



UN-GGIM:Americas

REGIONAL COMMITTEE OF UNITED NATIONS
ON GLOBAL GEOSPATIAL INFORMATION
MANAGEMENT FOR THE AMERICAS

9° SESSION

UN-GGIM: Americas

United Nations Regional Hub for Big Data

Andrea Diniz da Silva

Sesión 6: Eventos temáticos “Mirando hacia el futuro”



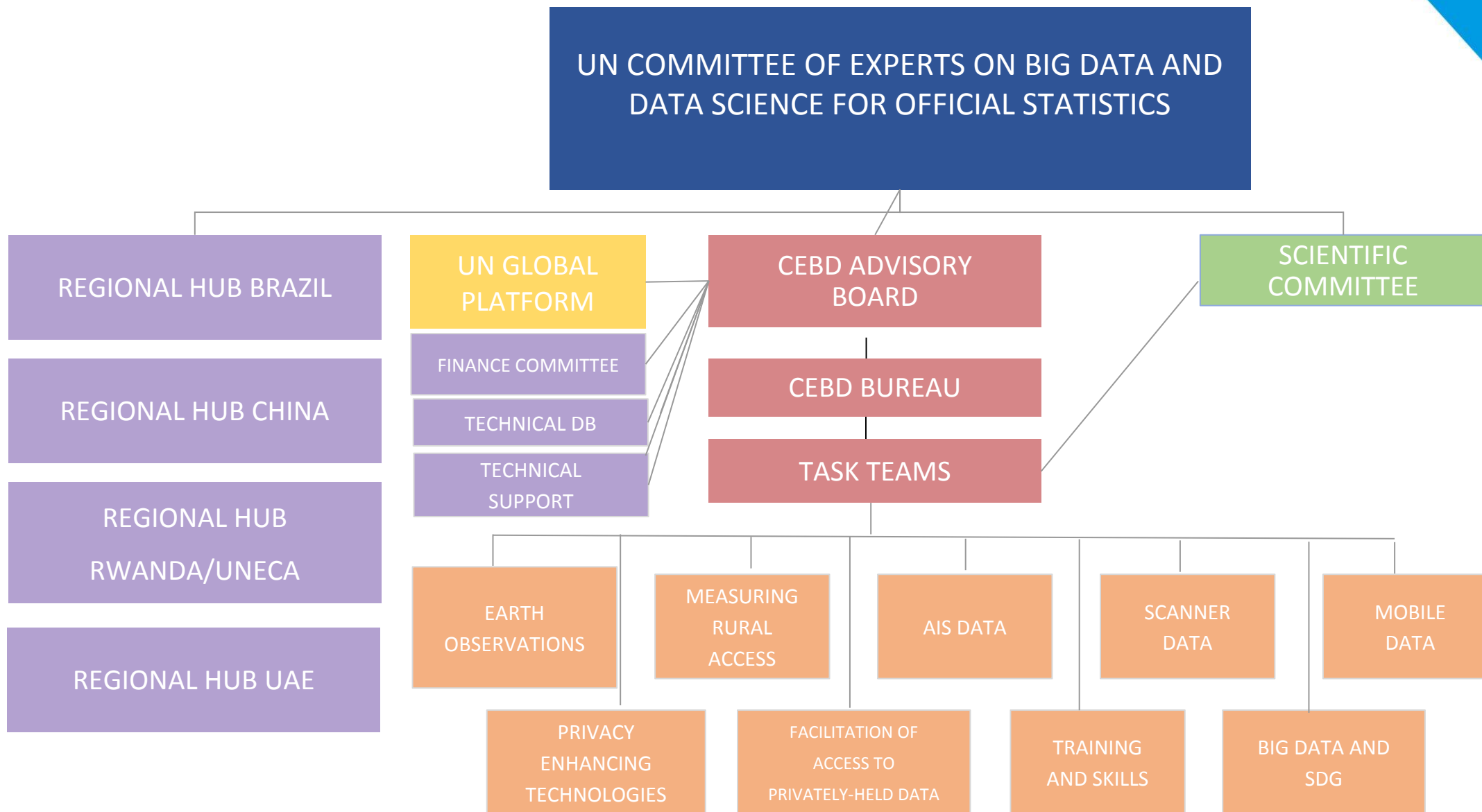
UN Big Data Regional Hub
in Brazil

November 28, 29 and 30
Santiago de Chile, ECLAC

Outline

- UN Committee of Experts on Big Data and Data Science for Official Statistics (UNCEBD)
- UNBigDataRegional Hub
in Brazil
- Big Data Sources and Topics
- Big Data and SDG
- Big **Geospatial** Data and SDG
- UNCEBD and Big **Geospatial** Data

UNCEBD: Organization of Committee



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- UN Global Platform
- Task Teams
- **Reginal Hubs for Big Data**



United Nations Global Platform

- *Founded on 4 pillars*

- 1. Trusted Partners***
- 2. Trusted Data***
- 3. Trusted Methods and***
- 4. Trusted Learning through platform services.***

- *Trust is achieved through collaboration, peer review and approval of all work undertaken on the platform.*

Task Teams

1. *AIS Data Task Team*
2. *Big Data and the SDGS*
3. *Earth Observation Data*
4. *Measuring Rural Access*
5. *Mobile Phone Data*
6. *Privacy-Preserving Techniques*
7. *Scanner Data*
8. *Training, Competencies and Capacity Development*
9. *Data Access*



Regional Hubs





MoU between IBGE and
UN-DESA/UNSD (April 2021)

Hosted by the National School
of Statistical Sciences of IBGE

The Regional Hub in Brazil aims to contribute to the advancement in the use of Big Data and Data Science to improve the production of official statistics

Workstreams

Strengthening ties and promoting cooperation between producers of official statistics in the Region

Supporting sharing of experiences and knowledge, promoting increased contact and integration between regional producers and users, and increasing use of the knowledge generated.

Training and fostering the interest of young statisticians on the use of Big Data in Official Statistics

Offering online courses and webinars, with theoretical content and hands on activities, on methods, techniques, and tools for the use of Big Data in Official Statistics.

Supporting research on the use of Big Data and Data Science

Broadening the thematic scope of research on the use of Big Data in Official Statistics to gain experience in handling and processing this type of data; improving the accuracy and robustness of the results; developing protocols for incorporation of new data sources into the portfolio of Statistics Institutes in the Region.

Organizing and hosting seminars and conferences

Facilitate the exchange of information and contribute to the discussion on the use of new data sources and technologies, increasing involvement of Latin American and the Caribbean NSIs in developing new data sources, methods, and algorithms for the global statistical system.

WORK PROGRAMME SEPTEMBER 2022 – AUGUST 2023

WORKSTREAM 1

Strengthening ties and promoting cooperation between producers of official statistics in the Region

- 1.1 Improving geographical information on rural access in Latin America and the Caribbean
- 1.2 Enlarge partnership in Latin America and the Caribbean
- 1.3 Updating data on the use of Big Data and Data Science - 2nd Consultation

WORKSTREAM 2

Training and fostering the interest of young statisticians on the use of Big Data and Data Science

- 2.1 III Workshop on Use of Big Data for Official Statistics: satellite imagery
- 2.2 IV Workshop on Use of Big Data for Official Statistics: satellite imagery

WORKSTREAM 3

Supporting research on the use of Big Data and Data Science

- 3.1 Privacy-enhancing technologies (PET) for Big Data in NSOs in Latin America and the Caribbean
- 3.2 Demand of solid waste service using satellite imagery
- 3.3 E-commerce using web scraping

WORKSTREAM 4

Organizing and hosting seminars and conferences

- 4.1 Webinar Series: Using Mobile Phone Data
- 4.2 Special Topic Webinars: developments from the UNCEBD Task Teams
- 4.3 7th International Conference on Big Data and Data Science for Official Statistics
- 4.4 UN Big Data Satellite Hackathon

Partners



Instituto
NACIONAL de
ESTADÍSTICA

DANE
INFORMACIÓN PARA TODOS



Office for
National Statistics



Computational
Agricultural
Statistics
Laboratory

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UNITED NATIONS



Departamento de
ESTADÍSTICA



Banco Interamericano
de Desarrollo



Big Data Sources and Topics

| Data Source | National | International | Project topic | National | International |
|---------------------|----------|---------------|-------------------------|----------|---------------|
| Web scraping | 22 | 4 | Prices | 22 | 4 |
| Scanner | 20 | 1 | Population/migration | 10 | 4 |
| Mobile phone/CDR | 14 | 18 | Transport/mobility | 9 | 11 |
| Social media | 8 | 23 | Geographical/spatial | 8 | 7 |
| Satellite imagery | 6 | 7 | Labour market | 7 | 2 |
| Smart meter | 5 | 1 | Agriculture/Land use | 6 | 4 |
| Credit card | 3 | 1 | Tourism | 5 | 1 |
| Road sensor | 5 | — | Health/disease | 4 | 7 |
| Health records | 5 | 2 | Energy/Environment | 4 | 6 |
| Ship identification | 2 | — | Crime/Corruption | 2 | 4 |
| Criminal records | 1 | 2 | Poverty/inequality | 1 | 9 |
| | | | Disaster risk reduction | — | 8 |
| Other | 20 | 31 | Other | 31 | 24 |
| Total | 111 | 90 | Total | 109 | 91 |

Source: Authors own calculations derived from UN Big Data Project Inventory <https://unstats.un.org/bigdata/inventory/> [examined on 27 April, 2018]¹³.

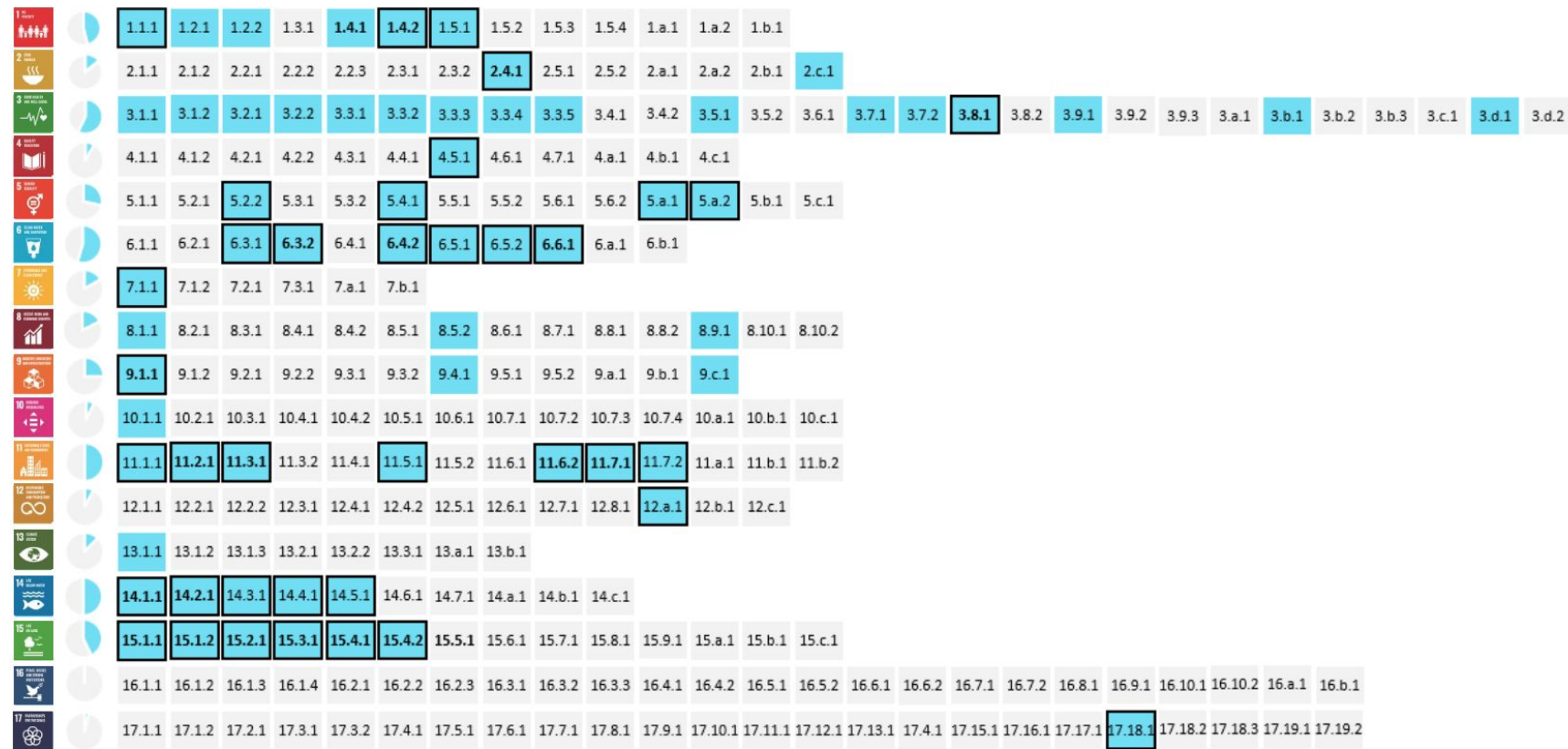
MacFeely, 2019 em <https://onlinelibrary.wiley.com/doi/epdf/10.1111/1758-5899.12595>

Big Data and SDG

SD/WP/12/January 2021

Big Data for the SDGs

Figure 1. SDG indicators that can be supported by big data and that have specific country examples

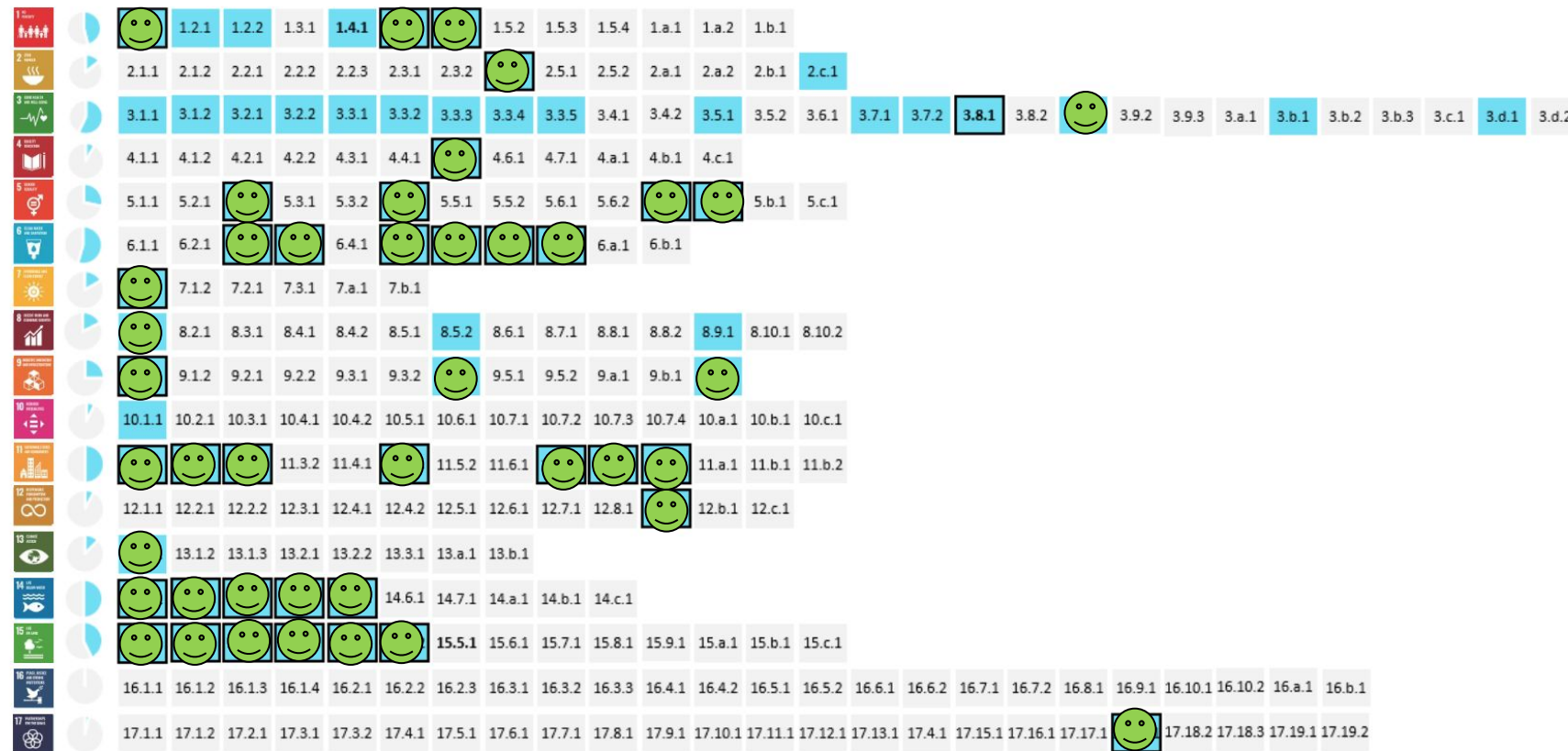


Big Geospacial Data and SDG

SD/WP/12/January 2021

Big Data for the SDGs

Figure 1. SDG indicators that can be supported by big data and that have specific country examples



Halderen et al.,
2021
https://www.unescap.org/sites/default/d8files/knowledge-products/SD-Working_Paper_n012_Jan2021_Big_data_for_SD_indicators.pdf

UNCEBD and Big Geospatial Data

- Challenge: bring Global Statistical Geospatial Framework
- Task Teams
 - Earth Observations
 - Mobile Phone Data
 - AIS data
 - Rural Access to services
- Regional Hubs for Big Data (Brazil, China, Rwanda and UAE) and the Sector Hub ARIES for SEEA



Gracias/Obrigada/Thanks!!!

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