

## Terms of Reference

### EU Twinning Project IL/12 CRIS 2015/370-467

**Date:** To be decided upon availability of Member States (MS) experts from Statistics Netherlands (CBS) and the Israeli Central Bureau of Statistics (ICBS)

**Dates:** 23 – 25 April 2018.

#### Component B: Micro Data services to researchers

##### Activity B.8: Confidentiality and Output Control

#### 0. Mandatory results and benchmarks for the component

Mandatory results:

- *Setting up an overall program for providing researchers with access to micro-data, based on the analysis of the current situation and a designated strategic plan* (February 2018)

Benchmarks:

- **IB1:** Report and analysis of the current situation adopted (and identification of gaps to be bridged) by 2th project quarter;
- **IB2:** Strategic Plan elaborated for providing researchers with access to micro-data by 5th project quarter;
- **IB3:** Organizational and technological implementation plan, including data security, proposed by 7th project quarter;
- **IB4:** Formal organizational structure proposed to by 6th project quarter;
- **IB5:** An administrative management system adopted by 7th project quarter;
- **IB6:** Policy, structure and content of data catalogue outlined by the 8th quarter;
- **IB7:** *Guidelines for output approved by the Confidentiality Committee by 9th project quarter*
- **IB8:** Proposal for legislation submitted to the Israeli Central Bureau of Statistics (ICBS) top management by 10th project quarter;

#### 1. Purpose of the activity

The objective of this activity is to (i) To provide the participants with an overview of Statistical disclosure theory and methods and (ii) To introduce participants to the practice of output checking and (iii) Initiate drafting of Guidelines for confidentiality and output control

##### *Statistical disclosure (Day 1)*

This part concentrate on statistical disclosure theory and methods of tabular data protection and microdata protection, as well as the respective software.

Content:

- Main theoretical principles of Statistical Disclosure Control (SDC);
- Methods of tabular data protection;
- Methods of microdata protection;
- Software for SDC tabular data and microdata protection;
- Practical case studies

### ***Output checking (Day 2)***

This part of the course will introduce the ICBS to the practice of output checking. The course focuses on aggregated output that is generated from microdata provided to researchers either from dedicated research room or via remote access.

Content:

- Output checking – general rules, type of output and format for output;
- Approaches for checking tabular output and non-tabular output;
- Requirements for output e.g. description of output
- Training of inspectors and researcher training;
- Examples and practical case studies;
- Software examples using Tau Argus and Mu Argus software;
- Confidentiality test and an automated IT system for questions about confidentiality;
- Organization
- Policy and procedures for output control;
- Actions in case of breaches

The activity will alternate between theoretical background and practical application provided through:

- Lectures and presentations;
- Examples and practical case studies;
- Discussion of case studies;

### ***Drafting guidelines for output (Day 3)***

Based on Guidelines for OS-RA Output in the Netherlands, that will be provided to participants both in English and Hebrew before the Mission writing guidelines together with the expert(s) and according to lessons learned and discussions.

Content:

- Guidelines for OS-RA Output in the Netherlands
- Group work on drafting Guidelines

### ***Writing up Mission Report and ad-hoc meetings if needed (Day 4)***

#### **2. Expected output of the activity**

- Better understanding of the theory, methods and software used in statistical disclosure for tabular data and microdata protection.
- Better understanding of theory and methods used when statistical output that has been created by researchers is checked for statistical confidentiality.
- Activity report – including a draft outline for Guidelines for output to be used for output-checker at the ICBS as well as researchers

### **3. Participants**

#### ***International Relations and Statistical Coordination Department***

- Ms. Sigalit Mazeh, BC Component Leader, Director, International Relations and Statistical Coordination Department, [sigalit@cbs.gov.il](mailto:sigalit@cbs.gov.il);
- Ms. Anat Katz-Avram, responsible for research rooms, [anatk@cbs.gov.il](mailto:anatk@cbs.gov.il)
- Ms. Amira Abu Rmele, Research Service Unit, [amiraa@cbs.gov.il](mailto:amiraa@cbs.gov.il)
- Mr. Uriel Naiman, Student in Research Service Unit, [Urieln@cbs.gov.il](mailto:Urieln@cbs.gov.il)
- Ms. Rebecca Krieger, Research Service Unit, [rebeccak@cbs.gov.il](mailto:rebeccak@cbs.gov.il)

#### ***Office of National Statistician***

- Mr. Moshe Pollak, Chief Scientist, [moshep@cbs.gov.il](mailto:moshep@cbs.gov.il)

#### ***General Legal Counsel***

- Mr. Brian Negin, Legal Adviser, [briann@cbs.gov.il](mailto:briann@cbs.gov.il)
- Ms. Michal Chorin, Future Legal Advisor, [michalcho@education.gov.il](mailto:michalcho@education.gov.il);
- Ms. Hadar Rada, [hadarr@cbs.gov.il](mailto:hadarr@cbs.gov.il)

#### ***Security experts***

- Mr. Haim Plachinsky, Data Security Officer, [haimpl@cbs.gov.il](mailto:haimpl@cbs.gov.il)

#### ***Data Confidentiality Committee***

- Mr. Ahmad Hlihel, Chairman, Data Confidentiality Committee, [ahmadh@cbs.gov.il](mailto:ahmadh@cbs.gov.il)

#### ***Data Transfer Committee***

- Ms. Tali Tal, Director, Infrastructure Economic Statistics Department, Chairman, Committee for Data Transfer, [tali@cbs.gov.il](mailto:tali@cbs.gov.il)

#### ***Business Economic Statistics Department***

- Ms. Ronit Nissimbaom, Business- Economic Statistics Department; Business and Manufacturing Surveys Sector, [ronitn@csb.gov.il](mailto:ronitn@csb.gov.il)
- Mr. Joseph Androues, Population Estimates Sector, [Joseph@csb.gov.il](mailto:Joseph@csb.gov.il)

#### ***Demography and Censes Department***

- Ms. Naama Rotem, Demography and Census Department, Health and Vital Statistics Sector; [Naama@cbs.gov.il](mailto:Naama@cbs.gov.il)
- Ms. Hadas Yaffe, Demography and Census Department, Coordinator in the Census Planning and Developing Sector; [hadasy@cbs.gov.il](mailto:hadasy@cbs.gov.il)

#### ***Education and Teaching Staff Statistics Department***

- Mr. Nir Fogel, Education and Teaching Staff Department, Welfare, Crime and Legal Sector, [nirf@cbs.gov.il](mailto:nirf@cbs.gov.il)
- Ms. Yifat Klopstock, Education and Teaching Staff Department, Learning Transitions and Follow-Up Sector, [Yifatk@cbs.gov.il](mailto:Yifatk@cbs.gov.il)

#### ***Macro-Economic Statistics Department***

- Ms. Taina Trahtenberg, Macro-Economic Statistics Department, Balance of Payments and International Trade Sector, [TainaP@cbs.gov.il](mailto:TainaP@cbs.gov.il)

#### ***Micro Economic Statistics Department***

- Mr. Mark Feldman, Micro-Economic Statistics Department, Labour Statistics Sector; [feldman@cbs.gov.il](mailto:feldman@cbs.gov.il)
- Ms. Yafit Alfandari, Micro-Economic Statistics Department; [yafita@cbs.gov.il](mailto:yafita@cbs.gov.il)
- Ms. Orly Furman, Micro-Economic Statistics Department; [Orlyf@cbs.gov.il](mailto:Orlyf@cbs.gov.il)
- Ms. Liron Sivan-sherman, Micro-Economic Statistics Department, Consumption and Finance Sector, [Lirons@cbs.gov.il](mailto:Lirons@cbs.gov.il)
- Ms. Nerdit Shtain-kapach, Longitudinal and Social Surveys Sector, [Nerdits@cbs.gov.il](mailto:Nerdits@cbs.gov.il)

### ***Infrastructure-Economic Statistics Department***

- Ms. Gilat Galimidi, Infrastructure- Economic Department, Transport and Communications Sector, [gilatg@cbs.gov.il](mailto:gilatg@cbs.gov.il)

### ***Statistical Methodology Department***

- Ms. Louiza Burk, Director, [louiza@cbs.gov.il](mailto:louiza@cbs.gov.il)
- Mr. Tzahi Makovsky, Deputy Director, [Tzahim@cbs.gov.il](mailto:Tzahim@cbs.gov.il)
- Mr. Theodor Itzkov, [theodori@cbs.gov.il](mailto:theodori@cbs.gov.il)
- Ms. Alexandra Katzenelenbogen, [Alexas@cbs.gov.il](mailto:Alexas@cbs.gov.il)

### ***Twinning Staff***

- Mr. Yoel Finkel, BC Project Leader, Associate Government Statistician: [yoel@cbs.gov.il](mailto:yoel@cbs.gov.il)
- Ms. Charlotte Nielsen, Resident Twinning Adviser; [cln@dst.dk](mailto:cln@dst.dk) ; [CharlotteN@cbs.gov.il](mailto:CharlotteN@cbs.gov.il)
- Ms. Batia Attali, RTA counterpart, International Relations and Statistical Coordination Department; [batia@cbs.gov.il](mailto:batia@cbs.gov.il)
- Ms. Tamar Rand, Resident Twinning Adviser Assistant; [TamarRa@cbs.gov.il](mailto:TamarRa@cbs.gov.il)

### ***Other Ministries and Stake Holders***

- Mr. Michael Bell, Bank of Israel, Information and Statistics Division, [michael.bell@boi.org.il](mailto:michael.bell@boi.org.il)
- Ms. Mali Sher, The Israeli Police, Producer of Traffic Data, [mali\\_sher@yahoo.com](mailto:mali_sher@yahoo.com)
- Ms. Rachel Ran, Government ICT Authority, [rachelra@cio.gov.il](mailto:rachelra@cio.gov.il)

### ***MS experts from Statistics Netherlands***

- Mr. Eric Schulte Nordholt, Adviser on Statistical Disclosure Control, Statistics Netherlands; [e.schultenordholt@cbs.nl](mailto:e.schultenordholt@cbs.nl)

## **4. Current Situation for researcher's access to microdata and output control**

Starting from 01 October 2017 a new Research Service Unit was created under the International Relations and Statistical Coordination Department. The unit is headed by Mr. Adnan Mansur

Currently about 60 active research projects are hosted by the Israeli Central Bureau of Statistics (ICBS). In addition there are about 15 additional research projects in different stages of approval. In total about 100 researchers, have access to the current projects. The projects are distributed among 25 different research institutions.

Presently ICBS provides micro-data files approved researchers from accredited research institutions in research rooms managed by ICBS. The research rooms are equipped with standalone computers with statistical analysis programs such as SAS and STATA, although SAS might be phased out as an option in the future.

For each project one customized and de-identified research dataset is created according to the need to know principle. The dataset integrates multiple datasets delivered by multiple units and may also include external data.

Aggregated results from the research room can be transferred to the researcher only after a careful inspection by ICBS. Each project has a appointed a staff member from the subject to check all output all from the specific project. Unlike in the Netherlands there is no requirements for the output to be followed by a description of the output. All output have meet the confidentiality policy of the ICBS. However, currently there is not guidelines available for the output inspector or the researchers and therefore rules are interpreted by the individual output inspector and are not harmonized across the organization.

As preparation for this activity the current practice of output checking in the ICBS has been mapped and discussed in a forum of staff members from subject units, Research Service Unit and International Relations and Statistical Coordination Department. In addition practices for output control in a number of selected Member States has been mapped (Annex A and B) and discussed in the same forum as mentioned above.

## **5. Vision for ensuring confidentiality and output control**

*The vision for the future to provide a clear data confidentiality policy as well as to provide training and guidelines for researchers output in a user-friendly and competent manner.*

More specifically the ICBS aims in the future to implement and provide the following services, requirements and organization:

- Provide extensive Output Guidelines for researchers.
- Outputs should be checked by trained inspectors from the Research Service Unit of the ICBS.
- Output need to be accompanied by a description of the output using a template provided by ICBS.
- Require that all researchers pass a confidentiality test before they can be approved as authorized researchers.
- In the long run, the ICBS aims for a system like the system applied in the Neterlands where questions about confidentiality will automatically pop-up at random intervals every time the researcher is logged on to their project

## Draft Programme for Activity B8

Date	Place	Time	Event
<b>Monday</b> 23-04-18	Golan	09:00	Welcoming, acquaintance, program of the week
		09:30	<b>BC:</b> Expectation from the current activity by the component leader of Twinning Team of Component B (Sigalit Mazeh)
		10:00	<b>BC:</b> Current status and presentation of vision for Confidentiality and Output Control (Sigalit Mazeh and Ahmad Hlihel)
		10:30	Coffee break
		10:45	<b>MS:</b> Introduction to Statistical Disclosure Control
		12:00	Lunch
		13:00	<b>MS:</b> Problems in tabular data protection
		14:00	Ad hoc meetings and live demonstration as needed
		15:00	<b>Eric Nordholt:</b> Meeting with Olivia Blum and her Team concerning Census
		17:00	End of the day
<b>Tuesday</b> 24-04-18	Golan	09:00	<b>MS:</b> First day review
		09:15	<b>MS:</b> Methods in tabular data protection
		10:30	Coffee break
		10:45	<b>MS:</b> Problems in microdata protection
		12:00	Lunch
		13:15	<b>MS:</b> Methods in microdata protection continued
		14:00	<b>MS:</b> Legal and access facilities
		15:00	<b>Eric Nordholt:</b> Meeting on methodological issues with Tzahi Makovsky, Louiza Burk, Theodor Itzkov and Alexandra Katzenelenbogen
		16:00	End of the day
<b>Wednesday</b> 25-04-18	5 <sup>th</sup> Floor	09:00	<b>MS:</b> Second day review
		09:15	<b>MS:</b> Output checking
		10:00	Other presentation(s) or discussions
		12:30	Lunch
		13:30	<b>BC/MS:</b> Preparing vision and recommendations to the management
		14:30	<b>BC/MS:</b> Presentation of vision and recommendations to the management
		15:00	Final remarks and thanks
<b>Thursday</b> 26-04-18		09:00	<b>MS:</b> Writing up reports and ad hoc meetings with BC if needed

### **Abbreviations**

*BC = Beneficiary Country (Israel)*

*MS = Member State (The Netherlands)*

*ICBS = Israeli Central Bureau of Statistics*

### **Material to be prepared before the Activity:**

Presentations