Panel Session A:

Integrating Location in Statistical Production

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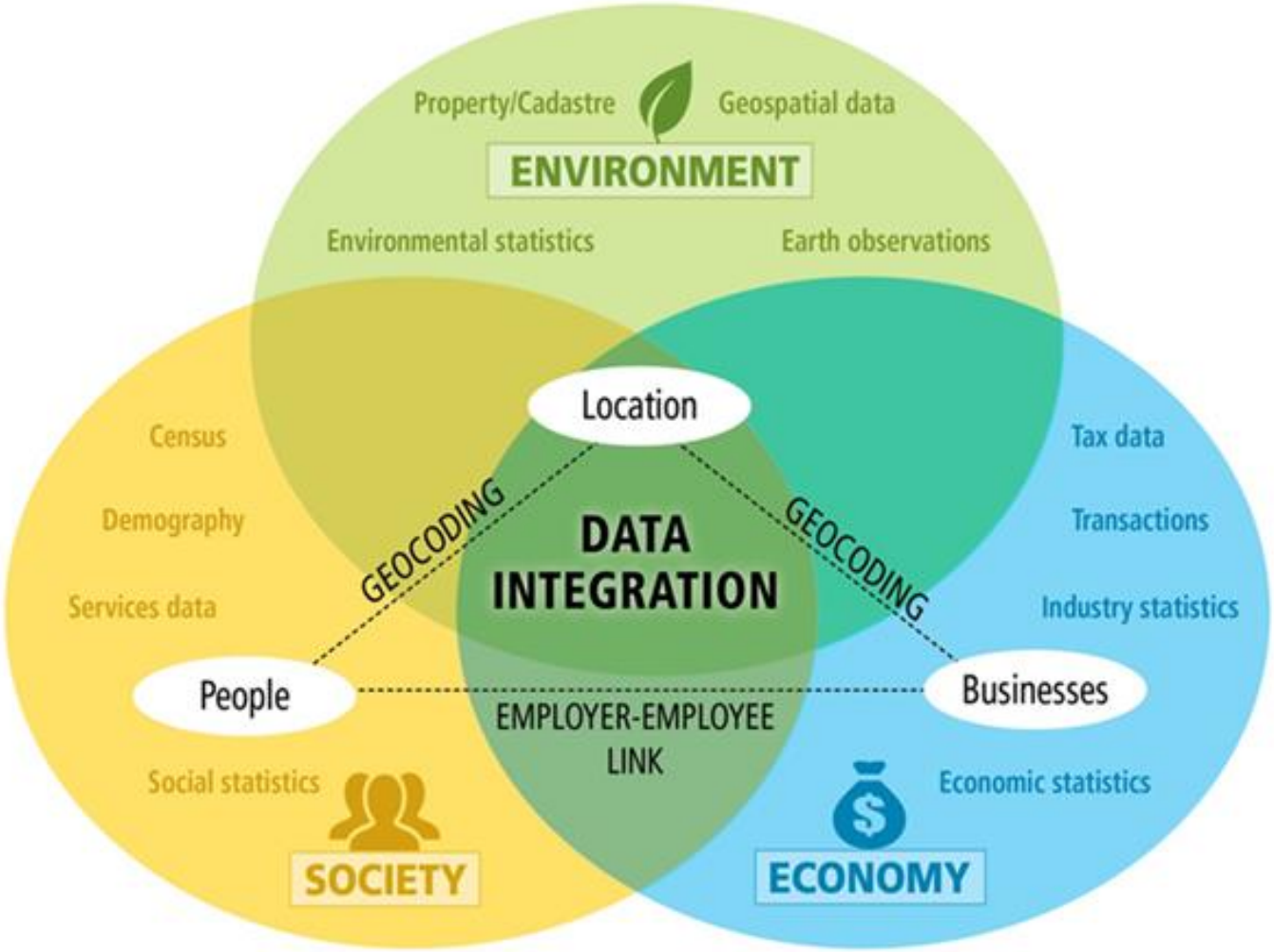
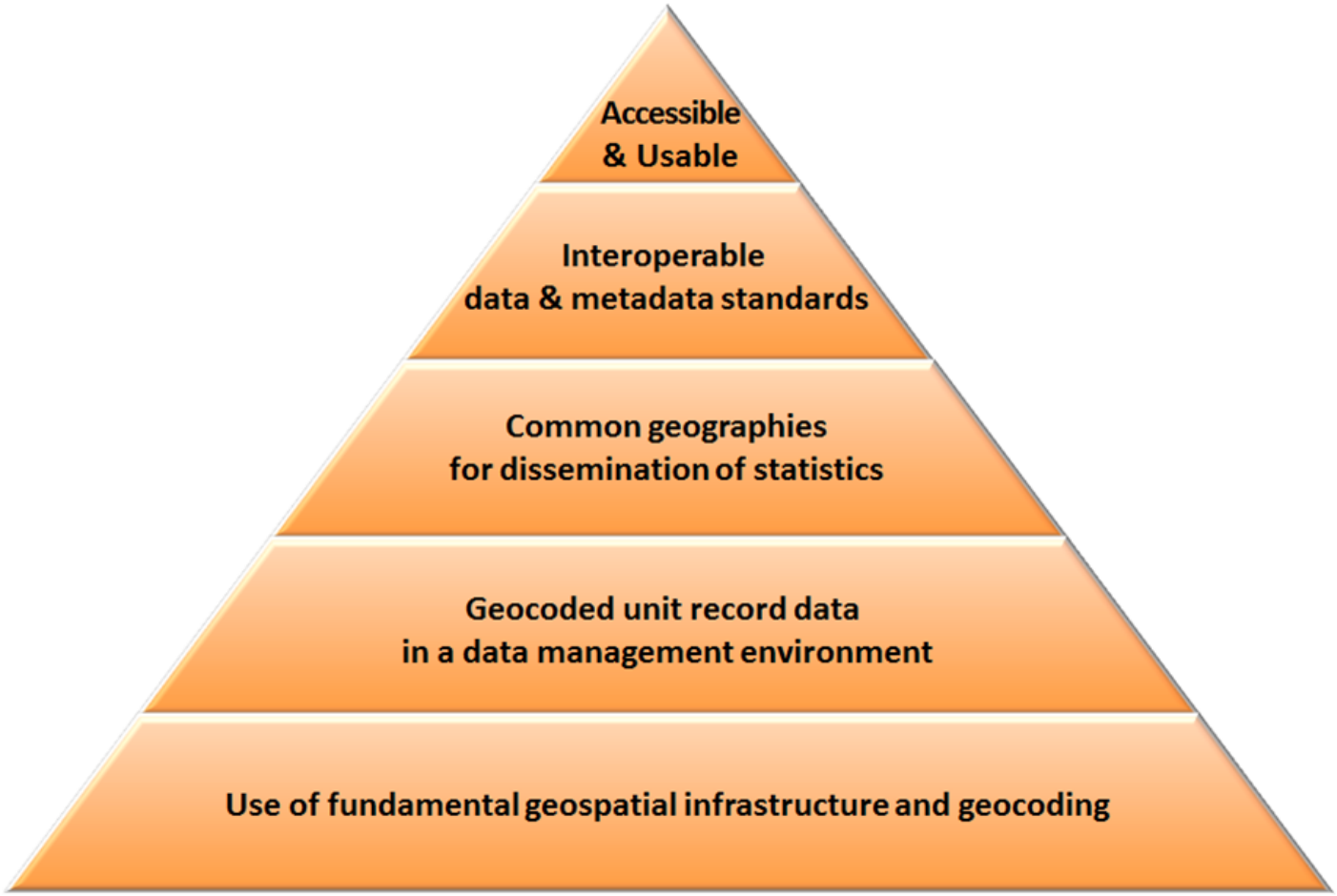
Agenda

- Introduction
- The Statistical Geospatial Framework
- GEOSTAT 2 – Testing GSBPM
- Need for more work on standards!

Introduction



Integrating statistical and geospatial information



Principle 4:

Interoperable data and metadata standards

Statistical

- GSIM
- GSBPM
- SDMX
- DDI

Geospatial

- General Feature Model (GFM)
- ISO 19115 Metadata standard
- Application specific standards

Contents of GEOSTAT 2

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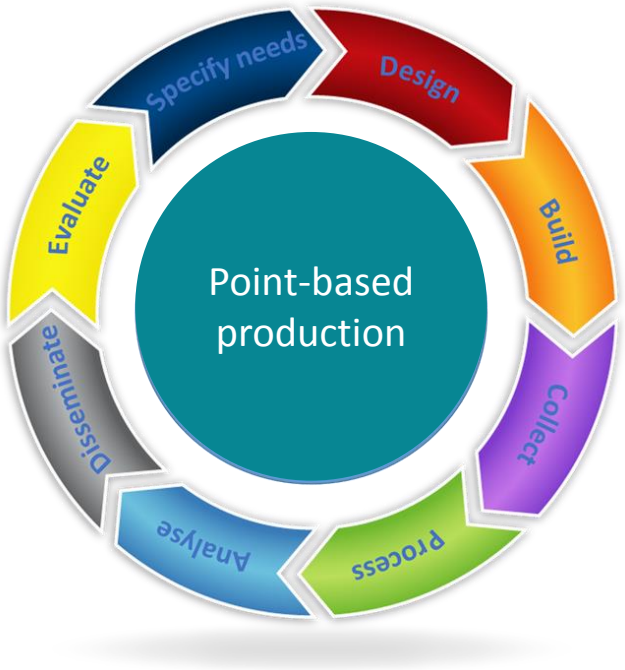


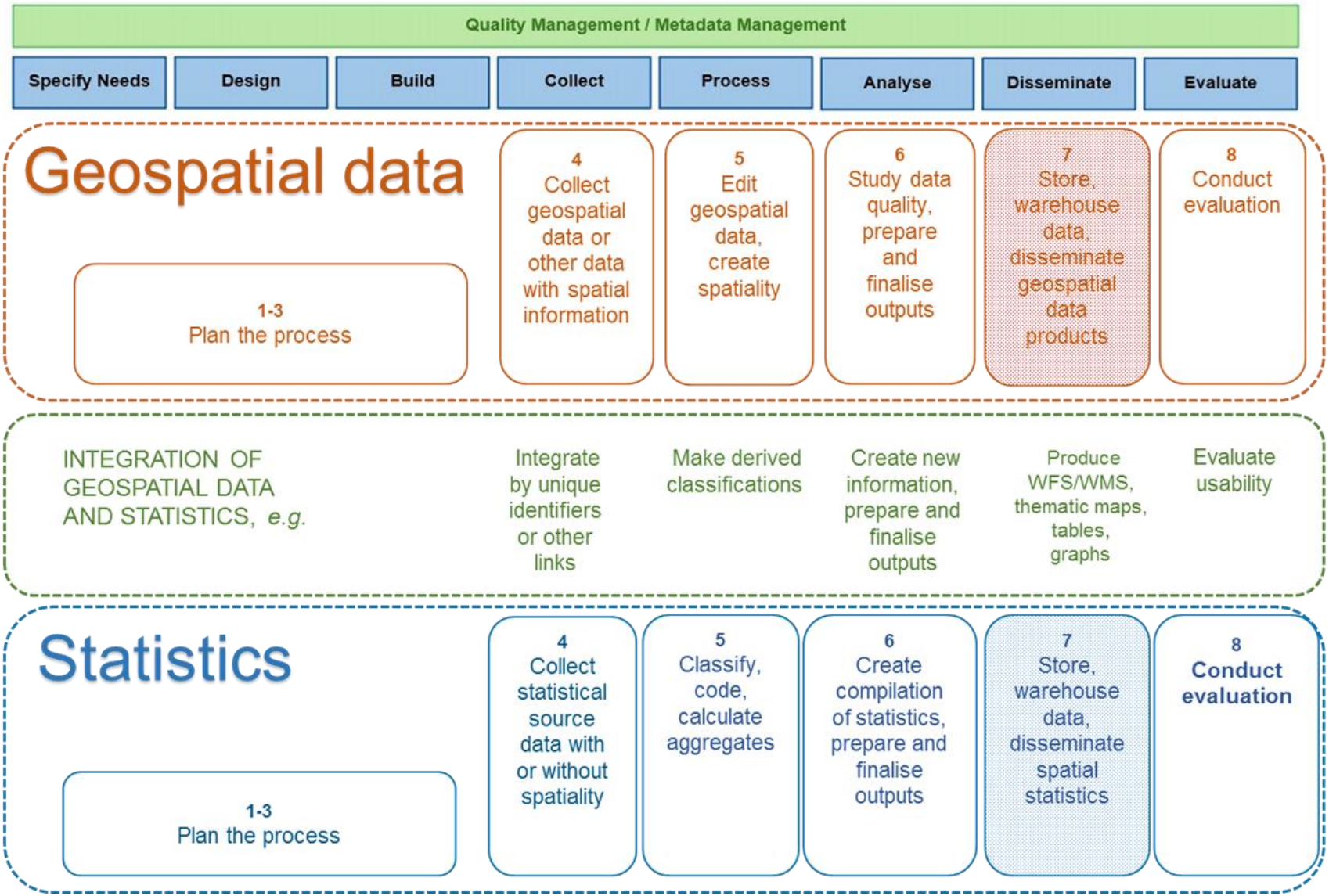
GEOSTAT DATA ABOUT EFGS SHARE YOUR KNOWLEDGE

EUROPEAN FORUM FOR GEOGRAPHY AND STATISTICS

Production of Spatial Statistics: An applied sketch of GSBPM

Terms used:
Geospatial data: Data with direct reference to a specific location on the surface of the Earth (points, areas, lines)
Spatial statistics: Geospatial data with statistics or table data with location information.

General Statistical Business Process Model: http://www1.unece.org/stat/platform/display/GSBPM/GSBPM+v5.0



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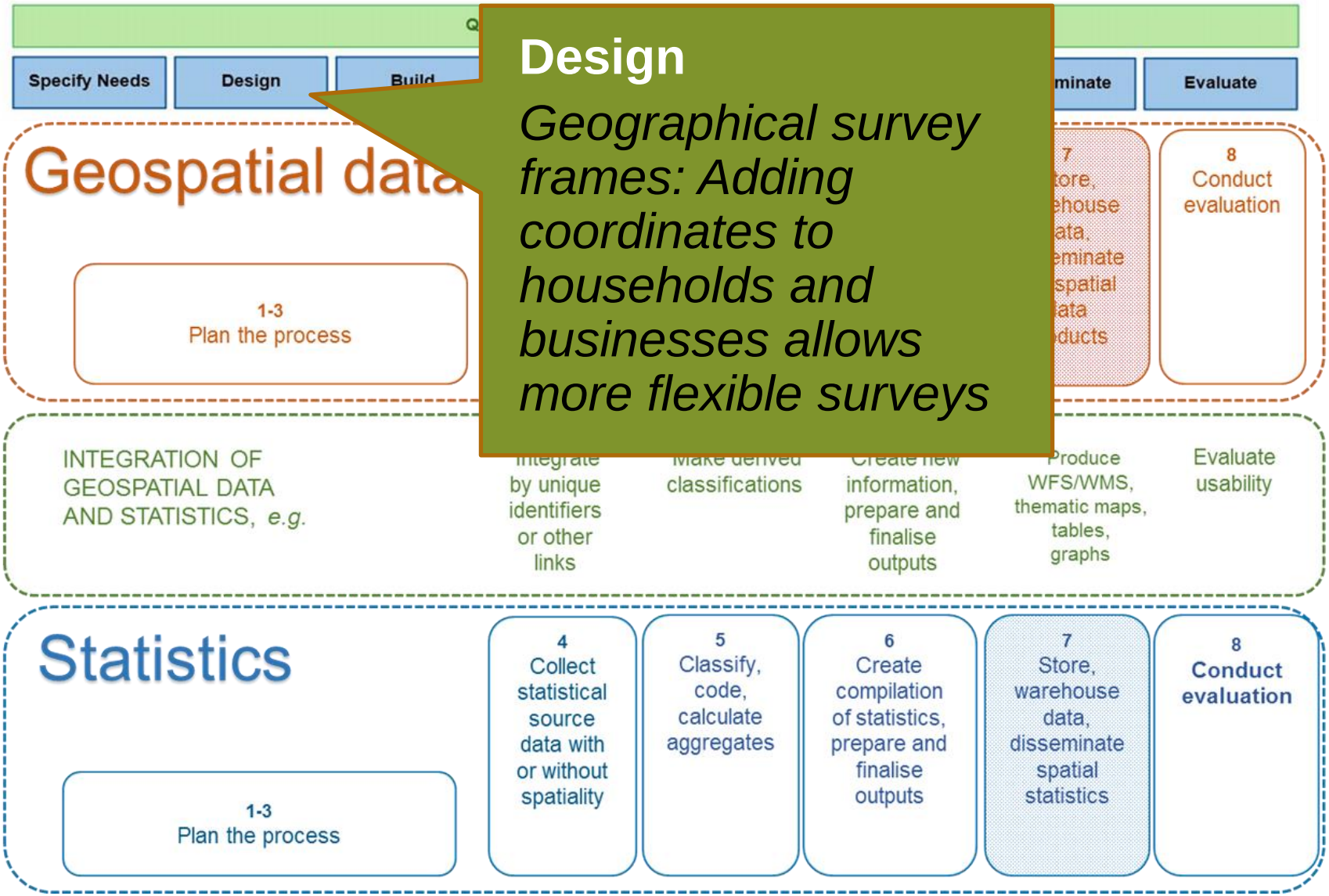

Design

Geographical survey frames: Adding coordinates to households and businesses allows more flexible surveys

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Process

Screening with GIS tools: Identify outliers in geography or detect geographical patterns in the collected data

Metadata Management

Specify Nee | Process | Analyse | Disseminate | Evaluate

Geo

5 Edit geospatial data, create spatiality

6 Study data quality, prepare and finalise outputs

7 Store, warehouse data, disseminate geospatial data products

8 Conduct evaluation

INTEGRATION OF GEOSPATIAL DATA AND STATISTICS, *e.g.*

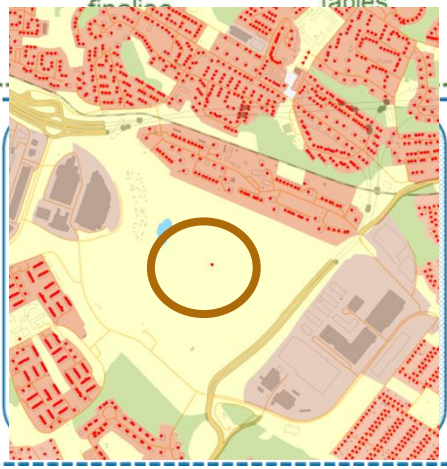
identifiers or other links

Make derived classifications

Create new information, prepare and

Produce WFS/WMS, thematic maps, tables

Evaluate usability



Statistics

1-3 Plan the process

4 Collect statistical source data with or without spatiality

5 Classify, code, calculate aggregates

8 Conduct evaluation

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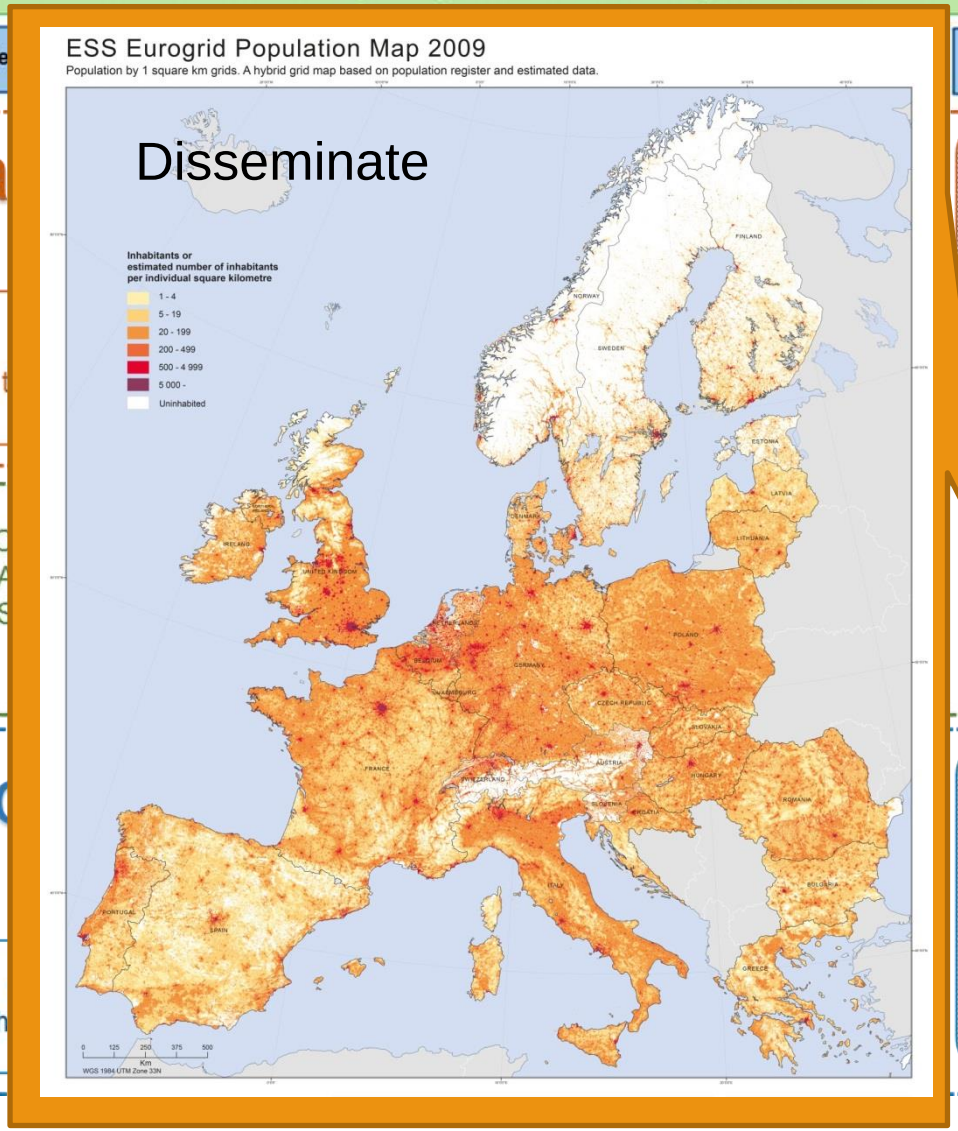
Quality Management / Metadata Management

Specify Needs	De					Disseminate	Evaluate
Geospa						7 Store, warehouse data, disseminate geospatial data products	8 Conduct evaluation
Plan t							
INTEGRATION C GEOSPATIAL DA AND STATISTICS						Produce WFS/WMS, thematic maps, tables, graphs	Evaluate usability
Statistic						7 Store, warehouse data, disseminate spatial statistics	8 Conduct evaluation
Plan th							



Story mapping

- The GEOSTAT 2 team identifying tasks when producing grid statistics!

Lessons learned so far (SE)

- Process modeling show that GSBPM is useful for processes involving geospatial data.
- GEOSTAT 2 has enabled increased collaboration between process owners and geospatial experts at Statistics Sweden.
- The GSBPM should include more concepts and a terminology that links to geospatial activities.
- The GSBPM could also benefit from including examples of ”Geospatial statistical output”!

Lessons learned so far (FR)

- The GSBPM is useful.
- The GSBPM should include specific processes or sub-processes dedicated to the integration of geospatial data in statistics.
- Process needed to maintain, update, ensure consistency of authoritative geospatial data and statistics over time?
- Managing confidentiality is one of the big issues to manage geospatial statistics, it might need a specific process?
- Specific attention should be paid on terminology!

Need for more work on standards!

- Include descriptions and terminology for **integration** of statistical and geospatial data in the GSBPM!
- Describe geospatial processes?
- Principle 4 in the Statistical Geospatial Framework: Initiatives that can advance interoperability?





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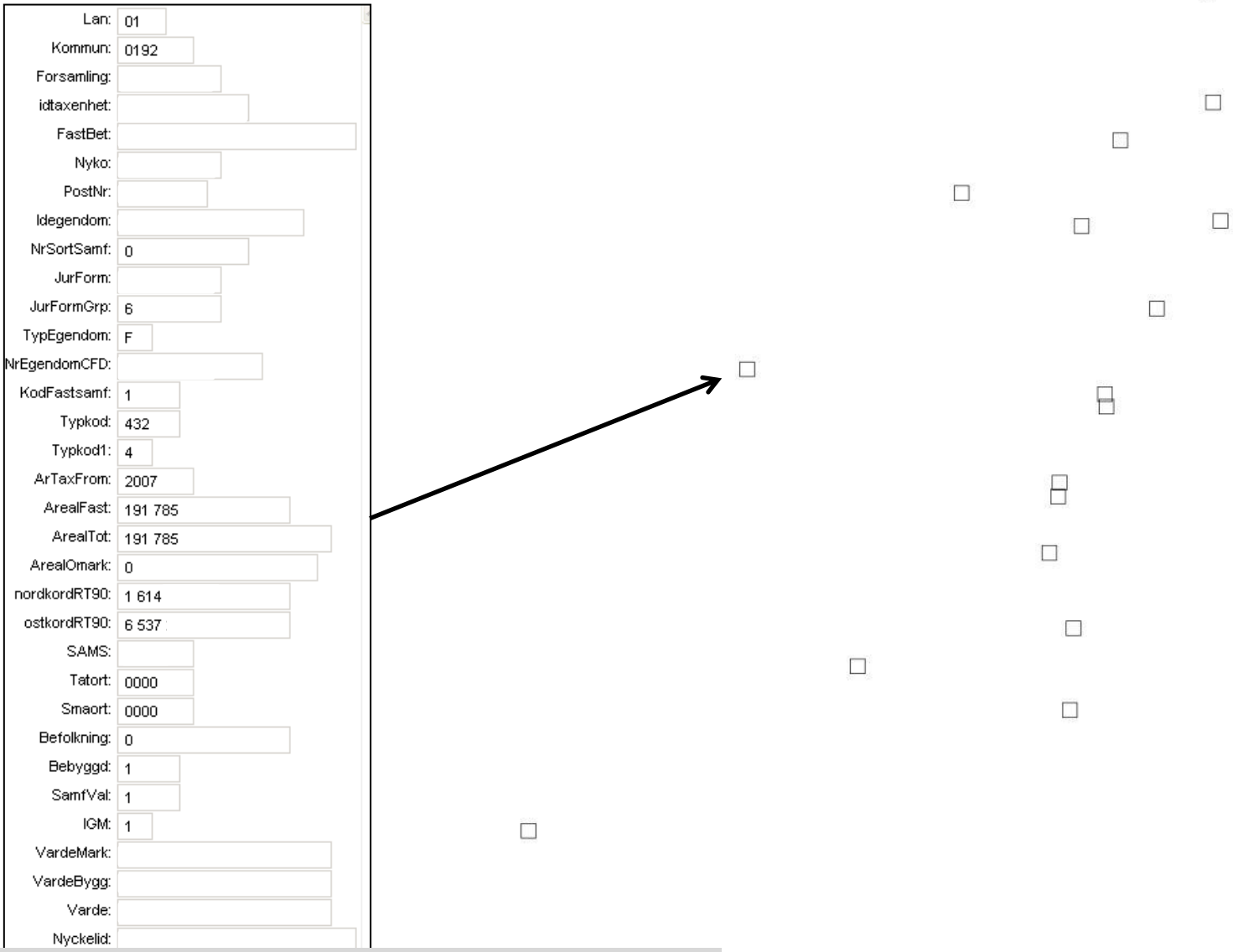
There is a distinction between..

- Geospatially enabled data or statistics - statistical or administrative data linked to a geospatial object
- Geospatial infrastructure data used to geospatially enable statistics
- Geospatial datasets used to create statistical content

Suggested terminology currently up for discussion (Australian Bureau of Statistics)

Geospatially enabled data

- **Fine level** - unit record data linked to a coordinate, small linear object or small area geography building block
- **Mid level** - unit record data linked to a large geographic unit or aggregate data linked to a small area geography building block
- **Course level** - aggregate data linked to any medium or large geographic unit



Geospatially enabled data

Geospatial infrastructure data

- Address or Building registers with coordinate references
- Parcel or property databases
- Topographic datasets
- Administrative, statistical and grid geographies


Geospatial infrastructure

Geospatial datasets

- Datasets used to create statistical content (geospatial statistics)
- To enhance (i.e. add variables to) existing statistical and administrative datasets (e.g. distance to green space: road network, parklands, etc.)
- More elaborate production of new statistical content (e.g. land accounts: cadastral information - land use and value, gridded land cover from Earth Observation, etc.)

Geospatial datasets