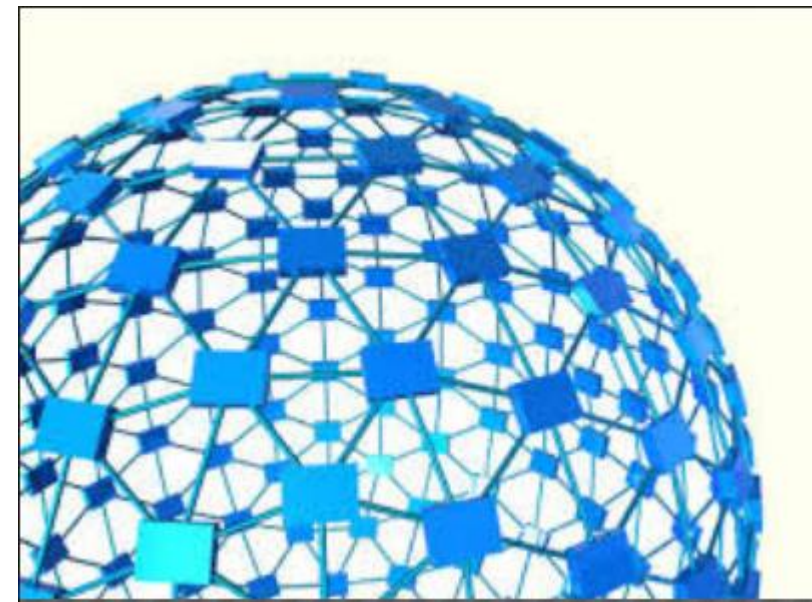


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Emerging Approaches for Strengthening Capacities of National Statistical Systems



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Modernization of official statistics

Today's NSOs are facing many challenges such as **rapidly changing technologies, increasing demands of the public for timely, relevant, up to date statistics and decreasing budgets**. NSO also need to decrease the burden put on respondents through surveys. Therefore, producers of official statistics start looking for alternative sources of data, such as administrative data, internet and other big data sources.



In order to gain a sustainable competitive advantage NSOs need to modernize the statistical production.



So what is modernization?

What modernization IS?

- Transforming the way NSOs work through:
 - Common generic processes
 - Common tools
 - Common methodologies
- Recognizing all statistics are produced in a similar way
- Increased flexibility to adapt

What modernization is NOT?

- No special domains
- Use of IT

What is Modernization of official statistics?

- The modernization of official statistics is a multidimensional concept that addresses all the factors and activities that directly or indirectly affect the business of producing and disseminating official statistics, at the national, regional and international levels, According to this definition, modernization of official statistics is a comprehensive term that includes the modernization of all elements and constructive components, components in the SS and the relationship between them. It leads to develop **official statistics as an industry.**

Modernization of official statistics = Modernization of the statistical system

- In the scientific literature on the subject, the term modernization of official statistics is used, which is equivalent to the modernization of the statistical system at all levels (NSS,RSS.GSS).
- In fact, in the modern approach, all phases of production and publication of official statistics, from the beginning to the end, are considered as a business and together form the official statistics industry.

Modernizing or developing official statistics?

Modernization is different from the development of statistical systems. The European statistical system considers modernization as a set of interconnected activities that cause changes in the existing processes and systems in order to meet the needs and solve problems. The purpose of these changes is to achieve the development of the statistical system. **In other words, the development of the statistical system is the product of modernization.**

Strategic areas in Modern Stat

- (A) More coordination & communication and partnership between reputable and global reference organizations and NSOs
- (B) Establishment of integrated systems for producing and disseminating statistics
- (C) Quality of official statistics and other statistical standards
- (D) Innovation in all activities and use of new technologies and methodologies
- (E) Capacity building and resource mobilization.

The dominant issues in the context of modernization of statistics

- The unique pivotal role of the NSOs in creating coordination and guiding the NSS as an authority
- Strengthen communication with stakeholders, especially data providers and policymakers.
- Strengthen the use of modern technologies, methods and data sources in producing & disseminating official statistics
- Strengthen implementation and application of new international statistical standards and guidelines and redesign all processes base of them
- Increase the use of IT and new related tools, along with prepare the necessary infrastructure
- Strengthen systematic methods and methods for further reflection, at the regional and global level, along with finding resources

New reliable as well as tools and services necessary to produce quality official statistics

- Amend the existing statistical acts or create new law along with prepare appropriate NSDS related to ne modern era and data governance time
- Training and holding joint courses and workshops about new issues about Modern stats.

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Modernization of official statistics

Work in this area includes:

- Human resources, organizational frameworks and evaluation
- Statistical production, methods and information technology
- Data collection and data sources
- Dissemination and communication
- Standards and metadata

This work is coordinated by the high level group for the modernisation of official statistics (HLG-MOS) through four modernisation groups:

- Blue-Skies Thinking Network
- Supporting Standards Group
- Capabilities and Communication Group
- Sharing Tools Group

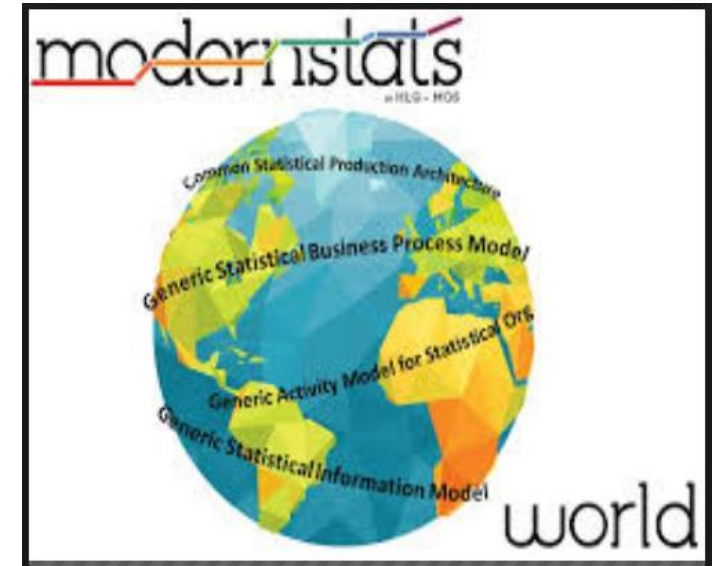
The HLG-MOS is responsible for deciding on the annual flagship international collaboration projects undertaken within the UNECE statistical modernisation programme, as well as overseeing and providing strategic direction to the work programmes of the modernisation groups. [The HLG-MOS](#) reports directly to the Conference of European Statisticians.

Meetings and events

For information about events related to specific topics, please see the links above

New Challenges for NSOs that Makes ModernStats necessary

- Rapid change in environment and society
- Rapid change in technology
- Rapid change in expectations and user needs
- Difficulty of acquiring data and response burden
- Budget restrictions
- Data revolutions era and Emergence of new data sources
- Data quality issues
- Data governance and data exchange system



Strengthening Capacities in:

- Appropriate NSO organizational structure
- Specialized and trained human resource for NSO
- Communicate with academics and policy makers
- Redesign data exchange system within country and clarify the role of NSO in it.
- Confidentiality of data and facilitate data access
- New data sources
- Training and educating staffs in line with new modern approaches
- Communion with international statistical Organization
- Creating a legislative system commensurate with the modernization NSS

Fundamental principles of official statistics in terms of modern requirements

- **Principle 6: Confidentiality**

- ❖ Statistical confidentiality is aimed at protecting the privacy of individual units - both physical persons and legal units - about which data are collected and processed. It has two components:
 - Producers of official statistics use data about protected individual units only for statistical purposes (official statistics in the first place)
 - Producers of official statistics do not disclose, either directly or indirectly, characteristics about protected units to any third party in such a way that any user might derive additional information (information not known to the user before) about a protected unit

For statistical confidentiality, a „third party“ is everybody outside the narrow limits of NSO or the statistical department within a ministry. The critical boundary is therefore not between governments and outside, but between **statistical purposes** and everything else. For this reason, the units which act as producers of official statistics should be listed, and their number be kept as small as possible. **Statistical research purpose** also can be exclusively included.

Possible exceptions for disclosure of microdata without identifiers to a third party :

- To another producer of official statistics within the same country for its tasks
- To university or private researchers (incl. outside the country) against signature of a contract, strictly protecting confidentiality
- To a statistical department of an international or supranational organization, providing that if there are clear rules in these organizations for protecting confidentiality, especially against non-statistical use

Basically, after politicians, one of the most important stakeholders of the NSS are researchers and scientists. The main areas of cooperation between NSO and academics, in line with modern approach, can be summarized as follows:

- Establishment of an advisory committee in the NSO: It is one of the recommendations of international statistical organizations. This committee plays a prominent role for organizing relationship between the academics and NSO. It is even mentioned in some international existing templates for statistical acts.
- Provide the data needed by academics: Researchers and scientists are the main users of statistical system products. In the meantime, they also need micro data and it must be provided for them. So, the principle of confidentiality must be interpreted in term of statistical research purpose through strong agreements by obtaining guarantees to ensure the confidentiality of information.
- Conducting joint studies and researches, in all statistical fields, especially in new method for producing and dissemination of statistics
- Holding joint workshops, especially in the field of applying data science in official statistics
- Conducting interviews and preparing appropriate reports and analyzes on the statistical products to improve the level of society's statistical literacy and increase the social capital of the NSS.

Thank You