



eurostat 



COMPASS TOWARDS STABILITY,
SECURITY AND SUSTAINABILITY

SOUTH-EAST EUROPEAN COOPERATION PROCESS
SOFIA CHAIRMANSHIP-IN-OFFICE 2025-2026

Next-Gen Official Statistics: Turning New Data into Trusted Insights

Apolonija Oblak Flander, Director-general, SURS, Slovenia

High-level Conference "EU Enlargement:
The role of Comparable and Reliable Official Statistics"

11-12 September 2025, Hotel "Bulgaria", Burgas, Bulgaria

THE BASIC STAYS THE SAME

Garbage In | Garbage Out in Official Statistics



**POOR
DATASET**

+



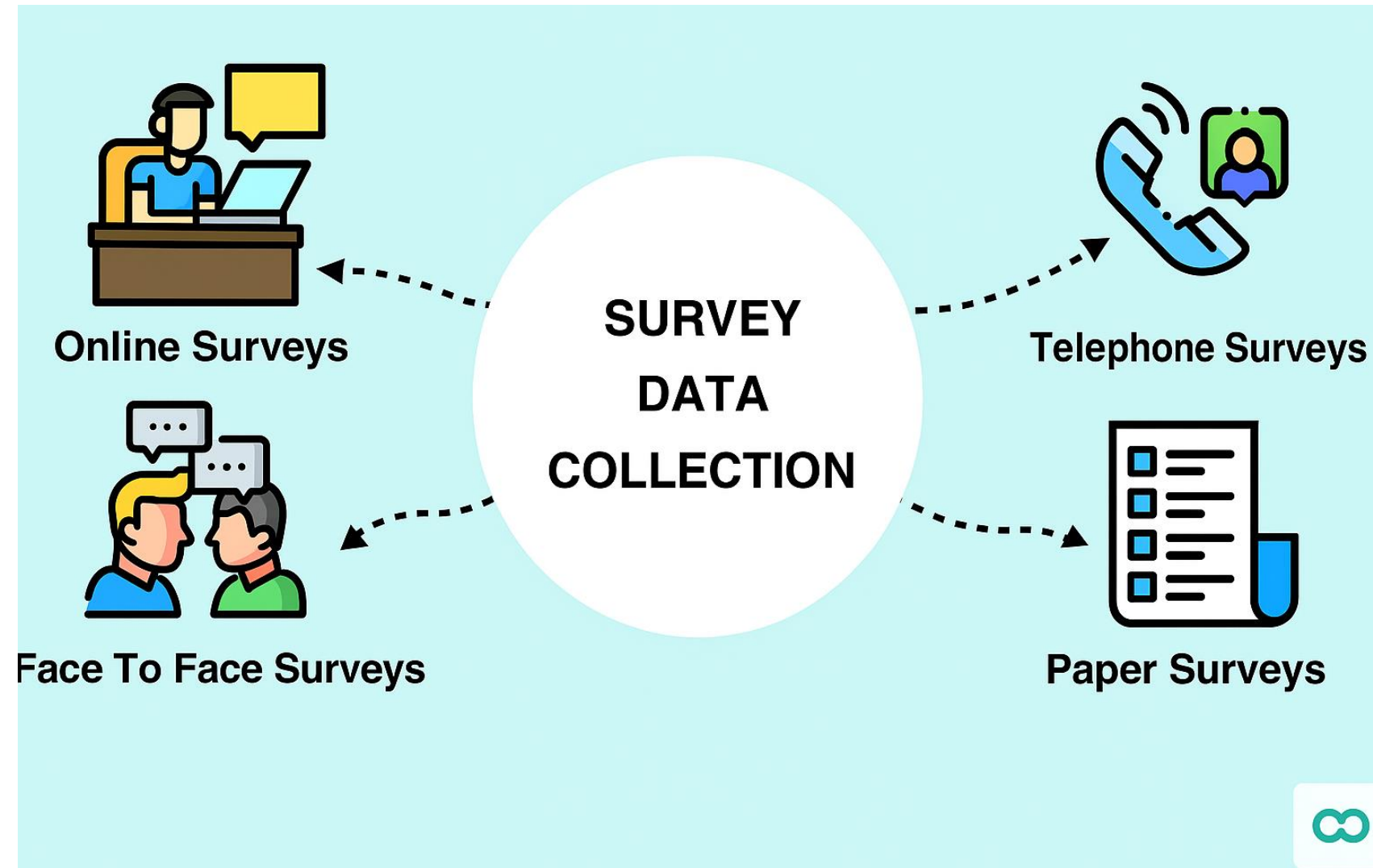
POOR DATA PROCESSING

=



**DATA AND INDICATORS
NOT REFLECTING REALITY**

TRADITIONAL SURVEYS, CENSUSES, DATA COLLECTION



USE OF SECONDARY – ADMINISTRATIVE – DATA SOURCES

USE OF VARIOUS ADMINISTRATIVE SOURCES FOR OFFICIAL STATISTICS



UNECE

Guidelines for Assessing the
Quality of Administrative Sources
for Use in Censuses



Module for Quality Assurance
when using Administrative
and Other Data Sources
to produce
Official Statistics



USE OF SECONDARY – ALTERNATIVE, NEW DATA SOURCES



NEW REALITIES

- Budget cuts for official statistics
- Cuts in the number of employees
- No desire among young people to work as official statisticians
- Competition in the data ecosystem
- Political changes of the heads of official statistics – kill the messenger
- Extremely rapid development of new tools and techniques
- Reluctance of respondents, businesses, ... to participate in surveys

Demand, expectations:

- Agile official statistics
- To measure new phenomena – in society, economy, environment
- To produce high-quality statistics that is relevant, timely, granular
- To provide statistics on ‘soft’ topics (perception, opinions, ...)
- Trustworthy statistics disseminated in a way that are understandable to different user groups
- Products, data ... machine readable
- Integration of innovation and new data sources, and emerging tools and techniques

OFFICIAL STATISTICS IN THE WORLD OF DATA

Official statistics are at the heart of data-driven governance

‘Without data you’re just another person with an opinion.’ (William Edwards Deming)

Quality elements of official statistics

- Geographical comparability
- Comparability over time
- Periodicity
- Timeliness
- Granularity
- Sound methodology
- Measurement of new phenomena ...

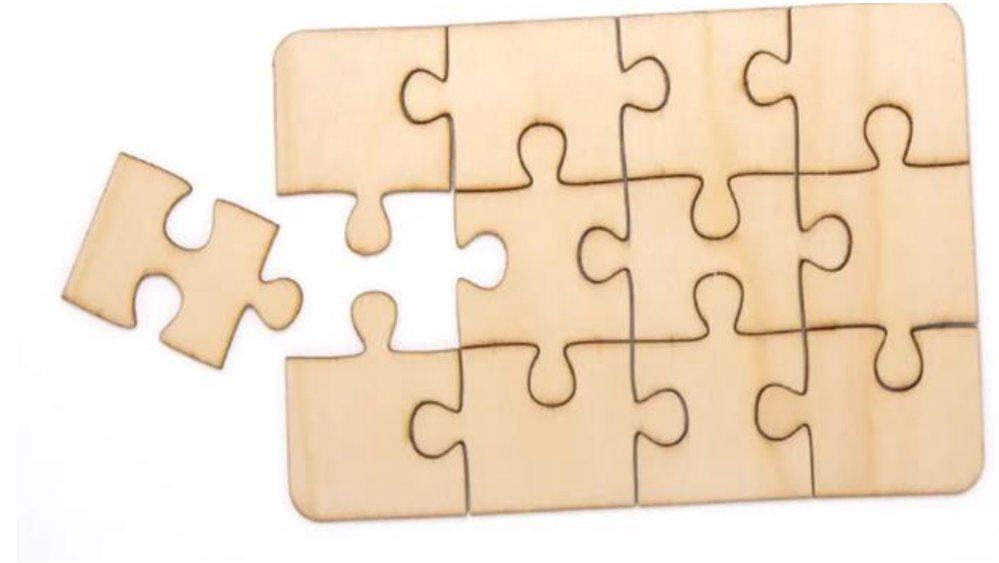


How to stay relevant and trustworthy?

ALTERNATIVE, NEW DATA SOURCES

Alternative, new data sources

- New phenomena
- Timeliness
- Granularity
- To provide complementary information



→ **Not an answer to all challenges!**
Only one piece in the puzzle.

NEW TECHNIQUES AND TECHNOLOGIES

- ✓ **Generative AI and LLMs** - for automating tasks and handling unstructured data
- ✓ **Advanced statistical methods for data analysis** - such as time series analysis to understand temporal patterns and forecast future trends
- ✓ **Privacy-preserving techniques** - new methods are being developed to enable data analysis without compromising the privacy of individuals
- ✓ **Big data analytics** - the increasing volume, velocity, and variety of data require advanced analytics to extract meaningful insights
- ✓ **Digitalization and automation** - adoption of digital tools and automation across the entire statistical production process, including data collection, processing, and dissemination, to improve speed and quality.



THE USE OF ALTERNATIVE DATA SOURCES AND NEW TECHNIQUES AND TECHNOLOGIES IN OFFICIAL STATISTICS

The importance of **public trust** in official statistics in the context of the use of new data sources, new techniques and technologies

... **Similar issues when moving towards the use of secondary** (mainly administrative) sources in official statistics (example of register-based population census, taxation data, ...)!



OPPORTUNITIES



A big potential in these new, alternative data sources

- ▶ To **calibrate** data from traditional sources
- ▶ To **potentially supplement** some of the collected data
- ▶ To increase **granularity and timeliness** of data
- ▶ To measure **new phenomena**
- ▶ To **merge them with traditional sources** – especially administrative
- ▶ To build new partnerships **with the private sector, other NSIs from ESS and beyond, Eurostat, academia, ...**

‘If you want to go fast, go alone. If you want to go far, go together.’ (African proverb)

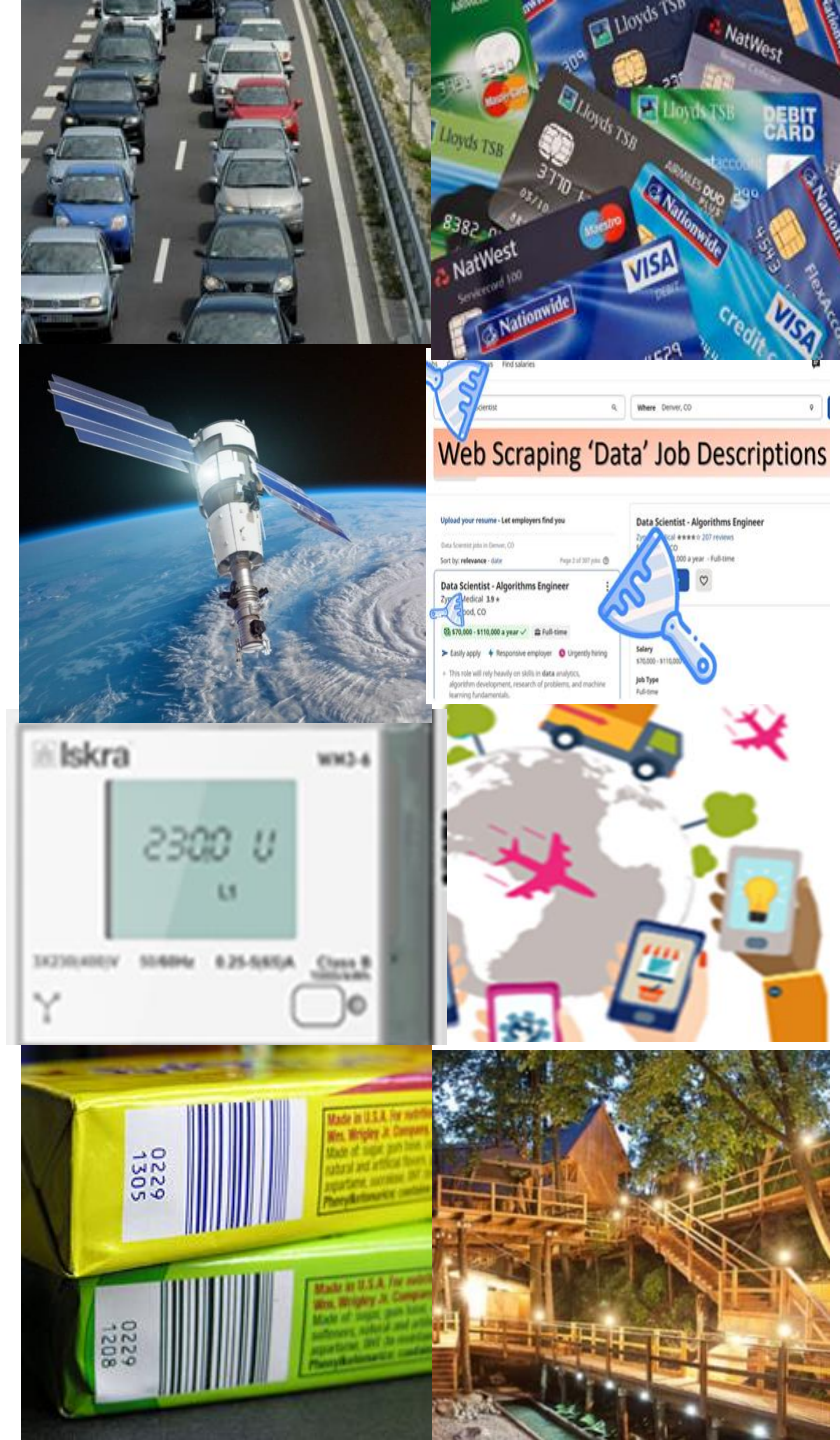
NEW TECHNIQUES AND TECHNOLOGIES – IMPACT ON OFFICIAL STATISTICS

- ✓ **Increased Efficiency** - automation and digital tools help streamline processes, reduce manual handling, and increase the speed of statistical production.
- ✓ **Enhanced Data Use** - new techniques allow for the processing of more diverse data sources, including web data, text, and sensor-based data, leading to richer statistical products.
- ✓ **Improved Data Quality** - by leveraging advanced analytical and processing methods, statistical organizations can improve the accuracy and reliability of the data they produce.
- ✓ **Modernized Processes** - official statistical agencies are reorganizing their processes to align with models such as the GSBPM, which encourages the reuse of digital applications and breaks down organizational silos.
- ✓ **Facilitated Innovation**

SPECIFIC EXAMPLES

Already concrete outcomes, experimental statistics, based on alternative data sources to address the users' needs regarding: **periodicity, granularity, timeliness, new statistics**

- ❑ MNO data (international 'tourism' flows)
- ❑ Automated traffic counters
- ❑ Data from digital platforms on short-term rentals
- ❑ Web scraping of job advertisements
- ❑ Scanned data
- ❑ Smart electricity meters
- ❑ Earth observation
- ❑ Payment cards transactions data



CHALLENGES

- Access (free of charge vs. compensation for data processing)
- Sustainable influx of data
- Human capacity – skilled employees, training of staff
- Powerful IT infrastructure – building technical capacity
- Data absorption
- Data integration
- Statistical concepts – transition from experimental to regular statistics, thinking out of the box
- Comparability: aligning with Eurostat & EU standards
- Reliability: balancing speed with quality
- Building partnerships in which both parties profit
- Trust: privacy, ethics, GDPR compliance



THE WAY FORWARD?

Step-by-step and **pragmatic approach**.

Official statistics should proactively **prepare to absorb** already existing and new data sources emerging from the digitalised world.

It is on us to address and proactively communicate **the ethical considerations** and **data protection** when using these kinds of data.

We are the ones who are skilled to **balance innovation with ethical responsibility**.

To stay relevant and trustworthy, we need to **find synergies in knowledge in sharing tools, harmonise methodologies, ...:**

- Well established statistical international cooperation
- Build sandboxes
- EU secure clouds
- Use the potential of European Data Spaces, etc.

