Cooperation Opportunities on ICT Research & Innovation: the vision of the AMERICAS Project

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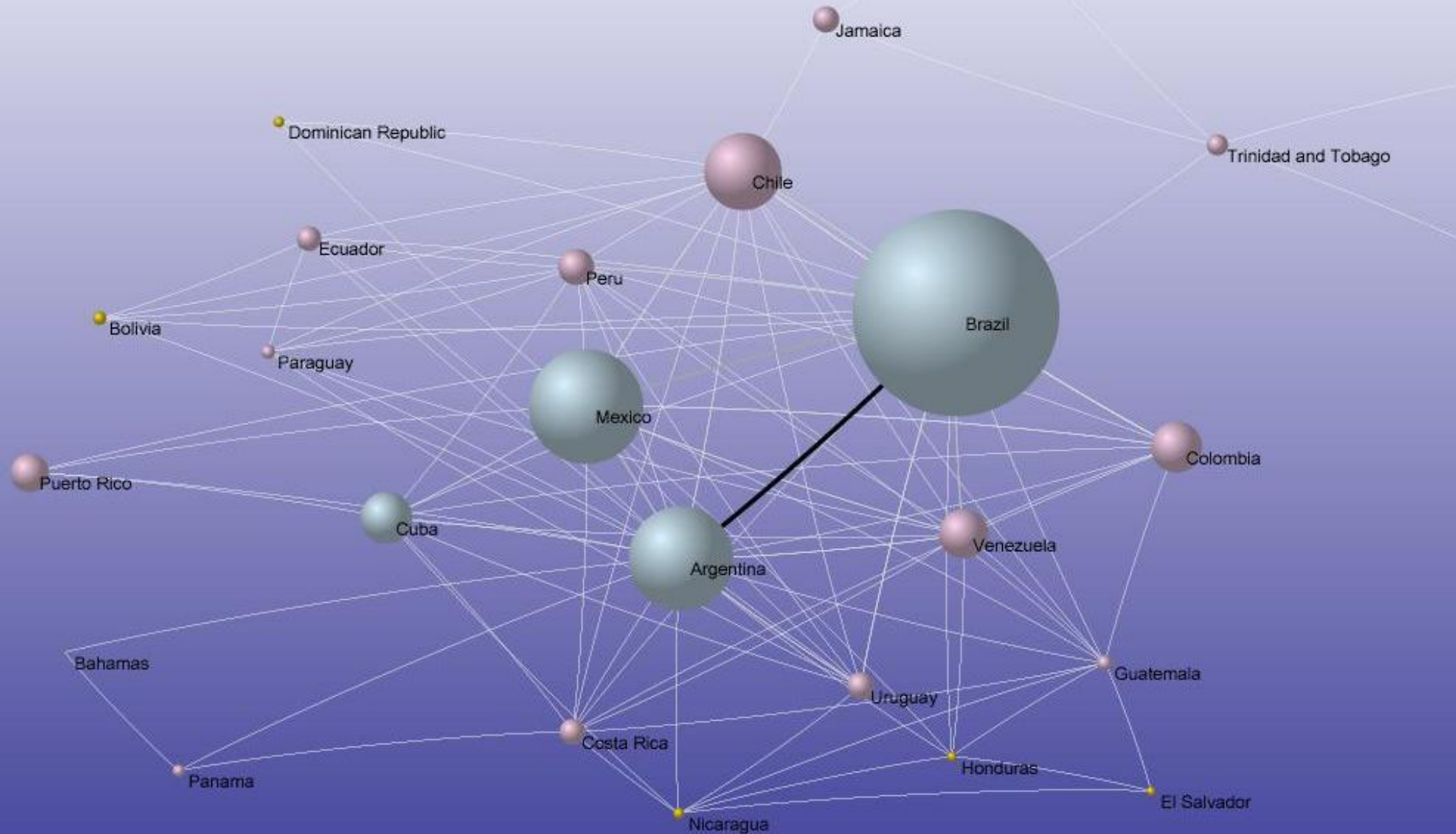INMARK

3-4 Octubre

Towards open & interconnected LAC
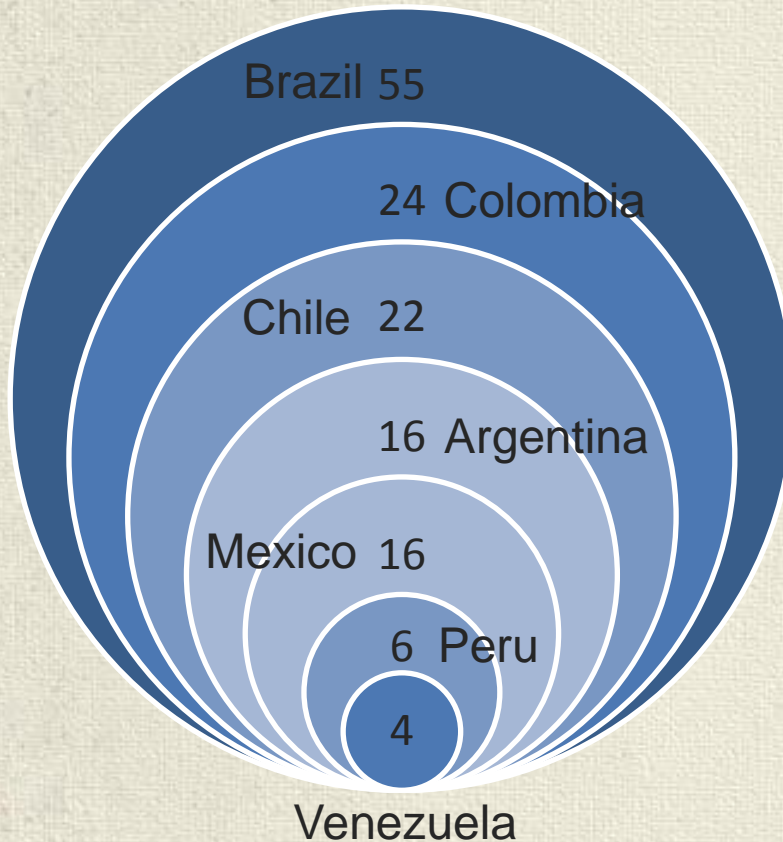
AMERICAS supports e-Infrastructures

Picture: Andrew Blum

- To spread the benefits and power of e-Infrastructures for R&D cooperation between EU-LAC

- To identify ICT domains for R&D collaboration with e-Infrastructures

- To foster collaboration and resource sharing of Virtual Research Communities (VRC) with ICT research communities.

Latin America ICT potential

FP7-ICT Participations

Brazil 55

24 Colombia

Chile 22

16 Argentina

Mexico 16

6 Peru

4

Venezuela

LAC-7
82% of participations (+140)
77% of projects (89)

Top 20 FP7 International
Partners BR, MX, AR, CL

Source: DG CONNECT

e-Infrastructures projects in Latin America

CUDI 2013
REUNIÓN DE OTOÑO
CAMPECHE

AMERICAS
CONFERENCIA TIC &
E-INFRAESTRUCTURAS

2, 3 Y 4 DE OCTUBRE

Data

HPC & Data Storage (ABACUS, BIOS, CBBC)

AGINFRA
ASSEMBLE
CTA-PP
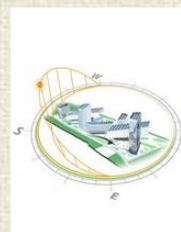GLORIA
IMARINE
RISC

Computing

GRID (GISELA)
CLOUD

BIOVEL
CHAIN-REDS
EU-BRAZIL OPEN BIO

Network

RedCLARA
NRENs
6DEPLOY-2

ELCIRA
MARINET

Generic e-Infrastructure   **User communities involvement**

– Task Forces in AR, BR, CL, MX, CO

– +30 members: AMERICAS, NRENs, Universities e-I research groups, HPC centers, S&T Councils, ICT stakeholders

– Identify ICT domains for R&D collaboration with e-Infrastructures

Mapping e-Infrastructures in LAC

- e-Science domains
- Communities
- Services and applications
- Components
  - Software
  - Hardware
  - Networks
  - Databases
  - Frameworks

e-Science Domains, Communities & Application fields

e-Science Domain

Life Sciences	Earth Sciences	Engineering	Computer Sciences & Mathematics	Data Access & Preservation	Astronomy & Astrophysics

e-Science Domain

VRC / Field of Application

Life Sciences

Biological Sciences

- Bioinformatics
- Biomolecular
- Genomics
- Biodiversity

Health

- Telemedicine
- E-Health
- Image
- Biological System Modeling

Chemical and Material Sciences

- Molecular Dynamics
- Quantum Chemistry

Earth Sciences

Natural Resources Exploration

- Geophysics
- Geology
- Natural
- Resource Management

Natural Disasters Modeling

- Seismology
- Ecology
- Simulations

Environmental Modeling

- Energy efficiency
- Climate change
- Remote Sensing

Engineering

Simulation Services

- Aeronautics
- Automotor
- Transport
- Security Management

Computer Sciences & Mathematics

Mathematics and Simulation

- Algorithms
- Quality Assurance (Testing)
- Security (Ethical Hacking)
- Inductive Logic Programming
- Robotics
- Microscopy

Data Access & Preservation

Digital Preservation

- Digital Libraries
- e-Learning
- Data Sharing

E-Governance

- Public Security
- Civil Protection
- Digital Citizenship Certification

Astronomy & Astrophysics

Astronomy

- Robotic Telescopes
- Instrument Control
- Images Acquisition and Storage
- Processing and Analysis
- Numerical Simulations
- Access Databases

VRC

Field of Application

Legend:

- ■ e-Science Domain
- ■ Virtual Research Community - VRC
- □ Field of Application

Challenges for future cooperation in ICT & e-Infrastructures

- Reinforce ICT and e-Infrastructures R&I in the bi-regional and bilateral political dialogues

- Strengthen R&I cooperation in areas of mutual benefit to LAC and Europe

- Set-up operational procedures for EU-LAC joint calls or initiatives (bilateral and multilateral)

- Coordination of efforts and funding mechanisms at regional level to facilitate Latin American participation in Horizon 2020

- Extend bilateral ICT coordinated calls beyond EU-Brazil

Gracias

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