EG-ISGI and the GSGF

Joshua Coutts – U.S. Census Bureau
Claudio Stenner - IBGE
Our World Today
The Global Challenges we Face Together
Data and Technology Today
Geo-enabling our World to Address Global Challenges

- Population
- Age
- Race
- Gender
- Housing
- Owner
- Renter
- Education
- Income
- Poverty
- Employment
- Health Status

- Addresses
- Transportation Networks
- Legal Boundaries
- Hydrography
- Imagery
- Land Cover/Use
- Land Parcels
- Geodetic Reference Frames

- Tools to inform decision making
- Tools to measure, monitor, and report progress
- Powerful visualizations
- Maps
- Charts
- Graphics
- Tables
- Dashboards
- Viewers
The 2030 Agenda for Sustainable Development

- Established 17 Sustainable Development Goals (SDGs)
- Brought attention and focus to the global challenges
- A universal call to action
- Some progress has been made since 2015... but not enough
Addressing Global Challenges
Helping to Advance Global Geospatial Information Management

Standards
Integration
Frameworks
Working Together to Bridge the Gap

THE GOAL
Integration of statistical and geospatial information to address regional challenges through:
Collaboration
Coordination
Synergy

STATISTICAL COMMUNITY

GEOSPATIAL COMMUNITY
The UN Expert Group on the Integration of Statistical and Geospatial Information
Led by Brazil and Ireland

The EG-ISGI was formed a decade ago and we look forward to celebrating this milestone with you over the coming year!
Organizational Structure

UN Economic and Social Council (ECOSOC)

UN Statistical Commission (UNSC)

UN Committee of Experts on Global Geospatial Information Management (UN-GGIM)

UN Expert Group – Integration of Statistical Geospatial Information
UN EG-ISGI: Objectives

• To provide coordination among statistical and geospatial communities to develop a **global statistical-geospatial framework** as a standard for the integration of statistical and geospatial information

• To propose work plans and guidelines to advance the implementation of a **global statistical-geospatial framework**

• To address various issues related to implementation of a **global statistical-geospatial framework**, especially issues related to confidentiality

• To pursue the implementation of the **global statistical-geospatial framework** in the 2020 Round of Censuses and other censuses
Our History
Our Path to Today

Co-Chairs of the EG-ISGI

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<th>Year</th>
<th>Co-Chairs</th>
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| 2013 – 2017 | Ms Gemma van Halderen, Australia  
Mr Rolando Ocampo, Mexico |
| 2017 – 2019 | Mr Martin Brady, Australia  
Ms Paloma Merodio, Mexico |
| 2019 – 2021 | Ms Kathrin Gebers, Germany  
Mr Alex Mudabeti, Namibia |
| 2021 – 2022 | Mr Alex Mudabeti, Namibia |
| 2022 - Present | Lorraine McNerney, Ireland  
Claudio Stenner, Brazil |
The Global Statistical Geospatial Framework (GSGF)

Goals and Objectives

• Identify best practices and current standards
• Promoting investment and capability building in geospatial and statistical information
• Enable harmonised comparisons within and between countries
• Strengthening institutional collaboration between geospatial and statistical communities
The Global Statistical Geospatial Framework (GSGF)

1. Use of fundamental geospatial infrastructure and geocoding
2. Geocoded unit record data in a data management environment
3. Common geographies for the dissemination of statistics
4. Statistical and geospatial interoperability
5. Accessible and usable

The Global Statistical Geospatial Framework: Implementation Guide
The **GLOBAL STATISTICAL GEOSPATIAL FRAMEWORK - GSGF**

1. Use of fundamental geospatial infrastructure and geocoding
2. Geocoded unit record data in a data management environment
3. Common geographies for the dissemination of statistics
4. Statistical and geospatial interoperability
5. Accessible and usable
The GSGF within the European Operating Environment

The five GSGF principles link to, and are implemented in, many levels within the European statistical and geospatial operating environment. In this study, we have examined the structure and operation of the statistical geospatial community, the interpretation of the GSGF’s key elements and four different aspects that were identified as essential for further study in the European context. These four aspects are quality, data collection, confidentiality and innovation. Furthermore, several integration, standardisation and data-sharing frameworks are applied for the purposes of statistical and geospatial domains in Europe. The most relevant frameworks and their links to the GSGF are studied in Chapter 4. All these aspects together are used to describe and analyse the European operating environment in this document (Figure 5).
ADVANTAGES OF INTEGRATED DATA

Facilitates the integration of statistical and geospatial information from different sources

- Positioning (Geodetic)
- Address (Buildings)
- Cadastre (Tenure)
- Names (Gazetteer)
- Water (Hydrology)
- Administrative Boundaries
- Transport
- Bathymetry (Hydrography)
- Land cover (Vegetation)
- Elevation
- Imagery (Satellite & Photo)

Different information, statistics and geospatial, can be analyzed together, improving the understanding of the studied phenomena.
The UN Expert Group on the Integration of Statistical and Geospatial Information
Led by Brazil and Ireland

Composed of Member State nominated Experts from both National Statistical and Geospatial Information Agencies, the Expert Group:

- Provides **high-level coordination** and a forum for dialogue, among representatives of both the statistical and geospatial communities, on global efforts relating to the **integration of statistical and geospatial information**;

- Plays a leadership role by raising awareness and highlighting the importance of **reliable, timely, fit-for-purpose, and integrated statistical and geospatial information** to **support social, economic, environmental, and resilience policy decision making**, including at the sub-national and regional levels;
The UN Expert Group on the Integration of Statistical and Geospatial Information
Led by Brazil and Ireland

• Prioritizes and propose work plans and guidelines that **advance national and global efforts** relating to the **integration** of statistical and geospatial information, particularly those associated with the **Global Statistical Geospatial Framework (GSGF)**, so that there is increased information to support social, economic, environmental, and resilience policy decision making, including at the sub-national and regional levels;

• Promotes and support activities that facilitate the implementation of the GSGF, particularly in the **International Rounds of Population Censuses and in other censuses**, including agriculture censuses, economic censuses, etc., and in global initiatives, such as the **2030 Agenda**; and,

• Supports the **United Nations Statistical Commission and UN-GGIM** in the development of **norms, principles, guides and standards** to increase significantly the availability of high-quality, timely and reliable integrated statistical and geospatial information, including any regional capacity development initiatives.
COORDINATION ACTIVITIES - 2023

• United Nations Statistical Commission - 54th Session – 2023
  Side Event - Event Geo-statistical Integration - The Global Statistical Geospatial Framework (GSGF) and Beyond
  Side Event – The integration of statistics and geospatial information in the Community of Portuguese Language
  Countries (CPLP) – promoted by Brazil.

• 13th Session of the United Nations Committee of Experts on Global Geospatial Information Management (UN-GGIM) – 2023
  Side Event - Geospatial Information and Statistics and its integration for the Sustainable Development Goals

• Global Webinar on Strengthening Climate Change and Disaster-Related Statistics: Needs, Priorities, and Action
  4th and 10th, May, 2023 – UN Environmental Programme and ESCAP

• High-level seminar on integration of geospatial and statistical information
  28 to 30 November 2023, Bangkok, Thailand - ESCAP, UN-GGIM, UNSD and Statistics Norway
EG-ISGI COORDINATION ACTIVITIES - 2023

- Regional Webinar – UN-GGIM-Américas and ECLAC
  The Five Principles of Global Statistical and Geospatial Framework – GSGF: Principle 1
  29th September 2023
- Global Training Webinar - Integration of Geospatial Information and Statistics for the SDGs and Big Data
  4th October 2023 – Global audience of 369 attendees
- UNECE, Eurostat, UN-GGIM Europe
  Workshop on Integrating Statistical and Geospatial Data
  4-5 October 2023, Belgrade, Serbia
- UN-GGIM Asia and the Pacific Region – Plenary Session
  Regional EG-ISGI meeting
  6-10 November 2023
The revision of the Principles and Recommendations for Population and Housing Censuses
Task Team 3: Use of geospatial information in census operations

- review and redraft relevant sections of chapters IV and X of part III to incorporate recent developments in conducting a geospatially integrated census
- introduce the GSGF and the IGIF and other relevant international initiatives with a view to providing recommendations on how to adopt recent international guidelines into census operations
- address the importance of the national spatial data infrastructure (NSDI) in providing a common base map (ground-verified, field-corrected and continuously updated) to avoid the cost of duplicative efforts
- address the use of geospatial information from the perspective of enterprise geospatial data management, and not from the perspective of use of desktop GIS, satellite imageries and GNSS, which are no longer challenges for most NSOs
- address the concerns of disclosure of confidential information in the context of dissemination of census data integrated with geospatial information
COORDINATION ACTIVITIES - 2023
The revision of the Principles and Recommendations for Population and Housing Censuses
Task Team 3: Use of geospatial information in census operations

- address the **relevance and use of geospatial information** in the **planning and implementation** of each stage of the **census operation** (e.g., planning, organization and management of census operations, for logistics management, optimizing workloads and routes of enumerators, monitoring enumeration, analysis, dissemination, etc.)

- address the importance of the **integration of geospatial information and census data**, with a view to improving the usefulness of census data for policy- and decision-making as well as **global comparisons**, and promote the dissemination of **geocoded census** data, including **grid-based census outputs**

- address the **integration of geospatial information with administrative records and registers**, including address registers and/or **registers of buildings/dwellings**

- discuss what factors to take into consideration when **evaluating the quality of geospatial information used in the census**, including some of the **dimensions of quality** (such as relevance, accuracy, timeliness, etc.) that can be used to assess the quality of geospatial information used in census operations

TT3 Members from Americas: Brazil, Colombia, USA, Academic Network of the Americas and ECLAC/CELADE.
United Nations Committee of Experts on Business and Trade Statistics Statistical Business Register Task Team

- There is already a draft about Statistical Business Registers and Geospatial Information;
- The Task team on Statistical Business Registers of the UNCEBTS and the EG-ISGI are working together on a report on the integration of geospatial information in the SBRs is intended to be presented to the UNSC in 2024.

SDG – Working Group of Geospatial Information – IAEG

- GSGF was already included in SDG Geospatial RoadMap (2021)