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EUROPEAN CONFERENCE ON
QUALITY IN OFFICIAL STATISTICS
2024 ESTORIL - PORTUGAL

A pathway towards better integration of statistics and geospatial information with the power of standards

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Content of the presentation

- Background and context of standards use
- Why use standards?
- Observations of obstacles in standards use
- A pathway towards the use of common standards

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UNECE PROJECT OVERVIEW

- UNECE has led an EU-funded project to develop capacity in geospatial and statistical data integration

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Foster stronger links between statistical and geospatial communities across the region

Facilitate greater collaboration amongst statistical and geospatial organisations

Encourage greater integration of geospatial and statistical information

Promote stronger institutional partnerships and the use of common standards

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INGEST Task force on standards issues

Background

- Established under the UNECE project scope

Aim

- To support the greater harmonization and interoperability of statistical and geospatial information through the use of common standards

Activities

- Understand the current use of standards and share use cases and best practice.
- Assess the wider operating environment that supports the organisational use of standards and the gaps present within and between organisations.
- Identify priorities for standards harmonisation work and recommend related actions.

Output

- A report containing recommended actions and guidelines to support their implementation at a national level

MEMBERSHIP

Overview:

- 16 organisations
- 12 countries (7 target countries)
- Both NSIs and NMCAs represented

Co-chairs:

- Statistics Finland
- Ordnance Survey of Northern Ireland

Secretariat:

- UNECE

COUNTRY	ORGANISATION
Albania	Institute of Statistics (INSTAT)
Albania	State Authority for Geospatial Information (ASIG)
Armenia	Statistical Committee of the Republic of Armenia
Bosnia and Herzegovina	Agency for Statistics of Bosnia and Herzegovina
Bosnia and Herzegovina	Federal Administration for Geodetic and Real Property Affairs
Finland	Statistics Finland
Finland	National Land Survey of Finland
France	National Institute of Statistics and Economic Studies (INSEE)
Germany	Federal Statistical Office (Destatis)
Kazakhstan	Bureau of National Statistics
Malta	National Statistical Office
Republic of Moldova	Agency for Land Relations and Cadastre of the Republic of Moldova
Montenegro	Statistical Office of Montenegro (MONSTAT)
Türkiye	Turkish Statistical Institute (TURKSTAT)
United Kingdom	Northern Ireland Statistics and Research Agency (NISRA)
United Kingdom	Ordnance Survey of Northern Ireland (OSNI)

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Why use standards?

Interoperability
Standards establish a common framework for creating, managing, and disseminating data. When organizations adopt the same standards, data becomes interoperable, allowing seamless exchange and integration across different systems and applications.

Quality and Reliability
Common formats and definitions improve data quality and reliability. By minimizing errors and inconsistencies, standards enhance the overall trustworthiness of data.

Efficiency
Streamlined processes lead to increased data usability. Standards make it easier to find, understand, and reuse information, ultimately saving time and effort.

Comparisons and Insights
Common standards enable meaningful comparisons between datasets across space and time. They also allow data from diverse sources to be combined, revealing new insights that might otherwise remain hidden.

Future-Proofing
Standards evolve over time to adapt to technological advancements and changing requirements. Organizations can confidently future-proof their activities, processes, and products by adhering to these evolving standards.

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Governance Issues in using standards

1. Differing approaches to governance and lack of common understanding

- Weak collaboration between national statistical and geospatial organisations exists, with limited shared understanding - The GSGF model, which includes standards, requires broad national consensus
- Bureaucratic internal systems hinder standards implementation

2. Difficulties in communicating benefits of standards adoption

- Poor communication about standardisation's importance inhibits engagement
- Complex, technical standards are hard to convey to decision-makers

3. Challenging financial environments

- Identifying funding sources for statistical and geospatial integration initiatives is challenging. Reduced funding affects interest in standardisation work.

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Technical issues 1/2

1. Compatibility of data received from other agencies

- Varying quality and adherence to standards exist across different agencies

2. Variance in Data Quality

- Data quality varies across geographic levels. Challenges in integrating data for geostatistical purposes.

3. Geographic Referencing and Address Complexity

- Geospatial data involves multiple geographical reference systems
- Point-based and area-based practices
- Address formats varies

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Technical issues 2/2

4. **Inadequate data and technology infrastructures**
   - Lack of common identifiers and standardisation hinders data integration
   - Geospatial concepts are not always integral to data architecture
   - Legacy systems limit use of emerging technologies
   - Insufficient IT infrastructure leads to delays and inefficiencies
5. **Organisational skills gaps**
   - Limited awareness of international standards and best practices
   - Complexity of geospatial standards hinders implementation

A pathway towards the use of common standards

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The INGEST Task Force recommendations

Cooperation, collaboration, and communication

- Institutionalise cooperation through official structures and networks
- Develop shared objectives supported by operating models and relevant technical standards

Strategic leadership

- Foster organisational commitment to standards adoption
- Actively participate in standards development
- Ensure senior management drives standards implementation, supported by skilled staff

Data and technology infrastructures

- Create “fit for purpose” infrastructures that facilitate standards implementation.
- Align and integrate information management practices for statistical and geospatial data

Skills and training

- Identify skills gaps and implement specialist training programs for standards use

Thank you for your interest!

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