The Global Statistical Geospatial Framework

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How it all started?

Role & Responsibility of a NSO

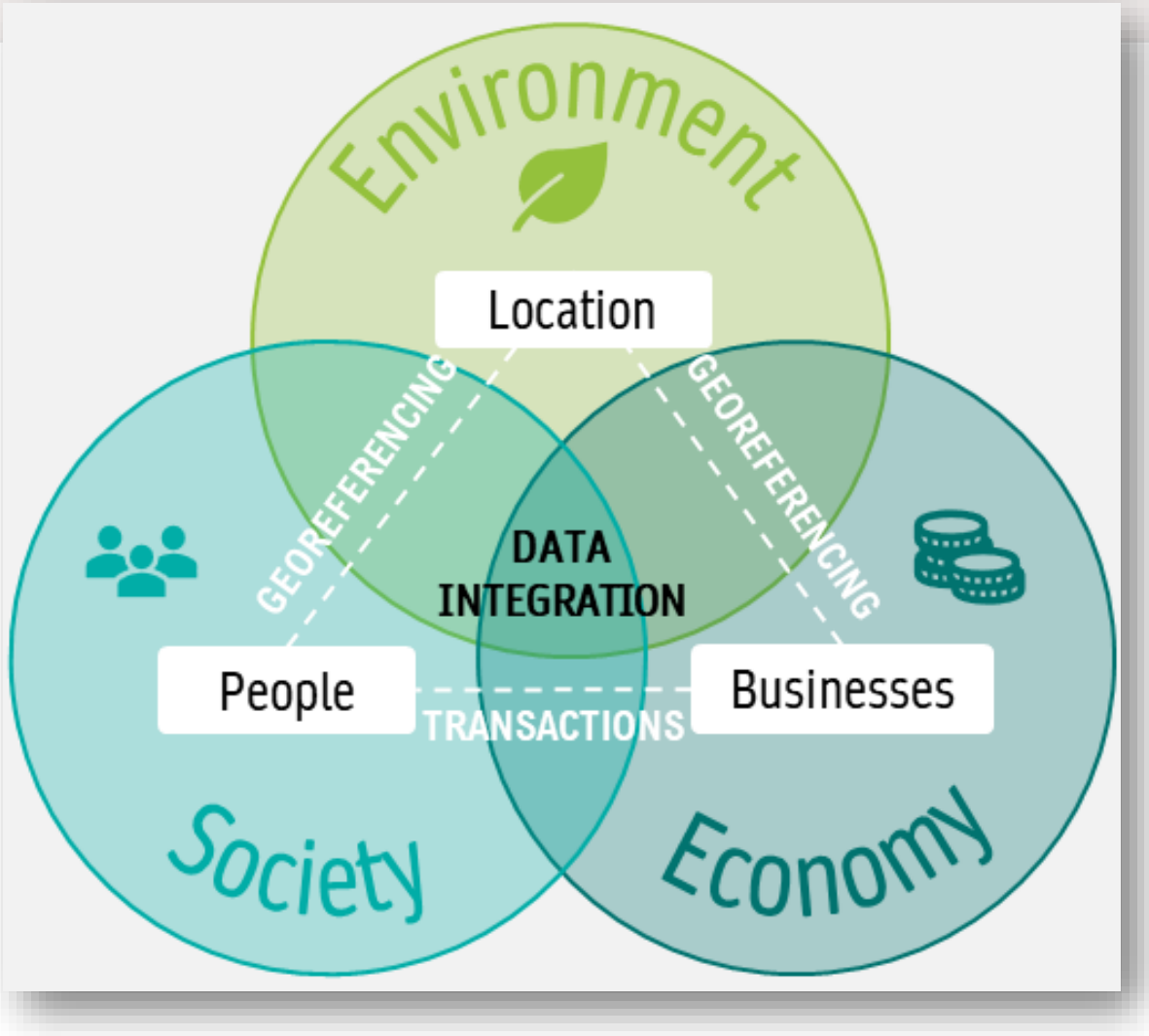
The purpose of National Statistical Offices (NSOs)

WHAT do they do?

Collect, analyse and disseminate data that is **objective, reliable and timely** about their nations' **society, economy and environment.**

WHY?

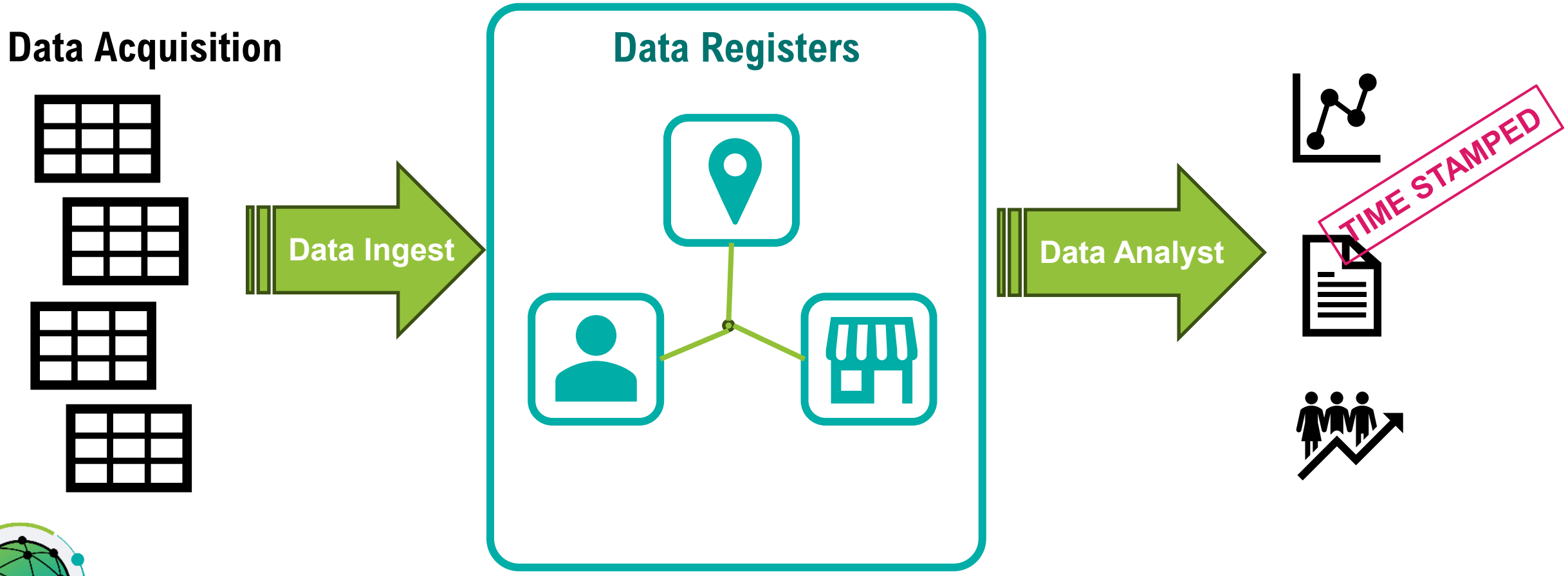
Provide essential information for evidence-based **policymaking**, **public accountability** and **research** while ensuring data confidentiality



The need for data linkage

The Generic Statistical Business Process Model

Specify Needs	Design	Build	Collect	Process	Analyse	Disseminate	Evaluate



The Journey

From Expert Group to a Global Statistical Geospatial Framework

2013

StatCom Decision 44/101 (2013)

- Support the need for linking of social economic and environmental data to time and location attributes and to establish a "**Statistical Geospatial Expert Group**"

UNGGIM Decision 3/107

- Support the creation of an **Expert Group on the integration of geospatial and statistical information**
- Recommended the development of a **geospatial-statistical framework**

The Journey

From Expert Group to a Global Statistical Geospatial Framework

UN·IGIF
INTEGRATED GEOSPATIAL INFORMATION FRAMEWORK

2017

StatCom Decision 48/108

- Endorsed the **five guiding principles** of the Global Statistical Geospatial Framework

2018

2019

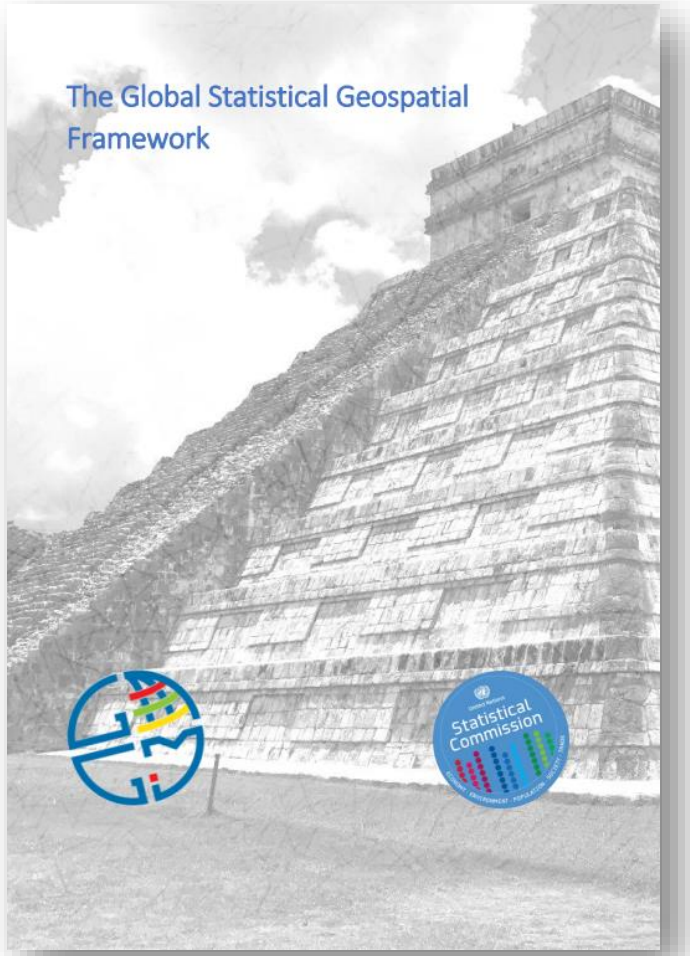
UNGGIM Decision 9/106

- Adopted the **Global Statistical Geospatial Framework** v1.0 (GSGF)

2020

StatCom Decision 51/123

- **Endorsed the GSGF** v1



The Journey

From Expert Group to a Global Statistical Geospatial Framework

2020

UNGGIM Decision 10/106

- Request the **development of key statistical standards** and processes that strengthen the integration of statistical and geospatial information
- **Develop the interlinkages between the GSGF and the UN IGIF.**

2022

StatCom Decision 53/127

- Endorsed the **GSGF Implementation Guide**

2023

StatCom Decision 54/118

- Noted revised ToR of the Expert Group **inclusive of expanding the UN IGIF** for the statistical domain

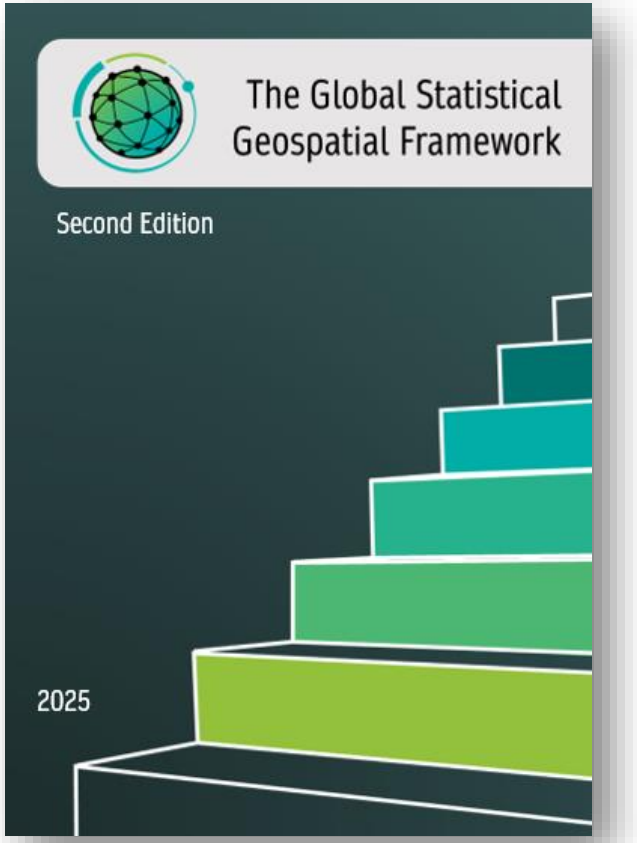
The Journey

From Expert Group to a Global Statistical Geospatial Framework

2025

UNGGIM Decision 10/106

- Endorsed **the second edition of the Global Statistical Geospatial Framework**, recognizing its alignment with the United Nations Integrated Geospatial Information Framework



What is the GSGF?

Photo by Praveen Sundarajan on Unsplash

The Global Statistical Geospatial Framework

2nd edition

2025

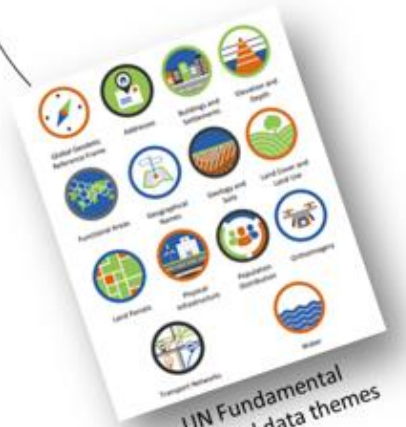
INPUT

Statistical

- Censuses
- Surveys
- Administrative records
- Big Data and other data sources

Geospatial

- Fundamental geo data themes
- Core national mapping
- Earth Observations
- Mobility Data
- Supplementary Data



UN Fundamental geospatial data themes

PRINCIPLES

The GSGF

5 Accessible and usable

4 Statistical and geospatial Interoperability

3 Common Geographies

2 Geocoded unit record data

1 Use of fundamental geospatial infrastructure and geocoding

The key elements

Governance and Institutional capacity | Policy and Legal | Human Resources and Capacity | Data and Interoperability | Technology and Infrastructure

UN·IGIF
INTEGRATED GEOSPATIAL INFORMATION FRAMEWORK

OUTPUT

- Data integration
- Data harmonisation
- Data comparability
- Analysis
- Dissemination
- Decision Making

GSBPM

The Five Principles

GSGF v2

The Key Elements (Geospatial)

GSGF v2

GSGF requirement Matrix

Key elements requirements by Principles

PRINCIPLES	Governance & Institutional Capacity	Policy and Legal	Human Resource and Capacity	Data and interoperability	Technology and infrastructure
1		Data sharing agreements, MoUs, etc.		Datasets which are authoritative and in line with the UNGGIM global fundamental geospatial datasets	The technical infrastructure at national level to host the NSDI and NSS.
2	Data Governance and Data Management Policies		Skilled staff are assigning coordinates and geospatial references (spatial techniques / code)	Address Register Geographic boundaries repository	Data stores and geospatial databases handling geospatial reference and metadata ; mobile data capture apps
3	Policies about maintenance and lifecycle of common geographies e.g. change management, geography naming and coding frameworks.			Data files supporting the understanding of spatial relationships (e.g. correspondence tables)	Geospatial tools to process geographies based on their topology / spatial relationships;
4	Strong governance and organisation interoperability: including sharing data strategies and documenting business processes.	Legislation and government policies supporting data sharing between stakeholders ; open data policies	Skilled staff in data architecture and data management processes (including metadata)	Awareness and Collaboration on data standards and interoperability standards.	
5	Strong disclosure control policies and business processes.	National data protection and privacy laws	Skilled staff such as Geospatial experts, Developers. Focus Groups to provide feedback on outputs.	Alignment of data architecture and data management processes for geospatial data	Strong technical infrastructure to disseminate data (e.g. web-based platforms; enabling the use of APIs)

The “Bridge”

Photo by Praveen Sundarajan on Unsplash

From foundation national data to statistical outputs:

The GSGF bridging geospatial and statistical communities together

UN-IGIF

FRAMEWORK FOR THE MANAGEMENT OF GEOSPATIAL INFORMATION.

MAIN AREAS OF INFLUENCE

- GOVERNANCE
- TECHNOLOGY
- PEOPLE

STRATEGIC PATHWAYS

GSGF

TOOLS FOR THE INTEGRATION OF STATISTICAL AND GEOSPATIAL DATA.

5 principles of the GSGF

5 ACCESSIBLE AND USABLE GEOSPATIAL ENABLED STATISTICS

4 STATISTICAL AND GEOSPATIAL INTEROPERABILITY

3 COMMON GEOGRAPHIES FOR DISSEMINATION OF STATISTICS

2 GEOCODED UNIT RECORD DATA IN A DATA MANAGEMENT ENVIRONMENT

1 USE OF FUNDAMENTAL GEOSPATIAL INFRASTRUCTURE AND GEOCOD

Outcomes

- DATA INTEGRATION
- DATA HARMON & STANDARDISATION
- DATA COMPARABILITY

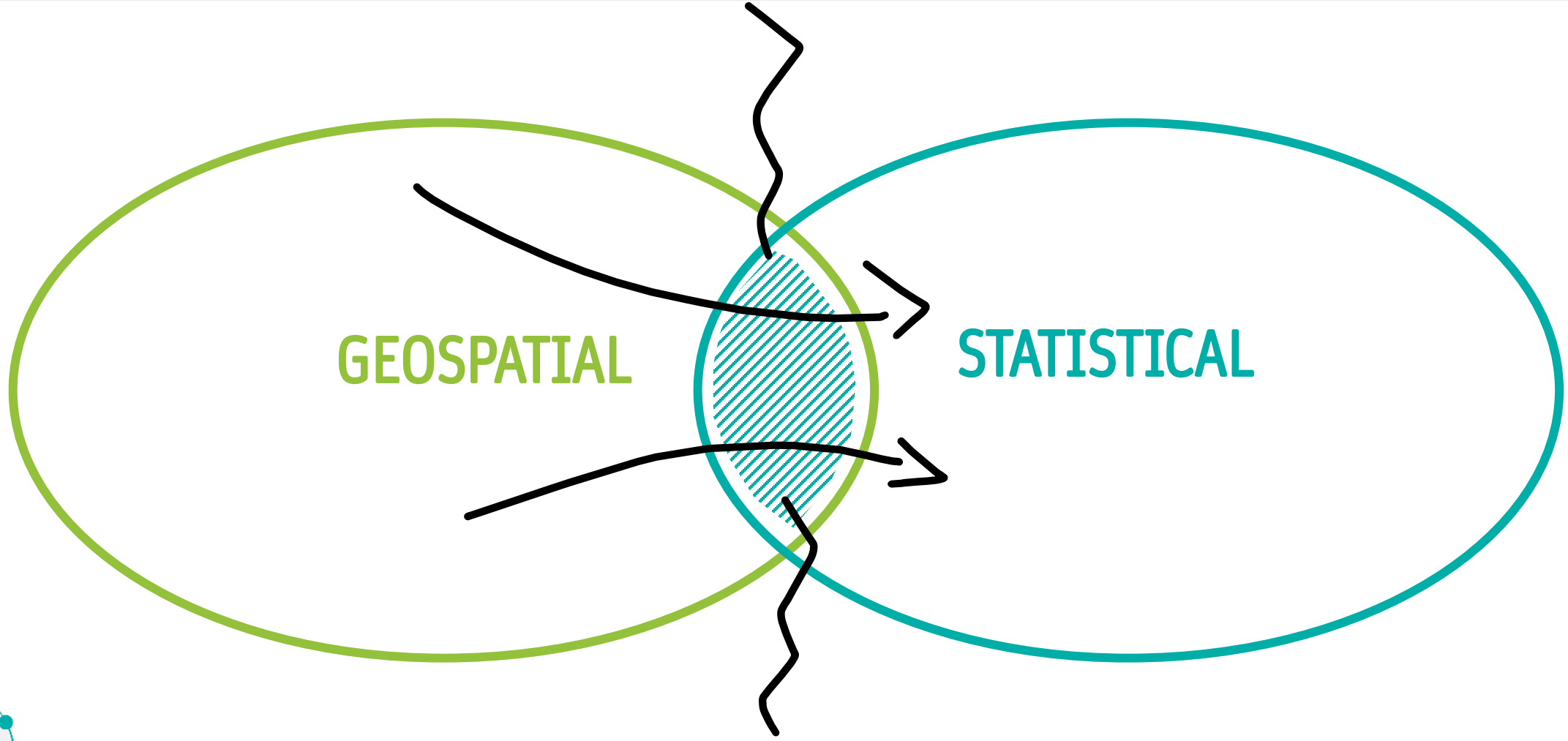
GSBPM

BUSINESS PROCESSES NEEDED TO PRODUCE OFFICIAL STATISTICS.

1. SPECIFY NEEDS
2. DESIGN
3. BUILD
4. COLLECT
5. PROCESS
6. ANALYSE
7. DISSEMINATE
8. EVALUATE

The Expert Group Members

Your allies... = Human Geographers



EG-ISGI

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