Microsoft® Research
Faculty Summit
10
YEAR ANNIVERSARY

Microsoft Research

LACCIR

Latin American and Caribbean Collaborative ICT Research Federation

Dr. Ignacio Casas
LACCIR Executive Director
Pontificia Univ. Católica de Chile

MSc. Jaime Puente
Director
External Research Latin America
Microsoft Research

Dr. Sergio F. Ochoa
LACCIR Board Director
Universidad de Chile

Agenda

Microsoft Research

- Creation of LACCIR
- LACCIR's Organization
- LACCIR's Activities: 2007 – 2009
  - ICT research map preliminary data and statistics
  - LACCIR Requests For Proposals (RFPs)
  - LACCIR Collaboration infrastructure
  - Supporting programs for graduate students
- Ongoing Projects, RFP2008

Foundations for the Creation of LACCIR

Microsoft Research

ICT research and development has played an important role in **OAS's agenda:**

- Ministers Meeting Lima 2004 Action Plan
- Fourth Summit of the Americas, Mar del Plata 2005 declaration
- Ministers Meeting Mexico 2008, LACCIR presentation

Latin American and Caribbean (LAC) research universities challenges:

- Raise the visibility and importance of academic research in the region, with emphasis **in ICT applications**
- Strengthen **connections** to the worldwide research community
- Leverage **in-LAC collaboration**, research capacity and impact
- Increase **graduate students pipeline and mobility** within LAC

For several years **Microsoft Research (MSR)** has collaborated with LAC research universities, has nurtured **a partnership with OAS and IADB** and has on-going projects with **FAPESP-BRASIL and NSF-USA**

LACCIR Federation

MSR calls for proposals to create LACCIR

First Announcement, MSR Summit May 2007

Latin American and Caribbean Collaborative ICT Research

Microsoft Research

Goal: **Stimulate Latin American academic *collaborative* research in ICT as an enabler of economic and social *development***

- Financially supported by Microsoft Research (MSR): US$1.540.000 seed grant for four years + grants from IDB and OAS
- Implemented with a HUB (PUC Chile + Univ. of Chile) and SPOKE universities throughout Latin America & the Caribbean
- Sponsorship and support from IADB and OAS
- Partnerships with FAPESP-BRAZIL, NSF-USA
- Collaboration with CLARA, IAI, CONICYT, COLCIENCIAS, and other I+D agencies

250 Researchers from **50** Universities in **16** countries who have joined in LACCIR activities

LACCIR Main Activities

Microsoft Research

- **Dynamic Web Portal**: LAC map of ICT **researchers, projects and graduate programs, data collection and statistics** (publications, thesis, projects, R&D resources)
- **Grants and support** for ICT applied collaborative **research projects** within LAC. Present: seed grant money from MSR & IADB. Future: new funding

- Support for **LAC graduate students** mobility: shortstays, internships, fellowships in LAC universities and MSR

- **Collaboration infrastructure** for LAC ICT researchers and educators:
  - **CXP** for video-conferencing and e-learning. MS software/servers platform
  - Workshops and **summer schools**. Repository of papers and theses

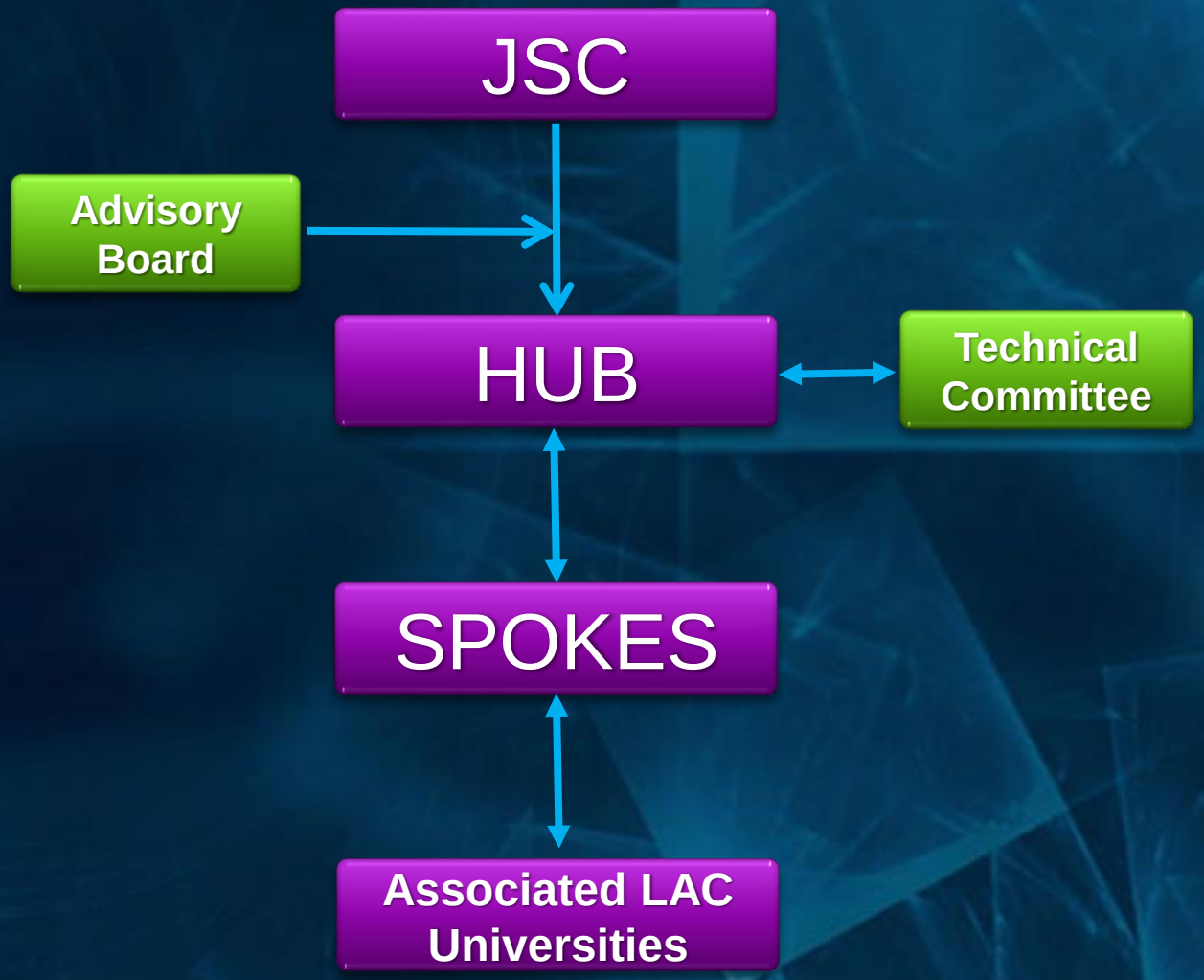
Agenda

Microsoft Research

- MSR & LATAM
- Creation of LACCIR
- LACCIR's Organization
- LACCIR's Activities: 2007 – 2009
  - ICT research map preliminary data and statistics
  - LACCIR Requests For Proposals (RFPs)
  - LACCIR Collaboration infrastructure
  - Supporting programs for graduate students
- Ongoing Projects

Organizational Structure

Microsoft Research



Oversees, defines goals and objectives
Seeks new research funding

Administration of LACCIR
Evaluation of research proposals

Dissemination of: RFP, scholarships, VideoConf, network,
ICT Indicators/Metrics, matching funds

Elaboration and execution of collaborative research projects; research map

LACCIR's Organization

Microsoft Research

“HUB” Universities managing LACCIR

- Pontificia Universidad Católica de Chile (legal representative)
- Universidad de Chile

”Spoke” Universities federated to LACCIR:

- Uruguay: Universidad de la República
- Mexico: Tecnológico de Monterrey and Instituto Politécnico Nacional
- Argentina: Universidad de Buenos Aires
- Costa Rica: Universidad de Costa Rica
- Trinidad and Tobago: University of the West Indies
- Brazil (soon): University to be selected outside Sao Paulo
- Colombia (soon): Univ. to be selected with COLCIENCIAS

Key Supporters/Collaborators

Microsoft Research

IADB and OAS

With strong support from **MSR**, the LACCIR Federation is formally working together with the **Inter-American Development Bank** (IADB) and the **Organization of American States** (OAS) to:

- **Advance the ICT research agenda in Latin America and the Caribbean**
- **Increase research opportunities for faculty and graduate students**
- **Increase the capacity and visibility of the LAC research community, both within the region and worldwide**
- **Obtain new sources for ICT R&D funding**

A partnership With FAPESP-BRASIL

Microsoft Research

MSR has established a related project with **FAPESP**: (Fundação de Amparo à Pesquisa do Estado de São Paulo) -- the largest state scientific funding agency in Brasil, located in the State of São Paulo.

- MSR and FAPESP jointly fund academic research in the State of São Paulo
- LACCIR and FAPESP are defining (during 2009) a **common agenda** for RFPs and SSPs
- More information at **www.agencia.fapesp.br**

FAPESP

Microsoft Research

Working on a Partnership With NSF-USA

Currently working on the definition of joint activities:

- NSF-PIRE: development of innovative models for long-term, international research and education partnerships. Funds for institution-to-institution research conducted by U.S. universities and LACCIR counterparts
- NSF-PASI: short courses in topics of current research activities
- Research fellowship programs
- Summer institutes

Agenda

Microsoft Research

- MSR & LATAM
- Creation of LACCIR
- LACCIR's Organization
- LACCIR's Activities: 2007 – 2009
  - ICT research map preliminary data and statistics
  - LACCIR Requests For Proposals (RFPs)
  - LACCIR Collaboration infrastructure
  - Supporting programs for graduate students
- Ongoing Projects

LAC Research Observatory

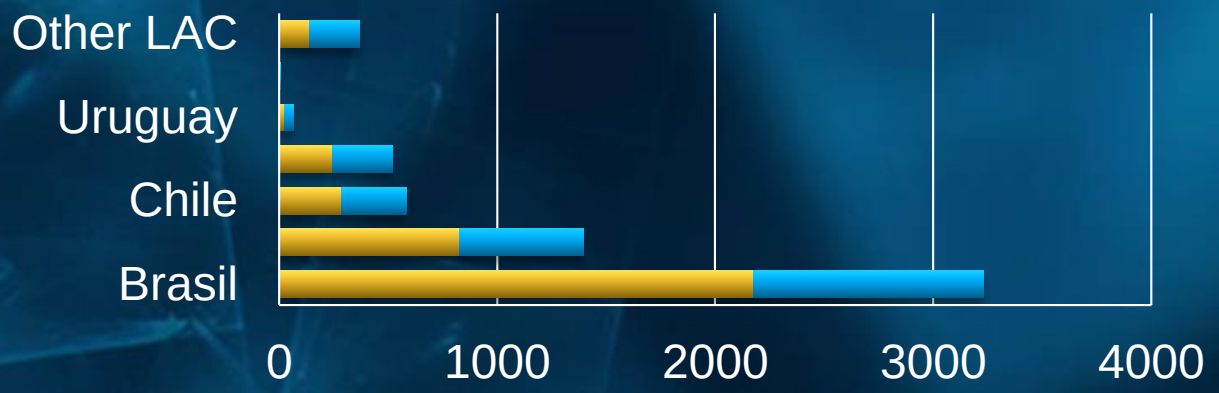
Microsoft Research

An initiative to collect statistics / indicators

- CS&ICT Education
  - PhD programs
  - Number of students / graduate
  - Number of professors with PhD degrees
- Research Funds
  - Number of international projects (and grants amounts)
  - Available funds (focus, restrictions, total amount)
- Publications
  - Journal and conference papers

Researchers and Projects Map

Collaboration in CS/CE ISI Publications 2000-2006



LACCIR Virtual Institute

Microsoft Research

Why collaboration?

LACCIR Virtual Institute

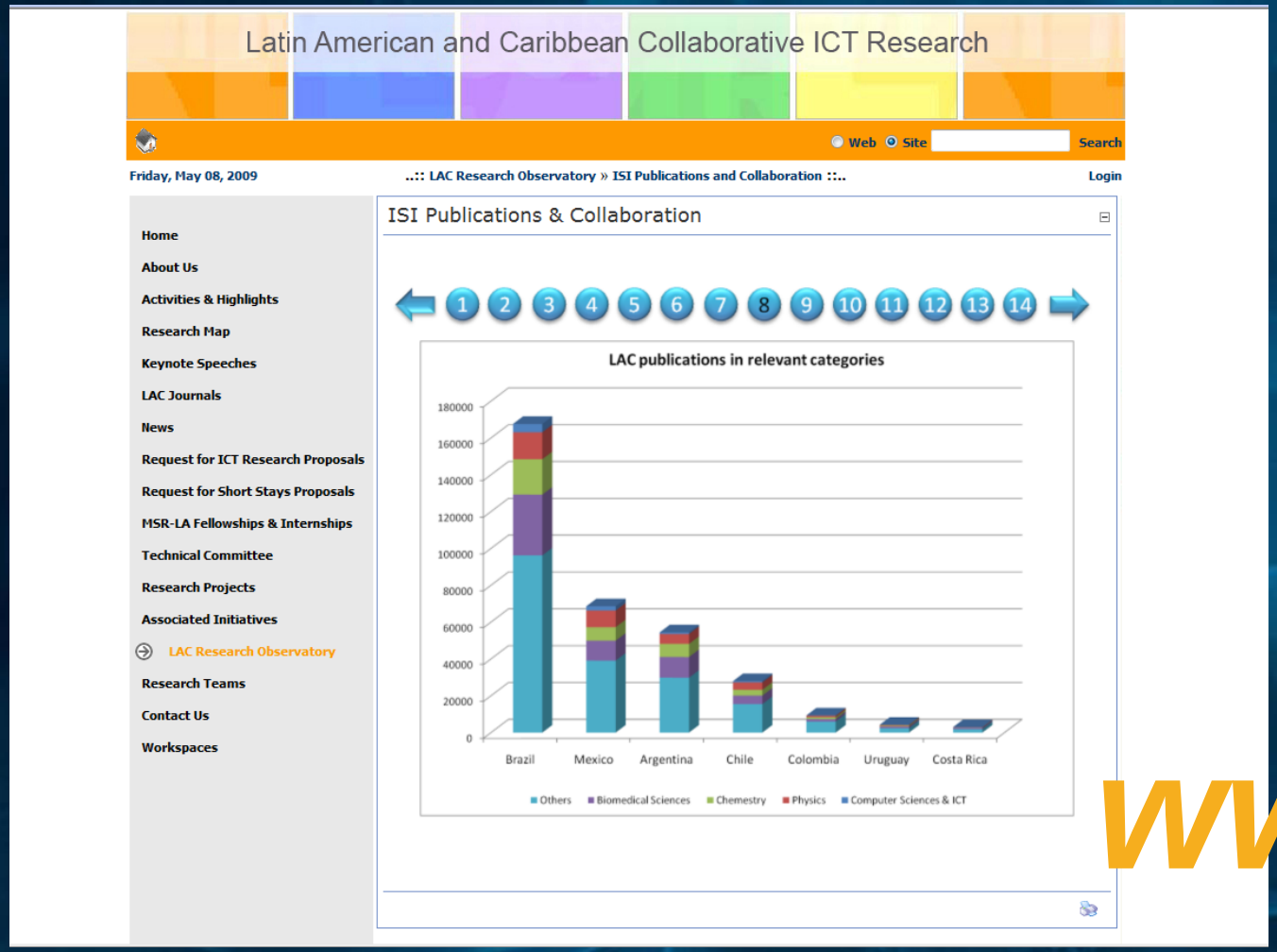
Microsoft Research

Why collaboration?

LACCIR Virtual Institute

Microsoft Research

LAC Research Observatory



www.laccir.org

Agenda

Microsoft Research

- MSR & LATAM
- Creation of LACCIR
- LACCIR's Organization
- LACCIR's Activities: 2007 – 2009
  - ICT research map preliminary data and statistics
  - LACCIR Requests For Proposals (RFPs)
  - LACCIR Collaboration infrastructure
  - Supporting programs for graduate students
- Ongoing Projects, RFP2008

Microsoft Research

Request for Proposals (RFP) 2007, 2008, 2009

RFP Basic Requirements

Microsoft Research

1. **High Quality Research** (*Indexed publications*)
   and ICT applications for sustainable development.
   (education; healthcare; energy; earth, environment and climate change)

2. **Collaboration** **At least two different LAC countries and one ppoke.**

3. **Matching Funds** **Potential from national funding agencies.**

RFP 2007

Microsoft Research

Addressing Latin America and Caribbean priority social and economic challenges through advancing ICT research

USD 250,000 MSR grant distributed among 5 projects

Participants:

- **18** Proposals Submitted
- **105** Researchers Involved
- **29** Institutions Involved
- **11** Countries

5 Winner Proposals:

- **23** Researchers Involved
- **12** Institutions Involved
- **7** Countries
- **4** ICT Application areas: Education, Productive Chains, e-Government and Healthcare

RFP 2007

Microsoft Research

Addressing Latin America and Caribbean priority social and economic challenges through advancing ICT research

USD 250,000 (MSR grant + IDB grant)

Participants:

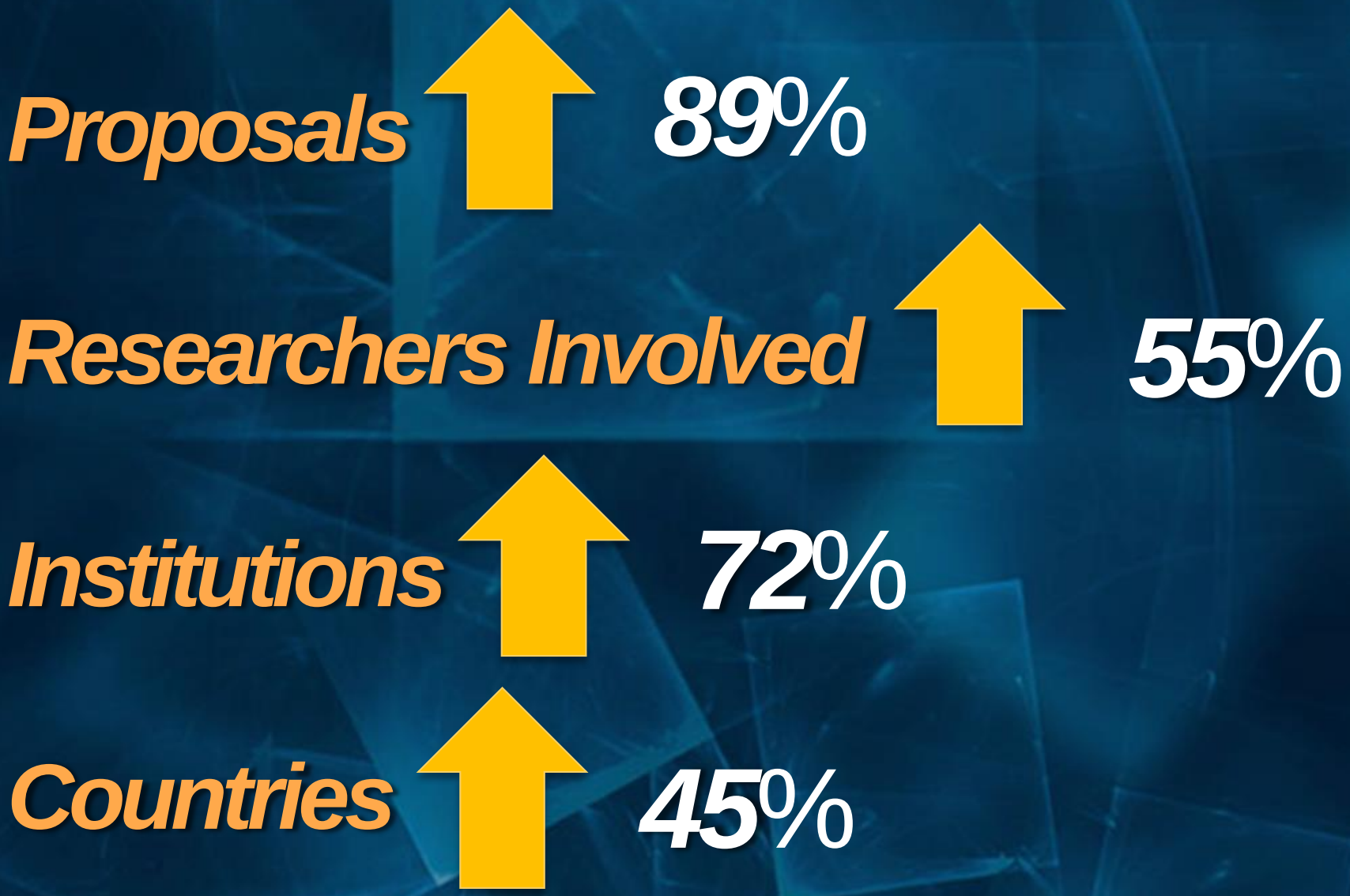
- **34** Proposals Submitted
- **163** Researchers Involved
- **50** Institutions Involved
- **16** Countries

5 Winner Proposals:

- **23** Researchers Involved
- **12** Institutions Involved
- **5** Countries
- **4** ICT Application areas: Environment, Agrobusiness, e-Government and Micro- Economies

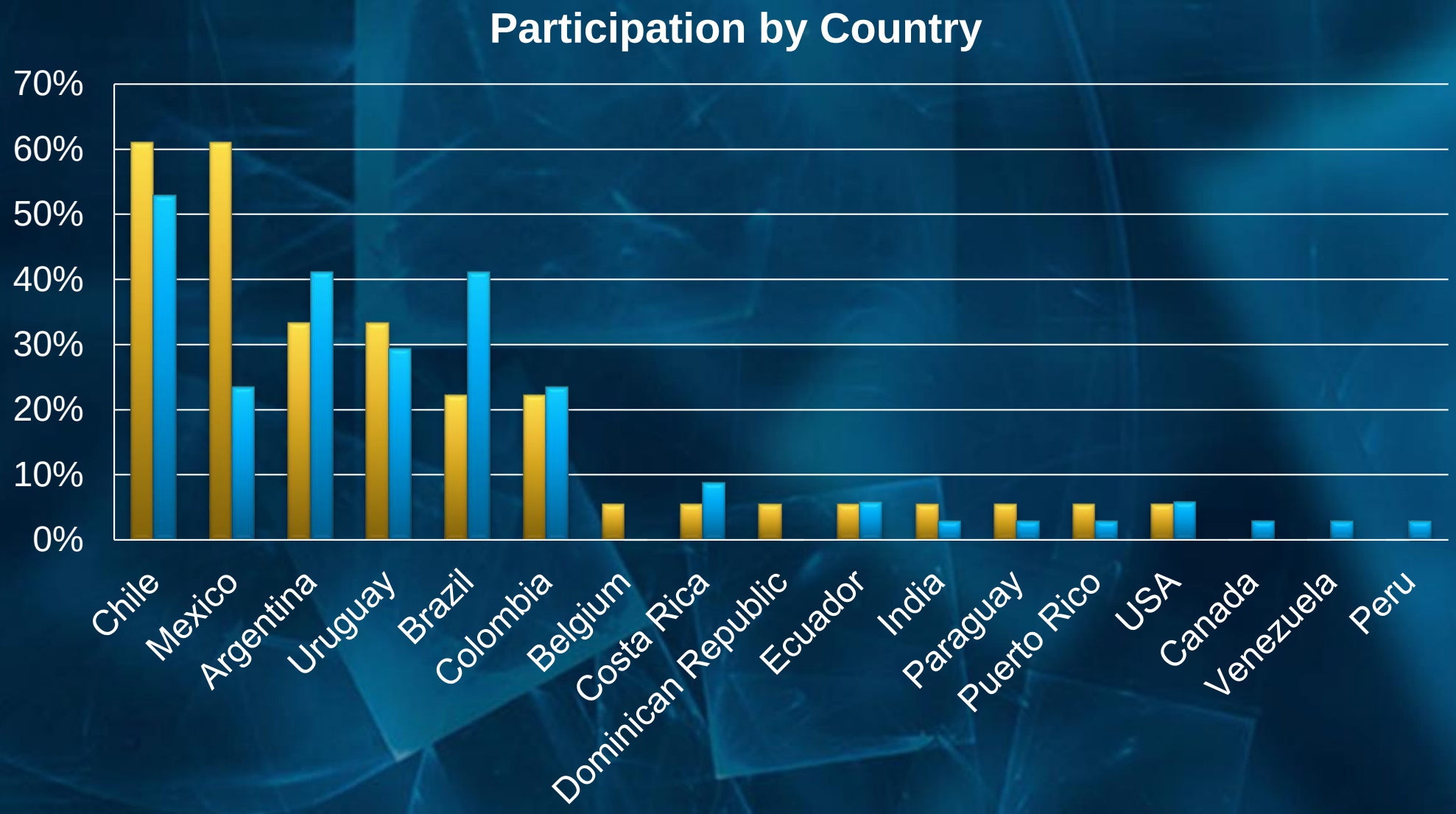
LACCIR RFP 2007-2008

Microsoft Research



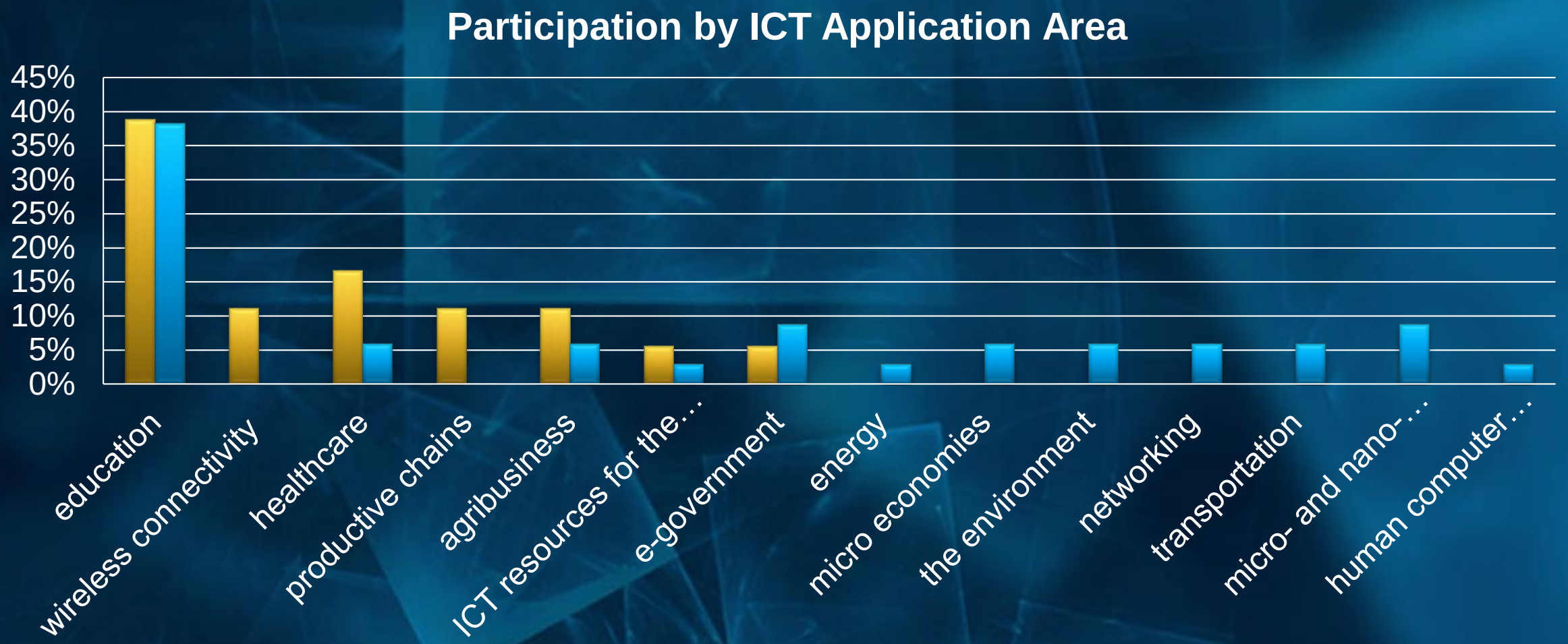
LACCIR RFP 2007 - 2008

Microsoft Research



LACCIR RFP 2007 - 2008

Microsoft Research



Microsoft Research

LACCIR RFP 2009

Announced May 13th

LACCIR RFP 2009

Microsoft Research

- Total Amount: USD 300,000
- Up to 6 proposals to be selected for funding (USD 50,000 each approx.)

- More information: www.laccir.org

LACCIR RFP 2009

Microsoft Research

- Open Date: June 23rd, 2009.
- Last Date for Submission: September 21st, 2009
- Awards Notification: December 14th , 2009

LACCIR RFP 2009

Microsoft Research

ICT Application Areas

- Healthcare
- Education
- Energy
- Earth, environment and climate change

Call for Proposals available at www.laccir.org

Agenda

Microsoft Research

- MSR & LATAM
- Creation of LACCIR
- LACCIR's Organization
- LACCIR's Activities: 2007 – 2009
  - ICT research map preliminary data and statistics
  - LACCIR Requests For Proposals (RFPs)
  - LACCIR Collaboration infrastructure
  - Supporting programs for graduate students
- Ongoing Projects, RFP2008

Infrastructure for LACCIR R&D Activities

Microsoft Research

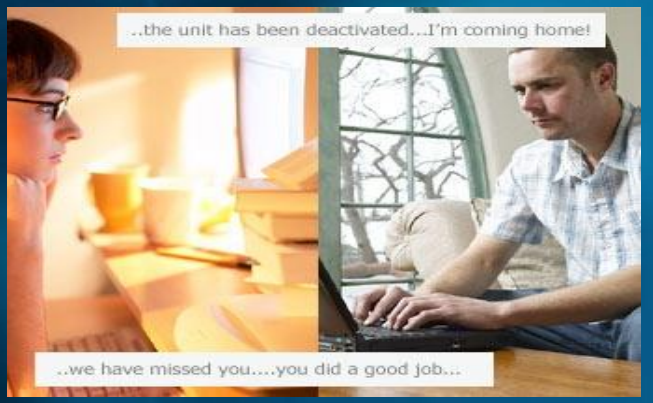
- Internet Servers
- Conference XP
- Microsoft Software Library
- LACCIR Web Portal + SharePoint

Activities on the Collaborative Infrastructure

Microsoft Research

Thesis Defenses

Projects Meetings



Virtual Communities

Keynote Speeches

Regular Courses

Agenda

Microsoft Research

- MSR & LATAM
- Creation of LACCIR
- LACCIR's Organization
- LACCIR's Activities: 2007 – 2009
  - ICT research map preliminary data and statistics
  - LACCIR Requests For Proposals (RFPs)
  - LACCIR Collaboration infrastructure
  - Supporting programs for graduate students
- Ongoing Projects, RFP2008

LACCIR SSP 2009

Microsoft Research

Second Request for Proposals:

- Main goal: Supporting the research work of MSc. and PhD students
- Open to all universities in the Latin American and Caribbean region
- Visiting a research center in a different LAC country of her/his university
- LACCIR provides around U.S. $5,000 for travel and stay expenses
- Total amount available through this RFP is U.S. $75,000 (15 awards)

- Opening Date: June 29, 2009
- Last Date for Submission: August 31, 2009
- Awards Notification: October 30, 2009
- Further information at: www.laccir.org

MSR Fellowships and Internships

Microsoft Research

Request for MSR Fellowships and Internships Proposals

- Main goal: Supporting the research work of MSc. and PhD. students
- Fellowships at Local University:
  - 2 years duration
  - PhD students
  - Tuition fees
  - Living expenses
  - Conferences travel expenses
- Internships at MSR:
  - 3 months in MSR at Redmond
  - PhD. and MSc. students
  - Travel and living expenses
- LACCIR announces, disseminates and pre-selects candidates.

Agenda

Microsoft Research

- MSR & LATAM
- Creation of LACCIR
- LACCIR's Organization
- LACCIR's Activities: 2007 – 2009
  - ICT research map preliminary data and statistics
  - LACCIR Requests For Proposals (RFPs)
  - LACCIR Collaboration infrastructure
  - Supporting programs for graduate students
- Ongoing Projects

Ongoing Projects, First RFP

Microsoft Research

- 7 Countries
- 13 Research Teams
- 3 Matching Funds

- 25 Publications (so far)
- 14 Presentations (so far)

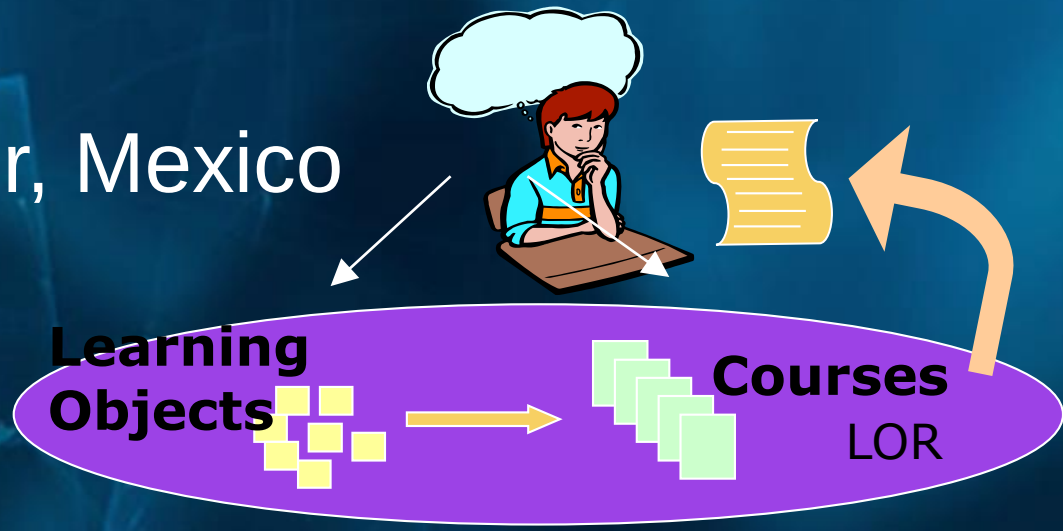
Ongoing Projects, First RFP

Microsoft Research

- Instructional Design Assistant → helps the teacher assemble learning objects

- Including web pages
- Produce standard packges of L.O. using SCORM. (Sharable content Object Reference Model)

- Uruguay, Brazil, Argentina, Ecuador, Mexico

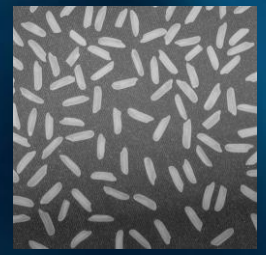


Ongoing Projects, First RFP

Microsoft Research

- Quality Evaluation of Food Products→ Computer Vision System that processes the picture and measure visual attributes related to quality

- Low cost
- For small and medium enterprises
- Chile, Mexico



Grains

Tortillas

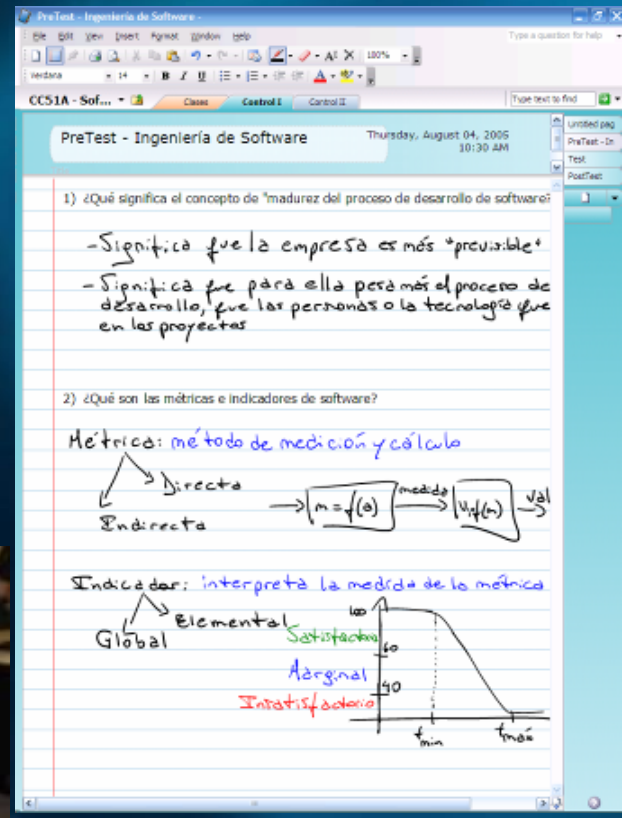
Ongoing Projects, First RFP

Microsoft Research

- Digital Workbook Tool → supports asynchronous collaboration

- Tablet PC and students' class notes
- One Note 2007 and Conference XP

- Chile, Colombia



Ongoing Projects, First RFP

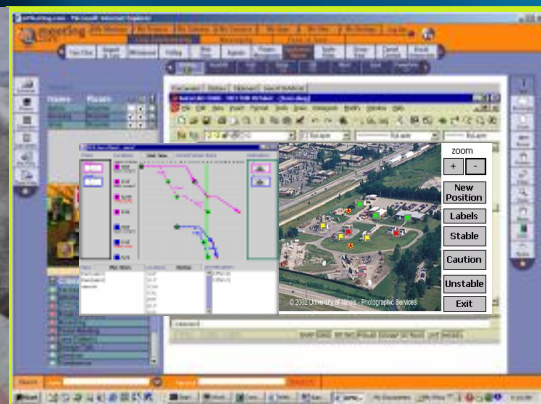
Microsoft Research

- Collaborating in Disaster Relief Efforts → coordination between several critical information systems

- Firemen, police, national government, Red Cross

Hospital personnel, armed Forces

- Brazil, Chile



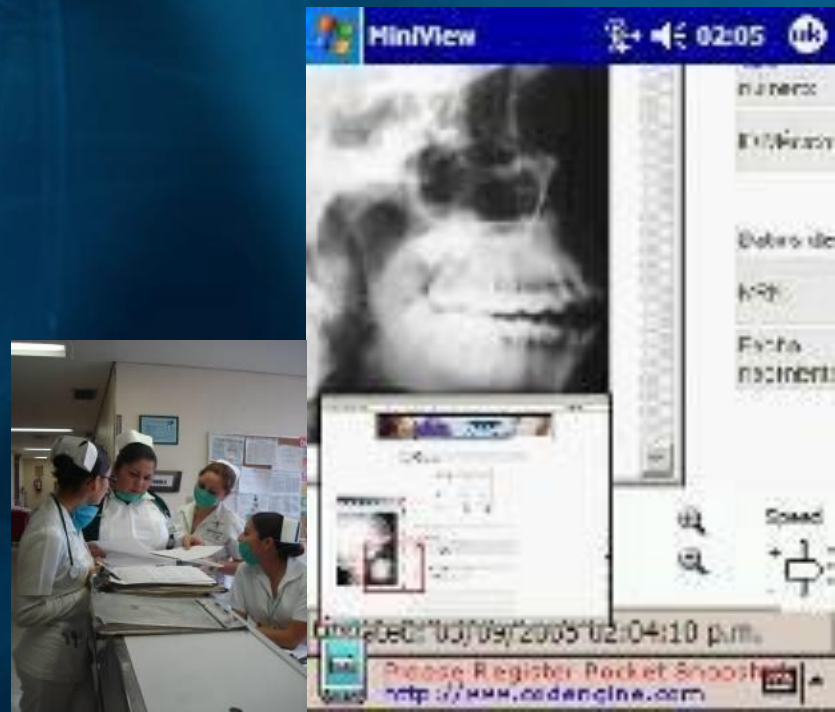
Ongoing Projects, First RFP

Microsoft Research

- Smart Phones→ collaboration in hospital work
- Discuss diagnosis and/or treatment
- Gather artifacts and human resources

- Hospital staff spends over 50% away from their base location

- Mexico, Chile



Ongoing Projects, First RFP

Microsoft Research

- 7 Countries
- 13 Research Teams
- 3 Matching Funds

- 25 Publications (so far)
- 14 Presentations (so far)

Ongoing Projects, Second RFP

Microsoft Research

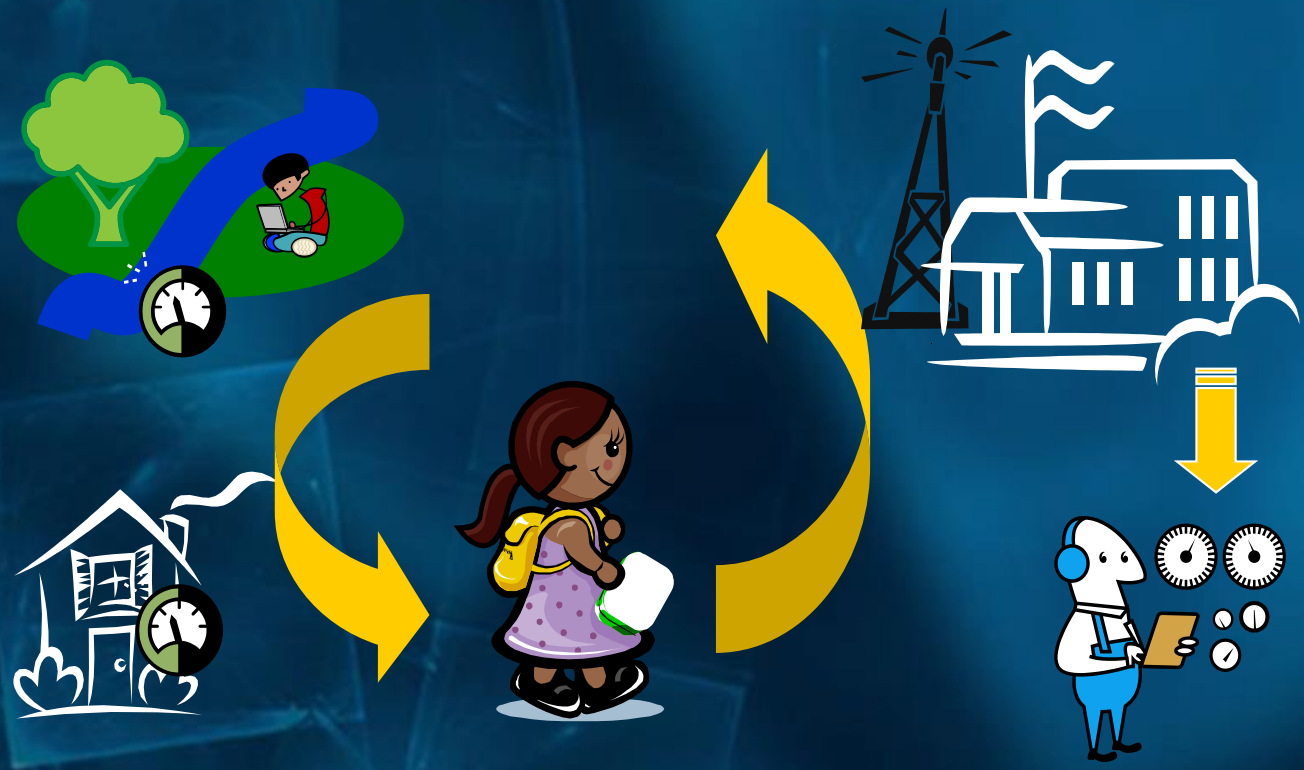
- 6 Countries
- 13 Research Teams

- Starting on 2009

Ongoing Projects, Second RFP

Microsoft Research

- Domestic environment monitoring with opportunistic sensor networks
- 3 MM children under 5 die each year from environment related causes.[1]
- One laptop per child
- Uruguay, Brazil.



[1] http://www.who.int/mediacentre/factsheets/fs284/en/index.html

Ongoing Projects, Second RFP

Microsoft Research

- Time Saver → Decentralized virtual worlds for the provision and integration of public services in Latin America

- Semantic interoperability facilitate the seamless

and coherent interaction among diverse public services

- Web 3.0 technologies can enrich current productive environments

- Brazil, Chile

Ongoing Projects, Second RFP

Microsoft Research

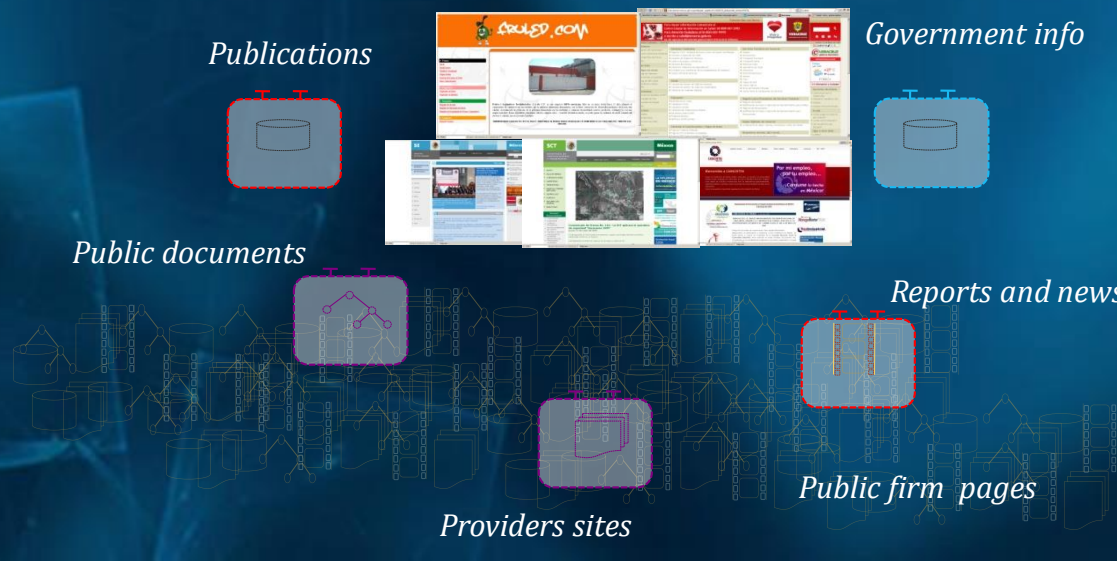
- Quality evaluation and preservation of grains in silo bags
- Harvest bags (or silobags) are a grain storage system that is being increasingly adopted worldwide
- Monitor and automatically adapt the internal conditions of the grain stored into silobags, in order to improve their preservation state
- Argentina, Uruguay

Ongoing Projects, Second RFP

Microsoft Research

- E-Cloudss. Building data management services in Clouds
- Unlimited computing and storage capacities transparently managed through services:

  space management, computing, scalability, services management
- Mexico, Brazil, Uruguay



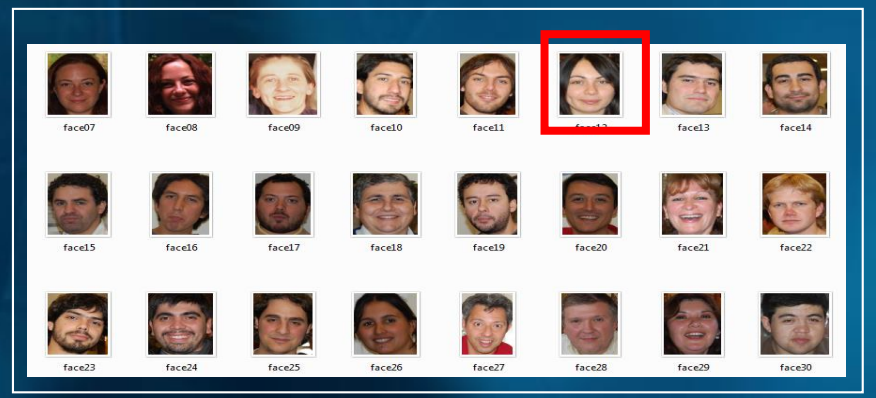
Ongoing Projects, Second RFP

Microsoft Research

- Supervise and allocate cash registers at grocery stores

- Measure waiting times of clients in queues
- Incorporate decision theory to efficiently allocate cash registers

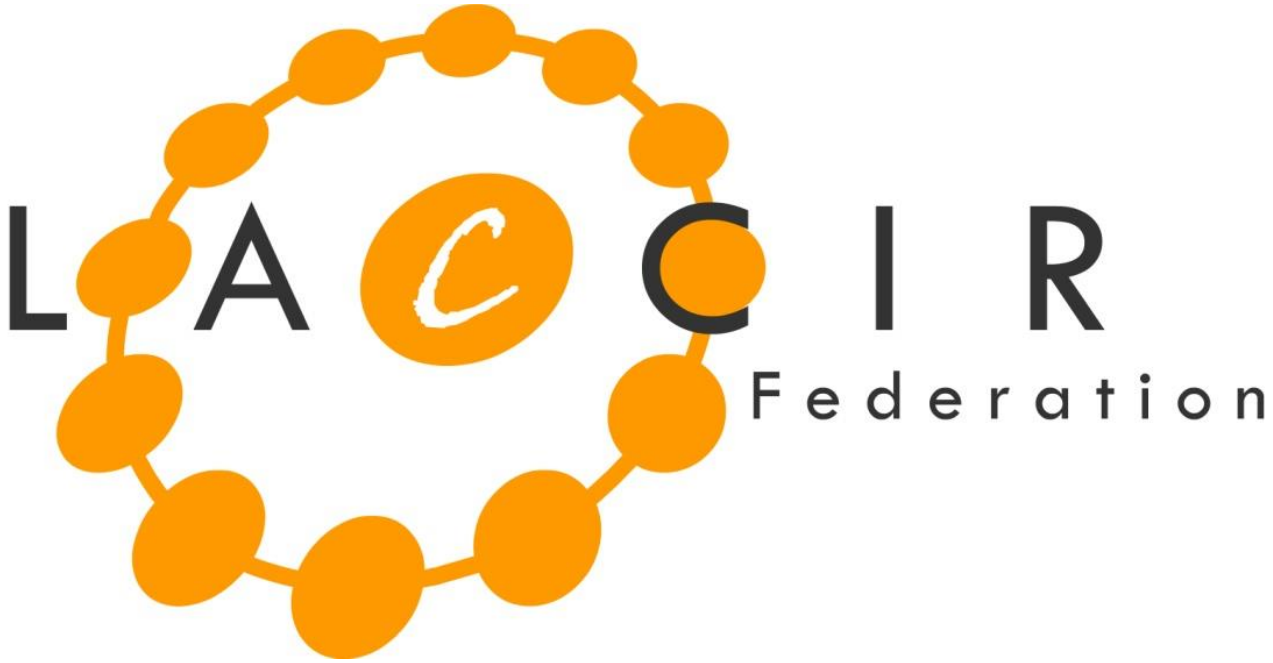
- Chile, Mexico.



Hi Rosario:
We have a special offer for you today, Shampoo just for $7.99.

Latin American and Caribbean Collaborative ICT Research Federation

Microsoft Research



www.laccir.org

laccir@laccir.org

Microsoft Research

Microsoft®

Your potential. Our passion.™

© 2009 Microsoft Corporation. All rights reserved. Microsoft, Windows, Windows Vista and other product names are or may be registered trademarks and/or trademarks in the U.S. and/or other countries. The information herein is for informational purposes only and represents the current view of Microsoft Corporation as of the date of this presentation. Because Microsoft must respond to changing market conditions, it should not be interpreted to be a commitment on the part of Microsoft, and Microsoft cannot guarantee the accuracy of any information provided after the date of this presentation. MICROSOFT MAKES NO WARRANTIES, EXPRESS, IMPLIED OR STATUTORY, AS TO THE INFORMATION IN THIS PRESENTATION.