

CES in-depth review on linking data across domains and sources

Joint plenary session of the CES and the Regional Committee of the United Nations Global Geospatial Information Management for Europe

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Key Questions

The review was based on case studies, findings from a survey of NSOs and information on previous CES work on data integration and related topics.

- How National Statistical Offices (NSOs) can **reposition themselves** from data providers to producers of relevant statistical indicators and insights by leveraging existing data across different domains and sources through data linkage and understanding the relationships between frameworks to address multidimensional issues in society?
- How NSOs can **push the boundaries** of data linkage to improve efficiencies within national statistical systems (NSSs), and harness non-conventional data sources and new technologies?



Driving Factors

1. The complex information needs of policy makers require a **holistic view** of interrelated issues across domains.
2. Data linkage can be used to create a new system (**link first, collect later approach**) for how NSOs produce official statistics and fill information needs. This also requires a **change in the mindset** for data collection.
3. The increase in the availability of new types of data and AI technologies provide **new opportunities** for linking and accessing data on scales that are more extensive than ever before.



Challenges and Opportunities

- **Challenges range from technical to stewardship issues.**
- Increasing costs to run surveys and decreasing response rate is impacting NSOs' ability to produce up-to-date and accurate information with traditional data sources.
- A lack of clearly specified roles and a streamlined process for data sharing.
- The use of existing and new data from multiple sources to develop indicators may result in a proliferation of indicators and frameworks.

- **Opportunities to leverage new tools and data.**
- Leverage the large size and harness the continuous flows of administrative data.
- NSOs are well-suited to operate as user-gateways for access and services to linked data.
- A growing awareness that Big Data and privately-held data are needed to address information needs. Data sharing with parties outside of the public sector such as businesses and NGOs is a new frontier.
- NSOs can take on the role to standardize or harmonize indicators to ensure their consistency and comparability across indicator frameworks.



Recommendations

- **A systematic approach** is needed to ensure that data linkage is sound and relevant to user needs – including the what, why, how (methods) and so what (benefits)
- NSOs need to have a formalized **coordinating role** in data linkage activities and become **user-gateways** for linked data and services.
- The **development of a roadmap** should be considered to guide NSOs in their data linkage activities and understanding the relationships between/across frameworks and domains.

Outcomes

- The Bureau recommended that issues related to linking data across sources and domains should be mainstreamed **in the programme of work of subject-matter groups working under CES.**
- The Bureau **invited the High-Level Group for the Modernisation of Official Statistics (HLG-MOS)** to develop a road map on linking data.
- The Bureau **will follow up on the progress** on this topic.