ocruz

High-Level Study Visit to China on Science, Technology and Innovation (STI) for the SDGs

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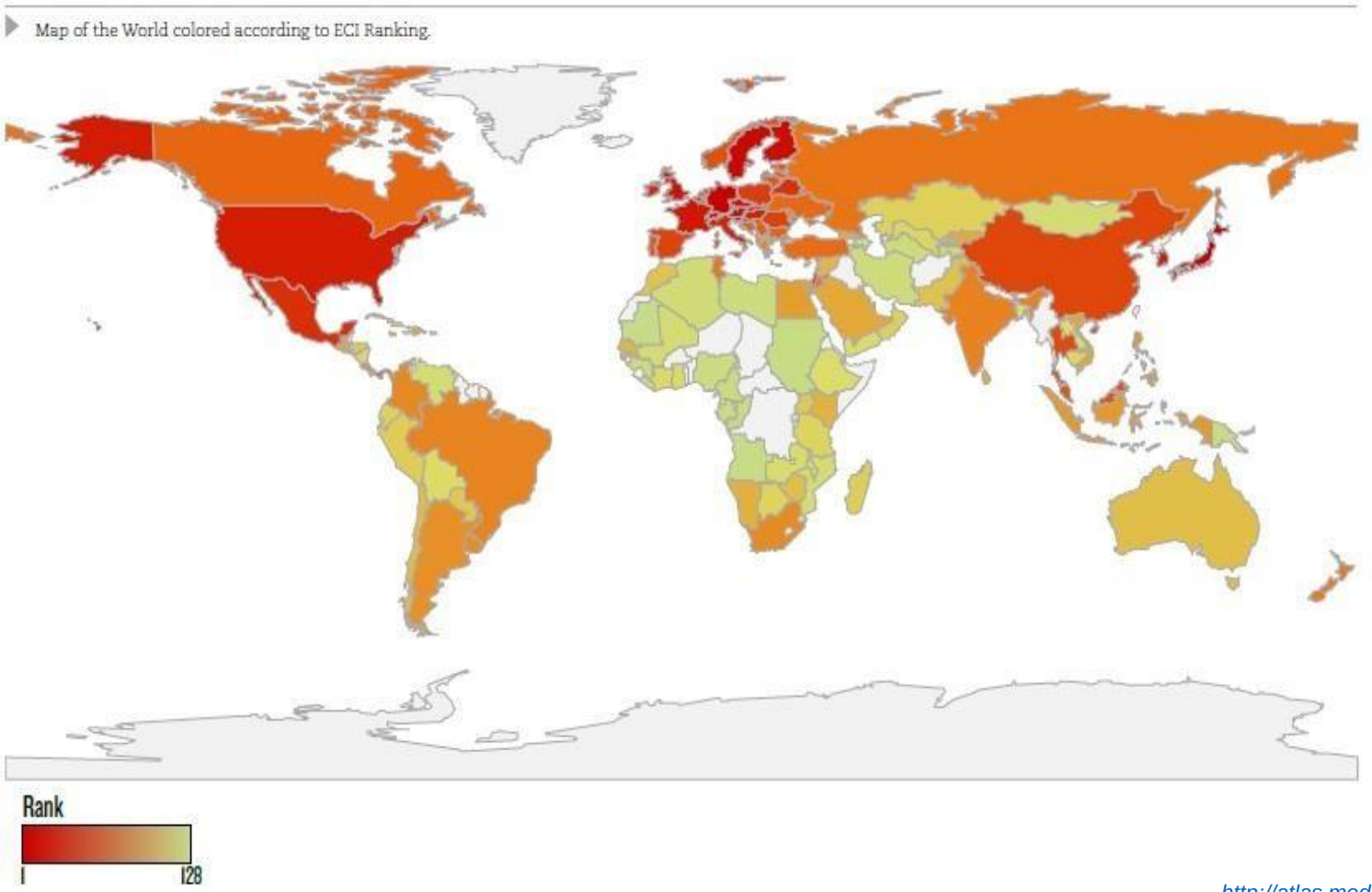
Ministério da Saúde

FIOCRUZ
Fundação Oswaldo Cruz

Harness STI to SDGs: Issues on STI Global Dynamics

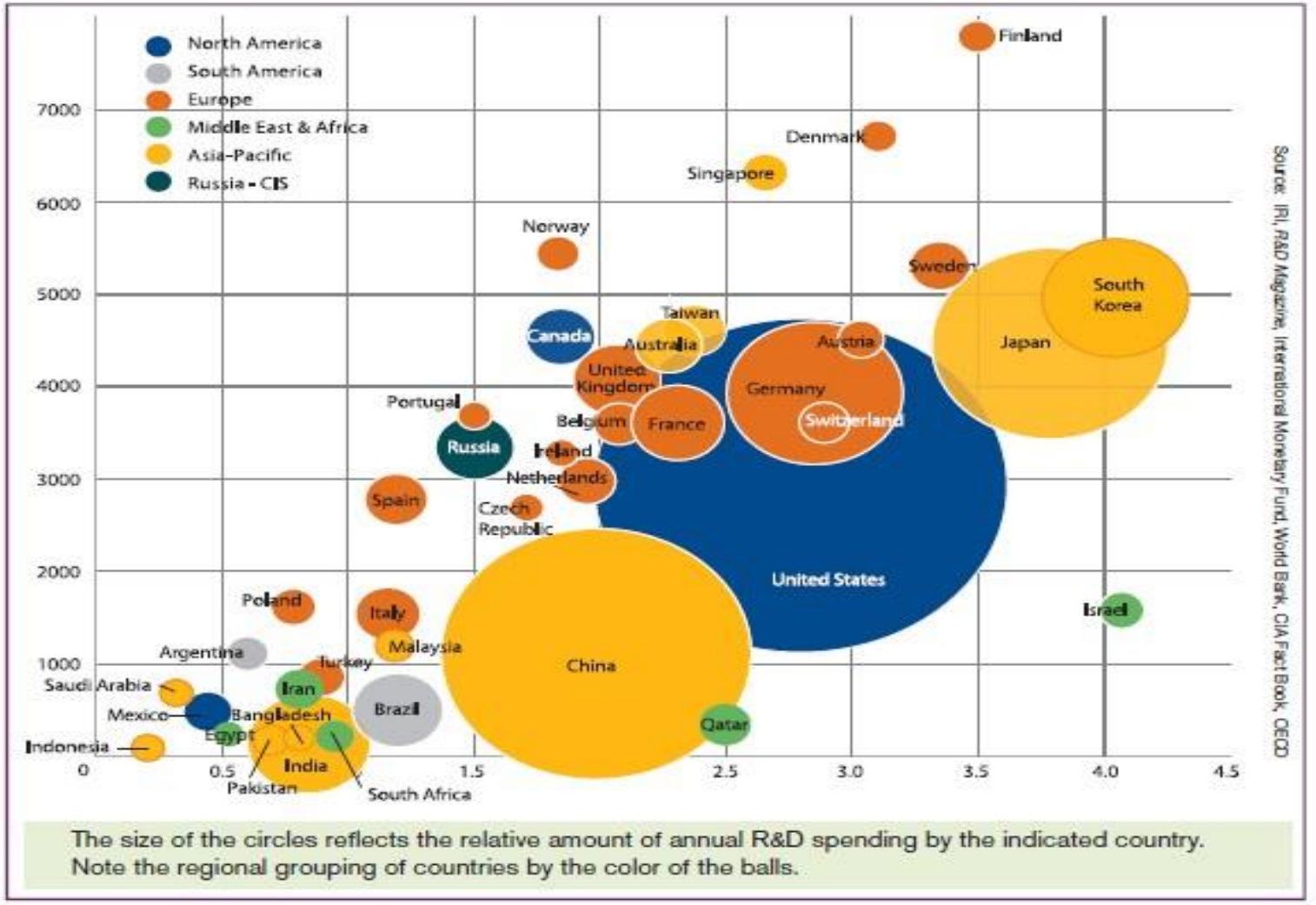
- Asymetries on the prioritization decisions, R&D expenditures, sustainability of innovation systems and knowledge appropriation
- Governance and Road Maps
- Intelectual Propriety vs Universal Rights and Commom Goods
- Need to Consensus on Ethical Criteria
- Knowledge Ecology, Open Sources, Co-Design and Co-Production

International asymmetries: Global distribution of the most dynamic and knowledge intensive activities (map of complexity) - 2012



http://atlas.media.mit.edu/

Global R&D Expenses: Clear US, China and Developed Country Leadership



The size of the circles reflects the relative amount of annual R&D spending by the indicated country. Note the regional grouping of countries by the color of the balls.

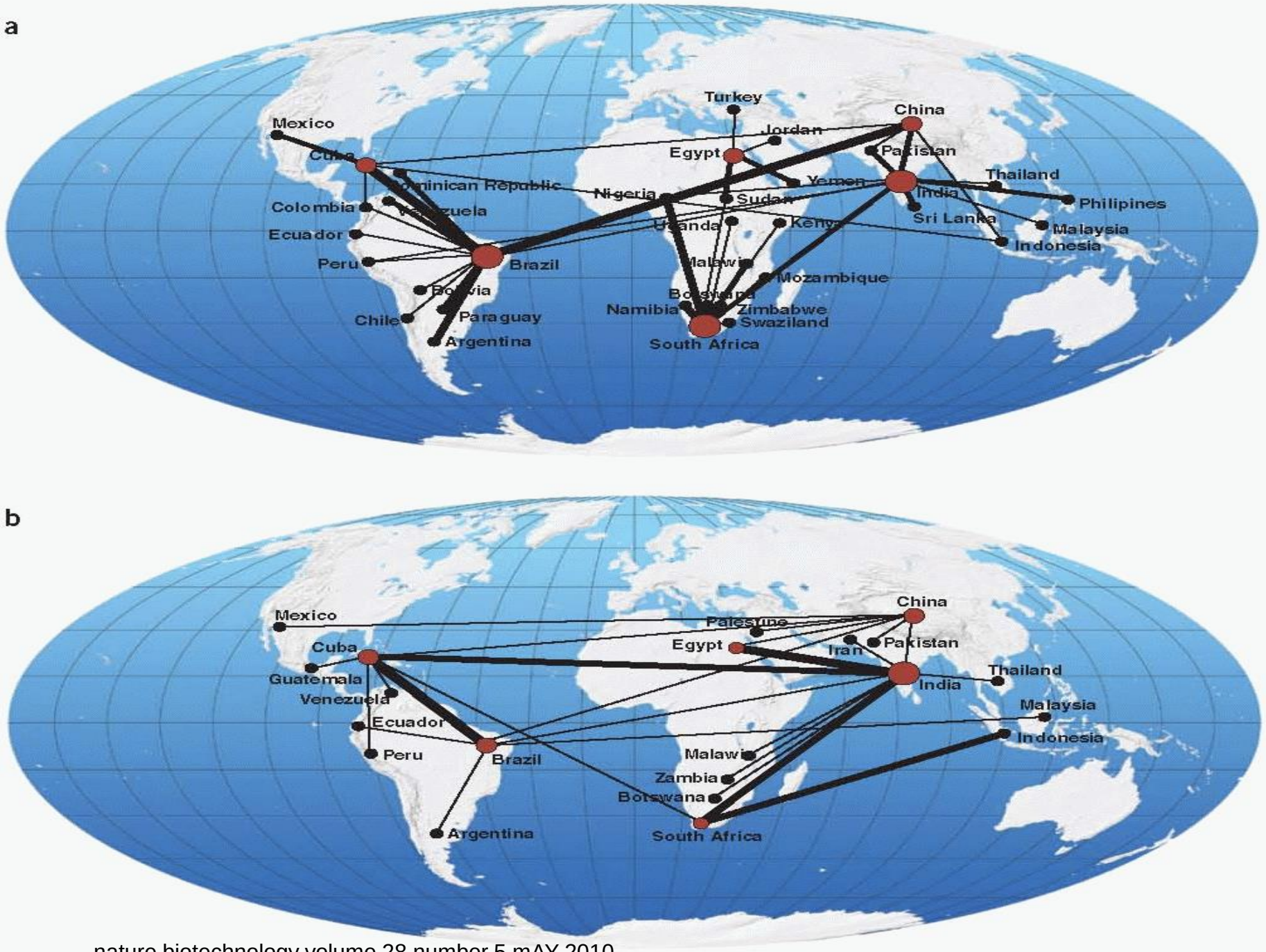


Figure 5 The network of collaborations involving end-stage commercialization versus R&D. (a) Collaborations involving end-stage commercialization. (b) Collaborations involving R&D. As in Figure 3, node size and line width denote numbers of collaborations. For clarity, only linkages of two or more distribution and marketing collaborations are included in a; all of the linkages are shown in b.

The China - Brazil Infectious Disease Research and Prevention Center (IDRPC)

Immunology Structural Biology Epidemiology NGS Terapeutic Antibodies Etiologic Diagnosis

2017

STATE: PROMOTION+REGULATION

BRAZIL: Economic-Industrial Complex (HEIC)

Industrial Sectors

Chemical and Biotechnology industries

- Medicines
- APIs
- Vaccines
- Blood Products
- Serum and Toxins
- Reagents for Diagnosis

Mechanic, Electronic and Materials Industries

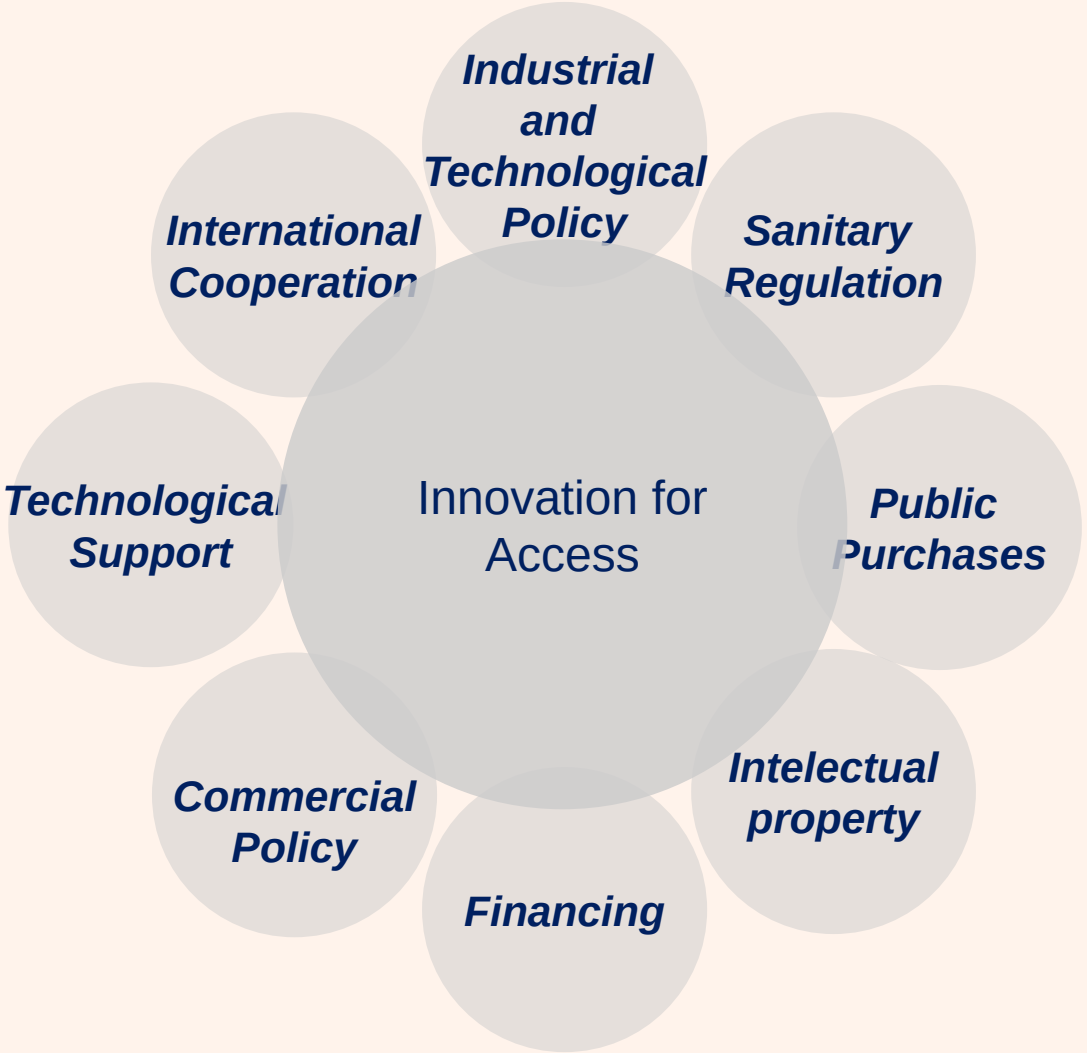
- Mechanical equipments
- Electronical equipments
- Prostheses and ortheses
- Materials

Health Services

- Hospitals
- Ambulatories Home care Services
- Diagnosis and Therapeutic Services

Source: Gadelha, 2003

HEIC GOVERNANCE STRUCTURE: MOH LIDERSHIP IN THE INTERSECTORIAL ARTICULATION



USING PUBLIC PURCHASING POWER (DPPs)

- **78 formal partnerships**
- **55 partners: 17 public institutions and 38 private ones**

HEALTH PUBLIC PURCHASING POWER

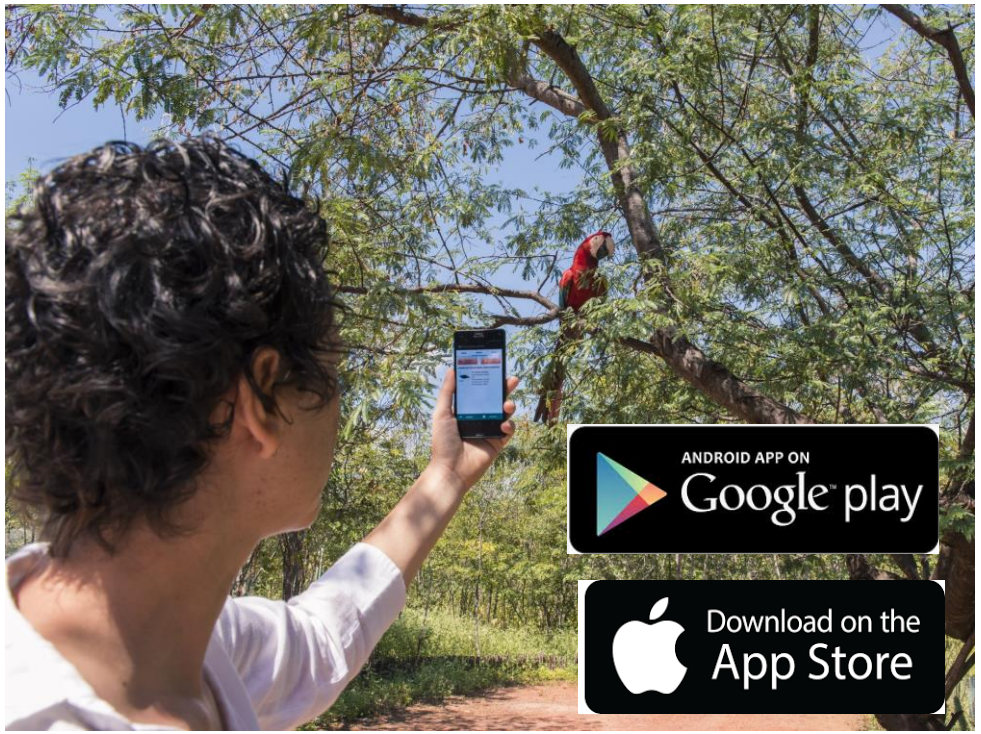
- **US$ 500 million/year** is the average savings estimated
- **US$ 1 billion/year** in imports substitution
- **US$ 1,6 billion** in aggregated savings so far

Source: Development, Health Economic-Industrial Complex and Innovation Research Group, National Scholl of Public Health/Oswaldo Cruz Foundation

Information System of Wildlife Health

Brazilian ONE HEALTH experience

SISS-Geo



FIOCRUZ

Laboratório Nacional de Computação Científica

PROBIO II

Banco Mundial

gef

CAIXA

FUNBIO

Embrapa

ICMBio

Ministério da Agricultura, Pecuária e Abastecimento

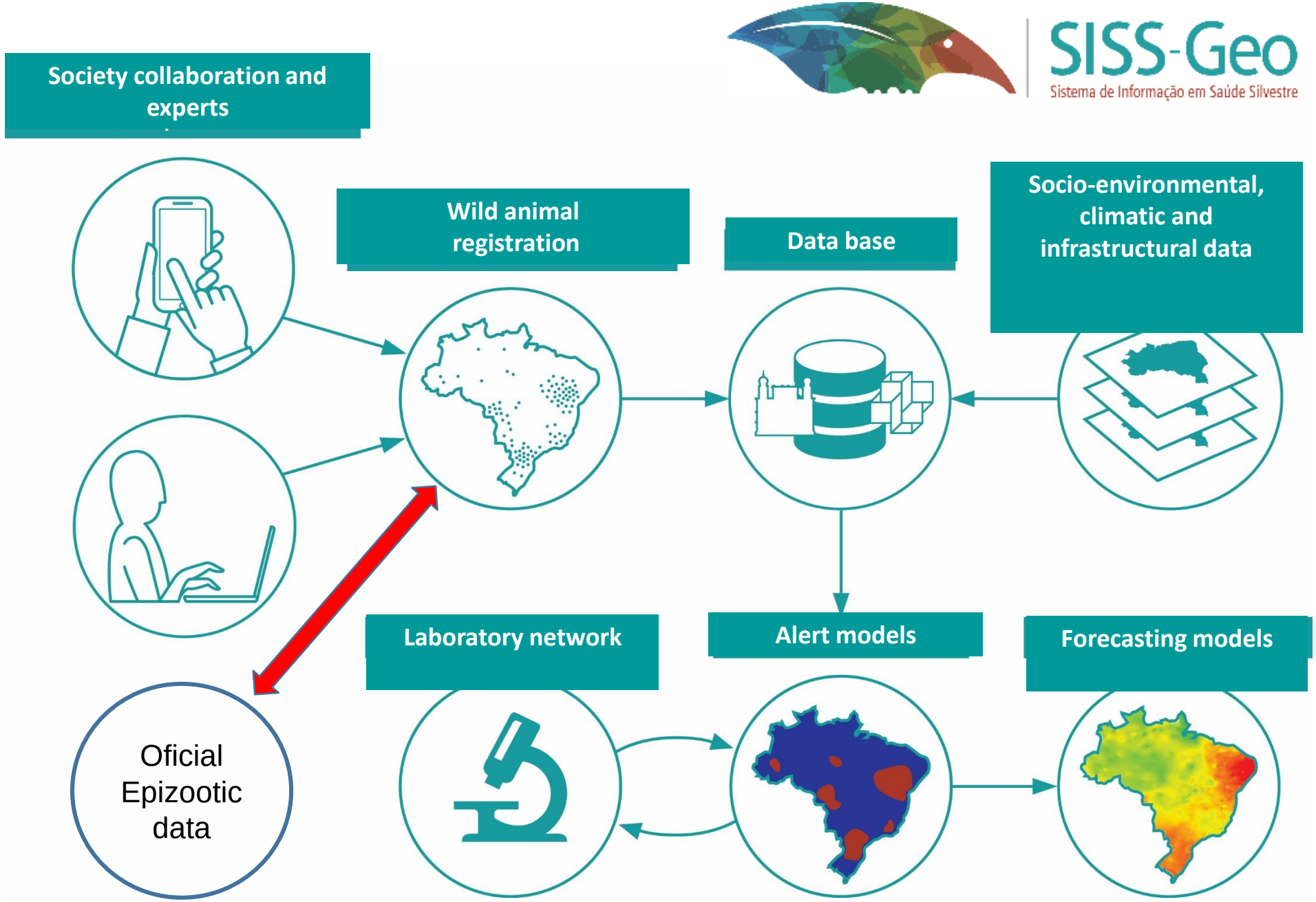
Ministério da Ciência e Tecnologia

Ministério da Saúde

Ministério do Meio Ambiente

GOVERNO FEDERAL BRASIL PAÍS RICO É PAÍS SEM POBREZA

SISS-Geo
Sistema de Informação em Saúde Silvestre



Wildlife Health and Digital Inclusion Project in Amazonia and Atlantic Forest

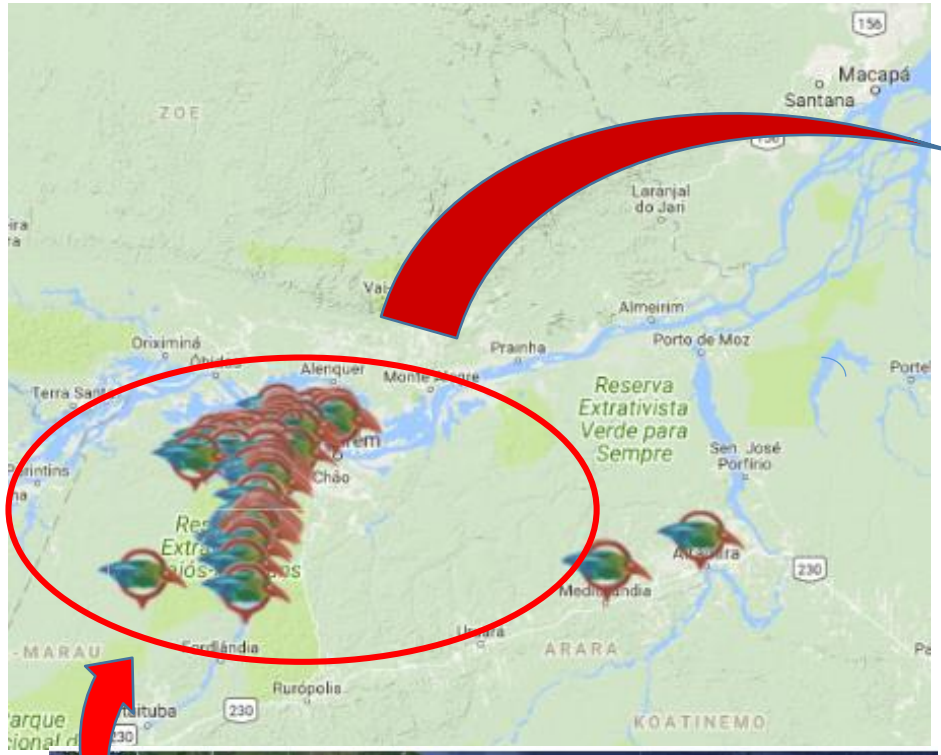
11 Expeditions - 2015-2017

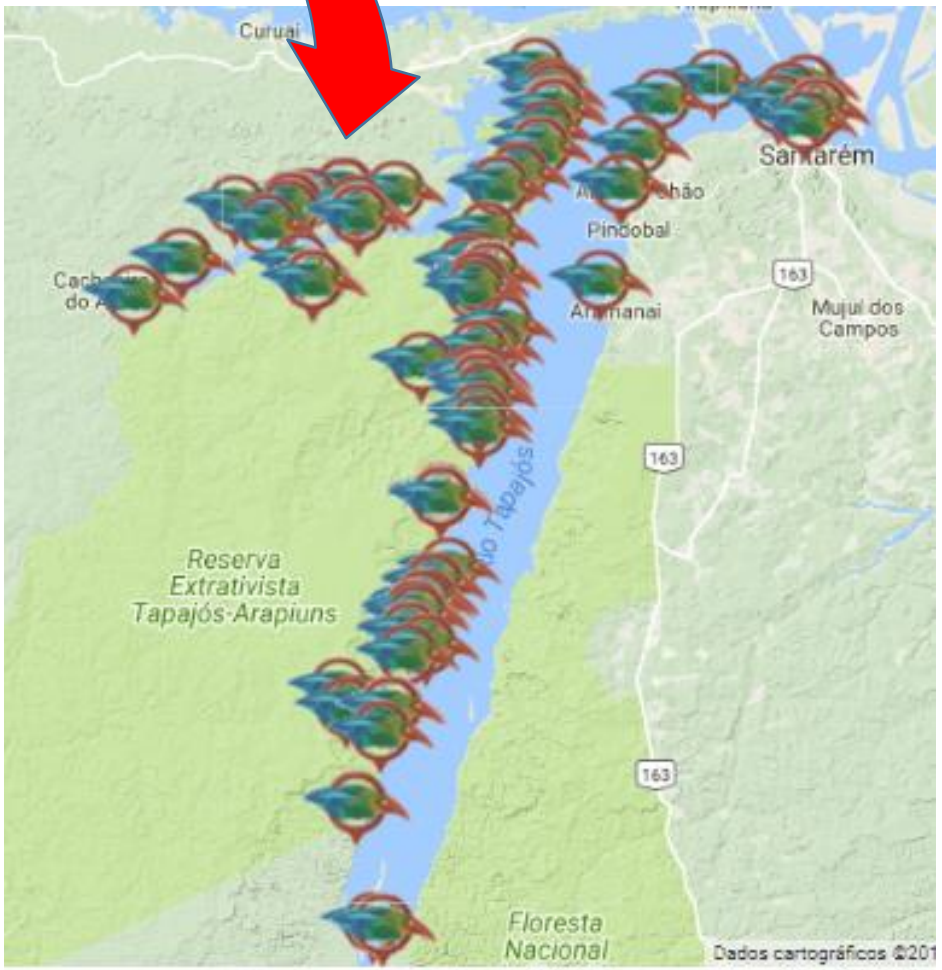
56 communities
860 families
2560 inhabitants - traditional communities and indigenous

SISS-GEO RECORDS

RESEX TAPAJÓS-ARAPIUNS

05/11/2017





Open Science, Technology and Education for Health

AGORA.FIOCRUZ.BR

GORA
nd Education for Health

PLATFORM

HEALTH

Ágora provides Co-op Intelligence on Health, through connections among Health, Science, Technology and Society

S&T

Our methodology aims to provide tools and to arouse Co-op Intelligence Networks.

GOVERNANCE

/plataforma ÁGORA

ÁGORA
Open Science, Technology and Education for Health

ÁGORA PLATFORM  NETWORKS

Ágora Networks allow you to build a unique communication environment and to promote decision making and their implementation

- Open and closed Networks building
- Choosing and voting tool
- Meeting scheduling
- Files Repository
- Discussion topics
- Building subnetworks to specific topics

Challenges will be organized around 2030 Agenda for Sustainable Development and the Sustainable Development Goals themes

Social Technologies, Zika, Health Education, Water

ÁGORA 2O3O CHALLENGES

CONCEPTS

- Social Curation
- Gamification
- Virtual Crowdfunding
- Experiences exchange
- Ideas and projects divulgation

WORK PROGRESS

Built in 3 months, from conception to MVP

NEW STEPS

- Include Repositories from different sources
- Develop better tools for networking interfaces
- Launch new challenges
- Incorporate functionality for technology transfer
- Align with new steps of Global Online Platfom

Lessons learned

- ✓ To the main goal of “Harnessing STI to SDGs”, STI Online and Offline Platforms must respond to more inclusive STI dynamics and governance
- ✓ Matchmaking, tech transfer and tech co-development shall include all dimensions of the innovation system
- ✓ Innovative computational technologies must be developed by multiprofessional teams with community participation and knowledge ecology approach
- ✓ Must seek bold solutions and be under the care of stable institutions and partners
- ✓ Must join other initiatives, building “ networks of networks”