



## ~ Methodology ~

# ANNUAL SURVEY ON THE USE OF INFORMATION AND COMMUNICATION TECHNOLOGIES IN HOUSEHOLDS AND INDIVIDUALLY

## LEGAL BASIS

The survey is carried out in accordance with the Law on Statistics of Republika Srpska (“Official Gazette of Republika Srpska”, No. 85/03) and pursuant to the Statistical Programme of Republika Srpska for the period 2013-2017.

## METHODOLOGICAL BASIS

### *AIM AND CONTENT OF THE STATISTICAL SURVEY*

The survey on the use of information and communication technologies in households and individually (IKT-DOM) is carried out by the Republika Srpska Institute of Statistics, as an annual survey, in order to obtain a more comprehensive overview of the level of development of information society in Republika Srpska. Results of this survey are data on the presence of information and communication technologies in households, as well as data on the use of personal computers and Internet and data on computer literacy of the population. These data represent an important source for the creation, realisation and improvement of policies in the field of information society in Republika Srpska.

### *OBSERVATION UNITS / SURVEY UNITS*

Observation units are persons aged between 16 and 74 and their households. Survey unit is a member of a selected household. Selected persons provide answers to questions in the questionnaire for themselves, while another household member is also allowed to provide answers for them.

### *COVERAGE*

In accordance with the Eurostat’s methodology, the survey covers households with at least one member aged between 16 and 74, as well as individuals of the same age.

The survey does not cover collective households (home or hotel for single persons, residence for students and boarding school for pupils, home for children and youth with special needs, home for socially vulnerable children, old people’s home, home for old and vulnerable persons, other homes for nursing and care, convents, monasteries, boarding schools, etc.).

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## **METHOD AND PERIOD OF DATA COLLECTION**

Data collection is carried out once a year, based on a sample, through computer assisted telephone interviewing (CATI). The sample is designed as a two-stage random sample, stratified by type of settlements. Units of the first stage are enumeration areas, while units of the second stage are households. The reference period represents the period for which data were collected. For most questions, the reference period covers three months, while for some of them the reference period covers 12 months preceding the interview.

## **PROTECTION OF CONFIDENTIAL DATA**

Pursuant to Article 27 and Article 28 of the Law on Statistics of Republika Srpska and in accordance with the Rules of protection of confidential data, the Institute is obliged to protect submitted confidential data. Thus, the Institute must not use data collected for statistical purposes for any other purposes nor publish them as individual data.

## **DEFINITIONS**

**ADSL (Asymmetric Digital Subscriber Line):** Broadband digital transmission technology which uses the existing telephone line, allowing simultaneous transmission of data and voice calls.

**Bit:** The smallest unit of information in computing. It is shown in the binary representation as 1 or 0, or as true or false in the logical representation. A series of 8 bits is a byte.

**Broadband Internet connection:** A type of Internet connection which provides high-speed data transfer. It represents a communication system in which the transmission medium (e.g. optical fiber cable) simultaneously transmits multiplied data, while individual data are modulated on separate frequencies

**Browser:** A software solution used to search the Internet. It is a programme/application used to load web pages and other contents on the Internet. The best-known browsers are Internet Explorer, Mozilla Firefox, Google Chrome, etc.

**Dial-up connection:** A type of Internet connection which uses a telephone line to connect to the network.

**Digital products or services:** Goods and services that can be ordered and delivered via computer, that is, via the Internet (e.g. music, films, video games).

**Download:** The process of copying documents to the user's computer from another computer or from a computer within an Internet service.

**Digital Subscriber Line DSL:** A type of broadband Internet connection established using standard telephone lines.

**Electronic commerce:** Purchase or sale of goods or services using the Internet.

**Electronic mail:** Electronic transfer of messages, including text and attachments, from one computer to another computer, via the Internet.

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**GPRS (General Packet Radio Service):** A protocol which enables wireless transfer through GSM networks.

**3G network** refers to the third generation of mobile telephony, which enables transfer of text, sound and television images, offering speeds up to 14 Mb/s.

**Internet:** A global electronic communication system made up of many interconnected computer networks and devices that exchange information using a common set of communication protocols.

**Network:** A group of computers and other units that are connected and their mutual interaction is enabled. The Internet represents the largest network, as a collection of the world's networks.

**Virus** is a computer programme, whose running and loading damages or deletes data on a computer.

**WiFi** is a wireless network in which data between two or more devices are transmitted using radio frequencies and corresponding antennas.

#### ***DATA PROCESSING***

Control and processing of statistical material obtained through interviews are organised at the headquarters of the Republika Srpska Institute of Statistics.

When persons are interviewed as members of sampled households, data are entered into the BLAISE application directly. The application used for data entry includes controls which prevent computationally and logically incorrect data being entered into the database. These are "HARD" and "SOFT" controls that prompt and stop the entry until correct data are entered. Such method of data entry provides a database containing logically and computationally correct data.

Data collected from respondents represent a basis for estimates of data for the entire population, through weighting. Weights are calculated in two steps. In the first step, each sampled household is assigned a sample weight, calculated as the reciprocal of the probability of selection for each household. In the second step, adjustments are made based on non-response. Post-stratification, that is, the adjustment of weights by age group and sex, is not done, due to the lack of reliable population estimates by sex and by age group. By means of the aggregation of weighted data across domains of interest, estimates of unknown population parameters are calculated. After the database is formed, data are analysed, tabulated and published.

#### ***COMPLIANCE WITH INTERNATIONAL RECOMMENDATIONS AND STANDARDS***

Survey on the use of information and communication technologies in households and individually complies with the Eurostat's methodology (Regulations of the European Parliament and the Council, No. 808/2004 and No. 1006/2006; Commission Regulation (EU), No. 1196/2014 and No. 2015/2003).

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## **ORGANISATION OF SURVEY IMPLEMENTATION**

### ***AUTHORITIES IMPLEMENTING THE STATISTICAL SURVEY***

Pursuant to the Statistical Programme of Republika Srpska for the period 2013-2017, the preparation, organisation and implementation of the survey, as well as the processing of collected data, are carried out by the Republika Srpska Institute of Statistics.

### ***OBLIGATION TO PROVIDE DATA***

The obligation to submit data to the Institute is based on Article 8 of the Law on Statistics of Republika Srpska ("Official Gazette of Republika Srpska", No. 85/03).

### ***PERIOD OF DATA COLLECTION***

Data collection through computer assisted telephone interviewing is carried out in May of the current year.

## **INSTRUMENTS**

The following methodological instruments were designed for the implementation of survey on the use of information and communication technologies in households and individually:

- List of sampled households
- Questionnaire – IKT- DOM.

## **PUBLISHING**

Data are published for the Republika Srpska level, in an annual release, at the official website of the Institute [www.rzs.rs.ba](http://www.rzs.rs.ba). Interpretation of the published data is the sole responsibility of the Republika Srpska Institute of Statistics

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