

## TERMS OF REFERENCES

Job title:	<b>National consultant to make adjustments in the software, databases and registers for the transition of national statistics to EU statistical classifications</b>
Potential Applicants:	National consultant in information technologies
Application Deadline:	13 January 2014
Expected Duration of Assignment:	January-March 2014, estimated volume of work - 25 working days
Reference to Project:	UN Joint Project on Strengthening the National Statistical System
Project Activity:	Improve production of disaggregated statistical data and alignment to international standards in statistics
Contract type:	Individual Contract
Beneficiary:	National Bureau of Statistics

## BACKGROUND

Joint UN Project on Strengthening the National Statistical System of RM (Statistics Project) is currently implemented by the National Bureau of Statistics (NBS) 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 Statistics Project's intended results is the improved capacity of the National Bureau of Statistics and other line ministries to produce (through the administrative reporting system, surveys and censuses) in a timely manner, data of appropriate quality being multi-dimensionally disaggregated and aligned with the EU/international requirements and regulations.

The actual Strategic Development Program of NBS<sup>1</sup> has been conceived to focus on harmonization of the national statistics with the EU and/or an international standards, which constitutes an important integral part of the state efforts and actions forward its accession to the European Union. Respectively, the adjustment of the statistical processes to the actual national context and in conformity with the European requirements envisages the application of adequate statistical tools and methodologies aimed to ensure reliable, relevant and timely statistics.

The Project is to respond to the urgent need of NBS to harmonize (a) the Classification of Economic Activities in Moldova (CAEM) with the Statistical classification of economic activities in the European Community<sup>2</sup> (NACE, revision 2), and (b) the Nomenclature of industrial products PRODMOLD<sup>3</sup> with the European classification of goods used for statistics on industrial production PRODCOM 2010.

The alignment of the national classifications with the latest versions of the mentioned EU classifications includes a transition period during which certain adjustments are applied to the used questionnaires, calculation methodologies, data correlations, data collection, processing and dissemination, including all the tools and software applications which accompany these processes.

## SCOPE OF WORK AND EXPECTED OUTPUTS

The purpose of the assignment is:

- (1) To adjust the available software applications (three) used to produce industry statistics through re-coding of industry related statistical respondents and outputs reported by them applying the new versions of CAEM and PRODMOLD classifications compliant with EU requirements;
- (2) To compile the databases with industry statistical data (including retrospective for the prior periods) using the new CAEM classification of activities (adjusted to NACE rev. 2) and PRODMOLD 2013 (elaborated according to PRODCOM List 2013 used in EU countries).

<sup>1</sup> NBS Strategic Development Program 2012-2014,  
[http://www.statistica.md/public/files/Transparenta\\_decizionala/PDS\\_2012\\_2014/PDS\\_2012\\_2014.pdf](http://www.statistica.md/public/files/Transparenta_decizionala/PDS_2012_2014/PDS_2012_2014.pdf)

<sup>2</sup> [http://epp.eurostat.ec.europa.eu/statistics\\_explained/index.php/NACE\\_backgrounds](http://epp.eurostat.ec.europa.eu/statistics_explained/index.php/NACE_backgrounds)

<sup>3</sup> PRODCOM is the classification of goods used for statistics on industrial production in the EU,  
[http://epp.eurostat.ec.europa.eu/statistics\\_explained/index.php/Glossary:PRODCOM](http://epp.eurostat.ec.europa.eu/statistics_explained/index.php/Glossary:PRODCOM). It is abbreviated from the French *Production Communautaire*.

## Specific objectives

The specific objective of the assignment is to provide the National Bureau of Statistics with the professionally designed software modules that will allow generation of industry statistical data according to the new classifications, but also preserving the older/previous ones. The applications will be applied by the statisticians and economists of the NBS for the industry statistical data processing and generation of output tables, as well as re-coding and adjustment of databases and enterprises' registers for all the surveys carried out by the Industry Statistics Division.

The expected software modules (three) will be designed on the basis of the available/operational applications meeting the respective technical requirements (*see Annex 1 to ToR*). The available databases for previous years (2011-2013) will be re-coded according to the PRODMOLD 2013 Nomenclature, and the list of respondent enterprises will be codified according to CAEM Rev.2 Classifier.

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 Industry Statistics Division specialists 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:

- adjustment of software applications, aimed at processing the collected data within industry statistics, as well as the generation/production of output tables on aggregated indicators;
- the respective software, designed in a user-friendly format, will be easily operated (data processed and output tables delivered) by the industry statistics specialists of NBS, excluding the need of IT personnel involvement.

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

- improvement of both the statistical processes related to data processing and the system of statistical indicators of industrial activity;
- 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 Production Index to be used for evidence-based monitoring and analysis by policymakers and other data users from the perspective of development regions.

The consultant will ensure a high level of analytical thinking, efficient communication and cooperation with NBS and UNDP, performing a team-work with the team of specialists from the mentioned institutions, for the successful fulfilment of the formulated tasks.

The successful accomplishment of the assignment's targets should contribute to:

- 1) Alignment with international standards by production of industry statistical indicators compliant with the PRODMOLD 2013 classification;
- 2) Provision of reliable, relevant and comparable statistical data (including retrospective time-series) for both internal users and international organizations.

## Main Tasks and Responsibilities

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

1. Establish contact with the staff of NBS responsible for industry statistics and get familiar with the results of previous activities undertaken so far by the NBS in the named field;
2. Study the available materials related to industry statistics (questionnaires, methodologies, tools, publications, etc.), as well as the instruction on the software currently used by NBS for the Integrated Short Term Statistical Survey [IND-TS component], Industrial Prices Survey, Annual Statistical Survey on Industrial Products PRODMOLD-A;
3. 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 Project stakeholders;
4. Draft the structure of the future **output tables** to be generated as a result of industry-related data processing using the 2013 version of PRODMOLD Nomenclature;
5. Set the conversion matrix to **re-code** the existing/available **databases** on three industry/related statistical surveys for the previous years (2011-2013) according to the new PRODMOLD 2013 Nomenclature (*see Annex 2 (p.1.1-1.3) to ToR for details on the estimated volume of work*);
6. **Adjust** the operational/available **software** (currently used to process the data within 3 surveys: (i) Integrated Short Term Statistical Survey [IND-TS component], (ii) Industrial Prices Survey, (iii) Annual Statistical Survey on Industrial Products PRODMOLD-A) through elaboration of new additional modules aimed to calculate/process industry-related data series according to the new PRODMOLD 2013 and CAEM, rev.2 classifications, for previous 3 years and forth (*see Annex 2 (p.2.1-2.3) for details on the estimated volume of work*);

The expected software modules (three) will be designed on the basis of the available/operational program applications meeting the same respective technical requirements. See *Annex 1 to ToR* for the technical requirements of the actual software applications to which the new versions of CAEM and PRODMOLD classifications are to be enclosed).

7. **Generate** (using the adjusted software applications) **output tables** with statistical data on industrial activity according to the new PRODMOLD 2013 and CAEM, rev.2 classifications ensuring the data comparability (*see Annex 2 (3.1-3.3) to ToR for details on the estimated volume of work*);
8. Test the software at the work stations of Industry Statistics Division/NBS;
9. Provide training of the NBS staff (industry statistics unit) on the use, upgrade and maintenance of the **adjusted** software application;
10. Hand-over of the software application and the related documentation, including the instructions on further exploitation of the product.
11. 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 from contract date
1.	Detailed Action Plan including timelines agreed with NBS and the Project	1 week
2.	Structure of output tables to result from the three industry-related statistical surveys when applying the new CAEM and PRODMOLD classifications	2 weeks
3.	Databases with industry data sets for the previous years (2011-2013) re-coded according to the PRODMOLD 2013 Nomenclature	5 weeks
4.	Three software modules (on the basis of operational computer programs) aimed to generate (retrospectively and forth) data on 3 industry surveys according to the new CAEM and PRODMOLD classifications	6 weeks
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	7 weeks

All the written deliverables should be agreed with the national partner institution 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 **end of January 2014** and be completed by **end of March 2014**. The volume of consultancy has been estimated at **25 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:

### Academic Qualifications:

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

### Years of experience:

- Minimum of 3 years of proven experience in designing and maintaining of software applications, including those based on contemporary web technologies, or other relevant professional experience;
- Relevant experience of work related to collection and/or production/processing of statistical data;
- Collaboration with Government in area/s relevant for the present assignment;
- Experience in working with international organizations and UN agencies in particular would be an asset;

### Competencies:

- Knowledge of the peculiarities of statistical sector (e.g. data collection process, imputation, processing and dissemination, etc.) and ability to work with big datasets would be an asset;
- Good communication and writing skills;

- Good knowledge of Romanian, knowledge of English will be an additional asset;
- 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, quality of the delivered products and their conformity with the present ToRs.

#### **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.

#### **SUBMISSION OF PROPOSAL**

The submission package will consist of:

1. Technical Proposal:
  - explaining how applicant responds to the qualification requirements and why he/she is the most suitable for the work;
  - describing a short vision on achievement of tasks.
2. Personal information (as a detailed CV or as a Personal History Form /P11) including records on past experience in similar projects/assignments and concrete outputs obtained;
3. Financial proposal (in USD, specifying a total lump sum amount and the number of anticipated working days).

Technical requirements  
of the actual software applications  
used by NBS to produce statistical data on 3 statistical surveys in the field of industry:

<i>Surveys</i>	<i>See attachments / files and apply CAEM rev.2 and PRODMOLD 2013</i>
(i) Integrated Short Term Statistical Survey [IND-TS component]	<a href="#">1- Sarcina_ancheta termen scurt_industrie.doc</a>
(ii) Industrial Prices Survey	<a href="#">2 Sarcina_IPI plus annexe.doc</a>
(iii) Annual Statistical Survey on Industrial Products PRODMOLD-A)	<a href="#">3 - Sarcina_ancheta anuala_PRODMOLD.doc</a> <a href="#">3a - Anexa la Sarcina_ancheta anuala_PRODMOLD.xls</a>

Estimates on the volume of work  
to be undertaken within the envisaged activities of

No	Activity	Volume of work
<b>1</b>	<b>Re-coding according to the PRODMOLD 2013 Nomenclature of the databases with industry statistics:</b>	
1.1	Re-coding of the existing annual databases for years 2011-2012 resulted from the PRODMOLD-A Survey	15550 records * 2 years = 31100 records
1.2	Re-coding of the existing monthly databases for years 2012-2013 resulted from the IND-TS -A Survey	10700 records * 2 years = 21400 records
1.3	Re-coding of the existing monthly databases for years 2011-2013 resulted from the PRETIND -A Survey	1200 records * 3 years = 3600 records
<b>2.</b>	<b>Elaboration of the software modules to the available software applications for statistical surveys: in the field of industry</b>	
2.1.	Annual survey PRODMOLD-A	1 module
2.2.	Monthly survey IND-TS	1 module
2.3.	Monthly survey PRETIND	1 module
<b>3.</b>	<b>Generation of output tables for the industry statistical surveys:</b>	
3.1.	Annual survey PRODMOLD-A	22 tables for 2 years (2011, 2012)
3.2.	Monthly survey IND-TS	9 tables for each month of 2 years (2012, 2013)
3.3.	Monthly survey PRETIND	10 tables for each month of 3 years (2011, 2012, 2013)