

# INFORMATION TECHNOLOGY AND COMMUNICATIONS (ITC)

## Metadata

National Bureau of Statistics of the Republic of Moldova (NBS)

### 1. Contact Information

#### 1.1. Responsible subdivision within NBS

##### External Trade Statistics and Market Services Division

Transport, Communications and Tourism Statistics Section

#### 1.2. Contact person

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### 2. Metadata Update

#### 2.1. Last certification of metadata

21.01.2015

#### 2.2. Last update of metadata

21.01.2015

### 3. Statistical Presentation

#### 3.1. General description

The statistical activity regarding the *level of informatization and computerization* covers the annual information used for characterizing the information society in the country.

Statistical data on allocated means and expenditures on informatization, number of computers, number of PCs with access to Internet, number of subscribers to email, etc. are developed based on the annual statistical survey covering all the legal entities which have computer technology.

Communication statistics cover the short-term and annual indicators on activities and means related to mail service, telephone, and radio-communication, as well as their evolution.

Statistical data on communication activities are developed by the Ministry of Information Technology and Communications, which submits to NBS centralized statistical reports covering quarterly operative data on mail deliveries, telephone means and telephone conversations within the land telephone line; and annual data on mail service means, mobile telephony subscribers, radio and TV stations, etc.

#### 3.2. Concepts and definitions

##### 3.2.1. Definitions

##### I. Concepts and definitions used in Information Technology statistics

**Information technology** – use of microelectronic means to collect, store, process, search, transport, and present data, texts, images, and sounds.

**PCs connected to Internet** represents the totality of devices (personal computers, servers) with direct access to Internet network through personal IP address.

**Internet** – global community of information networks with huge resources and a large range of services.

**Expenditures on information technologies** cover overall expenditures for purchase of equipment and hardware, for their maintenance and repair, for software acquisitions, for exploitation and maintenance of

information systems, databases and registers, as well as for the installation and service of computer networks etc.

## II. Concepts and definitions used in Communication statistics (mail and telecommunication)

**Communication services** – product deriving from receiving, processing, sending, and distributing mail deliveries and telecommunication.

**Postal unit** represent the units which provide such services as receiving, transporting and delivering to the destination of written communications, documents, material assets and values, for enterprises, institutions, and population.

**Urban post offices** – operative subunits which process a big volume of mailings and perform other post services in urban area.

**Rural post offices** – operative subunits which process a big volume of mailings in rural area.

**Mailing (deliveries)** represents a good, in its final form, which should be transported and delivered through any means but not electronic, to the address indicated by the sender. This category includes written correspondence, printed mail, and parcels.

**Mail (written correspondence)** includes communications which are written, typed, printed, or registered on any material support, which should be transported and delivered through any means but not electronic, to the address indicated by the sender on the mailing support or packing.

Sending of written correspondence reflects the departure traffic of *letters, post cards and small parcels* (simple, rapid, registered, and with value).

**Printed mail (books, catalogues, periodicals)** represents the mailings which are not included in the category of written correspondence.

**Registered mail** includes mailing for which a certain flat guarantee is incurred for such risks as loss, theft, total or partial breakage, deterioration and for which proof is issued upon request at the access or addressee's point.

**Mail with declared value** represents the mailings which are insured against loss, theft, total or partial breakage, deterioration for an amount equal to the value declared by the sender.

**Mail parcels** represent mailings which contain goods with or without commercial value; the mail parcels *should not* contain other mailings.

**Postal orders** register the number of delivered (for fees and on call) postal and telegraphic orders, including pension payments.

**Telecommunication** – any transmission, issuance or reception of signals, records, images, sounds, or information of any nature through wires, radio, optical system or other electronic systems; it includes the network and means which ensure the telephone, telegraph and facsimile links, data transportation, also radio and television broadcasts.

**Public telecommunication network** – telecommunication network to which any person has access in public areas, offices, and at home, etc.

**Main telephone line** is the line which links the terminal equipment of the subscriber with the switcher, having individual access to the equipment of the (office) telephone station.

**Equipped capacity of telephone stations** represents the totality of telephone lines installed in the telephone stations.

**Capacity of telephone stations in operation** represents the totality of telephone lines allocated to the users.

**Telephone sets** represent the number of telephones of any type which are connected directly or through a subscribers' station to (office) telephone stations.

**Public telephone sets** represent the total number of public telephones which operate with a coin or card.

<p><b>Manual interurban telephone conversations</b> cover all exiting phone calls, including the ones from telephone booths.</p> <p><b>Automated telephone conversations</b> represent the total number of impulses registered on the meters of all automated telephone sets, including the automated public sets.</p> <p><b>Local traffic</b> in own network refers to the calls originating and finishing in the country, within the same tariff zone (within which the local tariff is applied).</p> <p><b>Interurban traffic</b> in own network refers to the calls originating and finishing in the country in different tariff zones (within which local tariff is applied).</p> <p><b>International traffic</b> in own network refers to the calls originating in the country and finishing outside the country.</p> <p><b>Mobile network subscribers</b> – individuals or legal entities using mobile telephony services (GSM).</p> <p><b>TV stations</b> represent the number of installations for broadcasting mobile images with the help of electromagnetic waves to an unlimited number of receivers.</p> <p><b>Radio stations</b> represent the number of installations for broadcasting radio transmissions with the help of electromagnetic waves to an unlimited number of receivers.</p>
<p><b>3.2.2. Unit of measurement</b></p> <p>Number; units/thousand units for physical indicators; Value indicators regarding expenditures on informatization are expressed in <i>thousand lei</i>.</p>
<p><b>3.2.3. Formula of calculation</b></p> <p>The number of telephone sets/mobile telephony subscribers per 100 inhabitants is calculated in relation to the total number of telephone sets/mobile telephony subscribers and the total number of inhabitants (stable population) by the end of the year *100</p>
<p><b>3.3. Used classifications</b></p> <p>To identify the economic units participating in statistical surveys, the following classifications are used:</p> <p><b>Classifier of Activities in Moldova Economy</b> (CAEM - <i>Clasificarea Activităților Economiei Moldovei in Romanian</i>), harmonized with NACE ver.2.</p> <p><b>Classifier of Ownership Forms in the Republic of Moldova</b> (CFP – <i>Clasificatorul formelor de proprietate in Romanian</i>): approved via the Decision of the Standards, Metrology, and Technical Supervision Department no. 276-st dated 04.02.1997;</p> <p><b>Classifier of Administrative-Territorial Units of the Republic of Moldova</b> (CUATM - <i>Clasificatorul unităților administrativ-teritoriale al Republicii Moldova</i>), approved via the Moldova-Standard Department Decision no. 1398-ST dated 03.09.2003; enforced since 03.09.2003.</p>
<p><b>3.4. Scope</b></p>
<p><b>3.4.1. Sector coverage</b></p> <p>Post activities enclosed in class 5310 and 5320 from CAEM rev. 2;</p> <p>Telecommunication activities enclosed in class 6110, 6120, 6130, 6190 from CAEM rev.2;</p>
<p><b>3.4.2. Statistical population</b></p> <p>The statistical collectivity studied through statistical surveys (listed in point 4.1.1.) covers:</p> <p><b>annually</b> - (<i>f.nr.1-inf.</i>) – legal entities possessing information means, information systems and/or rendering information services;</p> <p>- (<i>f.nr.1-TC</i>) – Ministry of Information Technology and Communications.</p> <p><b>quarterly</b> - (<i>f.nr.2-TC</i>) - S.E. “Posta Moldovei” and “Moldtelecom” JSC.</p>
<p><b>3.4.3. Geographical coverage</b></p> <p>The information is developed and disseminated without the data of the enterprises and organizations from</p>

the left part of the River Nistru and Bender municipality.
<b>3.4.4. Time coverage</b>
Annual time series are available in publications and on NBS web page – starting with 2000.
<b>3.5. Level of disaggregation</b>
Data resulting from the statistical survey on information technologies are <u>disaggregated</u> by: <b>Ownership forms:</b> public property, private property, mixed property (public and private) without foreign participation, joint ventures' property; <b>Economic activities</b> at the level of CAEM classes (4 digits). Data resulting from the statistical survey on information technologies are disseminated by observing confidentiality requirements.  <u>Used symbols:</u> - the event did not exist; 0,0 small number of cases
<b>3.6. Periodicity of dissemination</b>
Quarterly, annually – data on communications. Annually – data on information technologies.
<b>3.7. Timeliness</b>
Preliminary quarterly data on communication – the 20 <sup>th</sup> day after the reported quarter; final annual data – in May after the reported year. Annual data on information technologies – July after the reported year.
<b>3.8. Revision</b>
Quarterly data are preliminary at the first dissemination; they are revised and disseminated annually. Annual data are final at the first dissemination.
<b>3.9. Period of reference</b>
The reference period refers to: <b>quarter and year of reference</b> – for statistical data on communications; <b>year of reference</b> – for statistical data on information technologies.

<b>4. Data Collecting and Processing</b>
<b>4.1. Data source</b>
<b>4.1.1. Statistical surveys</b>
<b>Annual exhaustive statistical survey</b> “Situation on informatization and computer technology endowment” ( <i>f.nr.1-inf.</i> ). <b>Statistical surveys based on administrative data and submitted through statistical reports:</b> <b>quarterly</b> “Mailings, telephone means, and service rendering via land telephone line” ( <i>f.nr.2-TC</i> ) <b>annually</b> “Activity in communication and information areas”(f.nr.1-TC.).
<b>4.1.2. Administrative sources</b>
Ministry of Information Technology and Communications sends centralized statistical reports <i>f.nr.1-TC</i> and <i>f.nr.2-TC</i> .
<b>4.1.3. Estimations</b>
Not applicable.
<b>4.2. Characteristics of the statistical survey/administrative sources</b>
<b>4.2.1. Objective and background</b>
The main objective of the statistical surveys regarding the: <i>level of informatization and computer</i>

*technology endowment; communications* is to obtain the necessary information for characterizing the information society and produce information on mail and telephone activities and means.

These surveys allow establishing the database regarding informatization level and computer technology, mail and land line activities and means, mobile telephony subscribers, and harnessing the results through studies and analyses.

To follow the informatization process and to fulfill the provisions set in the “Society Informatization Project in the Republic of Moldova” approved via the Republic of Moldova Government Decision No. 155 dated March 6, 1995, the statistical survey on “Situation on informatization level and computer technology endowment” was implemented in the national statistics starting with 1996.

#### **4.2.2. Statistical unit**

The statistical unit for the **annual** statistical survey - *f.nr.1-inf.* covers the legal entities which have information means, information systems and/or provide information services.

For the surveys: **annual** *f.nr.1-TC* and **quarterly** *f.nr.2-TC* – Ministry of Information Technology and Communications.

#### **4.2.3. Circle of units covered in the survey**

*The following units are covered:*

- in the exhaustive statistical survey *f.nr.1-inf.* – annually about 6500 units;
- in the annual statistical survey *f.nr.1-TC* and quarterly survey *f.nr.2-TC*. - 1 unit (Ministry of Information Technology and Communications).

#### **4.2.4. Survey periodicity**

Quarterly (*f.nr.2-TC*);

Annually (*f.nr.1-inf.* and *f.nr.1-TC*).

#### **4.2.5. Data collecting**

The data are collected from the survey questionnaires by the persons appointed by the surveyed statistical units using the self-registration method.

The period of *reference* for the statistical surveys:

- *f.nr.1-inf.* is the calendar year;
- *f.nr.2-TC* is the quarter and *f.nr.1-TC* – calendar year.

The *registration* period for the statistical surveys is the following:

- *f.nr.1-inf.* by March 31 of the next year;
- *f.nr.2-TC* by the 15<sup>th</sup> day after the reported quarter and *f.nr.1-TC* – by March 22 of the next year.

### **4.3. Processing and compilation of data**

#### **4.3.1. Validation of data**

Data are verified and analyzed from their quality point of view, especially in relation to their internal coherence, temporal coherence, as well as coherence with other data at the first stage – by the territorial statistical body, and afterwards – at the central level by the IT main Division of NBS. The results of the statistical surveys are materialized in statistical indicators expressed in total values, percentages, and mean numbers. The controls are based on visual methods, as well as on automated methods using soft applications.

Control methods allow verifying:

- integrity of the data filled in the report;
- compliance of the identification data;
- observance of logical conditions for data correlation.

<b>4.3.2. Compilation/extrapolation of data</b>
Not applicable.
<b>4.3.3. Adjustments</b>
Not applicable.
<b>4.3.4. Quality assurance</b>
<p>The quality of statistical data is ensured by observing the fundamental principles of official statistics approved by the UN Economic Commission for Europe in 1992 (and Statistical Commission/UN in 1994), as well as those set forth in the Republic of Moldova Law on Official Statistics.</p> <p>In its activity of producing statistical information, NBS pays huge importance to ensuring high quality of data. In this respect, a number of measures for quality assurance are carried out at every stage of the statistical process: organization of statistical surveys, collection, processing, and development of statistical information.</p> <p>Important efforts are undertaken to ensure the plenitude and quality of data presentation by the respondents included in the statistical surveys.</p> <p>Errors, inconsistencies, and suspicious data are brought to light so as to be verified and corrected.</p> <p>The primary data are verified and analyzed from internal coherence point of view (within the questionnaire), temporal coherence (with data from previous periods), with data of other similar units, as well as with data available from other statistical surveys and administrative data sources. The missing or inconsistent data are imputed, if needed.</p> <p>To ensure the quality of the primary data, meetings (seminars) are organized with interviewers – respondents for explaining the definitions, the correct way to fill in the questionnaires, especially when they are modified or implemented.</p>
<b>4.4. Data accuracy</b>
<b>4.4.1. Non-response rate</b>
Non-responses were not registered for the statistical surveys mentioned in point 4.1.1.
<b>4.4.2. Sampling errors</b>
Not applicable.

## 5. Comparability and Coherence

<b>5.1. International comparability</b>
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<b>5.2. Comparability over the time</b>
Comparability over the time of the main indicators is generally ensured, starting with 2000.
<b>5.3. Coherence with other statistics</b>
<p>Coherence with other statistics is ensured by use of the same national classifiers.</p> <p>Definitions, notions, and calculation methodology used in the statistical surveys for the ICT sector are common.</p> <p>Coherence of data available in the quarterly and annual statistical surveys in communications area is ensured.</p>

## 6. Institutional Mandate (normative-legal basis)

<p>The NBS activity is based on respecting the Republic of Moldova Constitution, the Law on Official Statistics No. 412 dated 09.12.2004, other legislative and normative acts, NBS management decisions and orders.</p> <p>The Law on Official Statistics regulates the organization and operation of the unique system of official statistics, establishing the general principles for collecting, processing, centralizing, disseminating, and stocking statistical information (art.1).</p>
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Art. 5 of the Law provides that the production of statistical information is based on respecting the following principles: impartiality, statistical deontology, relevance, transparency, confidentiality, cost-efficiency, coordination at the national level, and collaboration at the international level.

Being the central statistical body, the National Bureau of Statistics is an administrative authority created under the Government for leading and coordinating the activity in the statistics area.

In line with the Government Decision No. 1034 dated 29.12.11 on approval of the NBS Regulation and the Nominal Composition of the NBS Collegium, the National Bureau of Statistics:

- develops alone or jointly with other central administrative authorities and approves the methodologies for statistical surveys, as well as the methodologies for calculating statistical indicators, in line with the international standards, especially the EU standards, and with the advanced practice of other countries, and taking into account the peculiarities of the social-economic conditions of the Republic of Moldova;
- organizes, in line with the Program of Statistical Work, approved annually by the Government, statistics surveys regarding the economic, social, and demographic situation and development of the country, carrying out collection, processing, centralization, stocking, and dissemination of statistical data;

The legislative and normative acts ruling the activity of the NBS are available on its official page [www.statistica.md](http://www.statistica.md) , under About NBS (<http://www.statistica.md/pageview.php?l=en&idc=323&> )

## 7. Confidentiality

### 7.1. Principles

According to art. 9(2) of the Law on Official Statistics No. 412 dated 09.12.2004, the official statistical bodies shall protect the obtained individual data.

Chapter V of the above-mentioned law stipulates that the information collected, processed, and stored for the production of statistical information is confidential if it allows direct or indirect identification of either physical or legal persons and reveals individual data. The following information is not confidential:

- a) information that may be obtained from sources accessible to the public, according to the legislation;
- b) individual information about the address, telephone, name, type of activity, staff number of the legal and physical persons that carry out entrepreneurial activities;
- c) information about state owned enterprises, submitted at the request of the relevant central and local public authorities;
- d) information about the central and local public authorities, public health facilities, other public institutions, generalized at the unit level.

According to the Law on Official Statistics, art. 24, access to confidential information is granted to people who, according to their job duties, participate in the production of statistical information, to the extent to which the confidential information is needed for the production of the aforementioned information.

The same article stipulates that the access to confidential information that does not lead to direct identification may be granted through the decision of the general director of the central statistical body for research projects, strategies, and programs of national importance, if there is no any obvious risk of breaking the individual data protection regime and interfering in people's private life.

Art. 25 of the Law stipulates that the statistical information shall not be spread to users if it contains confidential information. In this case, the generalized information shall contain data about at least 3 units, and the share of one unit shall be at most 85% of the generalized information.

### 7.2. Practical assurance of the confidentiality rules

To ensure the protection of confidential statistical data in compliance with the Law on Official Statistics No. 412 dated 09.12.2004, the National Bureau of Statistics undertakes all the regulatory, administrative, technical, and organizational measures to protect the confidential statistical information and prevent its disclosure.

In compliance with the above-mentioned law, the staff of official statistical bodies, reviewers, interviewers, and other people that, according to their job duties, have direct access to individual data,



must keep the data confidentiality, not to reveal it in any form, including after leaving their positions – a fact that is provided in the agreement signed by every employee of the NBS.

Before being disseminated, the statistical data are verified if they meet the protection requirements set for confidential data. If the statistical data contain confidential information (see p. 7.1), they are not disseminated, but aggregated at the minimum available level which ensures the protection of data confidentiality.

## **8. Access to Information and Dissemination Format**

### **8.1. Access to information**

#### **8.1.1. Release calendar**

The timeline of operative information and informative notes developed by NBS is drafted on quarterly basis.

#### **8.1.2. Access to the release calendar**

The calendar for issuing the operative information, information memos and publications is placed on the NBS official page [www.statistica.md](http://www.statistica.md)

#### **8.1.3. Access to statistical data**

According to the Law on Official Statistics No. 412 dated 09.12.2004, art. 9: the official statistical bodies must:

- a) spread the statistical information to users according to the volume, mode and deadlines established in the program of statistical works;
- b) provide all users with access to non-confidential statistical information on equal terms regarding the spreading volumes and deadlines.

The program of statistical work may be accessed on the web page [www.statistica.md](http://www.statistica.md), under About NBS / legislative and normative acts (<http://www.statistica.md/pageview.php?l=en&idc=323&> )

The NBS web page [www.statistica.md](http://www.statistica.md) represents the most important information source for ensuring users' access to different statistical information and transparency about the NBS activity.

All the operative information, informative notes, time series, as well as the statistical publications developed by NBS are placed on its official web page.

### **8.2. Dissemination format**

#### **8.2.1. Operative information / Analytical notes**

Operative information is not elaborated.

#### **8.2.2. Publications**

Publications developed by NBS covering statistical data on:

*information technology*

- Statistical Yearbook,
- Statistical pocket-book "Moldova in figures",

*mail and telecommunications*

- Statistical Yearbook,
- Territorial statistics,
- Statistical pocket-book,
- Social-economic situation of the Republic of Moldova,
- Quarterly Statistical Bulletin.

Access to publications:

- in electronic format, on NBS official page [www.statistica.md](http://www.statistica.md), under Products and services / Publications <http://www.statistica.md/pageview.php?l=en&idc=350&nod=1&> )
- on hardcopies – in the NBS library (more details at the address



<a href="http://www.statistica.md/libview.php?l=en&amp;idc=340&amp;id=2400">http://www.statistica.md/libview.php?l=en&amp;idc=340&amp;id=2400</a> ) <ul style="list-style-type: none"> <li>or may be bought from NBS office (more details on <a href="http://www.statistica.md">www.statistica.md</a>, under Products and services / Publications <a href="http://www.statistica.md/pageview.php?l=en&amp;idc=350&amp;id=2219">http://www.statistica.md/pageview.php?l=en&amp;idc=350&amp;id=2219</a> )</li> </ul>
<b>8.2.3. Database/time series</b>
- <b>Statistical databank</b> <a href="http://statbank.statistica.md">http://statbank.statistica.md</a> , under Economic statistics / Information technologies - <b>NBS official page:</b> <a href="http://www.statistica.md">http://www.statistica.md</a> under: Press Release, Statistics by themes / Information technologies, Publications;
<b>8.2.4. Questionnaires/data sent upon request from international organizations</b>
The annual international questionnaire – Questionnaire on ICT usage by enterprises and on the ICT sector, United Nations Conference on Trade and Development (UNCTAD).
<b>8.2.5. Request for additional data</b>
NBS makes available for users additional statistical information beyond the data presented in the statistical publications, informative notes, operative information, as well as the data placed on the official web page in the limits of available information, in line with the Law on Official Statistics. Request can be sent personally, by post, by e-mail or via online web form – <a href="http://www.statistica.md">www.statistica.md</a> heading Products and services / Statistical data request <a href="http://www.statistica.md/solicitare_informatii_statistice.php?l=en">http://www.statistica.md/solicitare_informatii_statistice.php?l=en</a>

<b>9. Useful References (links)</b>	
<b>9.1. Accessibility of documentation on methodology</b>	
The methodology is available on the official page <a href="http://www.statistica.md">www.statistica.md</a> , under Metadata ( <a href="http://www.statistica.md/pageview.php?l=en&amp;idc=351&amp;nod=1&amp;">http://www.statistica.md/pageview.php?l=en&amp;idc=351&amp;nod=1&amp;</a> ).	
<b>9.2. Accessibility of documentation on Evaluation Reports</b>	
The NBS assessment reports are available on the official page <a href="http://www.statistica.md">www.statistica.md</a> , under About NBS / Assessments and opinions on NBS / Assessment reports ( <a href="http://www.statistica.md/pageview.php?l=en&amp;idc=399&amp;id=2739">http://www.statistica.md/pageview.php?l=en&amp;idc=399&amp;id=2739</a> ).	
<b>9.3. Accessibility of information on user surveys</b>	
User surveys are available on the official page <a href="http://www.statistica.md">www.statistica.md</a> , under About NBS / Assessments and opinions on NBS / User surveys ( <a href="http://www.statistica.md/pageview.php?l=en&amp;idc=399&amp;id=2740">http://www.statistica.md/pageview.php?l=en&amp;idc=399&amp;id=2740</a> ).	
<b>9.4. Other useful references</b>	
EUROSTAT database	<a href="http://epp.eurostat.ec.europa.eu/portal/page/portal/statistics/search_database">http://epp.eurostat.ec.europa.eu/portal/page/portal/statistics/search_database</a>
UNCTAD database	<a href="http://measuring-ict.unctad.org">http://measuring-ict.unctad.org</a>