TWINNING CONTRACT

Development of new statistical methodologies and indicators in selected areas of statistics in line with EU statistical standards

Ukraine

MISSION REPORT

on

Procedures for double coding in the Business Register
and
methods for back casting

Component no 1.3.4.

Mission carried out by
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List of Abbreviations

LT   Statistics Lithuania
KVED 5   Ukrainian version of Nace Rev. 1.1
KVED 10   Ukrainian version of Nace Rev. 2
SBR   Statistical Business Register
SD   Statistics Denmark
SSSU   State Statistics Service of Ukraine
ToR   Terms of Reference

1. General comments

This mission report was prepared within the Twinning Project „Development of new statistical methodologies and indicators in selected areas of statistics in line with EU statistical standards". It was the third mission to be devoted to Statistical Business Register within Component 1.3.4. of the project. The mission was aimed at defining a strategic plan forming the base of the further implementation of the project in this statistical area.

The concrete objectives of the mission were:
- The prior purpose of the mission is to follow up on the work to be done concerning conversion of economic activities in the statistical business register (SBR) of Enterprises and Local Units, re-coding the units and back-casting the units in the SBR
- Secondary the MS experts were asked to give advices concerning
    - frozen versions of SBR (including defining the population of active enterprises),
    - the use of these versions (including drawing populations to be used by the sector sivisions),
    - Business Demography and
    - Outsourcing.
- Lastly, the MS experts also presented an overview of the SBR as these are in DS and LT, respectively.

The consultant would like to express their thanks to all officials and individuals met for the kind support and valuable information which they received during the stay in Ukraine, and which highly facilitated the work of the consultant. The enthusiastic discussions concerning the different subjects made it easier to find where it was most important to concentrate.

This views and observations stated in this report are those of the consultants and do not necessarily correspond to the views of EU,SSSU, Statistics Denmarkor Statistics Lithuania.

2. Assessment and results

Progress after mission 1.3.3.and comments to the recommendations

Ad actions to be prepared from mission 1.3.3.to mission 1.3.4.
Most of the actions mentioned in mission report 1.3.3. have been taken:
- Decision about the requirements to the back casting of the SBR
- Analysis of the conversion tables to identify reasons for identified obvious incorrectness
- Conversion matrixes are produced
- Methodological documents on back casting and double coding
It has been decided that the Methodological Division should not be involved in the planning of the back casting of the different statistics.

Ad recommendation in 1.3.4.
From Nace 1.1 to Nace 2.
1. The new Nace Rev. 2 has been accepted as the common activity code. The Top-down calculation has been carried out on the basis of Nace Rev. 1.1, but this will be changed from 2013.

2. Conversion tables have been prepared from Nace Rev. 1.1 to Nace Rev 2. Conversion tables from Nace Rev. 2 to Nace Rev. 1.1 are under preparation.

3. The conversion tables have been checked, but it is necessary to perform supplementary analysis.

Double coding
4. Procedures to code new enterprises have been decided.

Back casting
5. The different sectordivisions have been encouraged to see the results with a comparison between the results of back casting prepared by the Labour Division itself and the result using the matrices produced by Methodological Division. The interest has not been overwhelming. But Methodological Division participate in the work of the different sectordivisions concerning back casting. Methodological Division prepare the indicators and the sectordivisions have the responcibility to carry out the actual work. The back casting was made for years 2009, 2010.
6. No common timetable has been necessary for back castings.
7. It has been decided that the STS shall be produced based on Nace Rev.2 from 2013.
   A list of the requirements based on desires from the different sector divisions has been produced.
8. A methodological paper describing the methods and rules has been prepared.

Access to Statistical Business Register and Frozen versions
9. For the time being it will not be possible to give an extended to the frozen list of SBR data, either for staff in the regions or sectordivisions. The sector divisions have access to the quarterly updated SBR. Two frozen lists are decided to be prepared, a temporary 15th Oct. and a final 15th Nov. But discussions are going on.

Surveys
• Local Units
12. It is expected to take in a question on number of employees into the questionnaire when carrying out the annually survey on Local Units in November. But the SBR team will analysis the results very carefully because it is expected that the quality could be doubtful. [During a discussion of thee subject it was agreed that it would be problematic only to ask about information referred tointervals.

• Finance statistics
13. Await the clarifications.

Subjects under discussion during the mission

Three presentations were made by the MS experts:
− BR in Lithuania and generation list of statistical units
− Danish Statistical Business Register
− Enumeration − the Danish experience

The Danish questionnaire on outsoursing and some figures were presented too.

SSSU participants presented:
− Current situation in Ukrainian − Re-coding, Back-casting and double coding
− The methodology for forming the frozen version in Ukraine was presented

From Nace 1.1 to Nace 2.
   SSSU has used a method also used by Lithuania to measure the quality of re-coding. Even though the quality in general seems good it has been observed that there are some outliners and for some activity codes the quality is not as desired. It is not possible to do any other thing than to check these enterprises individual. Of course all information from different surveys has to be taken into account, and it can even be a possibility to contact the enterprises themselves.

The main source is SBS from where both Nace Rev. 1.1 and Nace Rev. 2 are available. The survey covers 100,000 enterprises; 5,000 large and medium sized enterprises are converted 100 %.

Some problems relates to the chosen mechanical transformation of Nace Rev. 1.1 to Nace Rev.2, where a 1-1 transformation has been used despite the fact that the old code should have been transformed 1-n, though may be 98 % should be to the same new one.

About 1,000 enterprises have a wrong code. At least the biggest enterprises should be checked as these have a great impact on the statistics.

SSSU has decided to use the Top-down determination on basis of Nace Rev. 1.1., because of insufficientinformation concerning Nace Rev. 2 for the time being. Next year the Nace Rev. 2 will be used. The reason is that it has not been possible to introduce the new procedure already this year. (In Eurostat Methodologies and Woking paper: Nace Rev.2 Statistical classification of economic activities in the European Community is a description of the Top-down method. The subject was discussed at mission 1.3.1. To measure quality of recoding using mathematical methods the data on number of employees and turnover was used.

Outsourcing was discussed. Outsourcing concerns activities done abroad. The definitions are very clear in the mentioned Eurostat document. As Ukraine use LeU as enterprise some similar situation can be observed internal inUkraine. If an enterprise own the input used for the production carried out by another enterprise the owner has to be coded as production. There are no special rules whether or not the producing enterprise in inside or outside the country compared to the owner enterprise. (In Denmark we have Vestas A/S which outsourced the production of nuts – the producer of nuts has to be given an activity code 'Manufacture of windmills and part of windmills' 28.11.10. Another example is Christian London who designs washes, but as she owns the input to the production of washes she is coded as production of washes. – But it is still the size of value added which determinate the activity code.)

It is not easy to decide from when information about a change in activity code shall enter into the SBR. If the information comes from SBS some information might indicate what year (reference year) the information relates to. This information should be incorporated in the SBR with an indication of this. At least the information should be incorporated into the living SBR.(See frozen list)

If information about a change in activity code (on Nace Rev. 2) comes from an administrative source it is expected that this relates to the current situation and should only be changed in SBR from now. The Nace Rev. 1.1 will be changed accordingly to this.

Some problems have apparentlyexisted in 2010 to the web-site where the enterprises should find their activity codes. This of course gives some challenges. Priority is given to Nace Rev. 2.

Conversion tables
No discussion on this subject. Tables have been produced from Nace Rev. 1.1 to Nace Rev. 2. Tables from Nace Rev. 2 to Nace Rev. 1.1 are under preparation.

Double coding

The double coding for the year 2011 will be finished when the frozen list is produced 15th Nov. 2012. National Account also requires double coding for 2013. In some cases the Nace Rev. 1.1 and Nace Rev. 2 stated in the SBS do not correspond. Information in the SBS questionnaire or from other sources must be taken in to decide the correct activity code. Eventually information for the year 2010 can throw light on the differences.

Back casting

The SBR has been back casted till 2009 and only at main activity. SBR has used number of enterprises while SBS also have used turnover.

Frozen versions, number of enterprises and Business Demography

The frozen list is an important tool to decide the *number of enterprises*.

The SBS and SBR teams had as a starting point not the same definition on the number of enterprises. The MS experts explained that number of enterprises can be made up at a given point in time or during a period. For many statistical purposes, including SBS, the information concerns a period. The enterprises which enter into the SBS statistic and the enterprises which are in the SBR have to be the same and in this way the number enterprises has be identical, but this does not mean that a count at a given point in time would be similar (it would be smaller). The definition on the number of active enterprises year t would be:

− The enterprise is included in SBS
− The enterprise has reported the financial report

No easy solution can be found to identify active the non-profit-organizations.

As long as it is possible without problems to see a connection between Table Chapter II (KAUs) and Table Chapter VII (LUs) in SBS questionnaire of Ukraine the decision on activity code is 'easy', but methods/rules have to be decided on in case there is not this automatic correspondence.

For SBS it is a problem that the frozen list is produced before the end of the reference year. The SBR/Methodological Division had examined the differences between SBS and STS and has found a difference at 15 %. There is not an easy to explain the differences but it can relate to changes in the population which is only registered by STS. The Danish presentation of Enumeration (frozen versions) gives explanations and discusses what the purpose with different statistics is.

The MS experts recommend that the SBR Division finds a solution to update the frozen list from 15th Nov. to take new enterprises into account. It was pointed out that it is important to avoid bias by only taken in those identified from the surveys. The SBR Division has to make analysis to find out how this will be possible. Tax data would be very helpful, but it will require that SSSU could find a way to influence public meaning and politicians to see the benefits of a data flow from the tax authorities to SSSU.

The MS experts appreciated the work done to make a description on the process for producing the frozen list and recommended to make lists 15th Oct. showing the biggest enterprises and those which have changed from t to t+1 to concentrate on those enterprises

which have the biggest impact on statistics. The sector divisions should be given a short deadline to go through these lists to give the SBR the possibility to produce a more correct frozen version 15th Nov.

It is important in the near future to develop a general statistical method (and tool) to be used by the sector divisions for enumeration. The method should of course be based on general statistical theory but adapted special situations. A discussion with the SBS team revealed that it seems as if some cases special situations (handling deceased enterprises (but still active in some part of the year t), handling no-response 'answers' and handling changes of stratum) were not handled correctly. Here it is important to have more concrete discussions with experts on statistical methods.

Business Demography was discussed with the emphasis on number of enterprises. It is clear active enterprises are a part of the Business Demography. When the new and the dead enterprises have to be found, the population of active enterprises in year t is compared to the population of active enterprises in year t+1. The new ones are those which become active in year t+1 and were not active in year t and t-1. The dead ones are those which were active in year t and were inactive in year t+1 and t+2. But afterwards it is necessary to decide if the new once are really new and the dead one are really dead and there is no taken over or similar events. This is not very easy to decide. When an enterprise starts, it could just be a registration without any real activity. In this case the enterprise is not at this point in time recorded as active. It is first recorded as active when it starts activity. If an enterprise has been inactive for two years it is recorded as active when it starts activity again.

SBR models

LT and SD presented their SBR models which are a little different from SSSU, and it led to a fine discussion, especially about determination of the activity code for LUs. Information about KAUs and umber of LUs is available from SBS. From Labour Statistics and administrative sources some information is available on LUs. SSSU use the activity code information about KAUs to decide the code on LUs in those cases where there is no information about LUs. Recently, a survey has been carried out for those enterprises where there is not a correspondence between KAUs and LUs. (Large and medium sized enterprises had to answer a 'bigger' questionnaire while smaller ones (less than 35 number of employees) had to answer a 'smaller' questionnaire.) The MS experts find that SSSU takes the steps possible to find methods to reveal information to make the correct determination of the activity codes.

3. Conclusions and recommendations

Conclusions

The consultants would like to acknowledge the huge work done since the previous mission 1.3.3.

The component 1.3. 'Business Register' follows the plans. Three goals have to be reached before end of the Twinning Project:
1. draft procedures for re-coding economic activities regarding the units of business register done;
2. draft procedures for double coding economic activities for units of business register done;

3. draft methodology for compilation of the population of active enterprises for statistical observations according to NACE Rev.2 produced

The two first goals have been reached already, even though a few cases have to be reconsidered, because even though the quality generally seems good some fewconcrete enterprises spoil the picture. Further work has to be done concerning these – looking at each individual enterprise; given priority to the most important ones

Work is in progress concerning the latestmentioned goal, and a draft is expected to be finish during the autumn.

During the mission some subjects which are not really within the scope of the Twinning Project were discussed – Frozen version of SBR and their use, Business Demography (number of enterprises).

Recommendations

Frozen lists
1. Investigate: how can new enterprises – started in the period 15/11 – 31/12 year t – be identified with the purpose to supplement the frozen list drawn 15/11 year t
2. In the near future: Develop a general statistical method (and tool) to be used by the sector divisions for enumeration (a common used method – adapted their special situations)
   – handling deceased enterprises (but still active in some part of the year t)
   – handling no-response 'answers'
   – handling changes of stratum
3. Develop a procedure to ensure that all new information from SBS, STS etc. are included in the SBR before drawing the frozen version
   – give the sector divisions the possibility to check the enterprises – especially those which have a tremendous impact on the statistical results

Procedure for drawing the frozen list
4. The 'draft' to the frozen list is produced 15/10 leaving 1 month to check if information seems correct
   – All sector divisions should be involved – not only SBS
   – Make lists showing the biggest enterprises and those which have changed from t to t+1 to concentrate (again) on those enterprises which have the biggest impact on statistics
   – Give the sector divisions a deadline to response
   ('The co-operation should be positive and take place as a dialogue')

Re-coding
5. The quality seems for some activity codes to be insufficient
   – Pick out those cases and analyse the individual enterprise

Double-coding and back-casting
6. Continue checking the quality

Re-use collected data
7. In the near future: Consider the possibility to re-use collected data (for the reason among others to reduce response burden)

– If data has been collected by one sector division it should not be collected by another sector division
– (Start a discussing to influence public opinion/politicians to see the advantages to re-use administrative data for (only) statistical purposes)

Actions needed for preparing the next mission – fill out and add tables as needed.

Action	Deadline	Responsible person
Re-coding: analysis and decide on the few cases still not acceptable	20th December 2012	Anton Tovchenko
Double-coding: and decide on the few cases still not acceptable	20th December 2012	Anton Tovchenko
Draft methodology for compilation of the population of active enterprises for statistical observations according to NACE Rev.2 produced	20th December 2012	Anton Tovchenko
Publication of number of enterprises: SSSR sends a draft of tables (translated into English) expected to publish	20th December 2012	AllaVarnidis
Publication of number of enterprises: SD and LT prepare to present relevant examples of tables (sent to translation into Ukrainian)	15th January 2013	Peter Ottosen Dalia Maciutiene
Draft to Terms of Reference is sent to MS experts	20th December 2012	AllaVarnidis
Mission programme 1.3.5.	20th December 2012	Irina Bernstein

Subject which have already been agreed for the next mission

The next mission, mission 1.3.5., will take place in Kiev 28th January – 1stFebruary 2013 (only four days, so either 28th or 1st has to be agreed).

Some subjects as already been agreed should be on the agenda:
– Discuss how to publish statistics on number of enterprises
– Valuation of the project
    – draft procedures for re-coding economic activities regarding the units of business register done;
    – draft procedures for double coding economic activities for units of business register done;
    – draft methodology for compilation of the population of active enterprises for statistical observations according to NACE Rev.2 produced

Annex1.Terms of Reference

Activity 1.3.4. "Double Coding Activity for Business Register"

Background information

Statistics Denmark in partnership with Statistics Finland, Statistics Lithuania, Central Statistical Bureau of Latvia,Statistical Office of Slovak Republic, INE Spain - National Statistical Institute of Spain and Statistics Sweden, implements in Ukraine "Development of New Statistical Methodologies and Indicators in Selected Areas of Statistics in Line with EU Statistical Standards" Twinning Project. The State Statistics Service of Ukraine (State Statistics of Ukraine) is the Beneficiary of this Project).

This action is being implemented under Component 1.3. "Business Register".

The purpose of this Component is to implement the Economic Activity Classification based on NACE rev.2 in the statistical business register.

This action will contribute to achieving the abovementioned objective and reference indicators specified in the contract. The results of the conducted activity will facilitate preparation of the document on finalisation and description of procedures for re-coding economic activity for Business Register units.

Purpose of the Mission

The prior purpose of the mission is: assessment of the results of maintaining economic activities in the Business Register on all the sources used, as well as coordination of implementing NACE rev.2 in statistical observations. Using available statistical and administrative information for double coding of economic activity of enterprises and local units in the Business Register.

Expected Results

Assessment of procedures and methods of economic activity double coding for the Business Register units.

Actions

The tentative schedule of the Mission is the following:

First day	10:00 - 17:00
October 2, Tuesday	Current situation and issues of economic activity double-coding for the Business Register of Ukraine.
	Coordinating actions on implementing NACE in other areas of statistics.
	Progress made on backcasting. Presentation of draft documents on re-coding and double coding for the Business Register, as well as backcasting methods.

Second day October 3, Wednesday	10:00 - 17:00 Current progress on generating the general list of statistical observation units in Ukraine. Presenting a draft Regulation on generation of general populations of enterprises (sample frame) and their update. Presenting generation of the general list of statistical units in Statistics Denmark and Lithuania. Revision of generating indicators based on the data of the general list of statistical observation units.
Thursday day October 4, Thursday	10:00 - 17:00 Discussing methods for double coding of economic activities of enterprises and local units. Presenting re-coding general lists of statistical observation units for 2010 and 2009. Discussing the quality of re-coding general lists of statistical observation units. Presenting conversion matrices calculated based on the 2011 structural statistics, as well as conversion matrices calculated based on re-coded general lists of statistical observation units for 2011, 2010 and 2009. Discussing the quality of re-coding general lists of statistical observation units.
Fourth day October 5, Friday	10:00 - 17:00 Double coding for the Business Register, methods and procedures. Debriefing Discussions and recommendations

Tasks to be fulfilled by SSSU to facilitate the Mission

SSSU specialists will familiarise the experts with:

− the programme and questionnaires for special surveys of the Business Register for re-coding economic activities in the Business Register and results of re-coding based on all the sources used

− preparation of a probability model for enterprises re-coding.

During the action the SSSU specialists will ensure the presence of profile department specialists users of the Business Register, in presentations of activities on organisation of generating the general list of statistical units in Statistics of Denmark and Lithuania.

Consultant and Partner

The Mission will be conducted jointly with:
Dalia Maciutiene, Statistics Lithuania
Vibeke Skov Møller, Statistics Denmark

The partner from the country-beneficiary will be:
Yuri Ostapchuk – Director of the Statistics Methodology Department

Anna Rozumna – Deputy Director of the Statistics Methodology Department

AllaVarnidis – Deputy Director of the Statistics Methodology Department-Head of the Division for Statistical Classification – component manager

Anton Tovchenko – Head of the Division for Mathematical Methods to Process and Analyse Statistical Data

Olga Ponomarenko – Chief Specialist-Economist of the Division for Statistical Units Register

OlenaTimofeeva – Chief Specialist-Economist of the Division for Population Formation to Conduct Statistical Observations

Olga Sushych – Head of the Unit for Statistical Units Register of the Main Interregional Department of Statistics in Kyiv.

Experts of profile statistical department users of the Business Register are welcome to attend the Mission.

Timing

The mission will be conducted within four days from October 2 till October 5, 2012 in Ukraine.

Report

The summary report on the results of the mission should be submitted not later than two weeks after the Mission is completed.

Annex 2. Persons met

SSSU:

    Yuri Ostapchuk – Director of the Statistics Methodology Department

    Anna Rozumna – Deputy Director of the Statistics Methodology Department

    AllaVarnidis – Deputy Director of the Statistics Methodology Department-Head of the Division for Statistical Classification – component manager

    Anton Tovchenko – Head of the Division for Mathematical Methods to Process and Analyse Statistical Data

    Olga Ponomarenko – Chief Specialist-Economist of the Division for Statistical Units Register

    Olena Timofeeva – Chief Specialist-Economist of the Division for Population Formation to Conduct Statistical Observations

    Olga Sushych – Head of the Unit for Statistical Units Register of the Main Interregional Department of Statistics in Kyiv.

    Irina Zhuk –Director of SBS

    OlenaIcolpakova–Deputy Director of SBS

    TetianaZakharova – Head of the SBS Observations Division

    For the conference also several users of SBR were present.

RTA Team:

Irina Bernstein, RTA

Volodymyr Kuzka, RTA Assistant

Svitlana Taranova, Interpreter