Informing a Development Data Revolution

Thilo Klein

Analyst, PARIS21 Secretariat

OIC-StatCom

Ankara, 13 May 2015

PARIS 21

**Partnership in Statistics for
Development in the 21st Century**

What we are NOT

- 21st district in Paris
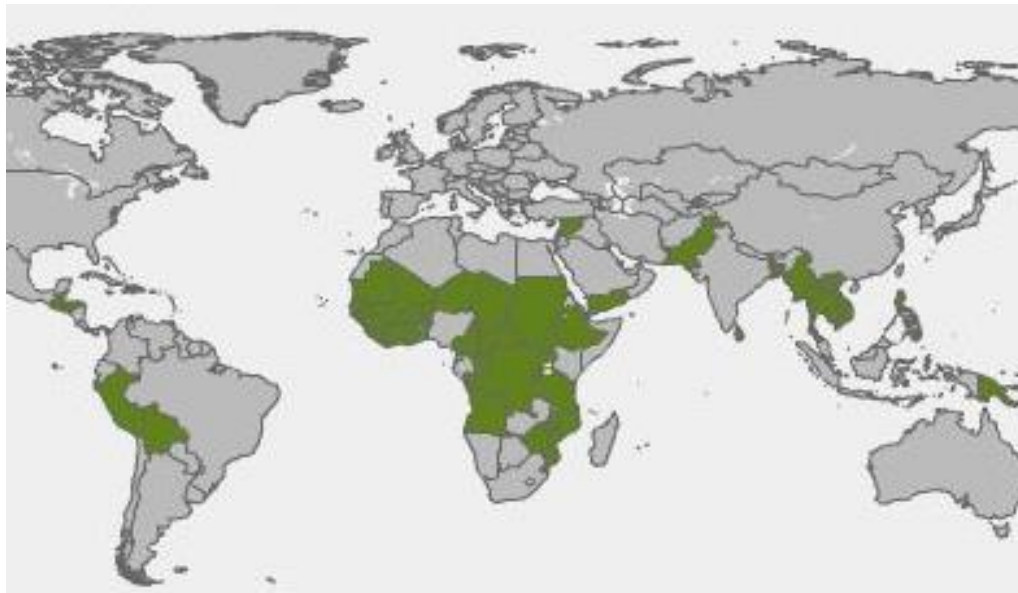- (only) statistical nerds
- OECD - DAC

PARIS21: Global partnership on statistical capacity development

National & Regional

- Strategic planning (NSDS & RSDA)

- Advocacy

- Data (e.g. micro-data dissemination)

Global

- Co-ordination (BAPS, PRESS)

- Knowledge sharing

Why a **data revolution**, why now?

The challenge

- **Old problems**
  - Data gaps
  - Communication

- **Emerging priorities**
  - National data for global development goals
  - New indicators for new areas

The opportunity

- **Positive lessons from MDGs**
  - More surveys, data and statistics available
  - Statistical capacity efforts – NSDS as strategic approach

- **Countries are well positioned**
  - Existing structures
  - Growing capacity to generate; analyze; store data
  - Innovations and momentum for change

Inventory of Innovations
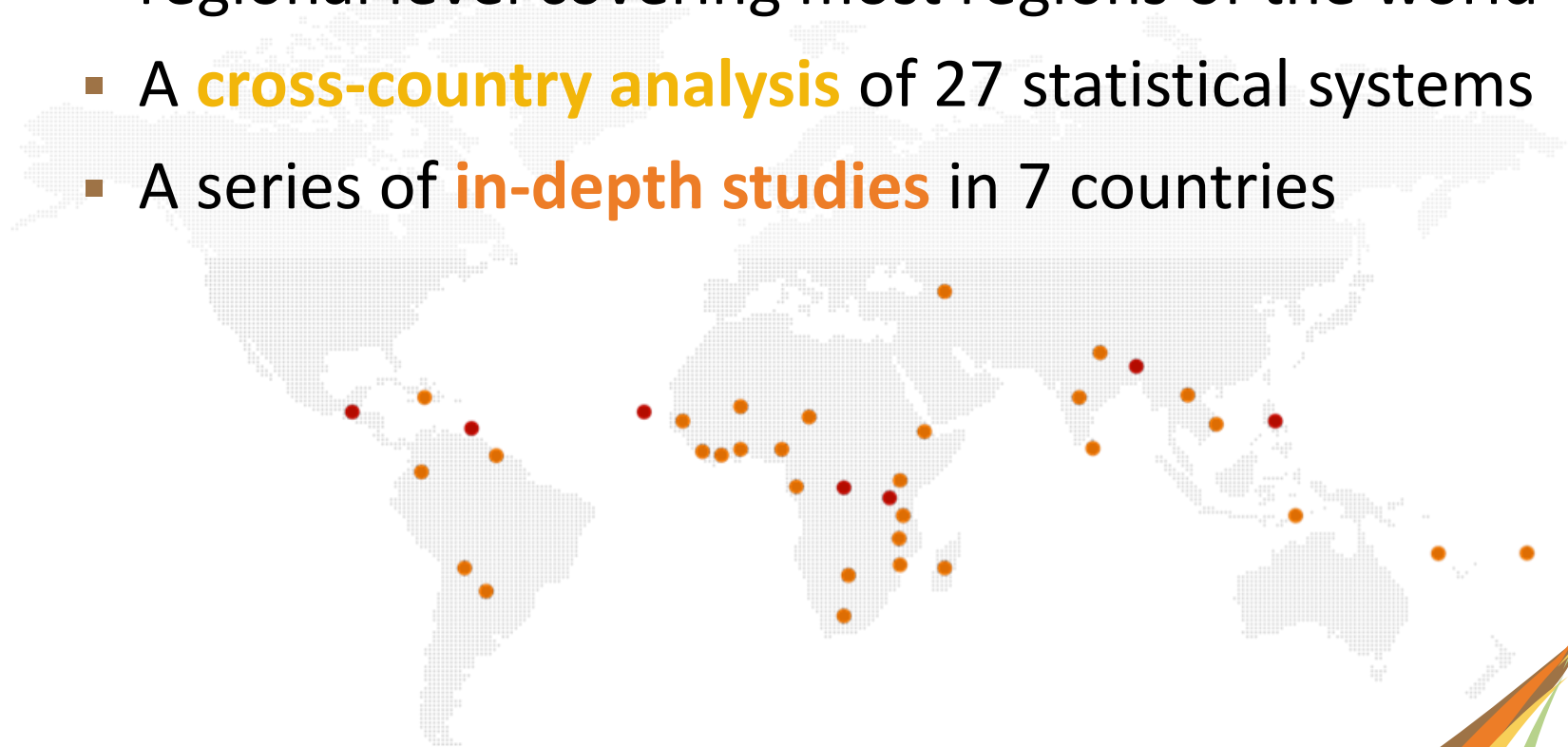
The IDR project is…

- **taking stock** of data supply, demand, and gaps in a number of developing countries

- **exploring innovations**: Innovations Inventory and the Metabase

- carrying out a **research program**

- producing a **Road Map** for a Data Revolution
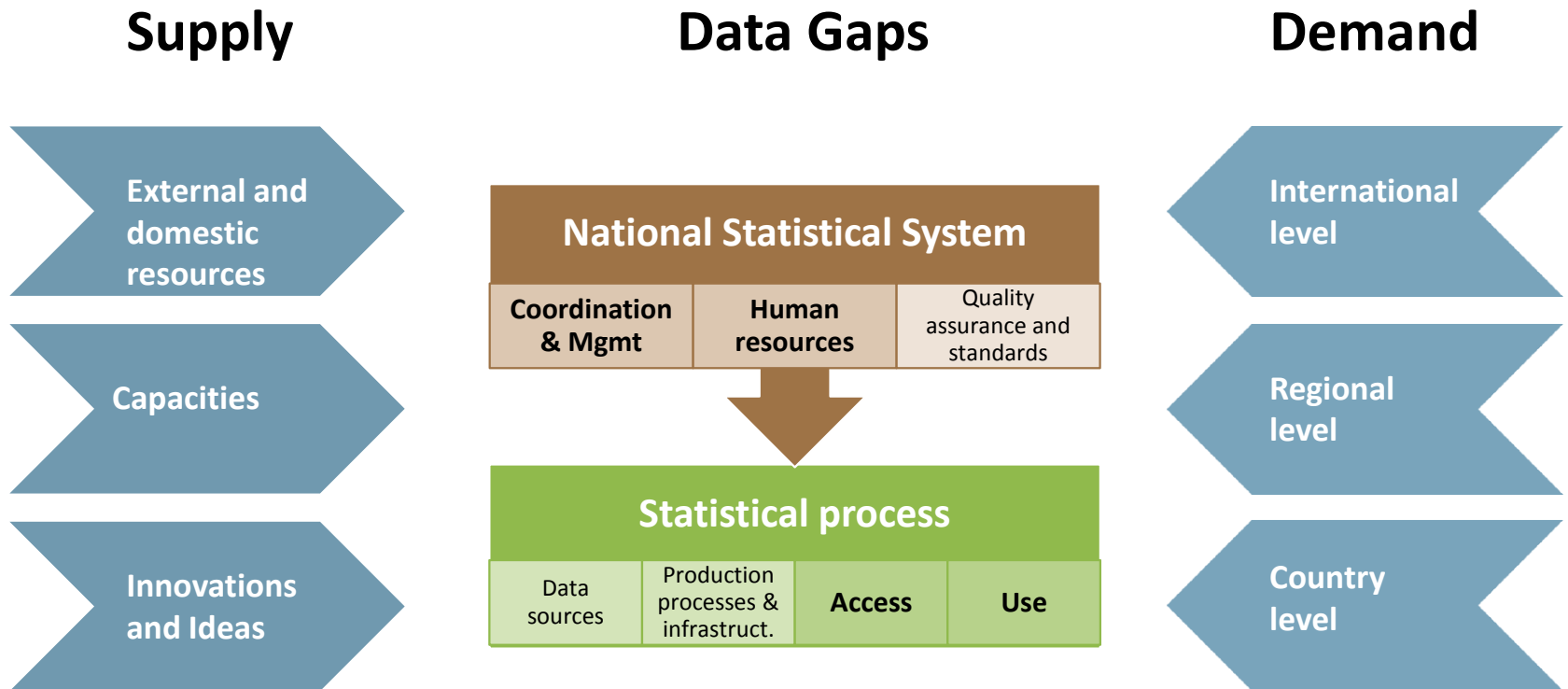
- funded by the Gates Foundation.

BILL&MELINDA GATES *foundation*

Data needs identified in the IDR project

Needs assessment based on:

- A series of **working papers**
- A series of **consultative workshops** at country and regional level covering most regions of the world
- A **cross-country analysis** of 27 statistical systems
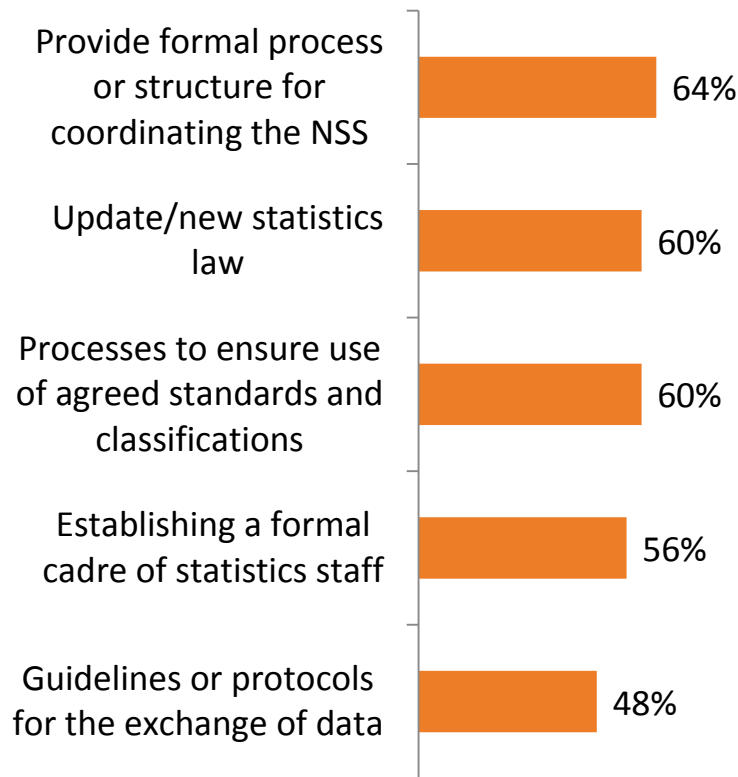- A series of **in-depth studies** in 7 countries

Needs Assessment: Conceptual framework

Supply

- External and domestic resources
- Capacities
- Innovations and Ideas

Data Gaps

National Statistical System

Coordination & Mgmt	Human resources	Quality assurance and standards

Statistical process

Data sources	Production processes & infrastruct.	Access	Use

Demand

- International level
- Regional level
- Country level

1. NSS Coordination & Management

Priorities for management and coordination

Priority	Percentage
Provide formal process or structure for coordinating the NSS	64%
Update/new statistics law	60%
Processes to ensure use of agreed standards and classifications	60%
Establishing a formal cadre of statistics staff	56%
Guidelines or protocols for the exchange of data	48%

- NSDS used in nearly all countries
- Co-ordination within NSS remains weak

2. Developing people & skills

Priorities for skills development

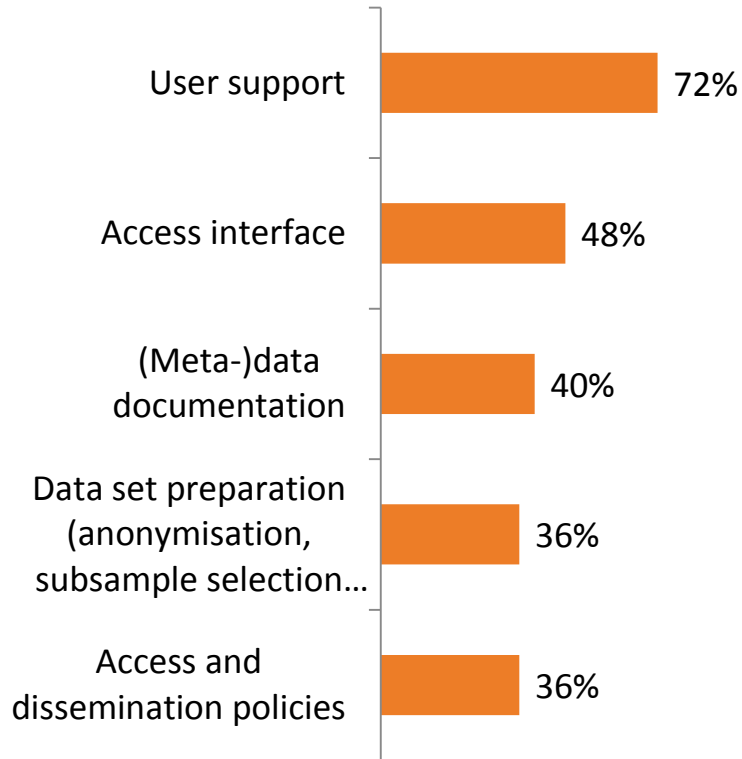| Priority	%
Design of methodologies, processes, workflows	68%
Analysis	56%
Strategic planning	36%
Processing	24%
Dissemination	24%
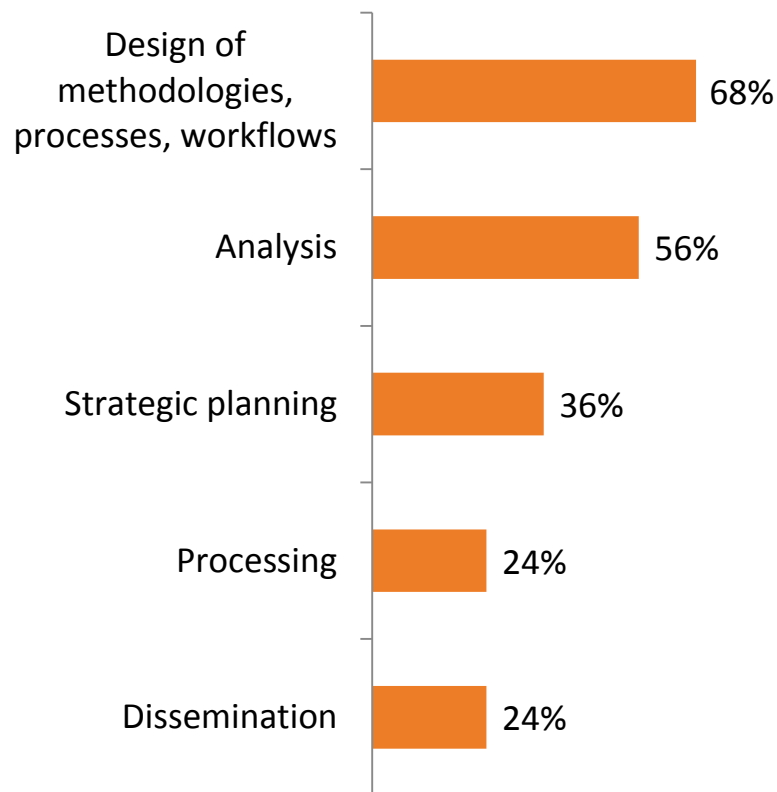
- Half the countries surveyed don't have an annual training plan in place for more than half of their professional staff

3. Data access and use

Country priorities for Improving data use

Category	Percentage
User support	72%
Access interface	48%
(Meta-)data documentation	40%
Data set preparation (anonymisation, subsample selection…	36%
Access and dissemination policies	36%

- User support is a key priority in 72% of countries
- Only 10 of the 25 countries hold periodical user-producer dialogues or conduct regular user satisfaction surveys

14

Summary

1. Fixing basic nuts and bolts of statistical production - **revolution as evolution**
2. System-wide coordination and management
3. Investing in human resource development
4. Data dissemination & use are a priority area

Recommendations in the IDR
Road Map

The IDR Road Map
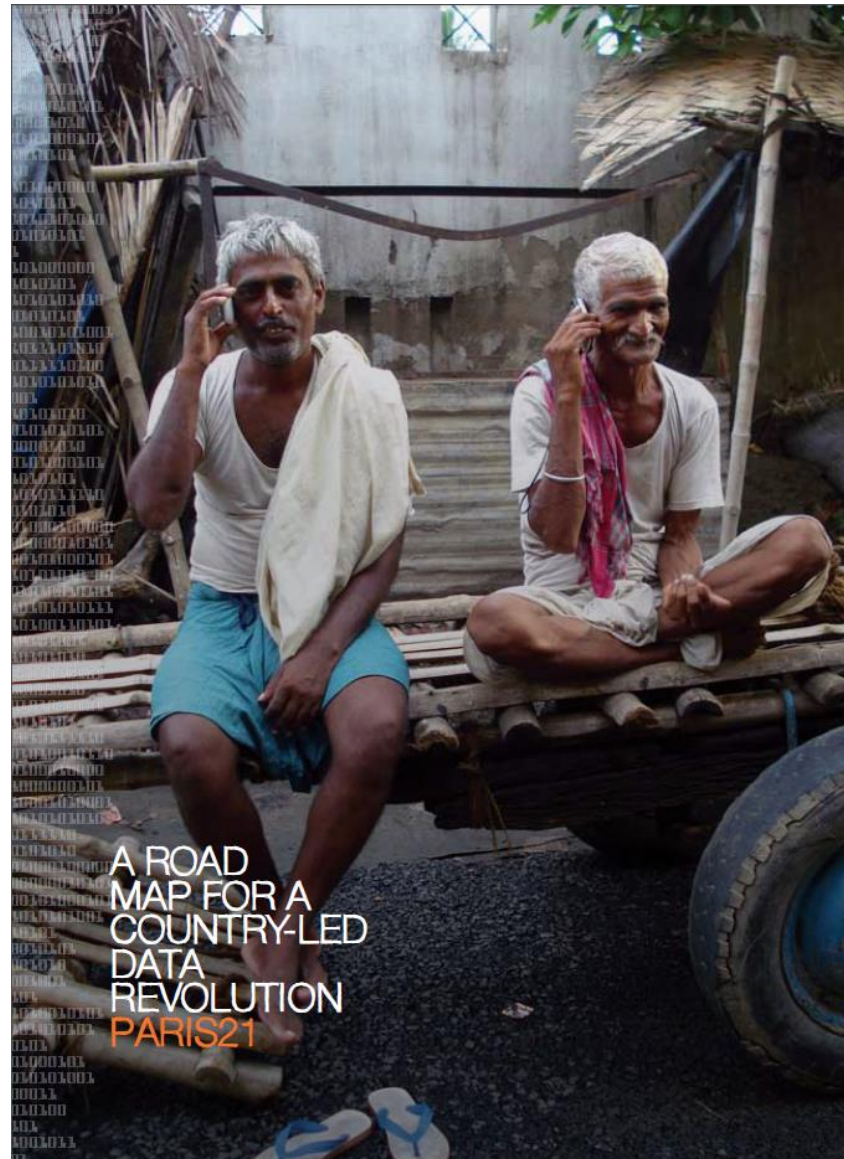
A ROAD
MAP FOR A
COUNTRY-LED
DATA
REVOLUTION
PARIS21

The IDR Road Map – 3 Big Ideas

1. **Increased funding:** This report calls for Official Development Assistance (ODA) for statistics to rise from around 0.5% of ODA at present to around 1%.

2. **Data compact:** This report recommends creating a system where countries sign up to a limited set of basic principles and receive, in return for progress, enhanced and flexible financial and technical assistance.

3. **Progress report:** This report calls for the establishment of an annual Data for Sustainable Development Report, prepared by PARIS21, to measure countries progress in developing their statistical capacity and to report on funding for statistics.

Case study – Big data for development

Source:

Bruckschen, Schmid, Zbiranski (2015). Cookbook for a socio-demographic basket, D4D: Orange Data for Development Challenge.

Big Data for Development

Population Statistics:
Census or civil registration

Sample Surveys or Administrative Data

Non-traditional (Big Data)
- Transaction Data → Traditional Enterprise Data
- Social Media Data
- Search Queries } Social Data
- Satellite Imagery
- Mobile Phone Data } Machine-generated / Sensor Data
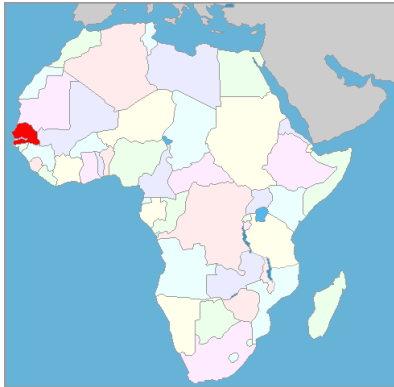
Can "big data" substitute for surveys?

- **Hypothesis:** mobile phone user behaviour reveals socio-economic characteristics

- **Approach:**
  - re-build survey data with model using "call logs"
  - estimate literacy level on monthly basis
  - consistency check with survey results

- **Call logs:** location (antenna +/- 2km), time, emitter and receiver (identifiers)

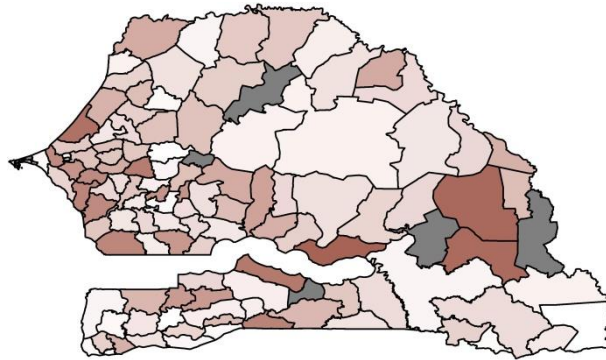- **Advantage:** cheap, granular, timely

County level fit
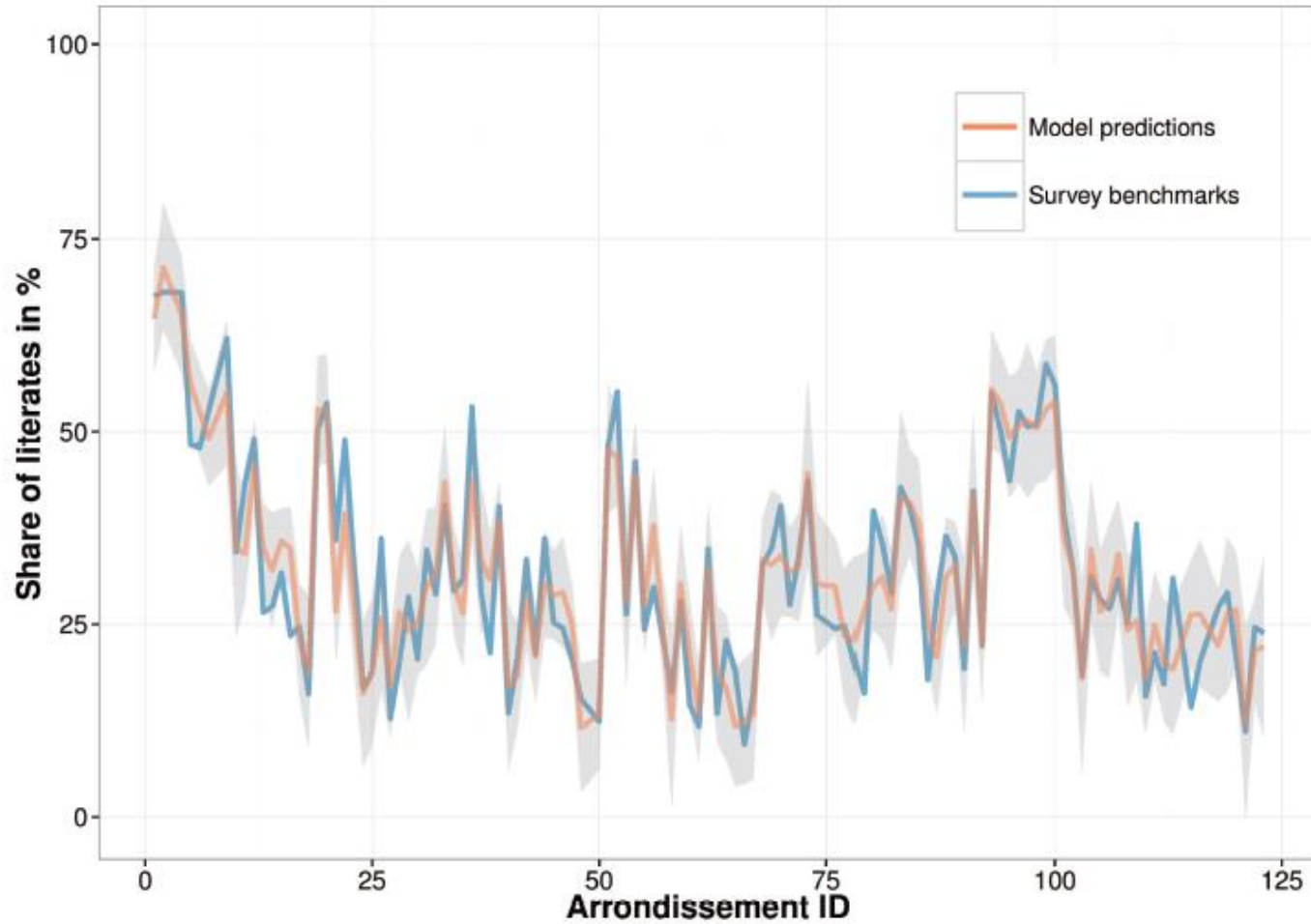
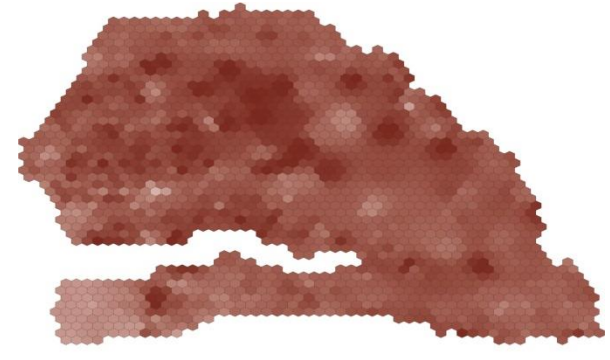# Literacy levels in Senegal

How the international community sees it

How a national policymaker sees it

How national policymakers could see it

Source: africanpresidentialcenter.com

In conclusion

- **Benefits of big data**

  - Applications in various fields

  - New business opportunities and possibilities to foster innovation

  - Leap-frogging potential (e.g. Stats in DC's)

- **Methodological challenges and risks**

  - Spurious relationships and sampling bias

  - Bigger questions: privacy, regulatory framework, trust, skill development

PARIS21 Secretariat
OECD/DCD
4 Quai du Point du Jour
92100 Boulogne-Billancourt,
France
contact@paris21.org
www.paris21.org

twitter.com/ContactPARIS21

facebook.com/ContactPARIS21

youtube.com/PARIS21OECD