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**IMPLEMENTATION OF THE REVISED CLASSIFICATIONS OF ECONOMIC ACTIVITIES  
(ISIC AND NACE) IN BUSINESS REGISTERS**

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**INTRODUCTION**

1. This paper examines the experience of the Swiss Federal Statistical Office in the implementation of the revised classifications of economic activities. A description of background, the different tasks, the challenges in the coordination activities are the main subjects that will be addressed. The model of the revision system in the statistical system will be also presented.

**I. BACKGROUND AND CONTEXT**

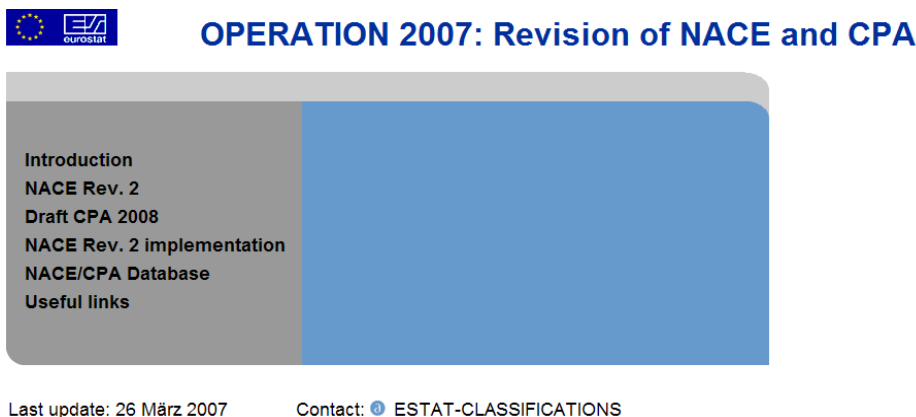
2. The Eurostat /UN working group on the classification of economic activities, made up by all the countries which cooperated for the revision process, has conceived an accompanying system for the classification's revision. The coordination between the creation of the new classification and its implementation program may be considered one of the keystones of the revision project. Participating countries could rely

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not only on the usual information sources (the classification structure and the correspondence tables), but the following papers were also at their disposal: « Setting up an implementation plan », « Implementation in Business register », « Handbook on methodological aspects related to sampling designs and weights ». All this information is available on the revision support internet page.

<http://circa.europa.eu/irc/dsis/nacecpacon/info/data/en/index.htm>



3. We have thoroughly followed the instructions provided by the working group. Two handbooks have proved to be particularly useful for us during the first phase of the implementation: « Setting up an implementation plan for NACE Rev. 2 in National Statistical Institutes » and « Implementation in Business register ».
4. First we elaborated a national (Swiss) implementation plan. Without this document it would have been impossible to gather the resources necessary for the implementation. Then, based on the paper established and published by Eurostat in March 2006, we prepared the implementation in the Swiss Business Register.
5. In our country the revision work must be carried out with special care as the classification is used beyond statistics circles. The classification elaborated by our office is also employed in other fields and is used by other data bases (e.g. Orell Füssli- Teledata<sup>2</sup>, Creditreform<sup>3</sup>, Swiss Chamber of Commerce<sup>4</sup>). Banks and insurance companies make use of it to organise their fields of activity. The code we produce is therefore used as a general reference code for the coding of enterprises, which makes it highly marketable. In order to continue playing a central part on the Swiss classifications field, it is necessary to integrate external users into our implementation plan.
6. Another specific element is the structure of our register, as well as the updating procedure employed for the attribution of the code of activity. The Business Register<sup>5</sup> includes all the

<sup>2</sup>[http://www.ofwi.ch/en/Teledata/Pages/standard\\_Firmen\\_BranchenInfo.aspx](http://www.ofwi.ch/en/Teledata/Pages/standard_Firmen_BranchenInfo.aspx)

<sup>3</sup><https://secure.creditreform.ch/index.php?id=13&L=1>

<sup>4</sup>[http://www.swissfirms.ch/en/recherche\\_avancee.asp](http://www.swissfirms.ch/en/recherche_avancee.asp)

<sup>5</sup>Detailed information on Business Register available on this address:  
[http://www.bfs.admin.ch/bfs/portal/fr/index/infothek/inv\\_reg/02.html](http://www.bfs.admin.ch/bfs/portal/fr/index/infothek/inv_reg/02.html)

public and private enterprises and businesses/companies, from all economic sectors, established in Swiss territory.

**Table 1. Number of records in the Business Register by type of unit (04.06.2007)**

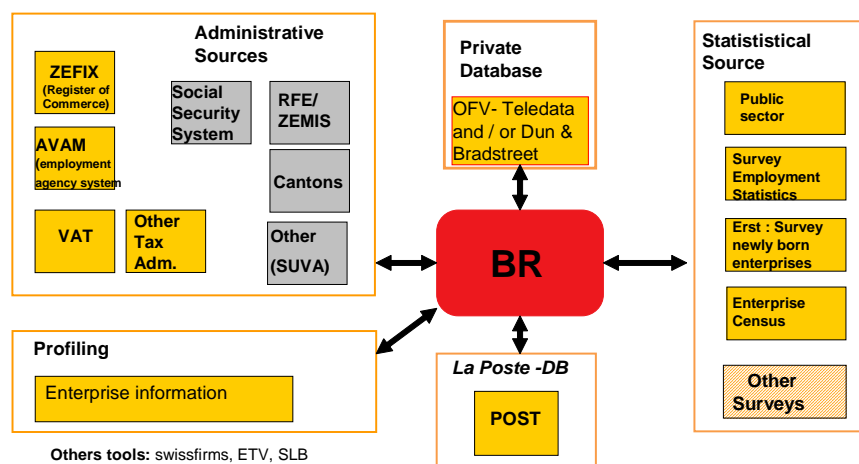
	Active	Inactive	Cancelled	New Or Reactiveted	Fictive	TOTAL
Legal unit (principal)	687'389	37'425	500'247			1'225'061
Legal unit (secondary)	8'774	219	5'666			14'659
Enterprise	477'227	199'378	500'247	35'618	12'591	1'225'061
Local unit	550'149	216'712	554'272	38'915	90'981	1'451'029
<i>above the threshold</i>	462'483					
<i>Sector 1</i>	72'889					
<i>Enterprise census univers</i>	389'594					
<i>under the threshold</i>	87'666					

Threshold for the Enterprise Census: only the active Local units with more than 1 person working 20 hours per week are included in the Enterprise census 2005

7. This information makes possible to consider the amount of units that needed recoding in a first stage. The Swiss Business Register relies on a dense network of sources for updating the units.

8. In the chart below, the interrelationships are highlighted. For the updating of the activity code, the administrative sources provide only partial information on the economic activity.

## Business Register sources



9. The coding of a company's economic activity is performed according to precise rules when enquiries are conducted by our Office. As a matter of fact, when it comes to company coding, that is the only source we can count on. In Switzerland, an Enterprise Census<sup>6</sup>, takes place every

<sup>6</sup> [http://www.bfs.admin.ch/bfs/portal/fr/index/infothek/erhebungen\\_quellen/blank/blank/bz/01.html](http://www.bfs.admin.ch/bfs/portal/fr/index/infothek/erhebungen_quellen/blank/blank/bz/01.html)

3 or 4 years. During this process, all units are contacted: the active ones (corresponding to the limit of at least one person working 20h/week) and the new ones (about 450'000 local units). The last census took place in September 2005 and the next one is programmed for September 2008.

There is also a Quarterly Survey<sup>7</sup> which treats all the new entries in the Business Register. Each year between 40'000 and 50'000 new units are questioned. It is at this time that the classification of the economic activity is carried out.

10. The organisation of the Business Register's recoding work was organised on the basis of the information collected during the 2005 Enterprise Census and Newly Born Enterprises Quarterly Surveys. It was thus not necessary to develop any particular tools or methods for automatic coding.

## **II. IMPLEMENTATION WITHIN THE BUSINESS REGISTER**

11. We will now present the process of implementation of the new classification in the Business Register. As agreed with Eurostat's working group, a plan for new classification's implementation was elaborated. We presented this plan to our Office's direction board in February 2006. In this plan, the several points as well as the resources necessary for their fulfillment were described as follows:

- Development of 1st version of National Classification due in March 2006
- Development of 2nd version of National Classification, due in March 2007
- Development of definitive version of National Classification, due in October 2007
- Broad consultation with statistics users, professional associations, regional statistics offices, universities, etc (about 800 addresses)
- Organisation of a first internal consultation for development of the Business Statistics revision plan.
- Request for resources for recoding
- Beginning of recoding process: September 2006
- Preparation of a new codification auxiliary tool available in June 2007
- Development of a probabilistic conversion matrix
- Development of a conversion simple matrix based on the probabilistic conversion matrix mentioned above.
- Request for financial resources necessary to operate changes in the Business Register software
- Implementation of the new classification according to the international planning on the 1st of January 2008
- Double coding NACE Rev. 1.1 (NOGA 2002) and NACE Rev. 2 (NOGA 2008) during 5 years minimum.

12. The implementation plan presented was accepted and it was possible to carry out the work according to the scenario originally set up. Without the unconditional support of the direction board and of our colleagues in charge of the statistics, it wouldn't have been possible to set up

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<sup>7</sup> [http://www.bfs.admin.ch/bfs/portal/fr/index/infothek/erhebungen\\_quellen/blank/blank/ceerst/02.html](http://www.bfs.admin.ch/bfs/portal/fr/index/infothek/erhebungen_quellen/blank/blank/ceerst/02.html)

such a tight-scheduled implementation plan requiring considerable extra financial resources. In fact such a support must be viewed as the key element contributing to the successful achievement of our project.

13. Throughout the implementation plan's development, several problems had to be solved. In order to recode the Register's units, we could make use of scanned survey questionnaires from the Enterprise Census and the Quarterly Survey. We had to decide whether to recode all units or only the ones belonging to the codes that had been split as a consequence of the remodelled new classification's structure. Of the 350'000 units that had to be reclassified, nearly half could be treated by the means of a conversion matrix. The remaining approximately 150'000 splitting cases were to be treated manually. Because of practical reasons and for making good use of the resources at our disposal, we decided to treat the 150'000 splitting cases in priority. As for the remaining cases the procedure consisted in checking exhaustive lists containing units' names and codes. This system guaranteed an efficient usage of resources and allowed us to track and correct eventual codification mistakes among the cases covered by the conversion matrix.

14. Another problem which arose was that of double coding. For Eurostat the year 2008 is critical. All statistics must be coded according to both classifications. This means that, for certain surveys having 2008 as their reference year, data will still be processed in 2009, or even in 2010. It is the Register's responsibility to provide the best support to all the statistics so that they can respect the revision timetable as well as fixed dates of reference. Considering the difficulties involved, we decided to provide our customers with uninterrupted double coding during at least 5 years starting from 2008. For the implementation a practical, economic and easy solution was required. Double coding procedure, supported by eventual semi-automatic tools was therefore adopted. From June 2007 on, coding will be conducted according to the NACE Rev. 2 (NOGA 2008), the result of which will be immediately recoded according to the NACE Rev. 1.1. (NOGA 2002) by means of a conversion matrix. The existing splittings will be treated manually or on the basis of the conversion simple matrix, directly within the Business Register's Database according to proposed codes. In order to make such a treatment a reality, changes had to be implemented in the software of the Business Register.

15. While work on the new national classification's definitive version was going on, the register's recoding was being completed. Between September 2006 and April 2007, the 350'000 units that had been coded by 2005 Enterprise Census were treated. Between March 2007 and May 2007, units having participated at the Newly Born Enterprises Quarterly Survey were also treated. Cross checking and quality controls were realised on the whole of the units, and, more specifically, in the fields having been identified as problematic.

**Table 2. Human resources needed for the recoding**

Enterprise Census Recoding				
Manual coding	Persons	Months	Manual coding per day and by person	
148000	5	8		148

Survey Newly born enterprises				
Manual coding	Persons	Months	Manual coding per day and by person	
37000	5	2		148

16. The final version of the National Classification was published in May 2007. It contains the structure as well as the explanatory notes in four languages: German, French, Italian and English. The Correspondence Tables were also published. Contrary to the policy applied in the past, it was decided that the information related to this classification was to be available free of charge. This was determined by the increasing usage of this Classification in our country<sup>8</sup>.

17. An additional step was also taken by putting online the Coding Assistance Tool (KUBB)<sup>9</sup>. For this reason, we are able to provide our work partners and classification users with a basic tool to help the coding process, the coding handbooks and other useful information. By opening up to the public, we hope that the key words' list used as guide for our coding tool may be improved and fed thanks to users' experience. The current version includes 11'000 key words.

18. The switch to NACE Rev. 2 (NOGA 2008) occurred on 14 June 2007. The Business Register software was totally modified so as to allow double coding. We had to reshape the procedure of automatically treating changes provided by administrative sources. As for our work partners, they also had to adapt their own IT environments in order to coordinate the 14 June 2007's switch. From this date on, users accessing the Register will dispose of two activity codes. For statistics users, that means they will be able to start analysing the back casting strategies and prepare their revision plans.

19. In accordance to the implementation plan, the official publication's reference date is 1 January 2008. This is when all partners will also be allowed to publish the new codes.

20. Training is an important step for the Register team to make the transition to the new classification. This means that the collaborators' coding mind frames which are currently linked to the NACE rev 1.1. (NOGA 2002), are to be reformatted, so that the new coding philosophy may take place and be adopted instead. The Coding Handbook is a basic tool that will have to be used by the coding team. This paper contains the evolutionary coding rules. Continuous training

<sup>8</sup> [http://www.bfs.admin.ch/bfs/portal/fr/index/infothek/nomenklaturen/blank/blank/noga0/revision\\_noga\\_2007.html](http://www.bfs.admin.ch/bfs/portal/fr/index/infothek/nomenklaturen/blank/blank/noga0/revision_noga_2007.html)

<sup>9</sup> <http://www.bfs.admin.ch/bfs/portal/fr/index/infothek/nomenklaturen/blank/blank/noga0/programme.html>

will be necessary to provide teams with the knowledge necessary to work in this new environment.

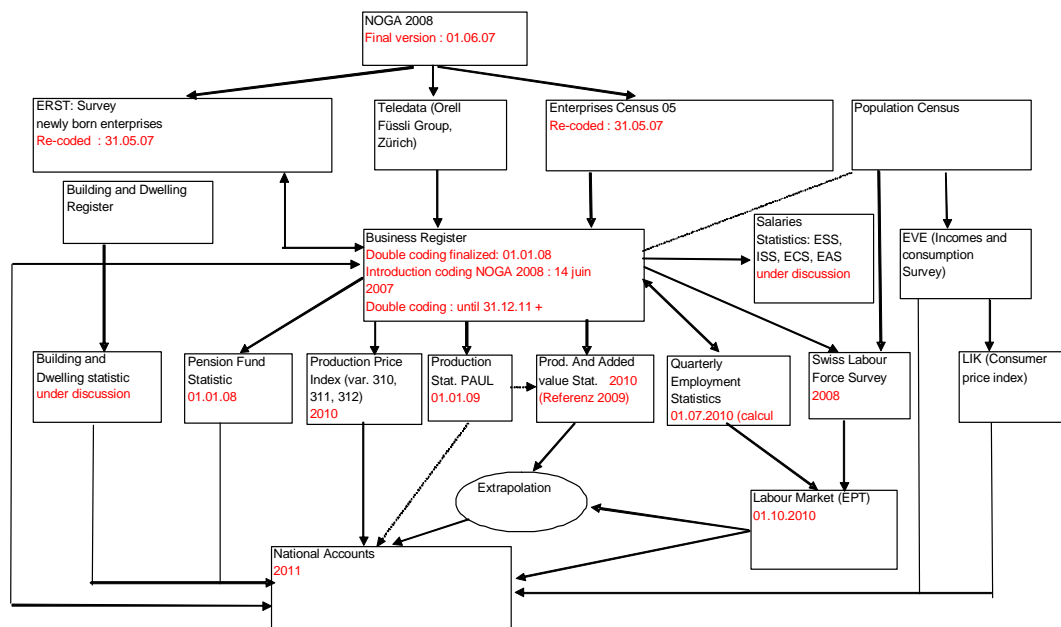
21. Other tasks must be completed until the end of the year. The 2001 and 1998 Enterprise Censuses will be also recoded according to the same methodology, that is, by giving priority to the splitting cases, based on information from the stored surveys. This will allow business statistics users to have at their disposal three reference points in the past, so that they can rebuild the time series.

### **III. IMPLEMENTATION IN THE STATISTICS**

22. Once the recoding work and the implementation in the Business Register will be achieved, the most complex part will begin. It concerns the introduction of the new classification to the overall business statistics system. During the first stages of the Classification's revision, persons in charge of the statistics had to be informed and warned about the fact that this revision was to radically change the structure of the classification being used until then. Persons in charge of the several statistics also had their attention drawn to the time and resources which would be necessary to evaluate the impact such a modification would have in their field of action. At first, however, our call was not properly heard, because the persons in charge of the statistics initially were too much concerned with their production deadlines and the short-term difficulties they were faced with. It is indeed not easy to free one's mind from one's everyday problems and to embark on a journey into a future, which one has very little concrete notion of, and thereupon plan the necessary steps to reach it.

23. Our work was also greatly supported by the setting-up in 2005 of a group which was to be responsible for the coordination of the revisions in the field of Business statistics. The idea was to define a general method for revisions of the kind, but the Classification's revision soon proved to be the perfect case study for the implementation of such a revision. Thus, starting from the activities of this group, it was possible to determine the stages of a coordinated implementation of the new classification. A chart presenting these stages was drawn up and was used as a working tool with which the persons in charge were to find their position in the production system of business statistics.

## Basic statistics: links between them and National accounts Introduction NOGA



24. The person in charge for the revision of this classification in our office and its implementation in the Business Register was chosen to coordinate the group which must now carry out the revision plan. This activity starts in 2008, involves approximately thirty statistics and is supposed to end in 2011 with the National Accounting introducing the new classification as the last step. It will be necessary to accompany the persons in charge of the statistics during this revision, to ask them to prepare work schemes for the back casting, new samples, as well as the publication of the results according to the new classification. It is the responsibility of each person in charge to determine the extent of the revision of time series.

25. So far, the Enterprise Census and the Newly Born Enterprises Quarterly Survey are the only two fields where work has been finished. The publication plan is still to be elaborated, but the recoding work has already been concluded for the whole of the data.

26. Various statistics currently prepare their revision programs which will have to be carried out during the year 2008. The survey framework based on information of the Register will be available with the two classifications as from June 2007, which leaves the persons in charge of the methods sufficient time to develop their work strategies. The person in charge of the Classification and the Business register must accompany those revision projects. This implies an additional workload for them.

27. The process has been described. It is now a matter of putting the implementation into practice. And that is the most difficult part because, in our field, the chronic lack of resources as well as the pressure on the deadlines weighs heavily on the project. Compared to the whole of the revision project, the implementation in the statistics is the phase which contains most uncertainties.



## **CONCLUDING REMARKS**

28. In this document, we have tried to explain how the implementation of the new classification was carried out in our country. Switzerland is not a member of the European Union, but we took an active part in the revision of this classification. This classification is a fundamental element in the comparability of the economic statistics as well as in the widening of its comparability to the other classification systems.

The system of the Swiss Business statistics needs this tool to provide useful instruments of analysis and to allow comparability at all levels. Therefore in our office we did our best to carry out this project.

29. If difficulties appeared all along the project, the need for succeeding led us to find bearable cost/benefit solutions, while guaranteeing a maximum quality. The most important aspect of this revision was communication and the implication of all relevant actors, before and during the project.

30. To complete this work, it is now a question of finalizing the project in the field of the statistics.

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