

Cooperation between Brazil and the European Union Trust in the Information Society Ciudad de León, 10-11 Fev

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Universidade de Brasília

Brasília: Capital City of Brazil



- Brasília is the seat of all three branches of the Brazilian government
 - Executive, Judiciary and Legislative
- Hosts the headquarters of many Brazilian companies such as the
 - Banco do Brasil,
 - Caixa Econômica Federal,
 - Correios and
 - Brazil Telecom.



The University of Brasília: UnB

- Located at Brasília, capital city of Brazil
- 1900 faculty members
- 28,000 **undergraduate** students
- 5,500 **graduate** students (M & PhD)



UnB interacts with the society providing technological solutions and consulting for the government as well as for state and private enterprises (last 12 months US\$200 in government contracts)



Overview

- Plans for ICT
 - The Government Priorities
 - Research and Development
- ICT Views
 - Brazilian CS Views for ICT
 - Future Internet Research
 - Actions for Cooperation between Brazil and the EU



Brazil's R&D Priorities

Ministry of Science and Technology: Action Plan (2007-2010)

- ICT
- Nanotechnology
- Biotechnology
- Technological Development of Enterprises
- Nuclear Policy
- Space Program
- Management of Ecosystems

- Energy and Mineral Resources
- Climate Changes
- Meteorology, Climatology & Hydrology
- Biodiesel
- Hydrogen and Fuel Cells
- Biodiversity
- Antarctica



Brazil in High Speed Project

Ministry of Communications

- National Plan for Broadband Access
 - Enter the Information Society
 - E-government services
 - Join the Future Internet



National Plan for Broadband Access



- Principles:
 - Facilities for private investments in broadband infrastructure.
 - The government will focus in collective access and reduction of regional and social disparities.

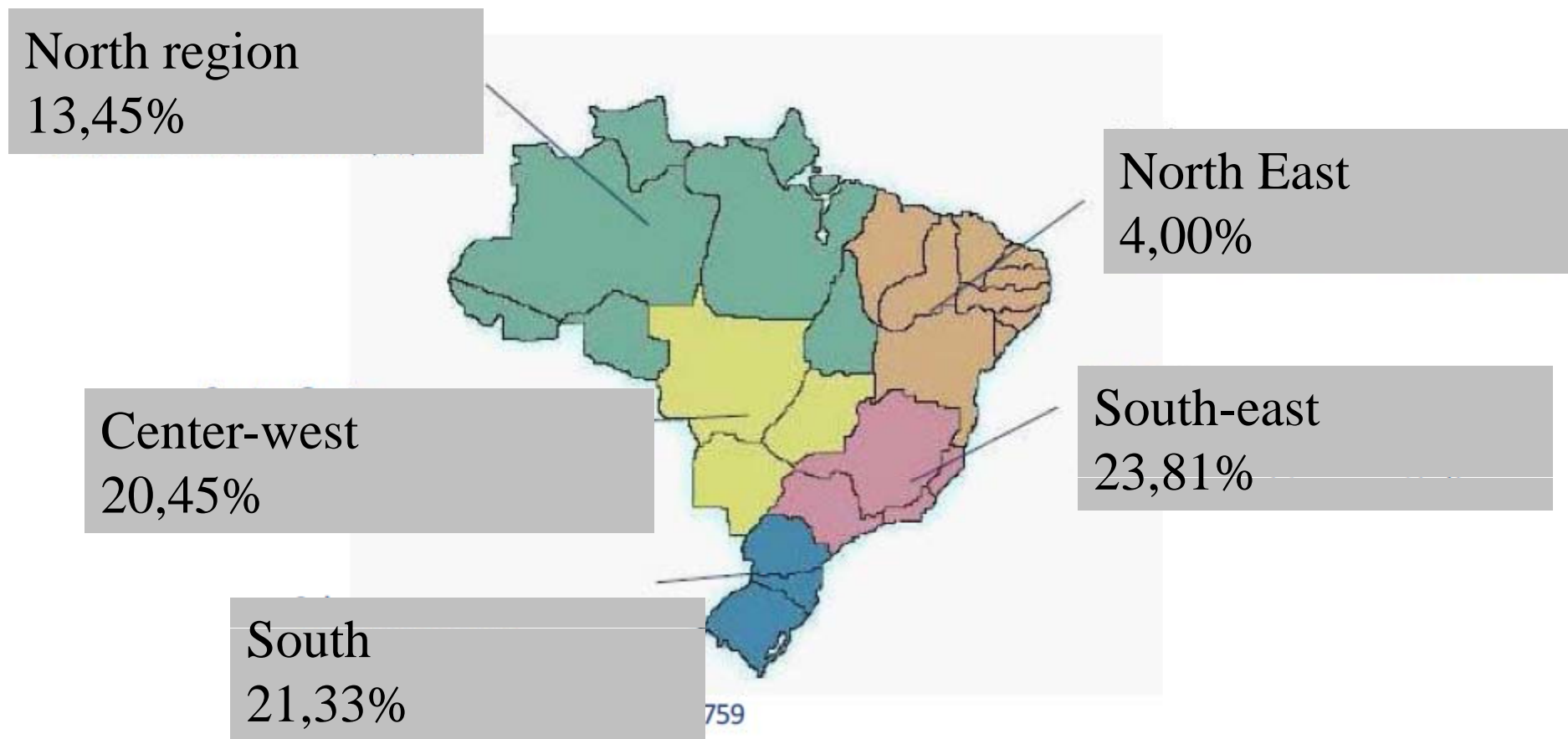


Which are the statistics?

- 17.8% home/office access
- 5.2 % per habitants
 - The main limitant factor is the family income
- 43% Internet access are at home/office and 47% are in private centers
- 70% of broadband access uses ADSL

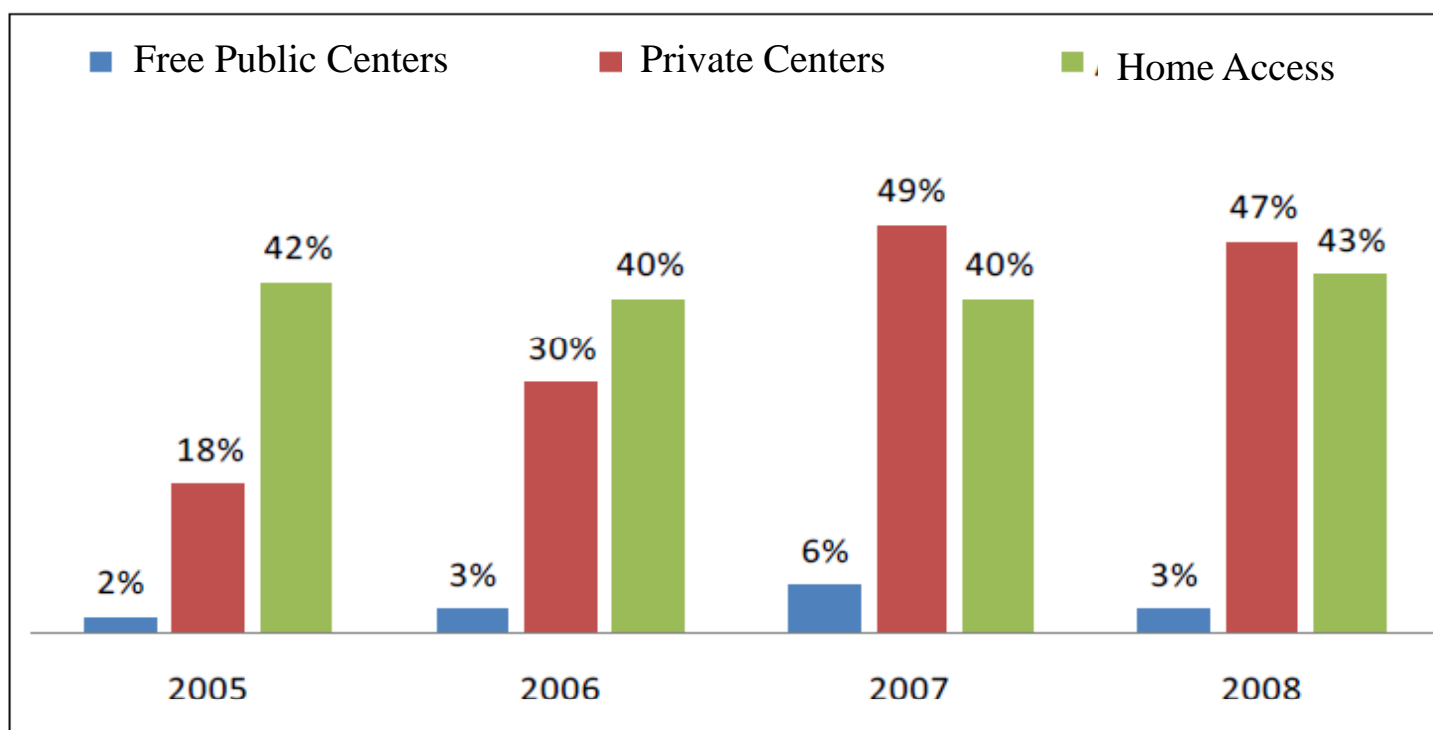


Broadband Access in Brazil



Which are the gaps?

- The market gap (26.3%): homes in Brazil that do not have broadband access due to economical reasons
- The access gap (55.7%): homes that do not have broadband access due to geographical reasons (lack of investments)



Which are the main restrictions?



- Homes and offices with computers
- Number of Internet Access Points
- Broadband penetration
- Broadband services characteristics
- Broadband access price
- Population mean revenue
- Educational level
- TICs habilities



Which are the goals?

Access Type	Goals for 2014
Fixed single Access (Urban and rural)	30 millions of broadband access
Communitary Fixed Access	100% broadband access por government institutions: <ul style="list-style-type: none">• 100% Federal Administration• 100% Public schools• 100% health centers (more than 177.000).• 100% public libraries (more than 10.000).• 100% public security institutions (more than 14.000). Create 100.000 federal telecenters
Mobile Access	60 millions of broadband mobile access

Investments R\$ 49 billions (EUR 18 billions)



What is expected ?



- This project establishes new guidelines for the telecommunications market in the next years
- Improve the citizenships rights of Brazilians



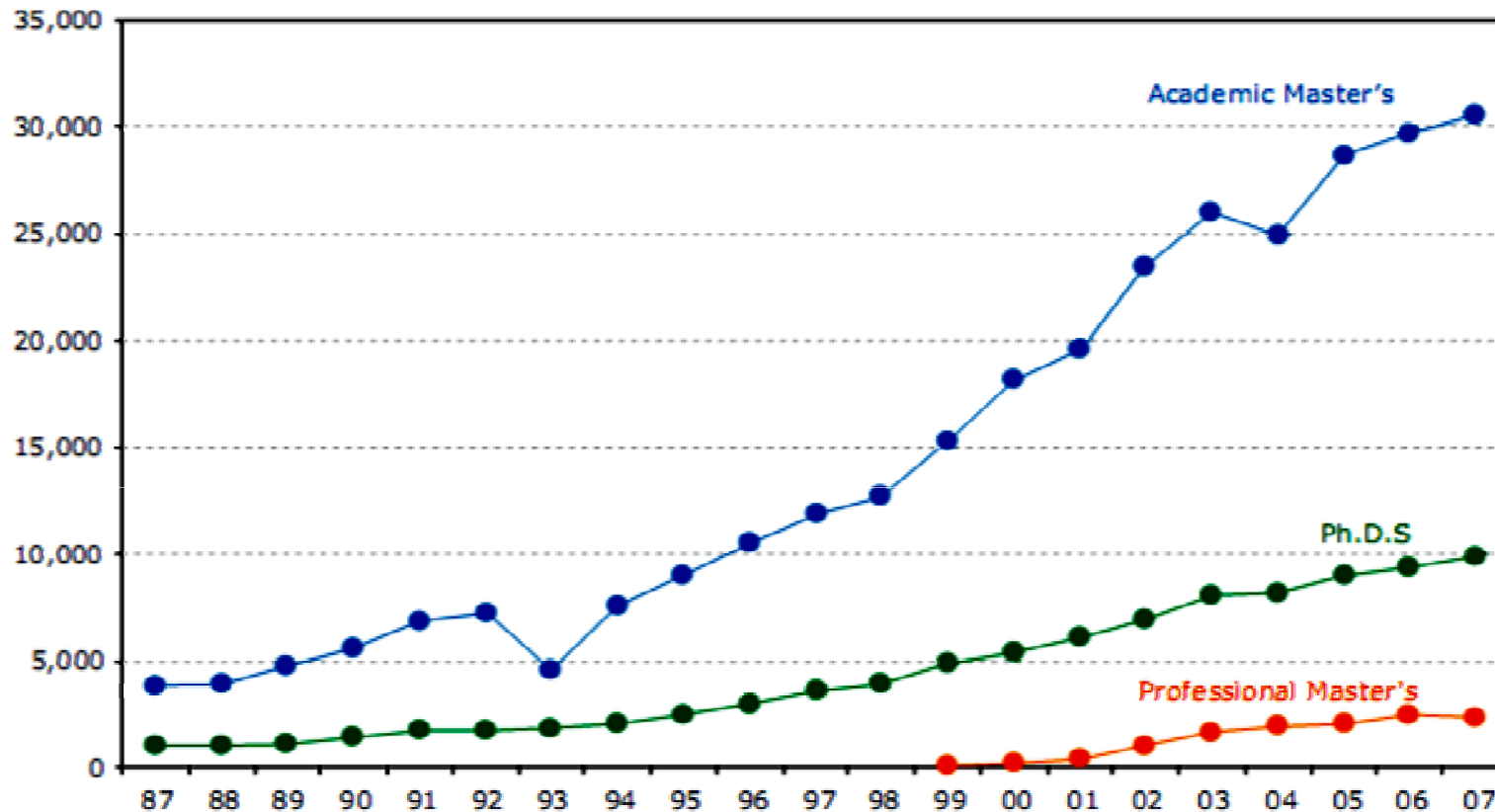
What are the main challenges?

- Creating an environment for digital inclusion gives huge benefits to citizens and economies.
- Citizens must trust the systems and this cannot be based solely on technology – it is necessary to deliver a trusted system that incorporate technological, social and legal requirements.
- Solutions that are globally relevant will have the greatest impact and hence the longer benefit.



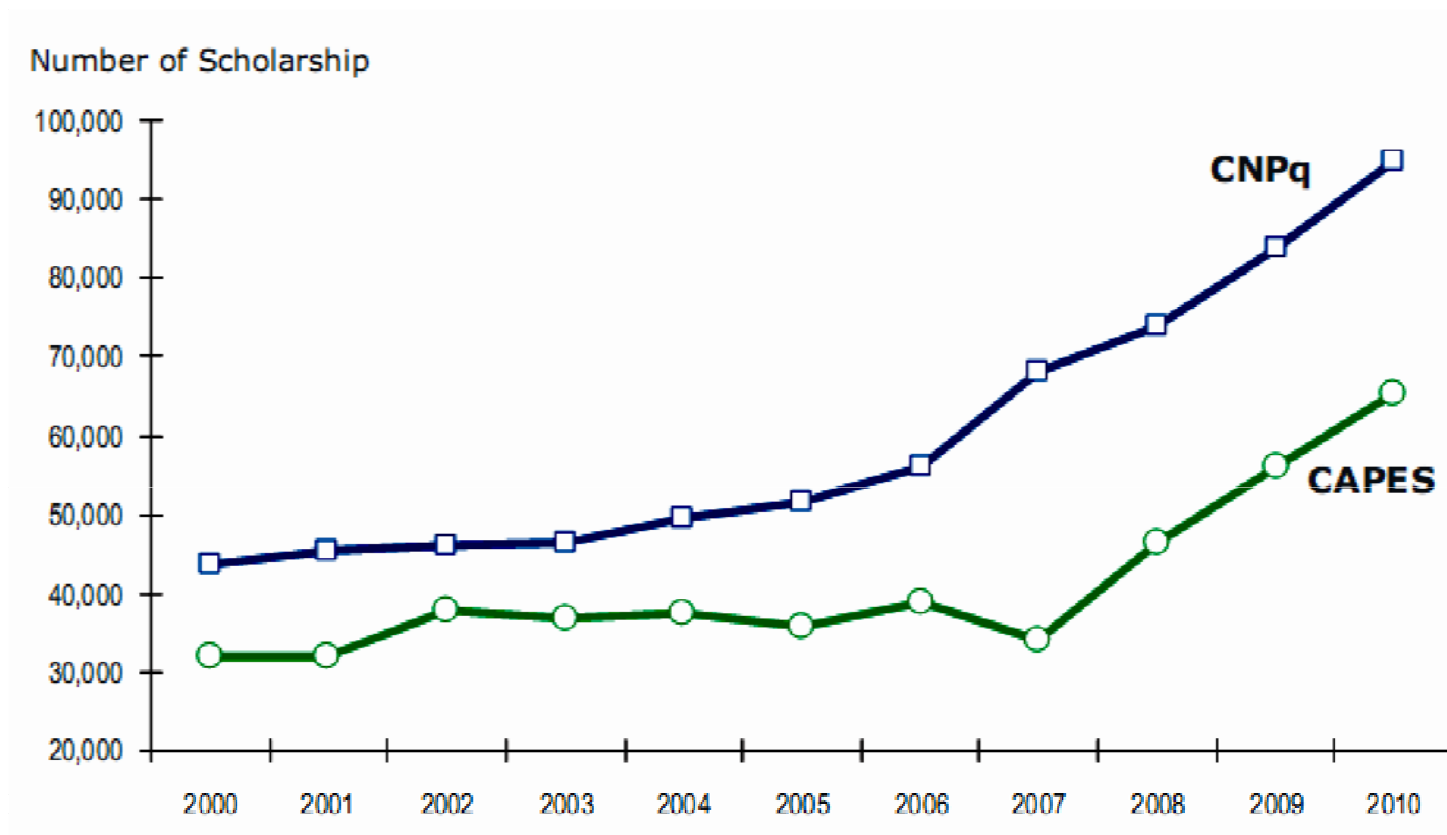
Brazilian Policy for Science & Technology

- Steady growth in the number of graduate students (MSc and



Qualification of HR

- No. of Scholarships: doubled in 10 years



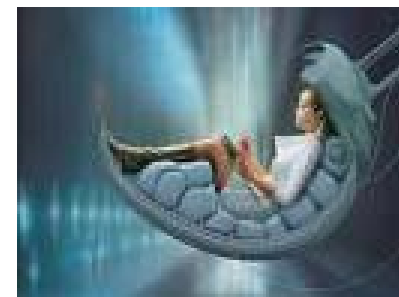
Brazilian CS Views for ICT

- The Brazilian Computing Society (CS) identified number of research challenges for the decade 2006–2016
- The challenges include:
 - *Universal access to knowledge*
 - *Management of information over massive volumes of data*



Future Internet

- Enter the Information Society
- Topics of interest include:
 - New Architectures and network technologies
 - Network convergence, optimization, planning and dimensioning
 - Future Applications
 - Context and QoS aware applications
 - Trustworthy ICT
 - availability, confidentiality, integrity



EUBR'09: Workshop

- Held in São Paulo, Sept. 2009
- Workshop Aim:
 - Promote collaboration
 - Identify common objectives
 - Exchange of experiences among
 - Brazilian research community
 - European Union Academic and Scientific Communities
 - Industry



Topics of Common Interest EUBr (1 / 2)

- Security, Privacy and Trust
- Network Infrastructures
- Embedded Systems
- Microeletronics



Future Internet Research Potential Cooperation



- The development of trusted communications infrastructures (consistent user access to services independent of cost, location, service type, access device).
- The development of application service environments providing secure and consistent access to functionality irrespective of access device, access network and service provider network.
- Usability and accessibility regardless of educational and technical background



The Facts



- ICT is a national priority
- R &D is a priority: universities and research centers
- Broadband Universal Access will enlarge tremendously the number of users in the next 4 years
 - 60 millions mobile users in heterogenous devices
 - 100.000 telecenters in 2014: communitary use and profile management
- Trust and Security is a Government concern ?
 - 2008: 43,9 billions of bank transaction, 18% using Internet, 33% using ATMs and 10% physically in the bank
 - Electronic vote among other services (IRS annual declaration, public licitations, legal processes registration)
 - During 2008, the bigger government network suffered 3,8 million attacks.
 - Permanent actions and capacity programs for officials in trust and security

Recent Developments (1 / 3)

- II Dialogue in Information Society
 - Held on Set. in Brasilia, Brazil
 - The area of Future Internet
 - **Confirmed** as a **main** interest of **cooperation** between Brazil and the European Community
- Institutional activities
 - CNPq created NCPs (National Contact Points)
 - Several areas: Including ICT
 - Goal: to promote dialogue for medium and long term cooperation



Recent Developments(2 / 3)

- III Meeting
 - Agreements in Science and Technology between Brazil and European Commission
 - Held on Nov 26th –27th in Brasilia
 - The MST and DGINFSO (Directorate of Emerging Technologies and Infrastructures)
 - Establish a Working Group on ICT
 - Goal: To consolidate the future joint calls on ICT for 2010



Recent Developments(3 / 3)

- Working Groups on ICT
 - Several meeting will be held from December 2009 to March 2010
 - Brazil:
 - Representatives from Government, Academia, Industry
 - Goal:
 - Define the scope of the calls
 - Important dates:
 - March 2010: finish the calls drafts
 - Oct–Nov 2010 as a tentative date to publish the calls.



Thank you!

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