

Applying the modernization tools in Armstat

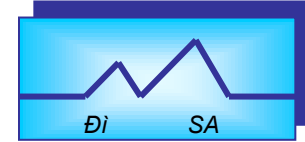
International Forum

"Digital Transformation of National Statistical Systems"

November 6-7, 2025, Astana, Kazakhstan

Anahit Safyan, Deputy President, Armstat, PhD

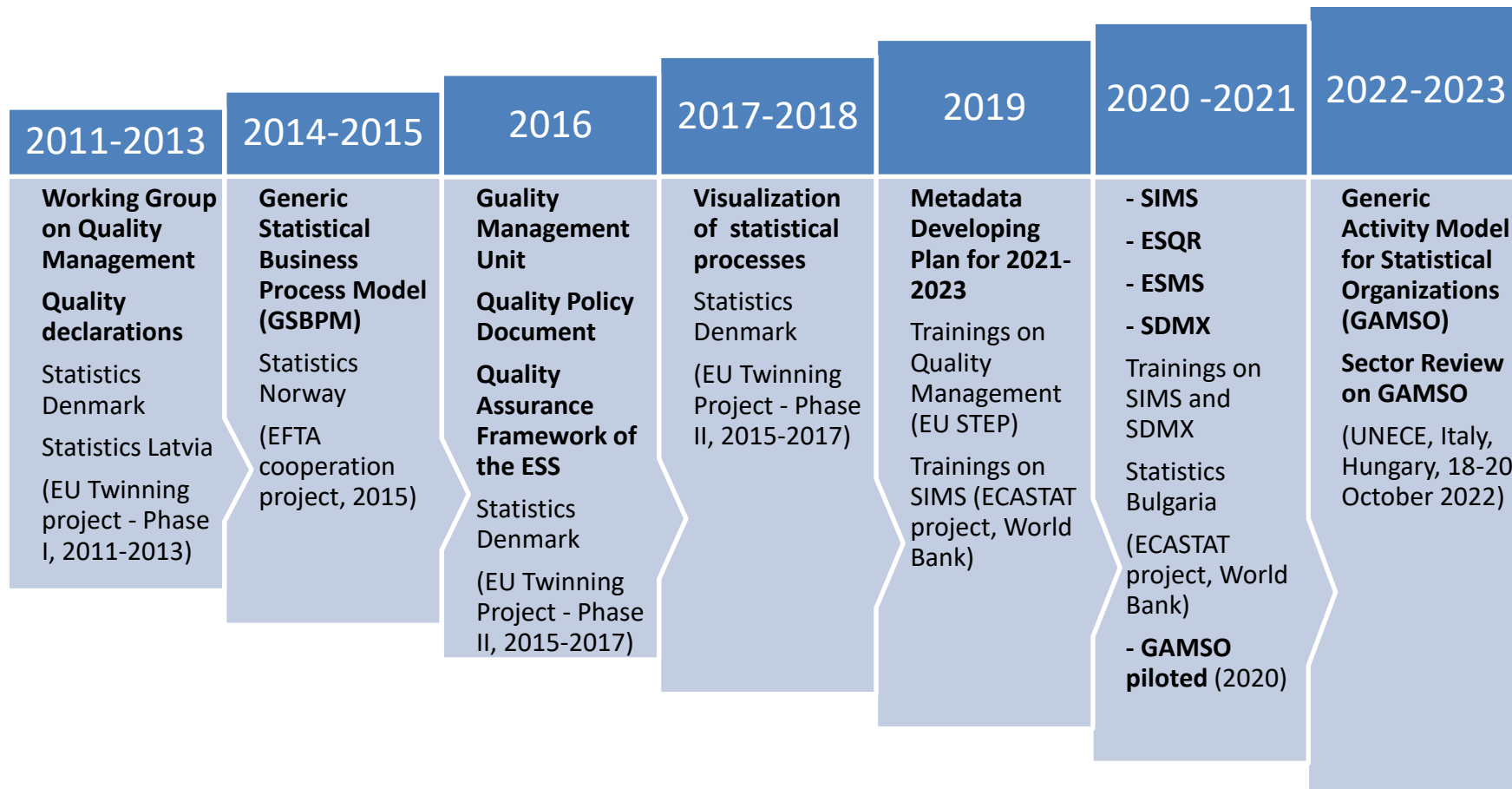
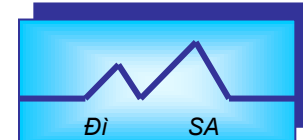
Legislative mandate/Quality assurance



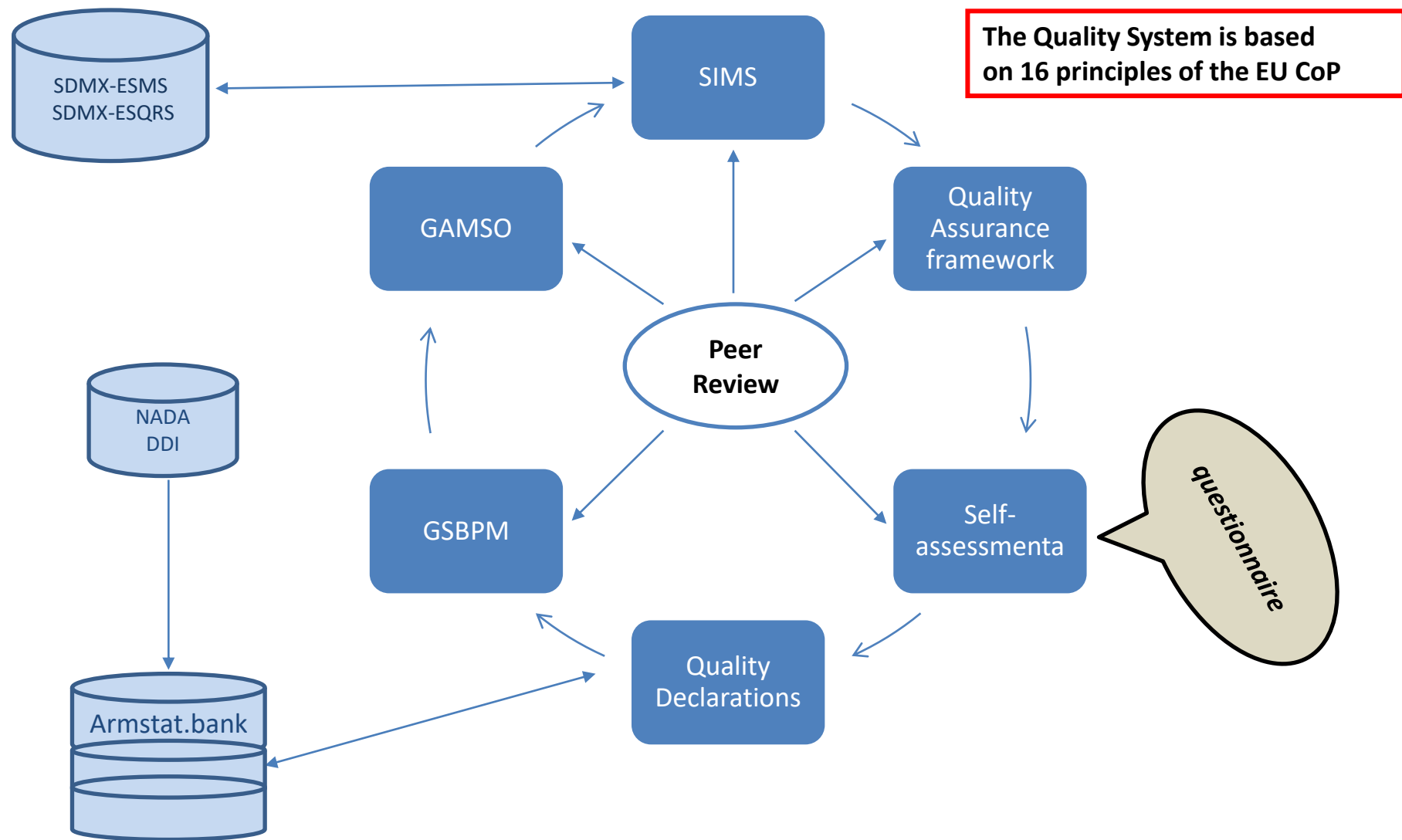
- Statistical legislation is a key condition for the production of quality official statistics that meets the statistics users' needs.
- The Law of Armenia “On Official Statistics” (2018), which is fully consistent with GLOS (2016)
- The standards for the National Statistical System in Armenia:



Short History

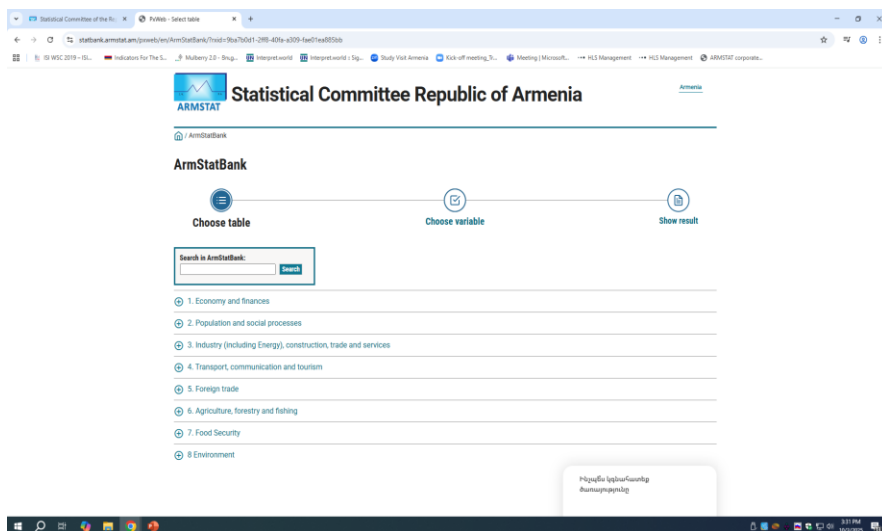


Key elements of the quality system



Quality Declarations

- 140 statistical products are documented according to the European Quality Declaration, organized under 17 statistical domains
(<http://www.armstat.am/en/?nid=545>)
- ✓ A quality declaration describes the regulatory background, the purpose and the methodology of the statistics, its' dissemination and other important information for the users of the statistics in question.



- ARMSTATBANK.AM is linked to Quality Declarations

Reference Metadata (SIMS)

Thursday, 05 August 2021 Home Statistics Publications For Respondent About us

Home / Statistics / Metadata / Reference metadata / Metadata (ESMS)

Euro SDMX Metadata Structure (ESMS)

all - Economy and finance
Population and social processes
Industry, construction, trade and services
Transport and tourism
Foreign trade
Agriculture, forestry and fishing
Food Security
Environment and energy

- 1. BUSINESS TENDENCY
 - 1.1. Business tendency survey for mining and manufacturing
 - 1.2. Business tendency survey for electricity, gas, steam and air conditioning supply and water supply, sewerage, waste management and remediation activities
- 2. CONSUMER PRICES
 - 2.1. Consumer Price Index (CPI)
- 3. ENTERPRISE FINANCES
 - 3.1. Financial enterprises (insurance enterprises, pension funds, credit institutions, pawnshop, investment companies)
 - 3.2. Demography of enterprises
 - 3.3. Financial and economic indicators of Non-financial enterprises
- 4. GOVERNMENT FINANCES
 - 4.1. Government finance statistics
- 5. NATIONAL ACCOUNTS, GROSS DOMESTIC PRODUCT
 - 5.1. Indicator of economic activity

Documentation and Quality

Euro SDMX Metadata Structure (ESMS)

Consumer Price Index (CPI)

1 Contact	
1.1 Contact organisation	Armatat
1.2 Contact organisation unit	Price Statistics and International Comparisons Division
1.3 Contact name	Marlam Yerytsyan
1.4 Contact person function	Head of Division
1.5 Contact mail address	Government Building 3, Republic ave., Yerevan 0010, Republic of Armenia
1.6 Contact email address	price@armstat.am
1.7 Contact phone number	+374 11 664666
1.8 Contact fax number	+374 11 621921
2 Metadata update	
2.1 Metadata last certified	06.06.2021
2.2 Metadata last posted	06.06.2021
2.3 Metadata last update	06.06.2021
3 Statistical presentation	
3.1 Data description	The Consumer Price Index determines the change in the overall level of prices for goods and services in stable basket over time and determines the ratio of that value to the base period over the reporting period. The recorded prices are transaction prices actually paid by consumers, including all types of taxes, such as the Value Added Tax (VAT), excise tax, etc. The process of selecting the types of goods and services is implemented based on the data on monetary expenditures of the households survey by selecting the goods and services with the highest consumption. CPI describes the change in the general level of prices and tariffs for goods and services purchased by the population on an annual, quarterly, and monthly basis. CPI is one of the most important macroeconomic indicators used by state bodies to develop and implement monetary and financial policies, analyze, forecast and contain inflation factors in the economy, to resolve certain legal disputes, etc. CPI is the only indicator characterizing the inflation in the Republic of Armenia. CPI is used at current prices to recalculate macroeconomic indicators at comparable prices. https://www.armstat.am/file/Qualitvdoc/en/q2_1.pdf https://www.armstat.am/file/model/en/q2_1.pdf
3.2 Classification system	Classification of Individual Consumption by Purpose (COICOP), (Order N 876-N of Minister of Economy dated 19.09.2013, RA GO 01.07.2014, 161494)
3.3 Sector coverage	Consumer Price Index calculations include all types of resident households in the country's economic area, regardless of their income size. The CPI covers the part of goods and services acquired by households. CPI calculations do not include household expenditures abroad, non-resident household expenditures, as well as household expenditures for production needs.
3.4 Statistical concepts and definitions	The process of selecting the types of goods and services is implemented based on the data on monetary expenditures of the households survey by selecting the goods and services with the highest consumption. For the purpose of updating the list of goods and services, the observed outlets are regularly examined, expert assessments are given. The published data are: 1) Monthly - Indices (December of the previous year = 100), to long-term base period - Percentage change compared to the previous month, compared to the corresponding month of the previous year, on an annual basis, average annual, since the beginning of the ascending year - Weights by COICOP groups. 2) Annual - Annual inflation rates - Average annual inflation rates.
3.5 Statistical unit	Each published index or percentage change refers to the 'final monetary consumption expenditure' of all households in the country.
3.6 Statistical population	The main population is the final monetary expenditures of households in the country. The expenditures
19 Comment	

Download in SDMX 2.1 file format: SDMX-ESMS-Consumer Price Index (CPI)
Meta-data Structure Definition in SDMX 2.1: ESMS MSD+ARMSTAT+2.0+SDMX 2.1.xml

Thursday, 05 August 2021 Home Statistics Publications For Respondent About us

Home / Statistics / Metadata / Reference metadata / Quality reports (ESQRS)

ESS Standard for Quality Reports Structure (ESQRS)

all - Economy and finance
Population and social processes
Industry, construction, trade and services
Transport and tourism
Foreign trade
Agriculture, forestry and fishing
Food Security
Environment and energy

- 1. BUSINESS TENDENCY
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- 5. NATIONAL ACCOUNTS, GROSS DOMESTIC PRODUCT
 - 5.1. Indicator of economic activity
- 6. SUPPLY AND USE TABLES
 - 6.1. Quarterly national accounts: GDP by production and expenditure (use of income) approaches
 - 6.2. Annual accounts: GDP by production, income generation and expenditure approaches; Integrating the accounts; Gross (net) national
 - 6.3. Annual accounts of institutional sectors; Gross value added by subsectors of non-financial and financial corporations' sectors
 - 6.4. Supply and use tables

Documentation and Quality

ESS Standard for Quality Reports Structure (ESQRS)

Consumer Price Index (CPI)

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1.3 Contact name	Marlam Yerytsyan
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2.5 Statistical unit	Each published index or percentage change refers to the 'final monetary consumption expenditure' of all households in the country.
2.6 Statistical population	The main population is the final monetary expenditures of households in the country. The expenditures and purchases made by only RA resident households are included. CPI excludes: - data on residents' expenditures for entrepreneurial purposes or by government bodies - tax rates and loan payments
2.7 Reference area	The monthly observations of RA consumer goods (services) prices (tariffs) by the defined methodology are carried out in urban areas; Yerevan city and 10 cities of the Republic representing all 10 RA marzes.
12 Comment	

Download in SDMX 2.1 file format: SDMX-ESQRS-Consumer Price Index (CPI)
Meta-data Structure Definition in SDMX 2.1: SDMX-ESQRS-MSD



sdmx



Metadata and Quality Reporting Structures

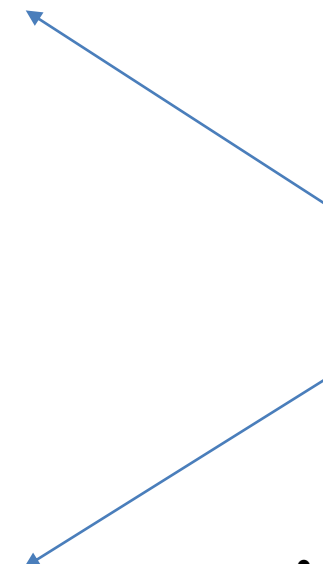
Euro SDMX Metadata Structure (ESMS)

- **User-oriented quality reporting standard**

ESS Standard Quality Report Structure (ESQRS)

- **Producer-oriented quality reporting standard**

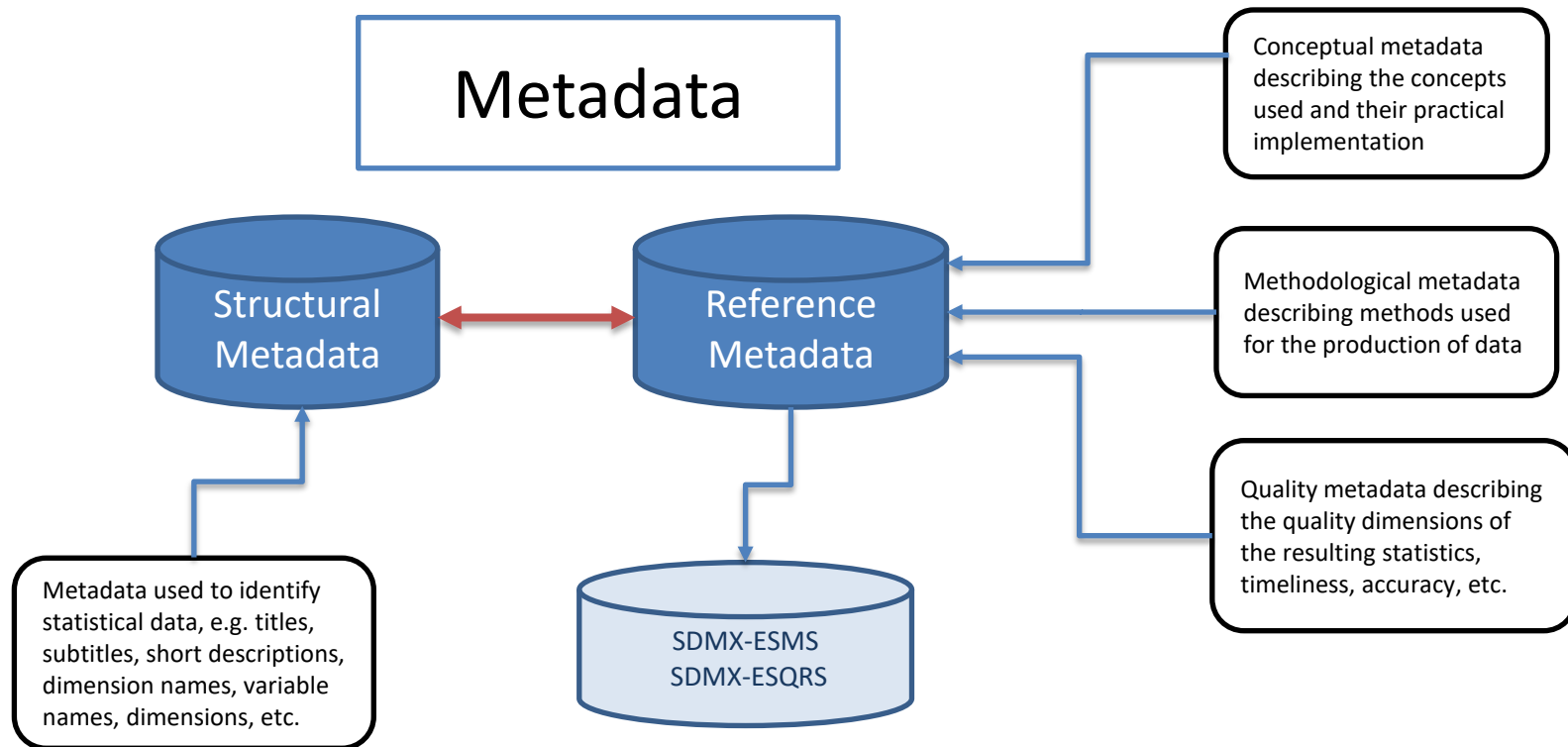
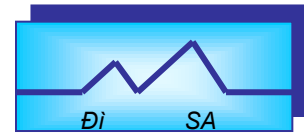
140 products grouped into
25 statistical areas



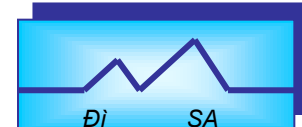
**SDMX 2.1 standard in xml format:
Metadata Structure Definition
(MSD) and metadata (Data) for
each product**

- Modules for SIMS in ESMS and ESQRS standards
- "Metadata" section
(<https://www.armstat.am/en/?nid=828>),
"Reference Metadata" subsection
(<https://www.armstat.am/en/?nid=836>)
- Trainings for subject-matter units

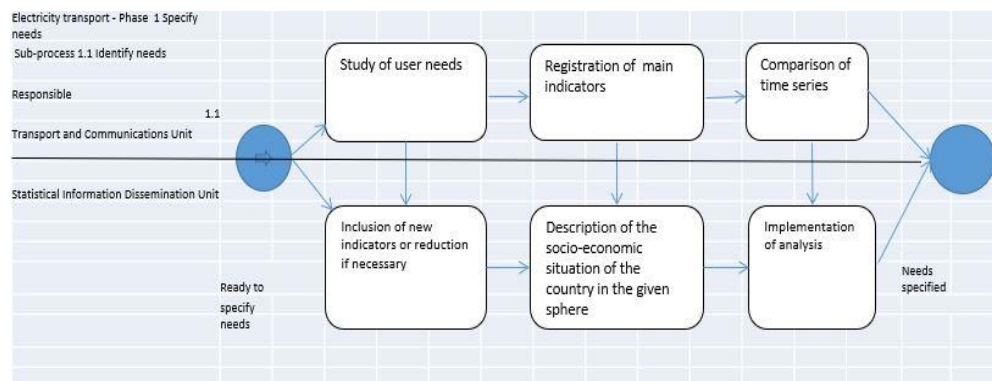
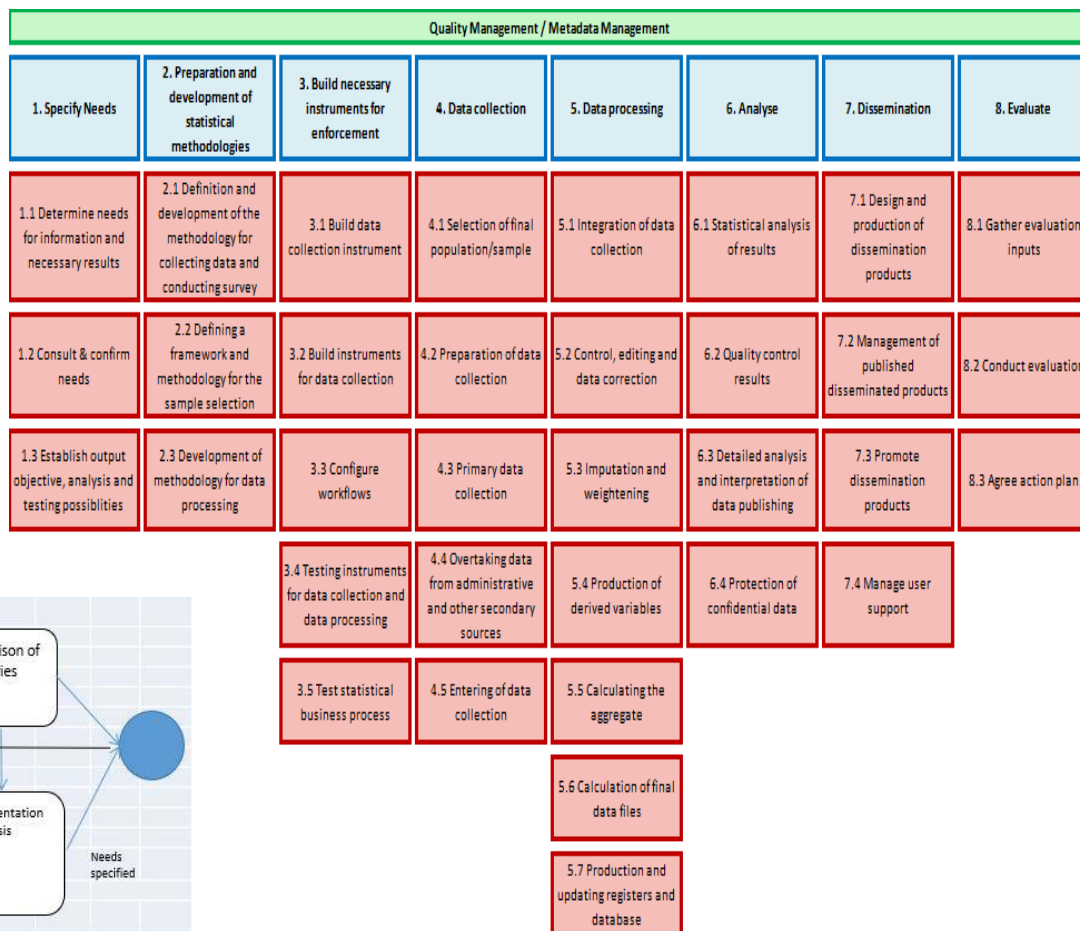
Armstat Metadata System



GSBPM/Swimming Pool

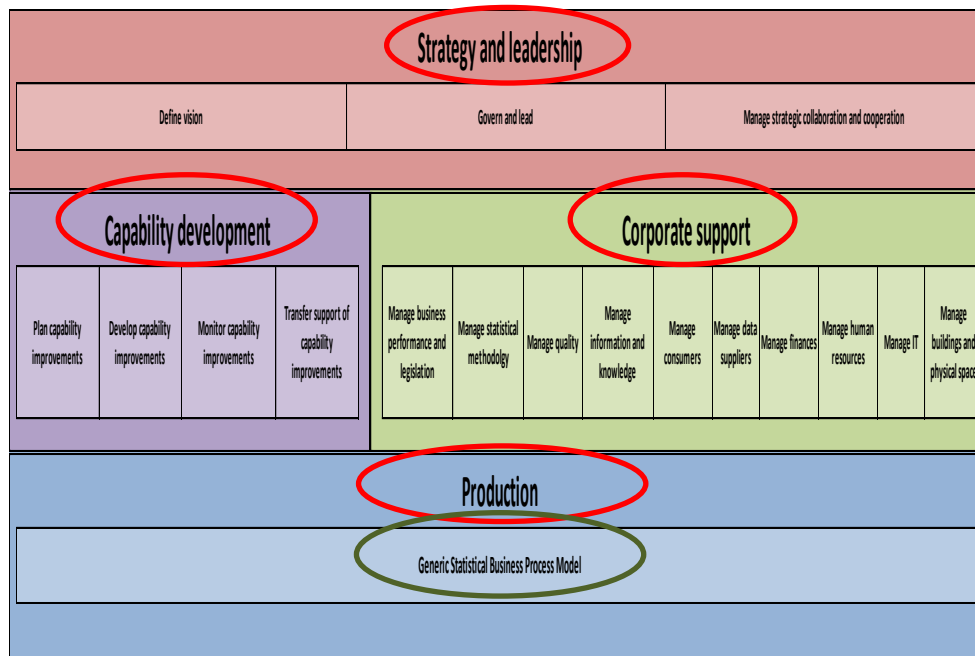


- 140 statistical products documented according to GSBPM, of which 115 arranged in 32 groups (<http://armstat.am/en/?nid=373>)
- 140 products documented according to GSBPM transformed into the visual tool “Swimming pool” (diagrams) (<http://armstat.am/en/?nid=373>)



GAMSO

- Pilot test performed to map the organization of Armstat according to GAMSO



Generic Activity Model for Statistical Organisations (GAMSO) Version 1.2, January 2019

The Generic Activity Model for Statistical Organisations (GAMSO) was developed by the statistical community within the UNECE. It describes and defines the activities that take place within a typical organisation that produces official statistics. It extends and complements the Generic Statistical Business Process Model (GSBPM) by adding additional activities needed to support statistical production. The GAMSO describes activities – that is, what statistical organisations do – while the GSBPM describes the process – that is, how statistical organisations undertake the activity of statistical production (<https://statswiki.uncece.org/display/GAMSO/>).

Activity	Types of activity	Description of the activity to be carried out
1. Strategy and Leadership	1.1. Define Vision 1.2. Govern and Lead 1.3. Manage Strategic Collaboration and Cooperation	These activities are the high-level strategic activities that enable the Statistical Committee (Armstat) to deliver the products and services needed by governments and communities nationally and internationally. The activities influence, shape and drive future directions and investments through the development and consideration of high-level strategies to develop organisational capabilities and the statistical product and service portfolio.
	1.1. Define Vision	These activities ensure that Armstat understands the environment in which it operates and the emerging issues it is confronted with, so that it is clear where it can provide independent, evidence-based information, as well as statistical standards and infrastructure, for use by governments and the broader community. Based on this, Armstat determines its high-level goals and directions, including the values which will guide it, so Armstat sets its statistical programmes accordingly. This also includes communicating the mission, values and expectations internally and externally, to lead and inspire staff and to increase government and community trust and confidence in Armstat and in official statistics in general. These include: <ul style="list-style-type: none"> Understand national and international directions and factors Determine vision, mission and strategic goals Determine organisational value proposition Determine and communicate values and expectations

- Sector Review of the Implementation of GAMSO by UNECE, Italy, Hungary experts, 18-20 October 2022 (<https://www.armstat.am/file/doc/99533528.pdf>)

[illegible]

Next steps

- Improve



GSBPM



GAMSO

- ✓ link GSBPM with SIMS ? ?
- ✓ introduce GeoGSBPM ?

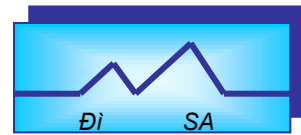
- Introduce

Training on GSIM,
UNECE, INSEE, Istat experts,
25-27 November 2025



CSPA





Thank You for your attention!



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