

TERMS OF REFERENCES

National consultant to develop the software for processing of the Industrial Turnover Index in regional perspective

Contract type:	Individual Contract modality
Duty station:	Home based
Estimated Duration:	March-May 2014, estimated volume of work 35 working days
Contracting Authority:	United Nations Development Programme (UNDP)
Main stakeholder:	National Bureau of Statistics
Final beneficiary:	Ministry of Regional Development and Constructions, Ministry of Economy, Ministry of Agriculture and Food Industry, State Chancellery, other CPAs and LPAs
Reference to Project:	UN Joint Project on Strengthening the National Statistical System, donor Government of Romania
Activity 7:	"Improvement of availability and reliability of regional statistics for decision-makers of the Republic of Moldova", component 1 – Support the evidence-based monitoring of regional development policy.

BACKGROUND

Joint UN Project on Strengthening the National Statistical System of RM (Statistics Project) is currently implemented by the National Bureau of Statistics in partnership with the UNDP, UN Women, UNICEF, UNFPA, ILO and the Government of Romania, and aims at improving data production, dissemination and use of statistical information with particular attention to national needs and overall conformity of official statistics with international standards. One of the intended outcomes of the Statistics project is to improve the National Bureau of Statistics capacity and other ministries involved in the production of information to produce timely, multi-dimensional disaggregated data of appropriate quality.

This project responds to the urgent need to increase the availability and quality of regional statistics used to ensure that disadvantaged areas of the country are clearly identified and the nature of their problems to be understood clearly. These statistical problems can be identified and resolved gradually by exploring different approaches and learn from the advanced experience of other countries and by strengthening the Regional Development Agencies to monitor the implementation of regional development strategies.

CONTEXT

Sustainable regional development is an imperative assumed by the Government of Moldova, which has also confirmed its commitment to equally distribute the opportunities/chances for regional development throughout the country. To achieve this objective, it is necessary to know in detail the intensity and depth of the problem, which cannot be achieved without complex and systematic investigation, following the evidence and data-based approach. Good, reliable regional statistics have to be available in order to provide an adequate basis for analyzing regional disparities, for identification of potential growth areas. Improvement of regional statistics aimed to establish some concrete indicators of scope and of tasks, is one of the elements necessary to ensure strategic governance.

The current Strategic Development Program (SDP) of NBS was designed to focus on the harmonization of national statistics with international standards, an essential part of the policies and the state aspiration to align with international standards and EU accession. Accordingly, the adjustment of statistical processes to current national needs and in accordance with European statistics system envisages the use of appropriate tools and methodologies designed to ensure reliable, relevant and timely statistical data.

The 21st objective of the NBS SDP, *preparation of the information on business activity at territorial level*, will be partially realized. The project aims to improve the quality of regional data and making them available to policy makers and planners within government bodies at central / regional and local levels, so that government policy and planning regarding the regional development at all levels to be informed properly.

The successful achievement of the given project objectives should lead to the improvement of the:

1. Socio-economic statistical indicators system at regional level and the calculation methodologies;
2. Information flows, resulting in increased use of administrative and statistical sources of the information to produce reliable and disaggregated statistical data necessary for the Local Public Administration operation.

Industrial Turnover Index is one of the short-term indicators showing the monthly evolution of the market of goods and services in the industrial sector and its objective is to measure the market activity in the industrial sector in value. The information on this indicators is rather important for the short-term analysis. While the Industry Price Index provides information about the evolution of the gross value added volume, the Industrial Turnover Index is used to evaluate the actual trends of sales and, therefore, the market fluctuations.

This Index describes the future perspectives, needs and feasibility of funding the intended investments and exploitation expenditures. At present, only the value of turnover, at national territorial levels, is calculated on the basis of data from the monthly statistical survey on short-term indicators in services (SERV TS), performed in accordance with European Council Regulation no. 1165/1998, the European Parliament and Council Regulation no. 1158/2005 and European Commission Regulation no. 1503/2006 concerning short-term statistics. The need to produce the Turnover Index in industry at the national and regional levels occurs.

Industrial Turnover Index accordingly to NBS Requirements & Specifications is a solution that requires synchronized data from a number of data sources. Data sources involved into building of Industrial Turnover Index are being spread between Oracle database of NBS and a number of files that are managed separately by its economists. Instead of creating a desktop application a web solution¹ will be provided.

SCOPE OF WORK AND EXPECTED OUTPUTS

The United Nations Development Programme (UNDP) Moldova, through its *Joint Project on Strengthening the National Statistical System*, is seeking to employ one national consultant to **develop the software application for processing of statistical data for calculation of regional Industrial Turnover Index (ITI).**

Specific objectives

The specific objective of the assignment is to provide the National Bureau of Statistics with the professionally designed software application and the related documentation which is to be applied by the statisticians and economists of the NBS for the processing and calculation of the Industrial Turnover Index by development regions, generation of output tables (cross-tabulations), as well as to automatic upload the data into the NBS database.

The software application will be designed as an additional module to the computer program used for inputting and processing of data from the Short-Term Business Statistical Integrated Survey/ STBSIS (component IND-TS) and should be developed in accordance with the generic Technical Specifications on expected software application ([attachment 1, including 4 annexes](#)) and the Guidelines of Short term Business Statistical Integrated Survey soft ([attachment 2](#)), which contain the description of overall structure of the program, the basic principles of its functioning, data input and output requirements applied, the feasible operations on data, verification and control modules, etc.

The most complicated aspect of the requirements is that Industrial Turnover Index would be dynamically created, i.e. the results would depend on the data in input files which are called configuration files. Accordingly to requirements there are 4 configuration files and all these files can be changed at any time by economists and uploaded into the system on their demand. In order to support this action, i.e. make possible to upload files and load their data into the system automatically on user demand, there is need to create another application.

Of course the application should be web based as it must be accessible to a number of users and able to be integrated with current solutions. The application will have to be able to authenticate only trusted users by using user/password form, as well as authorization.

The consultancy will be based on the knowledge and experience of the selected consultant. On behalf of NBS, the participation and necessary involvement of representatives of the Industrial Statistics Division will be ensured.

Activities envisaged under the present task will contribute to the achievement of mid-term priorities of NBS and will be carried out in accordance with the Law of Republic of Moldova on Official Statistics, Programme for NBS Strategic Development and Annual Plan of Statistical Works.

Expected benefits

In the short run, the successful accomplishment of the present assignment's targets will lead to:

- development of modern software applications aimed at processing the collected data on industry, and also generation/production of tabulations with aggregated indicators;
- the respective software, designed in a user-friendly format, will be easily operated (data processed and output tables delivered) by the industrial statistics specialists, participation of the IT specialists being minimized.

In the medium run, the successful achievement of the present assignment's objectives will lead to:

- improvement of statistical processes related to data processing;
- improvement of the system of statistical indicators regarding industrial activity;

¹ Web solution is more complicated from development point of view than a desktop applications but it realizes thin client architecture which allows any number of workstations to work with the application. Moreover, any updates do not require service packs packages and additional installations and upgrades.

- promotion of cost-efficient activities of data processing as ad-hoc modules to the ongoing statistical surveys, which also makes them sustainable in the long perspective;
- improvement of availability of multi-dimensional disaggregated data on Industrial Turnover Index to be used for evidence-based monitoring and analysis by policymakers and other data users from the perspective of development regions.
- contribute to the improvement of the Government's work on reporting to national and international documents and treaties by reducing the reporting time and efforts through application of a list of relevant indicators;
- identify gaps and areas of concern on the strengthening of the statistical system that should be addressed in the nearest future.

The consultant will provide a high level of analytical work, effective communication and cooperation with NBS and UNDP, and is expected to perform a team work with specialists from the mentioned institutions for the successful fulfillment of the formulated tasks.

Main Tasks and Responsibilities

The contracted consultant, under the overall supervision of the Project, in partnership with NBS, is expected to:

- Establish contact with the staff of NBS responsible for industry statistics, as well as the IT specialists (who will afterwards assist the maintenance of the produced soft), and get familiar with the results of previous activities undertaken so far by the NBS in the named field;
- Analyse the available materials related to the Industrial Turnover Index in Industry (questionnaires, methodologies, tools, etc.), as well as the instruction on the software used by NBS for the short term integrated statistical survey (component IND-TS);
- Consider the proposed generic Technical specifications for the expected software application aimed to process data from the STBSIS survey database for calculation of the Industrial Turnover Index in regional perspective, as well as eventual adjustments to it agreed with NBS, and provide inputs for its completion;
- Propose own approach for the expected activities and results, as well as a detailed work plan that encompasses the above-mentioned objectives, and discuss them with the Project partner;
- Draft the structure of the future programme and discuss it with the NBS team (NBS statisticians, economists and IT staff);
- Design the draft version of the software application including modules on inputting, processing and compiling of final aggregated results on regional Business Turnover Index in Industry according to the NBS requirements;
- Test the draft version of software on the basis of monthly data collected during the January-March 2014 in the framework of STBSIS through checking the logical correlations among variables. The opinion of the Romanian expert from the National Institute of Statistics (another Project's implementing partner) will be taken into consideration (to be consulted by NBS).
- Improve the software application and adjust the logical correlations according to the testing results;
- Install the produced software on NBS web platform;
- Provide training of the NBS staff (industrial statistics unit and IT specialists) as it regards the produced application, its future upgrade and maintenance;
- Hand-over of the software application and the related documentation, including the instructions/manual on further exploitation of the product;
- Other support activities.

DELIVERABLES AND TIMEFRAME

Performing the mentioned above activities, the consultant will be responsible for delivering of the following outputs, comprising the main milestones:

Nr.	Delivery	Timeframe
1.	<ul style="list-style-type: none"> • Detailed Action Plan including timelines agreed with NBS and the Project • Draft the structure of the future programme and discuss it with the NBS team 	By the end of the 1 st week from contract date
2.	Trial (alpha) version of the software application	By the end of the 4 th week from contract date
3.	Tested computer software product (release to using=ready for mass distribution/use) and the related documentation	By the end of the 6 th week from contract date
4.	Training of the NBS staff on the use, upgrade and maintenance of the produced software programme	By the end of the 8 th week from contract date
5.	Final report on undertaken assignment (including stages passed, inventory of resources used, results obtained versus expected, impact of obtained results, risks overcome and problems faced, lessons learned, recommendations etc.) plus documentation related to the developed outputs	Before end May 2014

All the written deliverables should be agreed with the Coordination Team (consisting of representatives of NBS, UNIFEM, UNDP) and be provided in Romanian, hard and electronic copy. The last delivery will be also provided in English.

Estimated Duration of the Contract

The activities under the present assignment are expected to commence at the **middle of March 2014** and be completed by **end of May 2014**. The volume of consultancy has been estimated at **35 working days overall per whole assignment** (full days of 8 hours) (*could be changed if correspondingly justified*) during which all the activities and outputs/results envisaged under the present assignment are expected to be performed.

Note: The mentioned number of working days has been estimated as being sufficient/ feasible for the envisaged volume of work to be completed successfully and is proposed as a guideline for the duration of assignment, and it can not be used as criteria for completion of work/assignment. The provision of envisaged deliverables approved by the Project partners and concerned national stakeholders would be the only criteria for the Contractor's work being considered completed and eligible for payment/s.

The success of given activity can be ensured only by team work of all partners involved via active participation at all the stages of the assignment and the contracted consultant should play the role of guarantor of these joint effort.

QUALIFICATIONS AND SKILLS REQUIRED

The following qualification criteria are applied during the selection of the consultant:

Education:

- University **degree** in computer science, statistics and/or other areas relevant for the assignment;
- Other formal education relevant for the assignment;

Experience:

- Minimum of 4 years of proven **experience** in designing and maintaining of software applications, including those based on contemporary web technologies, or other relevant professional experience;
- Experience in implementation of similar projects for other **Government** institutions/subdivisions;
- Experience in working with **international organizations** and UN agencies in particular would be an asset;

Competencies and Skills:

- Familiarity of ICT **terminology and definitions**, e-Statistics, as well as best international/EU practice applied in national statistics activities aimed at efficient integration of data collection, imputation, processing and dissemination;
- Knowledge of the peculiarities of **statistical sector** (e.g. data collection process, methodologies used in enterprises statistics, etc.) would be an asset;
- Good communication and writing skills;
- Good knowledge of Romanian and Russian (knowledge of English will be an additional asset);

Personal Qualities and other requirements:

- Good interpersonal skills, solid judgment/decision making, initiative and creativity;
- Availability to work with UNDP and Project's national stakeholder during the indicated/approved period;
- Cultural and gender sensitivity.

Performance evaluation

Contractor's performance will be evaluated against such criteria as: timeliness, responsibility, initiative, communication, accuracy, and quality of the products delivered.

Reporting requirements

When the need is confirmed and at the request of Project Manager, the Consultant will report (informally) on ad-hoc basis on the progress achieved, difficulties encountered in the process of work and the supported needed from the Project or counterparts, results accomplished as well as eventual changes in the activity plan/schedule, etc.

Financial arrangements

Payments will be disbursed in installments upon confirmation of Joint UN Project on Strengthening the National Statistical System on delivering of the contract obligations, services and products in a satisfactory manner.

Travel Requirements

During the contract period no travel is required.