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An e-Governance Good Practice

The Knowledge Economy approach for the social inclusion of
People with Disabilities

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Scope of the presentation

- Provide an overview of the opportunities and challenges presented by the Knowledge Economy (KE) for the economic and social well-being of persons with disabilities (PwD).
- Present the rationale for the creation of a Center of Excellence in Innovation and Technology in favor of People with Disabilities (CETID) within the Secretariat for the Rights of the Person with Disability (SEDPcD), of the State of São Paulo.



The Knowledge Economy (KE)



The KE

Today's global economy is one in transition to a Knowledge Economy, that is, an **interconnected, globalized economy** where knowledge resources such as *know-how*, expertise and intellectual property are more critical than other economic resources such as land, natural resources, or even manpower.



The KE

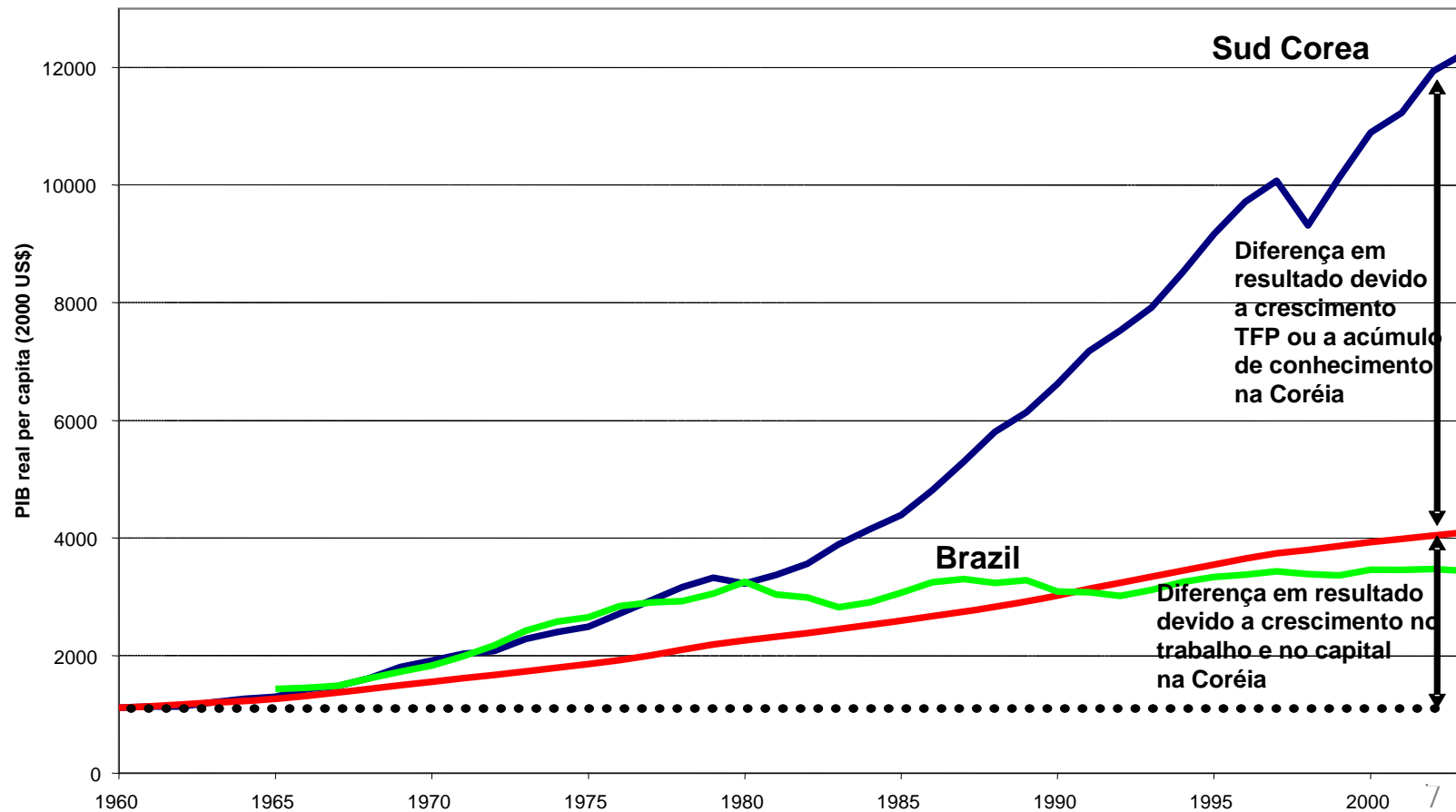
The Knowledge Economy
is characterized by the recognition of
knowledge as a source of competitiveness,
where value lies in new ideas, services and
networks,
using technology as an instrument,
not as an end in itself.



The KE

- The technological and economic changes of the globalized world offer great opportunities for developing economies and poverty reduction.
- The KE has a pivotal role in propagating sustainable economic growth through the promotion of exports, the improved functioning of markets and the efficiency of government services.

GDP per Capita: Brazil vs Korea





The KE

Korea was an early adapter to the KE. 40 years ago Korea and Brazil had the same GDP. Today, Korea's GDP is 4,7 that of Brazil.

Korea made huge investments in **knowledge-based sectors**: making better use of it; using accumulated knowledge (local and imported); developing skills and innovation.

Improving the effective use of its knowledge potential holds great promise for Brazil's social and economic growth and development.



The KE

Knowledge Economy (KE) is defined as the added, non-monetary value that society accrues from increased access to data, information and knowledge, using a solid ICT infrastructure.

Capturing and representing the value represented by such knowledge and introducing it as a factor in decision making, is what the Knowledge Economy is about .



The KE

KE added value is realized through **a concerted effort to capture, analyze, evaluate and disseminate Knowledge (institutional, cultural, indigenous, etc), and feed it back to the development investment operator and the communities themselves.**

KE aims to make Knowledge a valuable instrument for economic development, fostering sustainable economic growth and reducing poverty, while promoting excellence, innovation and equity.



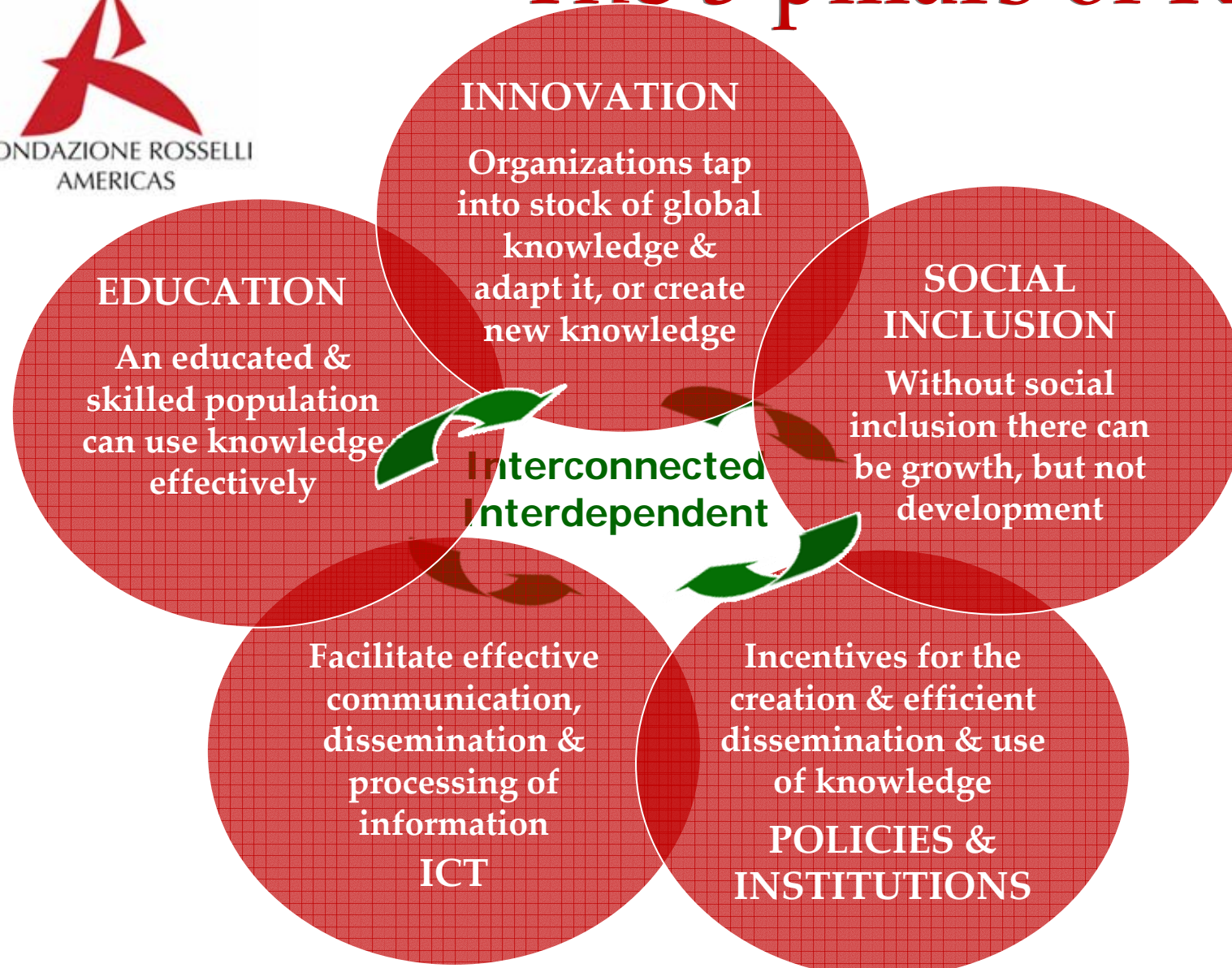
The KE

The KE uses five instruments, known as its “pillars”:

Innovation
Education
ICT
Social inclusion
Habilitating policy and institutional regimes

The virtuous cycle produced by **simultaneous** and **seamless** investments in these five pillars converts knowledge into a **tangible asset**

The 5 pillars of KE





The KE

Benchmarking countries in the KE: The Knowledge Assessment Methodology (KAM)

- KAM: 83 structural/qualitative variables to benchmark performance on 4 pillars* for 130 countries including 90 developing countries.
- Variables normalized from 0 (worst) to 10 (best) for 128 countries and 9 regions.

www.worldbank.org/kam

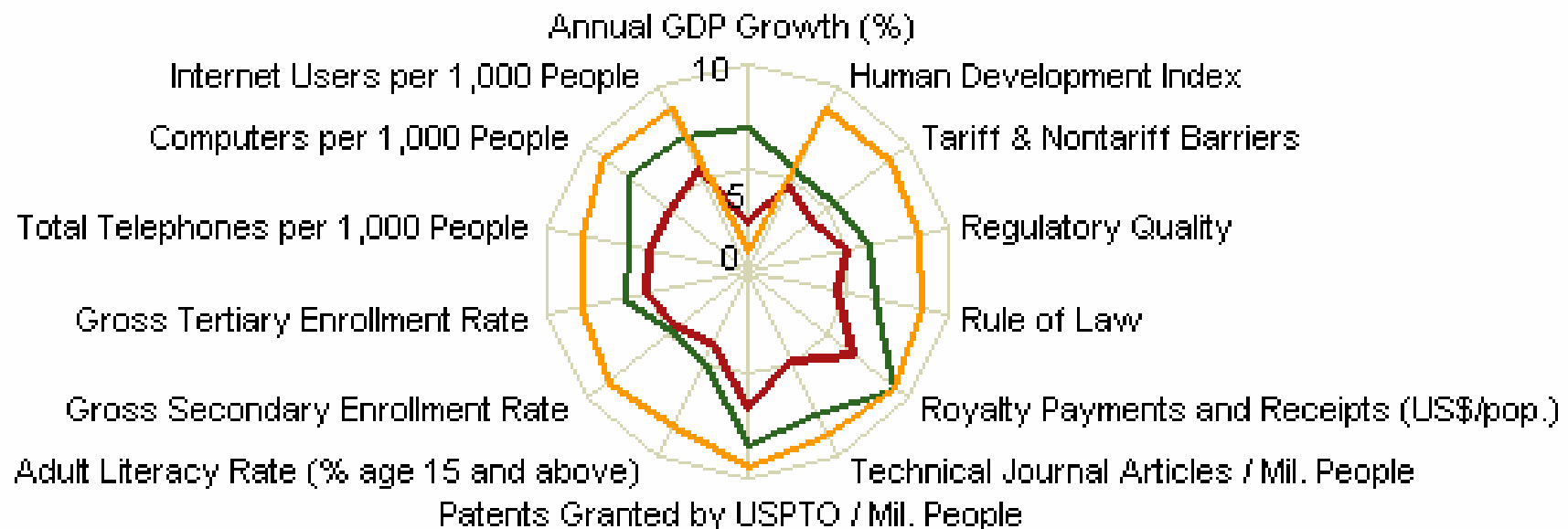
** KAM methodology uses 4 of the 5 pillars adopted by IKEP/FRA.*

The KE

... cont. The Knowledge Assessment Methodology (KAM)

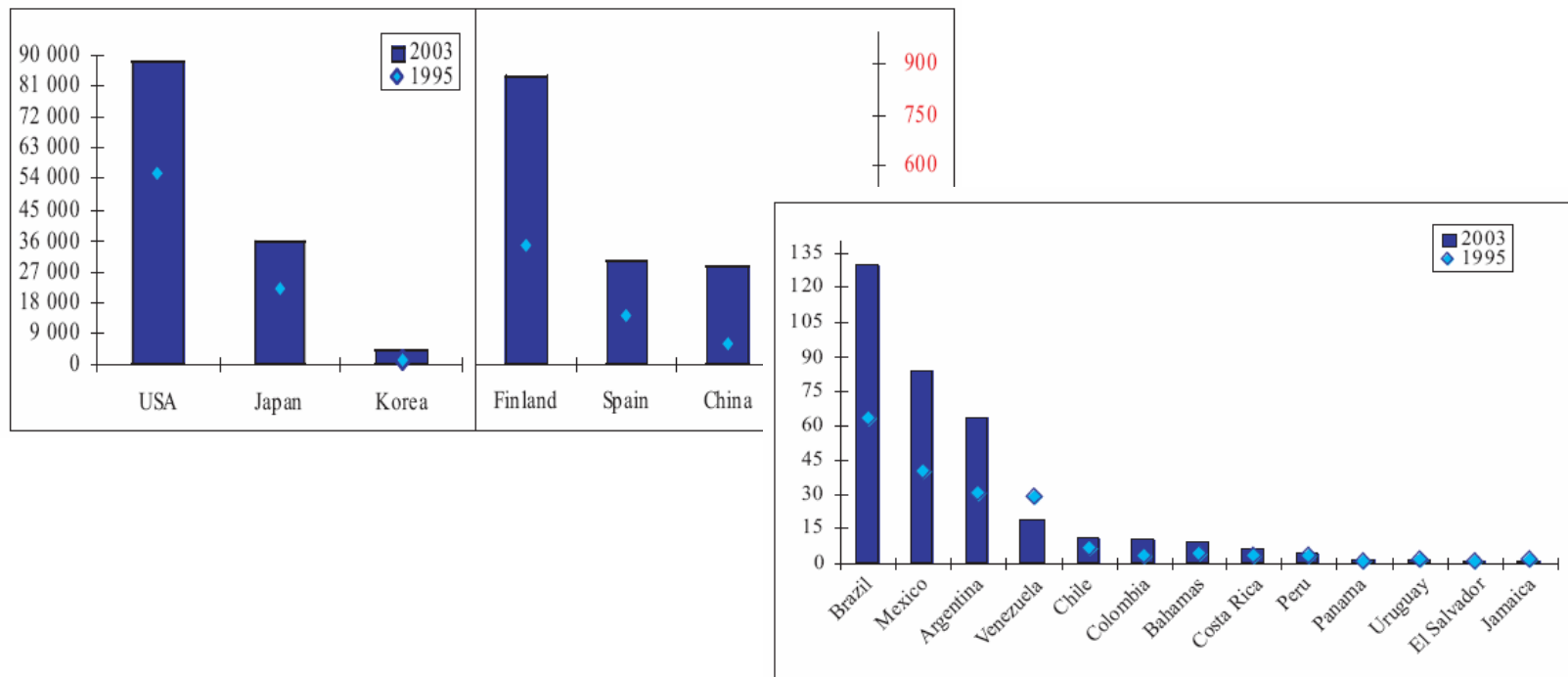
- Basic scorecard for 14 variables for two points in time, 1995 and most recent.
- Knowledge economy index (KEI) includes 3 variables for each of four pillars of the KE:
 - ❖ *Economic and institutional regime*: tariff and non-tariff barriers, rule of law, regulatory quality
 - ❖ *Education*: literacy, secondary and tertiary enrollment rates
 - ❖ *Innovation*: researchers in R&D, scientific and technical scientific publications, and patents in the US
 - ❖ *ICT*: fixed and mobile phone lines per 1000 people, computer per 1000, internet users per 10,000

Latin America, East Asia and the Pacific, G7



Comparison Group: **All Countries** Type: **weighted** Year: **most recent** (KAM 2007)

Patents issued by USA versus other countries

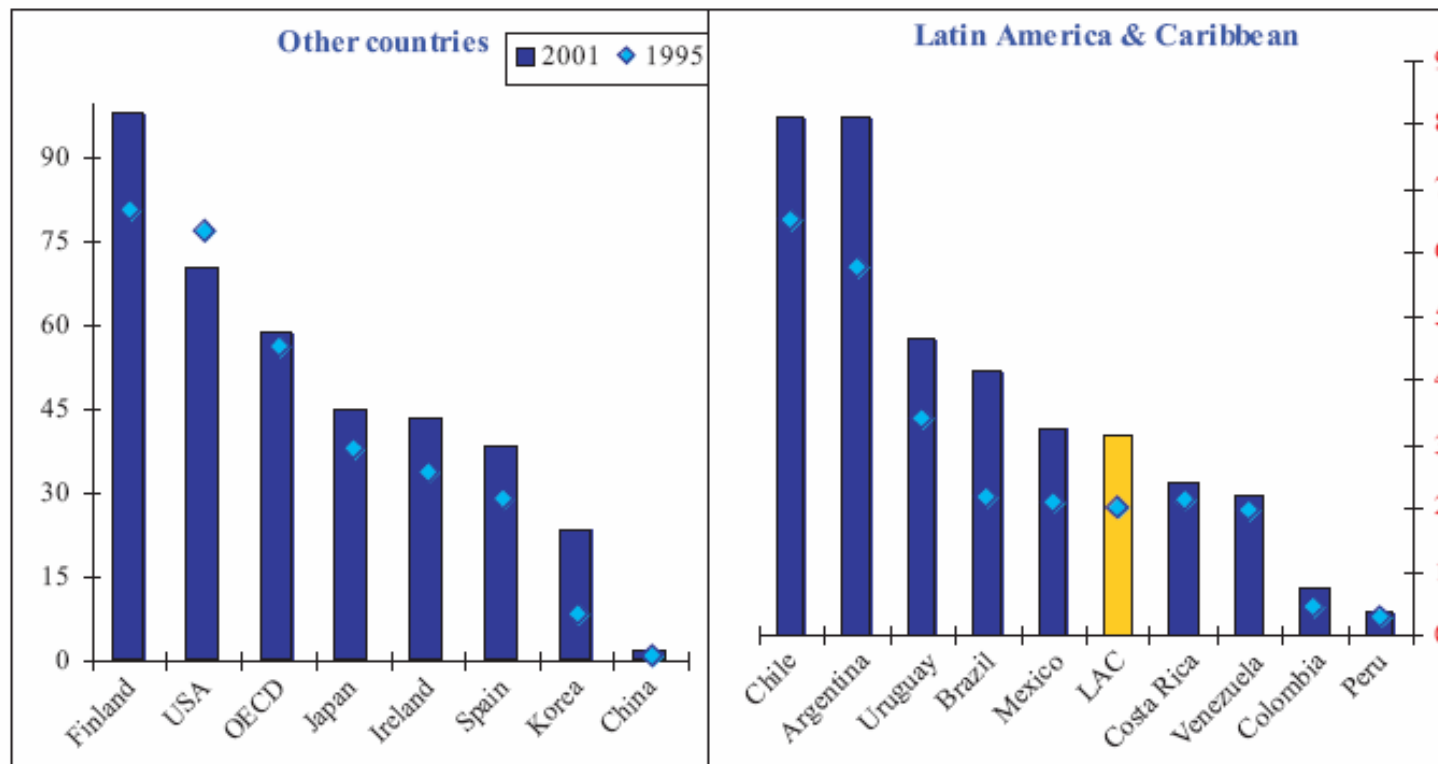


Note: Two Different scales are used on the same graph

Source: IADB (2006): Education, Science and Technology in Latin America and the Caribbean. A Statistical Compendium of Indicators

The KE

Scientific and technical journal articles x 100,000 inhabitants



Note: Two Different scales are used on the same graph

Source: IADB (2006): Education, Science and Technology in Latin America and the Caribbean. A Statistical Compendium of Indicators



The KE & PwD

The KE & PwD

The challenges:

- People with disabilities represent approximately one sixth of the working age population globally and continue to be un-employed and under –employed compared to their nondisabled peers.
- In the USA 29% of students with any disability have a learning disability
- ICT are opening whole new hosts of opportunity and making education, employment, health, public services, etc. available to the average citizen throughout the world
- But ICT are not generally accessible for Pwd

The KE & PwD

.... cont. The challenges

- Web-pages that do not meet accessibility guidelines create barriers to student with disabilities.
- Inaccessible web-based recruiting present an employment roadblock for PwD that prevents them from using a primarily visually-oriented, point and click environment.
- Being outside the net means being information poor, being cut from alternative education, health and other public services, thus establishing a pattern of inequality.
- Impact of this isolation is particularly damaging in poor countries, where economic limitations reduce the exposure of PwD to progress in ICT, innovation and R&D.



The KE & PwD

The instruments used by the KE can be applied successfully to improve the quality of life and inclusion in society of PwD.

The KE synoptic approach multiplies the impact of individual policies on the situation of PwD.



The KE & PwD

- **Innovation** is at the base of R&D applied to the specific needs of PwD.
- **Education** –formal and non-formal– accelerates the incorporation of PwD in society.
- **ICT** is a key interface between PwD and their environment.
- Better interface & greater opportunities mean greater **social inclusion**.
- To ensure social inclusion, to fund innovation, to make education accessible to all PwD, to open markets for PwD-oriented ICT, **policies and institutions tailored for these purposes** are needed.



The KE & PwD

Tackling social inclusion through the concept of the KE means applying its instruments simultaneously and coherently to achieve outcomes such as:

- Accessibility to public & private services
- Personal mobility
- Health and education
- Employment
- Habilitation and rehabilitation
- Participation in political and social life
- Fostering a life of equality and non-discrimination

The “optic” of the KE can add an economic sense to the inclusion of PwD in society.



The KE & PwD

PwD are a sector of society whose **special capabilities and specific Knowledge prospects** remain untapped, and whose potential contribution to economic and social growth is underestimated and under-realized.

Given adequate means through a KE-conceptualized program, PwD can participate actively in:

- Knowledge generation
- Knowledge management
- Knowledge utilization
- Knowledge transmission



The KE & e-Governance



The KE & e-Governance

An e-Governance strategy that utilizes a comprehensive KE approach to address disparities in access to educational, employment and social opportunities for the PwD would require:

Governmental initiatives and engagement of policy makers

Educational initiatives

Institutional changes leading to improved employer policies

Economic development initiatives

Support for needed research



The KE & e-Governance

1. Government Policy Initiatives and engagement of policy makers

- Development of universal industry standards for ICT accessibility across industry, housing and transportation.
- Passage and enforcement of legislation regarding ICT accessibility and equal access to education and employment.
- Creation of educational and informational service networks to provide on-going consultation to employers and educators on these issues.



The KE & e-Governance

2. Educational initiatives

- Ensuring the accessibility of ICT to facilitate full participation, creating nondiscriminatory environments in course planning, programming, organization policy and procedures and creating learning opportunities to enhance ICT knowledge for students with disabilities.
- Prepare for the KE as a part of the education of youth with disabilities.



The KE & e-Governance

3. Institutional changes leading to improved employer policies

- Enact policies and develop best practices that facilitate the involvement of PwD in teams where the development and testing of technology is done.
- Assuring that resulting products and services will be accessible to PwD.
- Planning of strategic workforce including PwD.
- Ensuring equitable access to training, developing an accessible ICT procurement strategy.



The KE & e-Governance

4. Economic development initiatives

- Support of employer-provided degree programs, on the job skills training, internships, and school-based mentoring programs.
- Funding of partnership between enterprise educational institutions dedicated to training/upgrading labor force.
- Partnership with education and enterprise networks to provide ICT accessibility consultation, conduits for students and employees with disabilities and a network for community-based support for housing, transportation, health care, and related services.



The KE & e-Governance

5. Support to needed research

- Take into consideration the ICT accessibility needs of PwD in the development of national and international ICT development.
- Establish a global dialogue on common goals in ICT accessibility.
- Identify common standards of ICT accessibility as well as measures of their usability effectiveness that are found in multiple settings and across countries.
- Identify proven national public policies and workplace practices that maximize inclusion for PwD that can be supported globally.
- Identify critical elements of a truly effective global information strategy which will minimize bias and promote the interests of PwD worldwide.



CETID



São Paulo's CETID

São Paulo's
SEDPcD

(Secretariat for the Rights of the Person with Disability)
has launched the creation of the
**Centre of Excellence for Innovation and Technology
in favor of PwD (CETID)**
to address the challenges identified earlier and tackle
social inclusion using the
concept and instruments of the KE,
in the context of a
State-sponsored e-Governance strategy.



São Paulo's CETID

CETID WILL OPERATE AS:

- A **promoter** of technology innovation applied to PwD:
 - Microelectronics;
 - Opto-electronics;
 - Material technologies;
 - Mechanical and production engineering;
 - Rehabilitation and biomedical engineering relevant to disability.
- A **supporter** of the application of ICT to the social inclusion of PwD.



São Paulo's CETID

... cont. CETID will operate as:

- A **bridge** between academy and industry to promote marketing of innovation products.
- A **facilitator** of market information, better services, access to education, and access to learning of new skills to enhance employability.
- A **certification agency** for innovation-rich products and services for PwD.
- An **incubator** of new projects.



São Paulo's CETID

CETID will use KE instruments to promote social inclusion of PwD through their active participation in the economy, raising productivity at the same time as creating social benefits.

To do that, CETID will be organized to cover:

- Industrial innovation for special needs**
- Innovative labor market for special needs**
- Social and infrastructure adaptations for the integration of PwD**



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