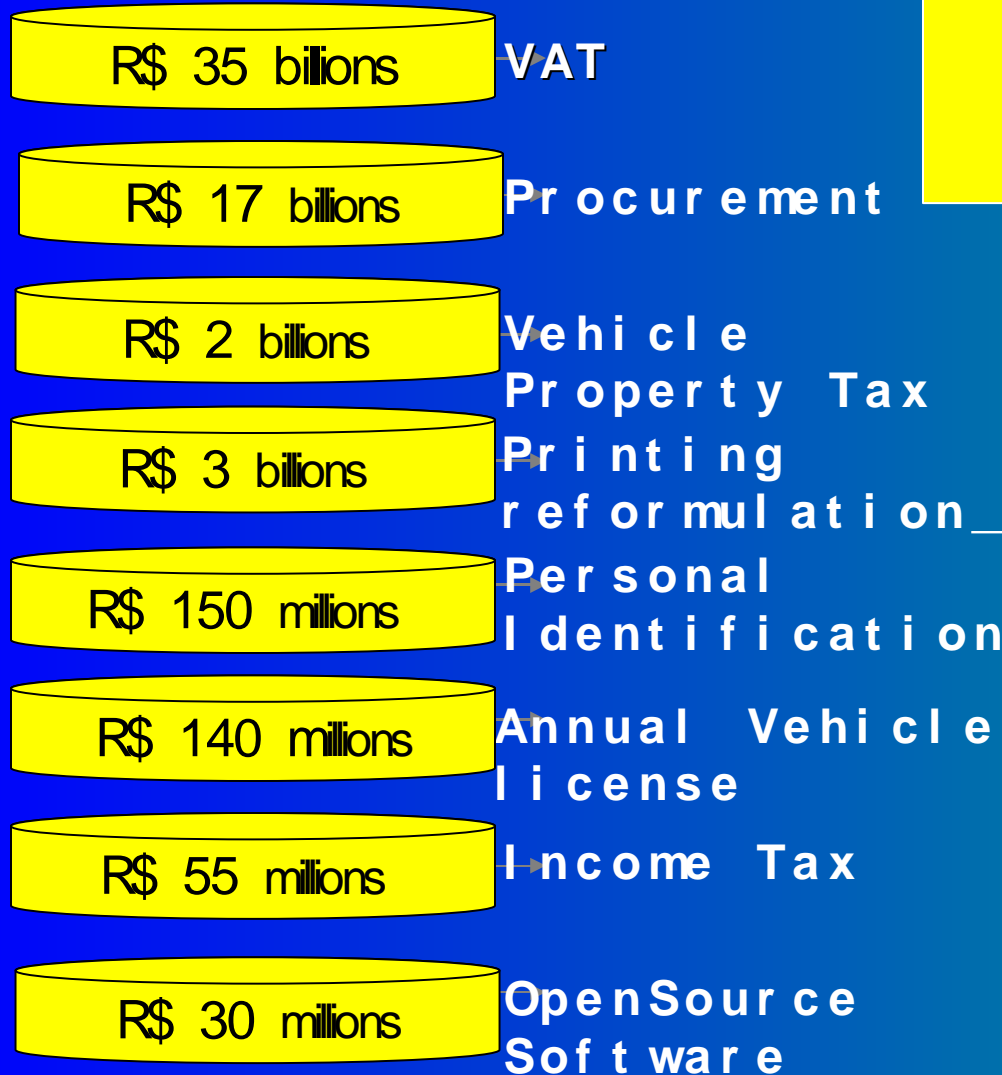
## SAO PAULO SAVINGS CLOCK



[www.relogiodaeconomia.sp.gov.br](http://www.relogiodaeconomia.sp.gov.br)

# Savings with a few e-gov innovations

## BRAZIL - 2004

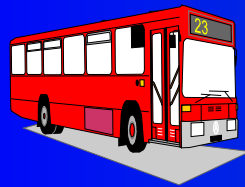


**TOTAL Savings:**

**R\$ 57.5 billions = 3.3% GNP**

External Debt annual interest payment:	R\$ 18 billion
Social Security for public servants	R\$ 38 billion
<b>TOTAL</b>	<b>R\$ 56 billion</b>

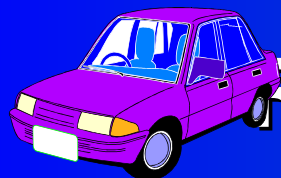
# Social Cost for people get identification ( by year in 1996 )



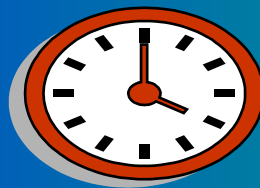
R\$ 15 millions



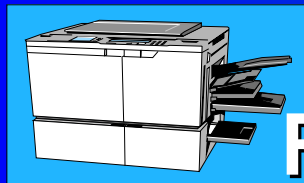
R\$ 13 millions



R\$ 8 millions



R\$ 44 millions



R\$ 270 thousand



R\$ 8,5 millions



**CON AÍRES**

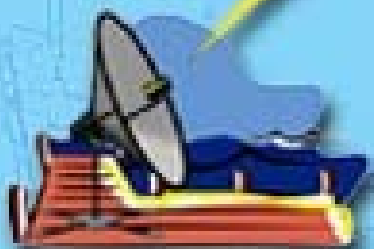
**GOVERNO DO PARÁ**

**SECRETARIA ESPECIAL DE GESTAO PRODEPA**

V  
IV  
III



**DATASAT-PLUS**

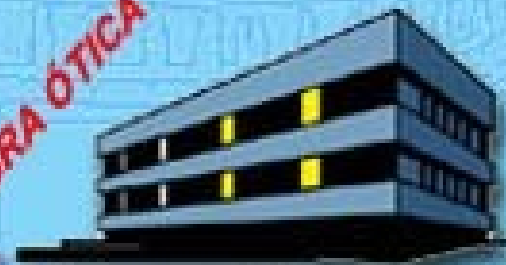


**TRAPICHE**



**MOSQUEIRO**

**FIBRA ÓTICA**



**PRODEPA**





# BINPS ® = Benefits on Investments in Public

## Identification

Social Cost Reduction  
in 2003

**BINPS ®** — ~~R\$ 71 millions~~ = **238%**

investment Depreciated  
- 5 years + annual  
current incremented cost  
R\$ 21 millions

## Payback: 77 days

2004

# América Latina

GNP  
US\$2.5 trillions

Total Annual  
Government  
Expenditures  
US \$ 350 billion

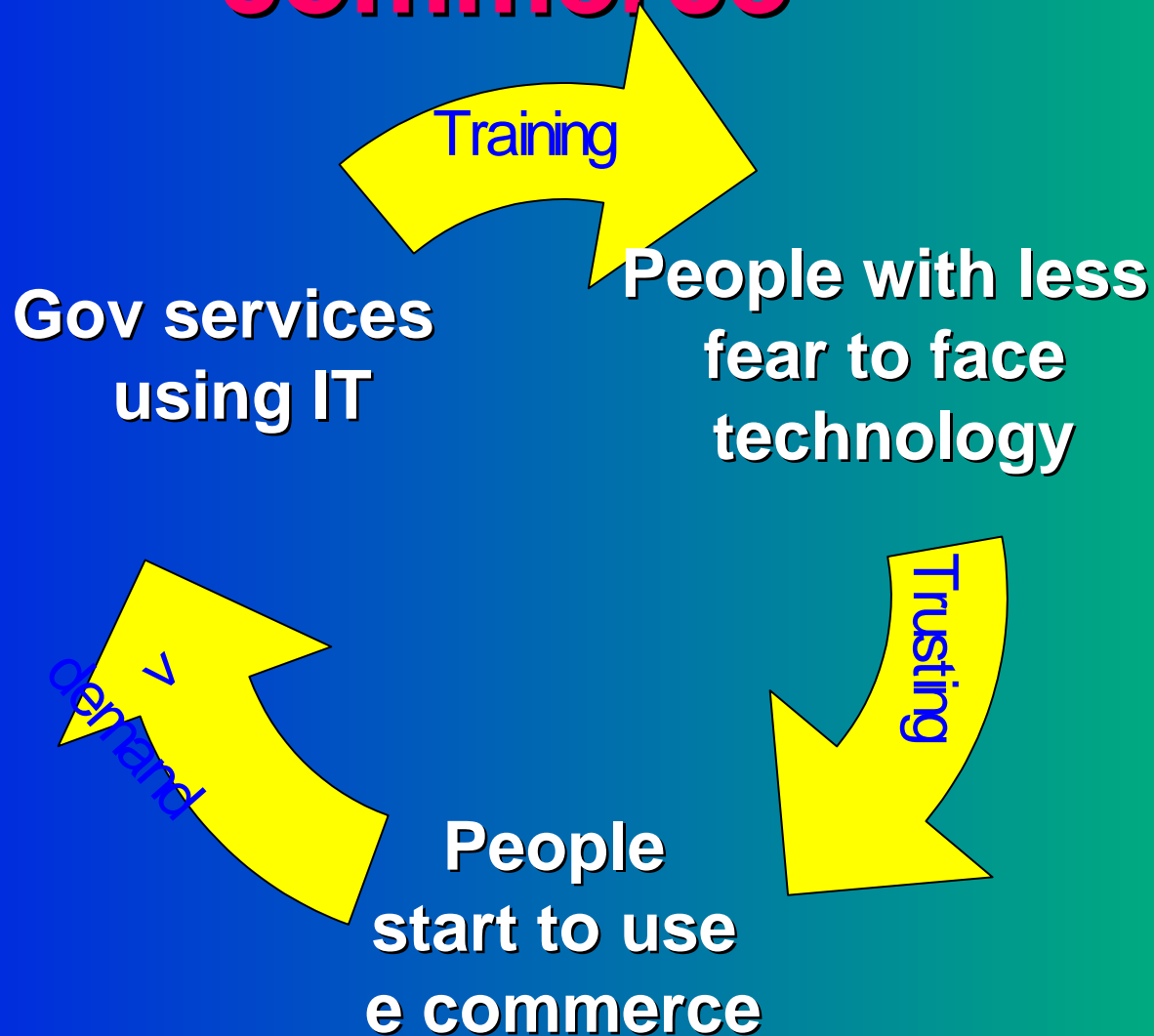
Total annual  
procurement  
expenditure  
US\$ 97 billions



- **Cost reduction with e-procurement:  
US \$ 25 billions**
- **External Debt - Annual interest  
payment**

Source : e -strategia

# “e – gov” promotes “e – commerce”



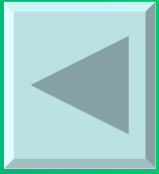
**Brazil B2B growing 37% / y - US\$ 121 billions in 2005**

# LA - Resume

- mostly countries with full information about government process to the public.
- many have adopted ITCs in almost all internal processes ( ex: e- procurement)
- Few with real services to the community – taxes payment, documents, health appointments, justice processes, children Vaccines & Pregnancy tutoring etc

**What comes next ?**

# Next in LA



- Mobile government

Brazil - > 80 millions active mobiles

> 30 millions downloads ( infos) month

> 900 millions of messages SMS/ month

> 2 millions downloads services/ month

- Interoperability among systems

- Huge ASP services + outsourcing

- .....?

**Thank you!**

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