



Domination or Dependence for data collaboration in Africa

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Background: Evolution of Ethical considerations



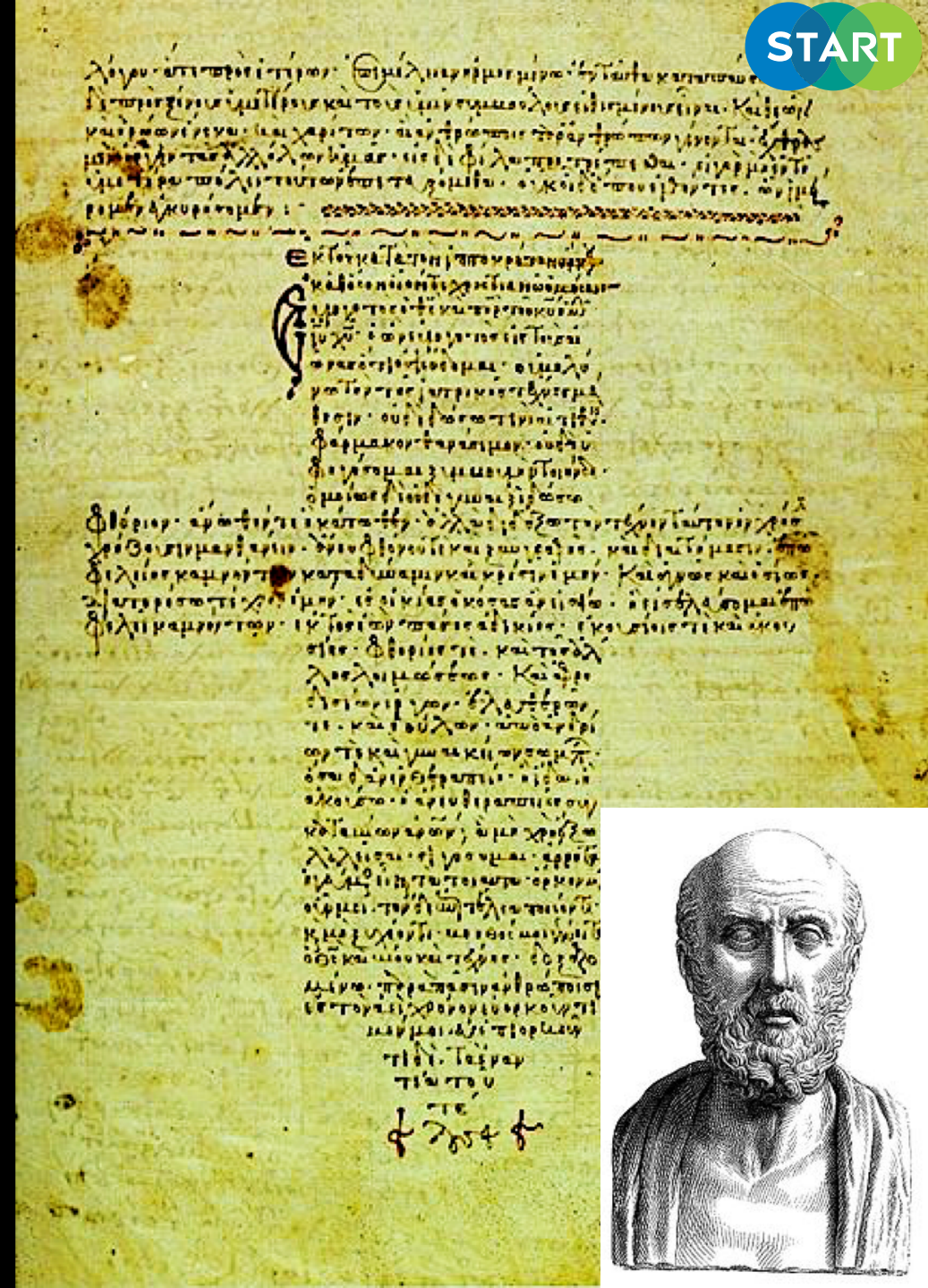
- Science is not only created using data: **Rational purity vs opinions!**
- **Open data**: What is open and for Who?
- **Aspirations**: Hidden agendas, contentious intent and objectives
- **Confusing**, fragmented landscape, tools, methods, truncated
- **Data disparity** between Global North and South: The power relationships
- **Lack of feedback mechanisms** between data providers and users
- Complex environmental issues through **Transdisciplinary data**

Hippocratic Oath (IV Century Before JC)

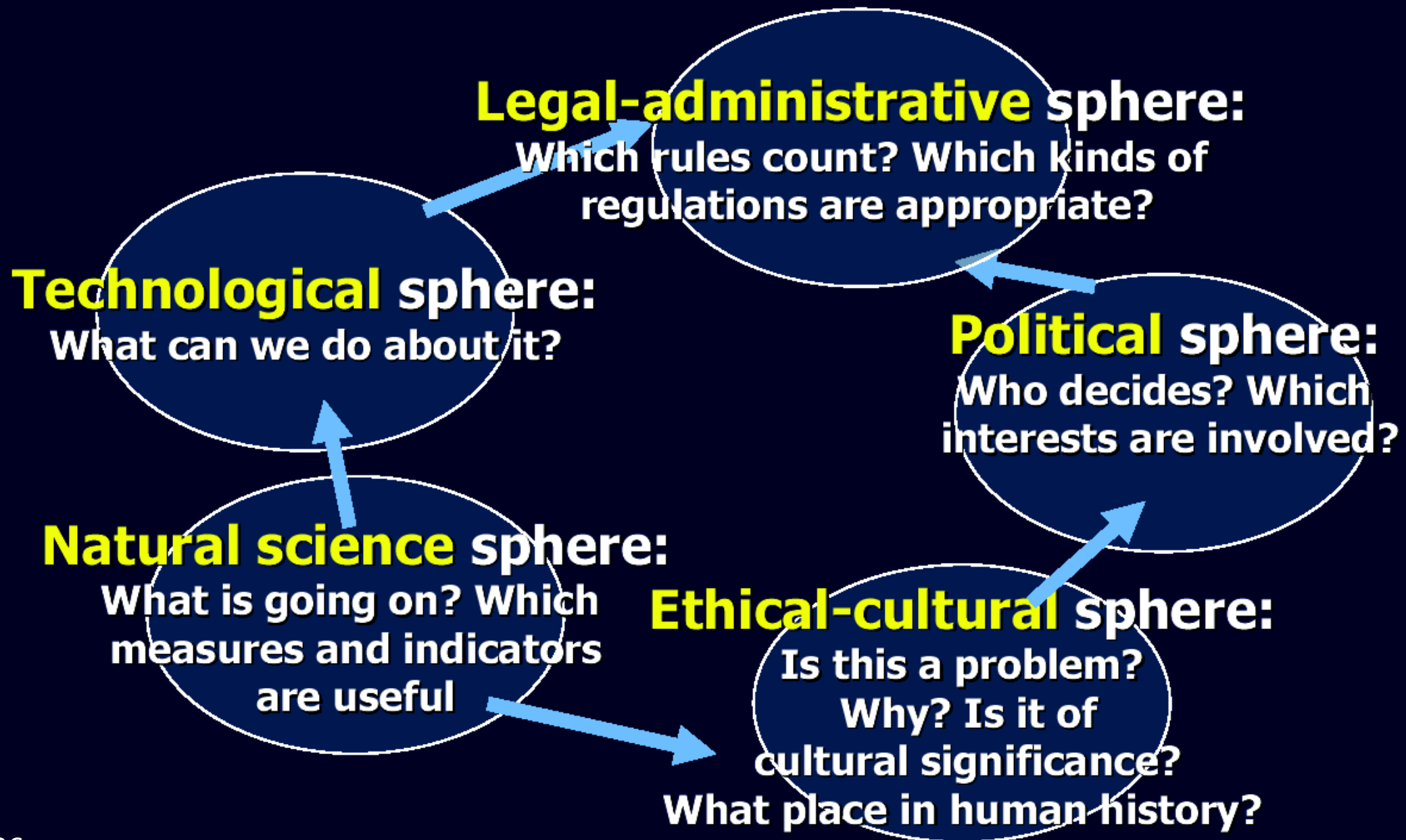
“I swear upon a number of healing gods that he will uphold a number of **professional ethical standards**.

I **swear** by Apollo, the healer, Asclepius, Hygieia, and Panaceae, and I take to witness all the gods, all the goddesses, to keep according to my ability and my judgment:

- **Never do harm** to anyone
- **Not give a lethal drug** to anyone if I am asked,
- **will preserve the purity of my life and my arts**”



Where data ties with ethics



Science is not only created using data

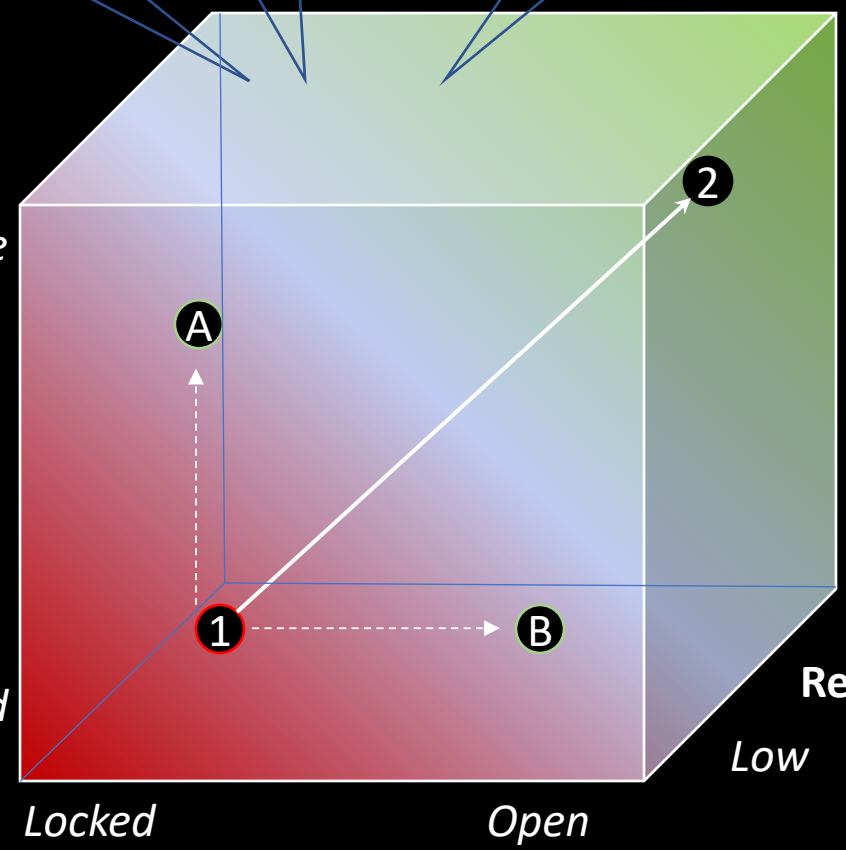
External considerations

Budget

Storage

Operable

Ideal data framework



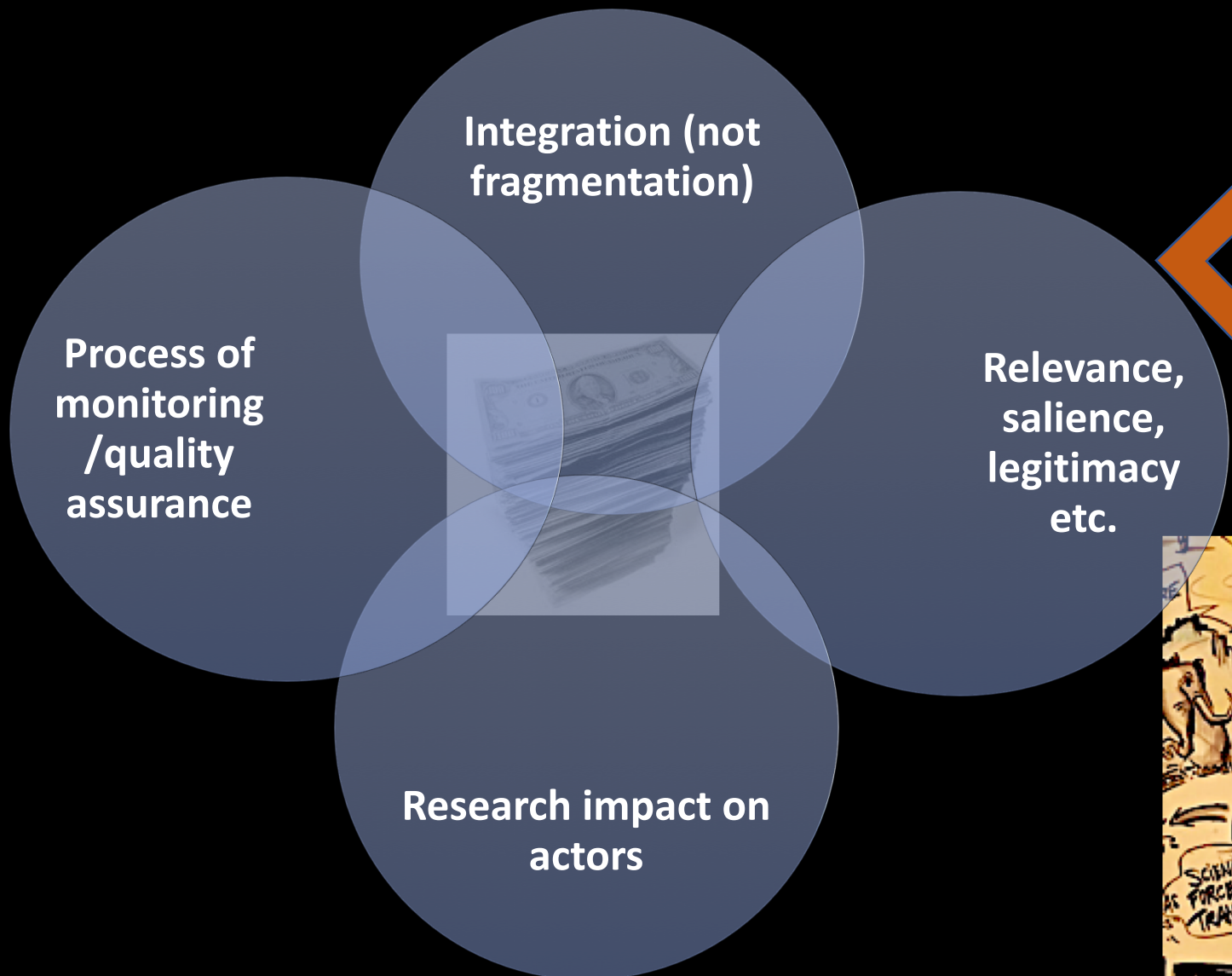
PATHWAY
Time 1 → Time 2
SCENARIOS
A. Different modulators

Poor data framework



What are the Ethical Dimensions in Each of the Axis

What data matters?



Research application

Negotiating among various priorities and values



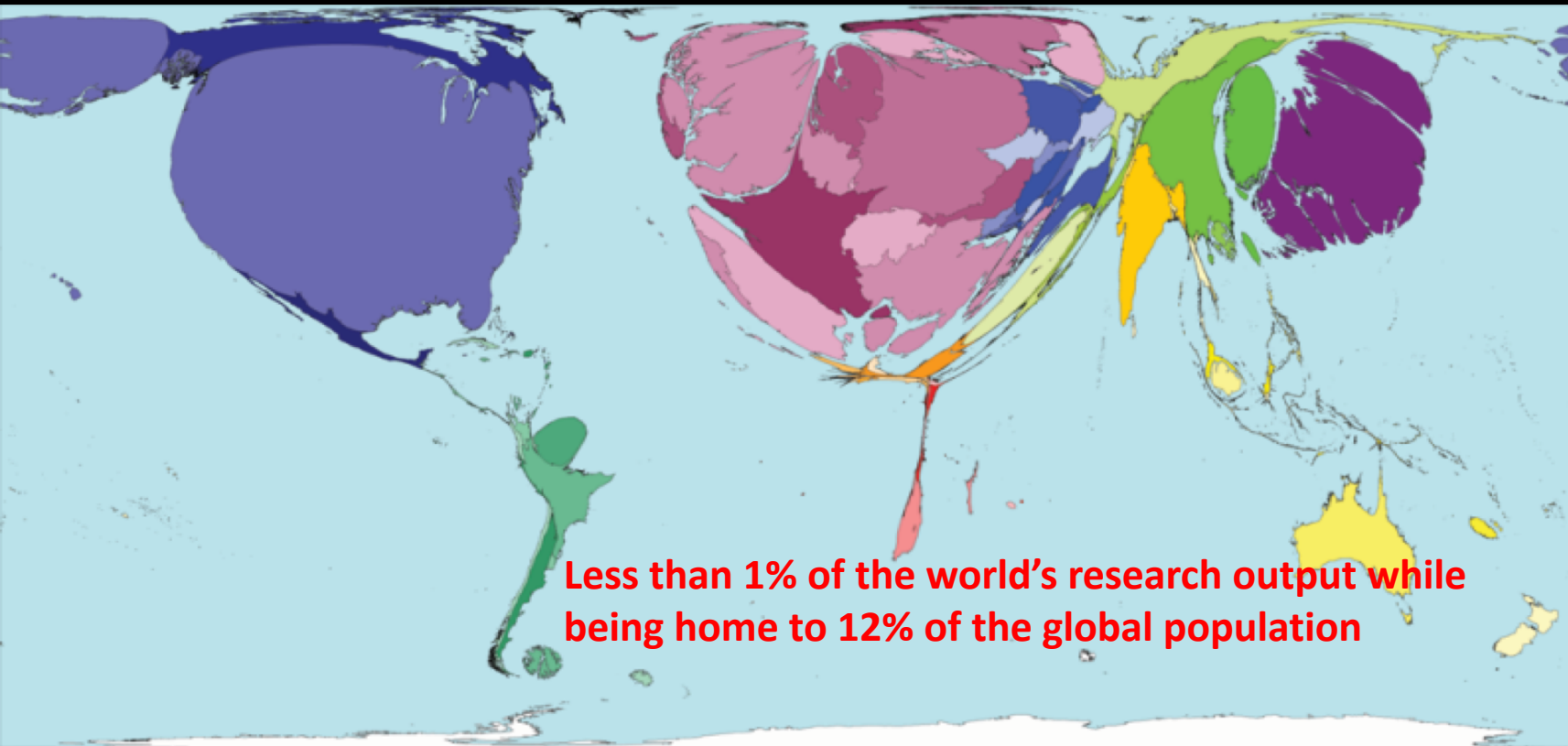
A Big Continent with a Lot of Resources

But Who is telling us
the region's stories?



Normative science vs domestic knowledge

- Addressing common problems through **transdisciplinary** research
- **Europe and USA dominates** the Science in Africa!



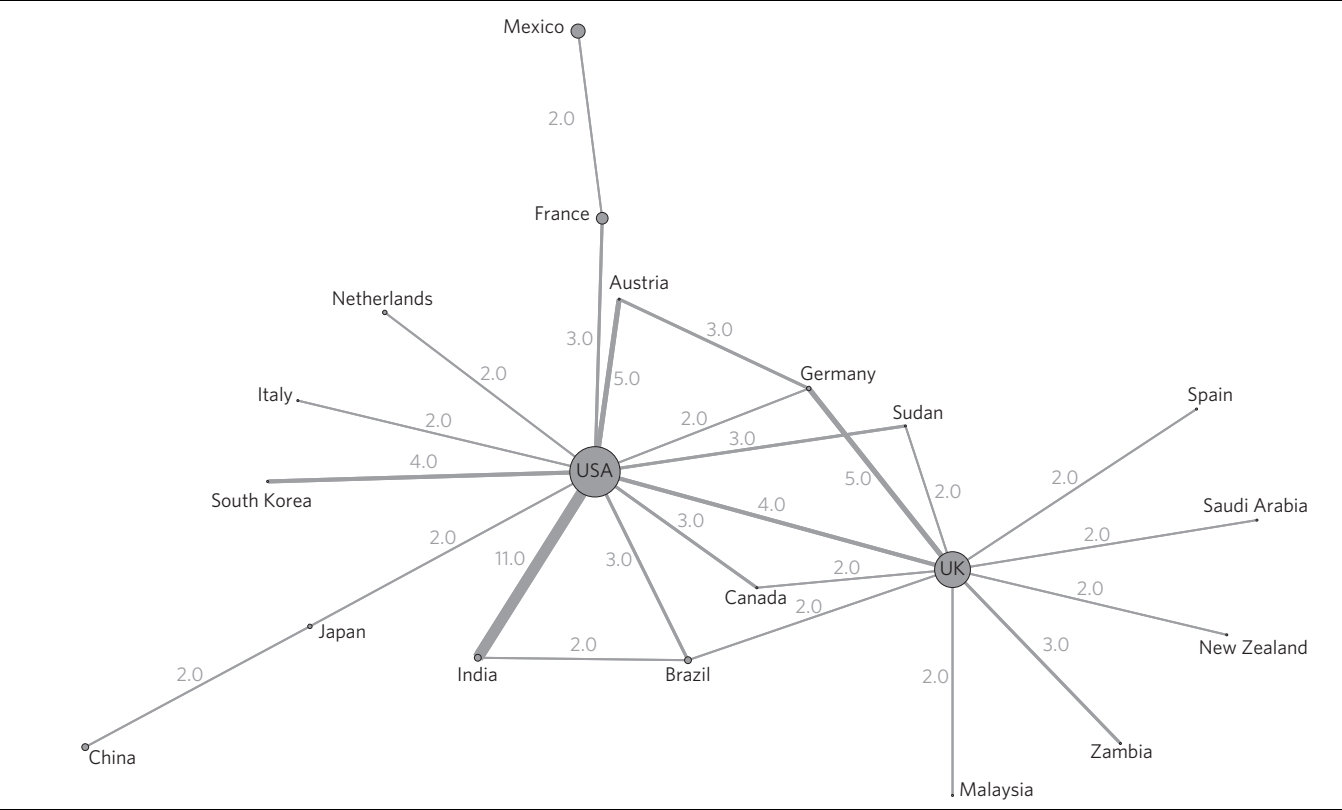
Source: Thomson Reuters' Web of Science, Science Citation Index Expanded, 2014

Main foreign partners, 2008–2014 (# papers)

	1st collaborator
Benin	France (529)
Burkina Faso	France (676)
Cabo Verde	Portugal (42)
Côte d'Ivoire	France (610)
Gambia	UK (473)
Ghana	USA (830)
Guinea	France (71)
Guinea-Bissau	Denmark (112)
Liberia	USA (36)
Mali	USA (358)
Niger	France (238)
Nigeria	USA (1309)
Senegal	France (1009)
Sierra Leone	USA (87)
Togo	France (146)

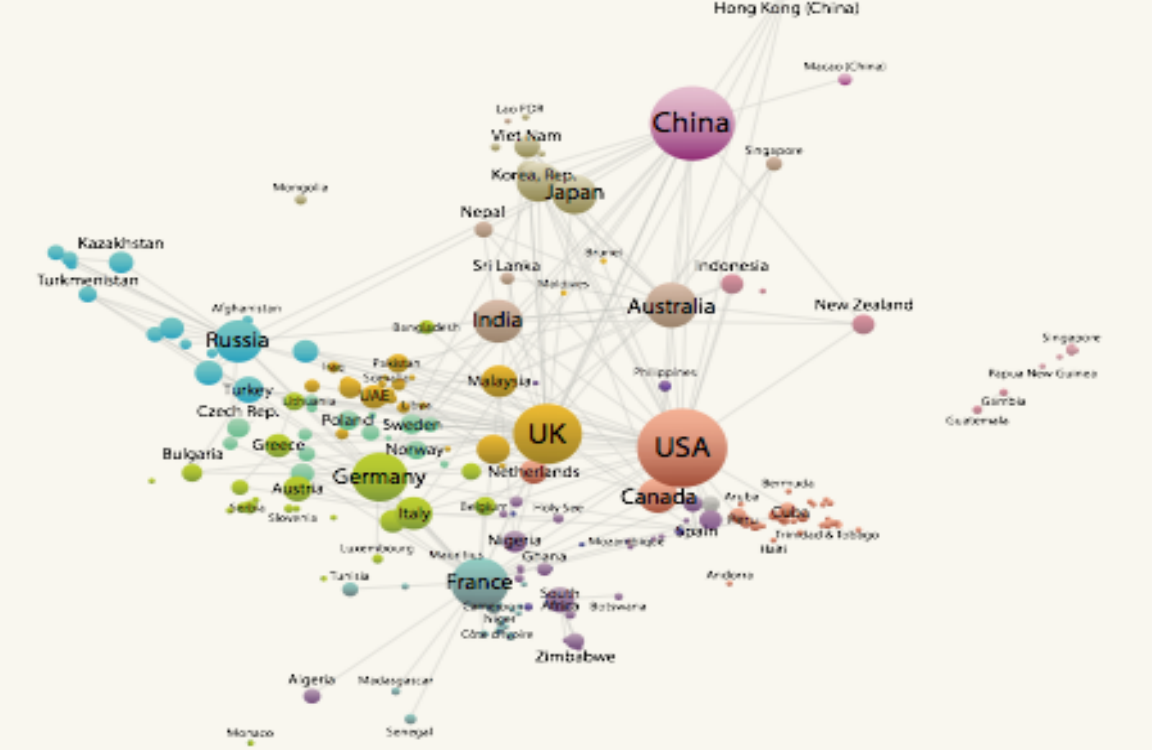
The value of affiliation

- A global Family or a global competition?
- Developing **soft power** through data
- **Asymmetrical power relationship** largely related to funding disparities (Command control vs Engage-align)



Abstracts supposedly originating from leading US and German universities scored higher than identical ones attributed to top universities in Ethiopia and Malawi ([M. Harris et al. Health Aff. 36, 1997–2004; 2017](#))

Figure 2.13: Main clusters of international student mobility, 2012



Source: Data from UNESCO Institute for Statistics, October 2014; map created using VOSviewer

Context specific data and power relationships

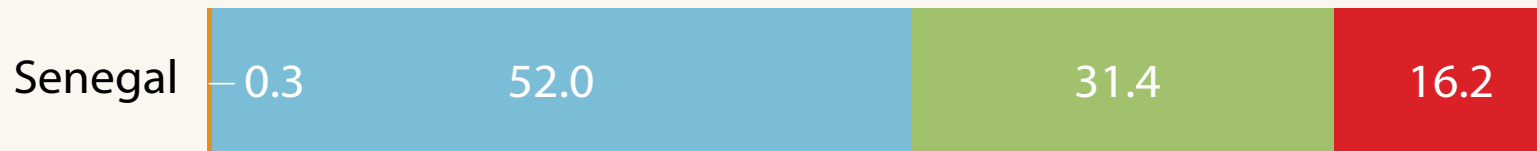
- **Data & knowledge means power**, and thus that the struggle to have data is an inherently political one.
- **Engaging users to identify what data they need** to act (Legitimacy and salience/relevance)
- **Mobilizing various epistemic groups-not just scientists- to produce that knowledge**, in ways that...
 - Integrate knowledge of practitioners, outside experts
 - Assure access by all to the fruits of such knowledge mobilization



Opportunities Prioritization

START

- Double equation
 - Where the money comes from?
 - Where the money is invested?



Business enterprise sector Government
Higher education Private non-profit

Note: Complete data for each sector are unavailable for other West African countries.

Source: UNESCO Institute for Statistics, January 2015

Economic Stakes entails Legal implications

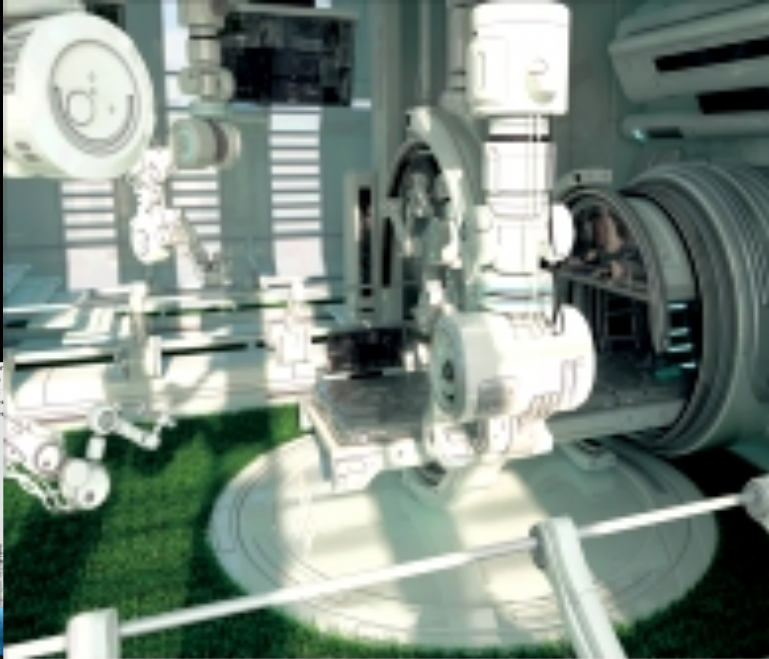
Managing the tension between: confidentiality and transparency



Discovery

Innovation

Transformation



Big Data and Ethics

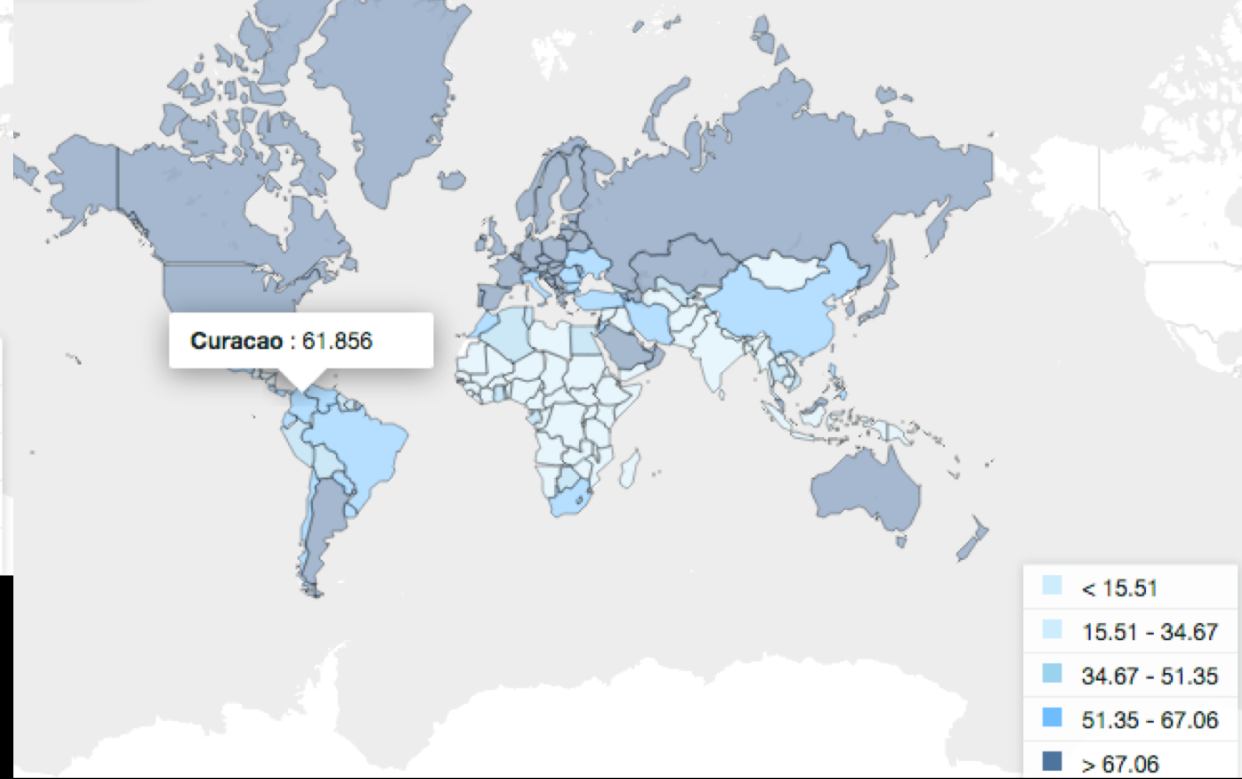
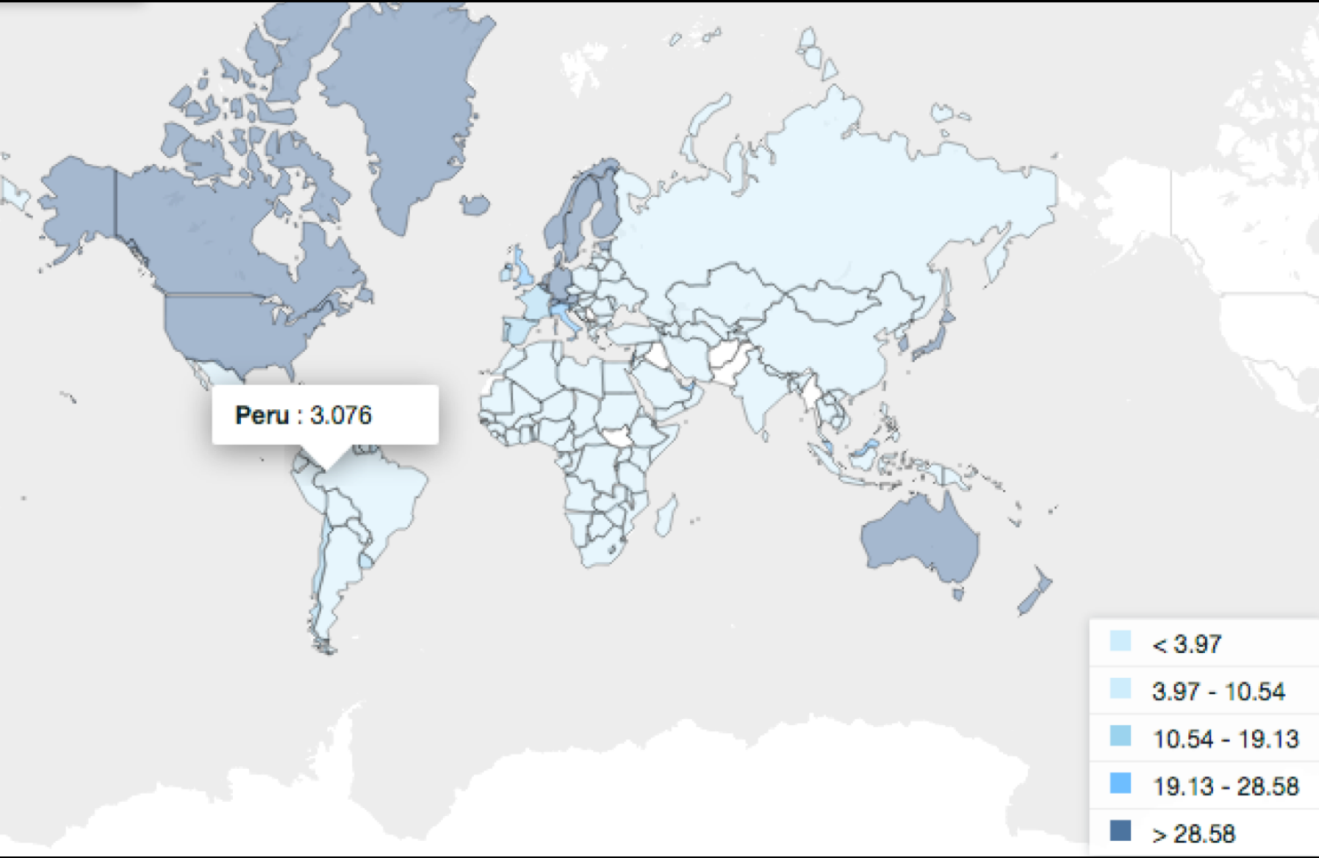
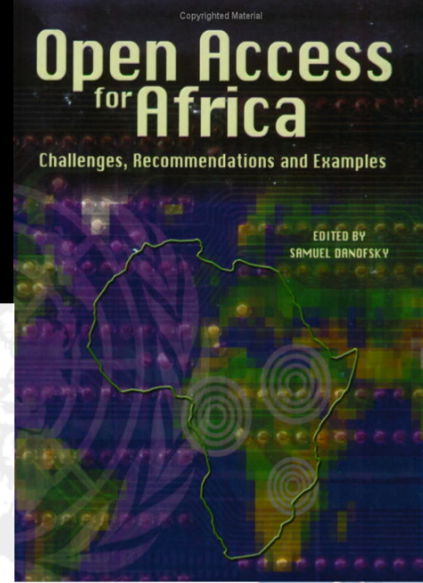
Jérôme Béranger

The Medical Datasphere



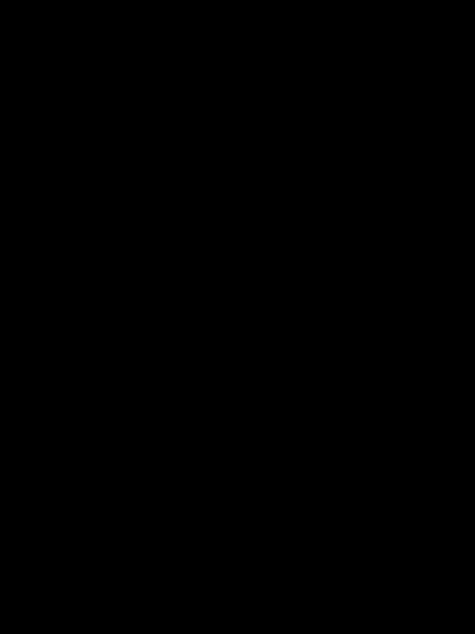
Patents, Property rights, protectionism, private competitions, etc

35% of African population has access to internet

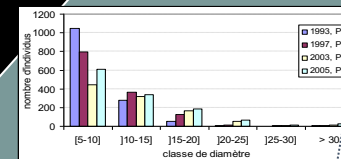
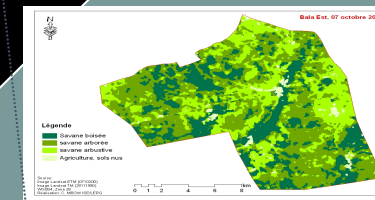
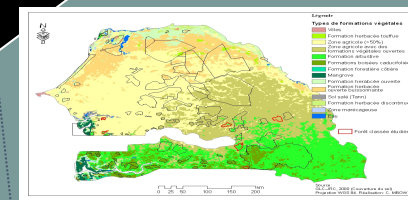
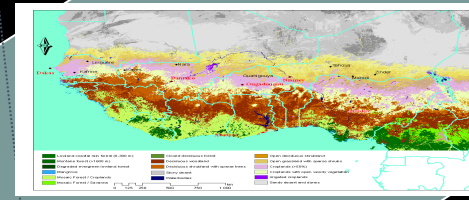
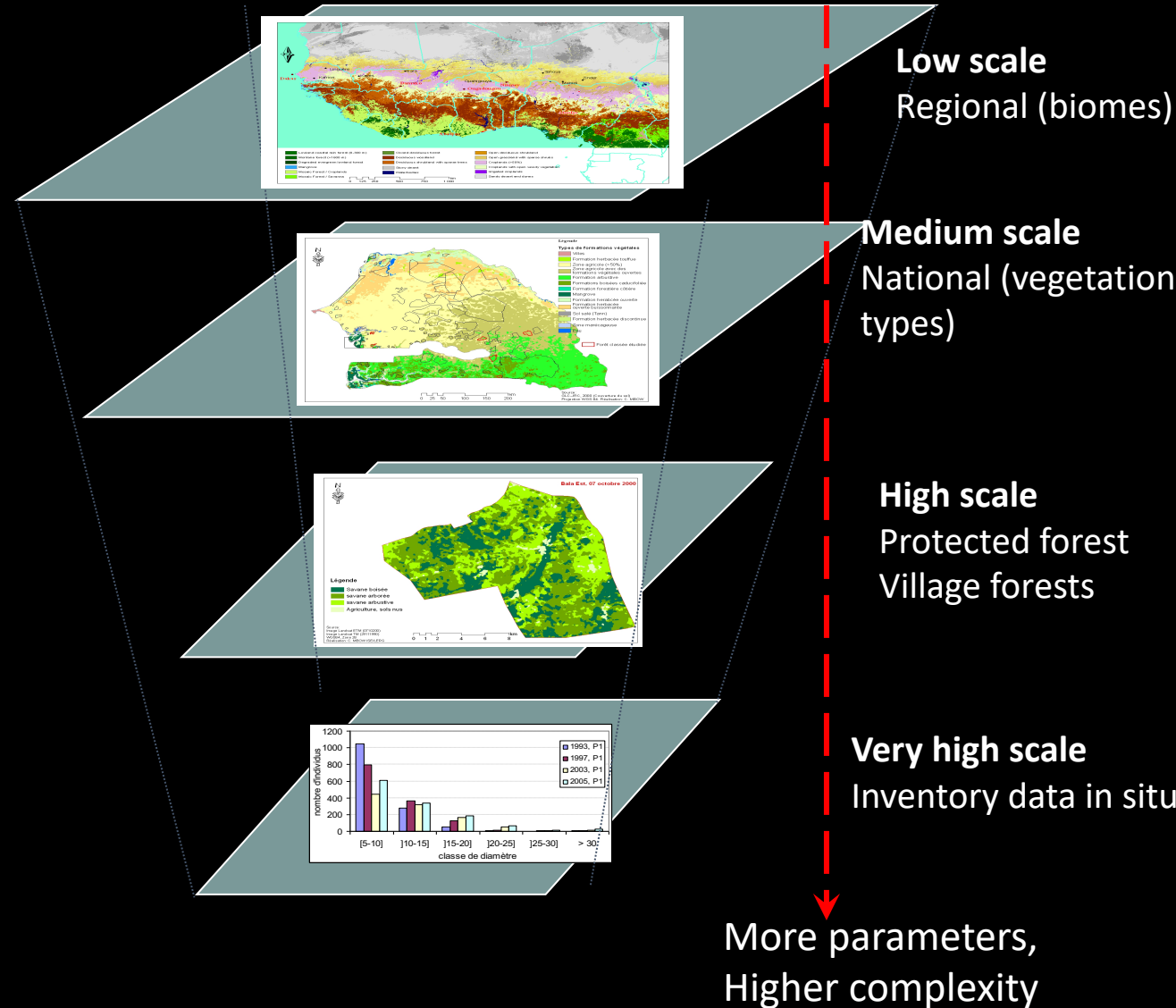
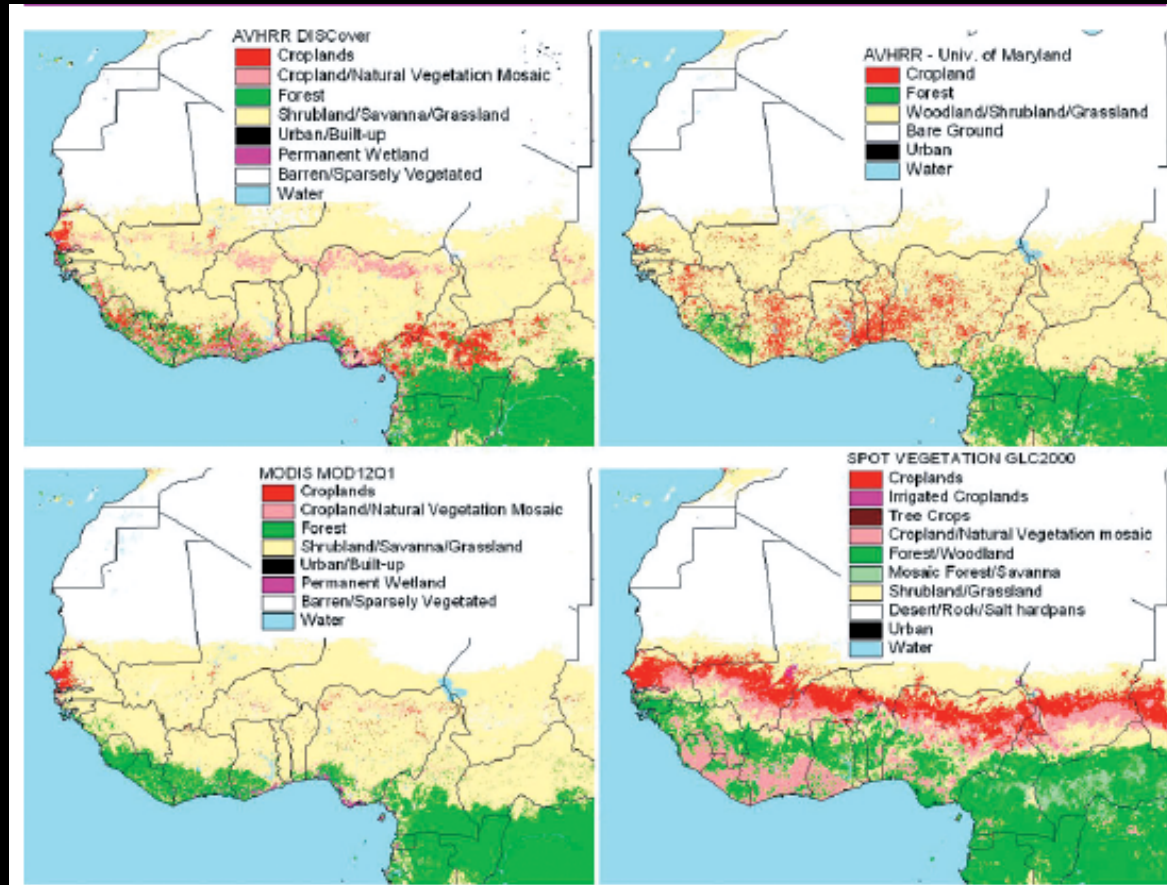


Data fatigue

Are we producing data we use
Who takes credit of the data collected in Africa



Diversity of products: Products and scales



Data Governance: Scaling up information

Knowledge transfer platform



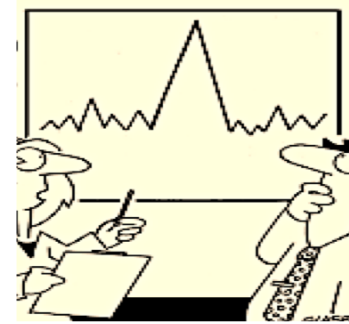
Research Centers



Curation of data



Audit/Screening of Demand driven data



Data Governance



Data by sector vs integrated data



All Actors / Partners
Lessons learnt



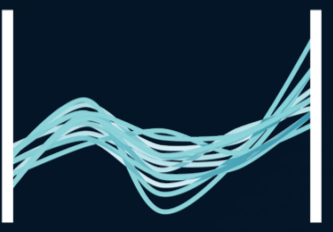
Data Package



Application, scaling up, partners



The value chain of data has many missing links in AFRICA



PARTNERSHIP FOR RESILIENCE & PREPAREDNESS

PREP — both through the Partnership and its PREPdata platform — helps visualize and customize data, improves access to datasets, and supports the climate resilience ecosystem.

Building Resilience Through Data

<https://www.prepdata.org/>

PREP Membership Today

Coordination & Core Partners



NGO Partners



Private Sector Partners



Public Sector Partners



Ninad Bondre

- *At times, the role of the local researchers is reduced to that of a tourist guide: they help negotiate and open up the physical and cultural terrain rather than conceive of projects or contribute equally.*
- *These local researchers, too, accept this role, perhaps because the resources/facilities at their disposal don't always allow them to rectify the imbalances of privilege. For them, thus, the choice is between being the last author on a paper versus not being an author at all.*
- *There are many good recommendations, hopefully some of them will be implemented with unrelenting diligence!*