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**STATISTICAL OFFICE OF THE  
EUROPEAN COMMUNITIES (Eurostat)**

**CONFERENCE OF EUROPEAN  
STATISTICIANS**

**Joint UNECE/Eurostat Seminar  
on Business Registers  
(Luxembourg, 21-22 June 2005)**

**EU STATE OF ART ON PLANNED NACE REV. 2 IMPLEMENTATION  
(BR-RELEVANT PART)**

Invited paper submitted by Eurostat, Luxembourg\*

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\* Presented by Ms. Leila Anupold, Eurostat, Luxembourg. Paper posted on Internet as received from the author.

**Conclusions of NACE/CPA implementation task force 4-6 April 2005 and NACE/CPA working group 13-15 April 2005**

- The switch from NACE Rev. 1.1 to NACE Rev. 2 in the business registers shall take place 1 January 2008, when business registers will have statistical units classified according to NACE Rev. 2. This date will possibly be indicated in the NACE regulation.
- The actual update of BR should take place before 1<sup>st</sup> of January 2008 or sufficiently early in 2008 in order to use BR for survey purposes.
- The methodology used for updating BR and possible double-coding will be competence of Member States.
- 1<sup>st</sup> of January 2008 is considered as feasible date for the change if the following time table is kept:
  - NACE Rev.2 structure will be finalised by September 2006.
  - NACE Rev.2 explanatory notes will be available in January 2006.
  - NACE2 Regulation adopted by end 2006.
- Double coding in business register is essential for successful implementation of new NACE. Double coding will not be fully harmonised and will not be mentioned in NACE regulation. The guidance on best practices will be prepared by the implementation TF.
- Administrative sources are used in many countries for updating business registers. These countries should be alerted, so that they inform in time the concerned public administration bodies and co-ordinate all necessary measures to implement new NACE.
- Prodcom data is useful when re-coding entities. Publishing of the 2007 Prodcom list in 2006 according NACE Rev. 1.1 as well as NACE Rev. 2 coding. Publishing of Prodcom data in 2007 according to NACE Rev. 1.1 as well as NACE Rev. 2 coding.
- No specific groups of countries were identified which could be addressed to with specific recommendations. Therefore only general guidelines will be prepared.
- Re-coding an enterprise will mainly be due to change of classification, but in some cases it is also due to wrong code attributed to the unit in the past. The TF will study if and how this can be detected and taken into account for modeling and back-casting.
- Eurostat should provide a validated alphabetical index in English.
- It is not clear whether the TF can provide concrete tools and advice on automatic coding tools, as different countries can make very different investment in such tools. UK and Italy will study their experience with ACTR and present a paper to TF members.
- The reference year 2008 for statistics to be provided following NACE Rev.2 means that the statistics related to the activities performed 1 January 2008 and later shall be collected according to new NACE.
- Adoption of the NACE regulation is scheduled for end 2006.

**The meeting of Task Force on the implementation of the revised NACE and CPA on 4-6 July will have the following points on the agenda:**

1. Adoption of the Agenda
2. Summary of recent activities (including briefing on relevant meetings of SPC, UN Expert Group, National Accounts WG etc.)
3. Draft NACE regulation: Presentation of revised version
4. Report from the working team on "Business registers"
5. Opinions and next activities of the working team on "Back casting of times series broken following changes in classification"
6. Any other business

- The Task Force aims to submit a paper for the business registers working group meeting on how countries might re-code units. The team which prepares this will consist of: S. Vale, T. Bonné, H. Van Hooff, N. Rainer, A. Isabel Sanchez-Luengo, J. Manuel Reyes and Michel Euriat. T. Bonné and H. Van Hooff will coordinate the team and submit a starting contribution: use of transition codes moving from old to new NACE. At the moment the Dutch are working on a draft dealing with several aspects of the implementation of NACE Rev. 2 in the business registers. The draft will be submitted to the team and after an e-discussion be adapted and presented during the TF (incl. a working plan).

## **Questionnaire on NACE Rev. 2 implementation issues February 2005**

### **Summary (BR-relevant part)**

**Q. 1a Does your country intend to develop a national version of NACE Rev.2?  
If yes, and assuming that the complete NACE Rev.2 is finalised in January 2006, when  
would you expect to finalise your national version? How many additional national  
classes do you expect?**

- **National version of NACE Rev.2**

26 countries answered the question, a large majority of which (20 countries) intend to develop a national version of NACE. 2 countries (Latvia and Malta) will keep NACE as national classification, Spain will develop a reduced national version with just some additional classes, 3 countries have not yet taken a decision (France, Hungary and Ireland) – it may depend on the final version of new NACE according to their national needs.

- **Time for finalisation of national version**

Requested time differs much between countries: from one month (January 2006) to 2 years (December 2007). 9 countries need less than 6 months, 9 other ones need between 6 to 12 months and 4 want more than one year (FI, FR, LT and SE). All the countries seem not to have interpreted the question in the same way, which can explain a part of the differences in responses. In responding, some countries have focused on the structure of the classification while other ones have taken into account the wording of explanatory notes and the delivery of correspondence tables. Thus 2 countries requesting a long time (FR and SE) will be able to provide detailed structures or provisional correspondence tables within 6 months.

- **Number of expected additional national classes**

The number of expected additional national classes differs very much between countries. 5 countries intend to create a limited number of national subclasses – less than 50 additions to NACE in terms of numbers of items at the lowest level – (FI, HU, IE, SK, ES), 5 countries are in an intermediate position – from 50 to less than 200 additional national subclasses – and 10 countries intend to create more than 200 additional national subclasses (DK, DE, EE, IT, LT, NO, PL, PT, SE, CH).

National views on that matter depend on the present situation. Some countries want to keep the number of national subclasses as it is now while other ones would like it to decrease. One noteworthy result is that no increase is expected. Countries intending to decrease the number of their national subclasses justify it by the expansion of the new NACE, which will be more detailed than the present version. For some countries having a very detailed national classification, like Germany, « national pressure » to reduce the number of national subclasses has to be considered as well.

**Q 1.b Does your country intend to develop a national version of CPA? If yes, how long does this national version require to be finalised?**

- **National version of CPA**

A majority of countries (15) will keep CPA as national classification but a strong minority (10) intends to develop a national version of CPA. The latter are generally small countries, often new EU members. Conversely DE, IT, ES, UK will use directly CPA and France is in an intermediate situation (keeping the structure of the classification but providing national explanatory notes).

No question was asked about the reasons for developing a national version of CPA, but some countries commented on that. The two main arguments provided are the improvement of relevance of explanatory notes and a better matching between national classifications of activities and products.

- **Time for finalisation of national version**

For most countries, requested time to achieve their national version of CPA ranges from 6 to 12 months.

**Q. 2a Would you agree to implement NACE Rev. 2 in the Business Register on 1 January 2008?**

Conclusion: All 26 replies agree upon the implementation of NACE Rev. 2 in the Business Register on 1 January 2008. This is remarkable and it means that a statement on this can be included in the new NACE Regulation.

The implementation date doesn't necessarily refer to calendar date 1 January 2008, but to the date that is referred to in Article 8, paragraph 4 of the proposed new BR Regulation: "Member States shall make annually a copy that reflects the state of the registers at the end of the year and keep that copy 30 years for the purpose of analysis". The key issue is that the switch to NACE Rev. 2 is early enough in 2008 that the register can be used for a survey frame which includes the new codes.

Possible problems: Several MS point out that 1 January 2008 is possible only if there are no delays in the Operation 2007 timetable. NACE Rev. 2, including explanatory notes, should be available in September 2005, or at least before the end of 2005. Some MS need 24 months for the following work to prepare the national NACE versions and establish the new codes.

In case of delay the BR implementation date must be moved to 1 January 2009.

Some MS also refer to the costs of the change and ask for Eurostat financial support. No such support is foreseen for the old MS, the new MS and Candidate countries can apply for some support from the Phare funding. Eurostat grants were available for the NACE 2002 change, but only few MS applied for them, although it was a good opportunity to test their methods for the big change which was already known to come. The methods MS use are so different also concerning their cost-effectiveness, that even if budget would allow for it, it would be difficult for Eurostat to find a fair way of funding, moreover, because much of the costs are due to national solutions like the creation of the national NACE version.

**Q. 2b Please provide a description of methods and/or sources used for classifying units according to NACE classification in the Business Register in your country. If several methods are used, please clarify in which cases which methods.**

- 18 countries mentioned the use of data from administrative sources. This equates to 69%, though based on responses to the annual Eurostat questionnaire on business registers, the true figure is probably a little higher. In most cases it seemed that the administrative source provided the codes, though several countries mentioned receiving text descriptions of economic activity, which are then coded in the statistical office.
- 12 countries (46%) mentioned the use of statistical data on products (mostly PRODCOM), though the priority of this source seemed to vary from being the most important source to only being used if it has been confirmed by other sources. This could reflect concerns about possible biases due to using a source relevant to only part of the classification structure.
- 20 countries (77%) planned to make a special survey or to use an existing business register maintenance survey to collect information to code businesses where there was no other source. Three of these countries mentioned the use of telephone or other methods, e.g. profiling, as an alternative to sending questionnaires.
- 16 countries (62%) mentioned the use of data from other statistical surveys, particularly those used to produce structural business statistics (SBS) data.

There seemed to be some confusion as to whether the question referred to what is currently done, or what will be done to introduce the new version of NACE. One country answered on both bases. It is possible that this confusion could affect the reliability of the figures above, particularly those relating to the use of a specific survey.

Some countries mentioned specific problems with determining the principal activity, particularly where they get several codes from administrative sources. Statistical survey data are often used to resolve these cases.

Overall, it is clear that most countries use a combination of at least two of the above methods, and intend to do so for the implementation of the new NACE.

**Question 2c**

**Do you have tools which assist the coding? If yes, how do they work? If no, do you see the need and would you like to have assistance in developing such tools?**

The answers of the 26 countries showed some difference in interpretation of the words 'coding system' and the word 'index'. E.g. a coding system could be a simple system consisting of a list where the respondent could take an item from, to a more advanced system. An index could be an index as a separate tool, but also the index that was used in the computer assisted coding system.

As stated before there are different kinds of assistance for coding units.

1. Some countries have a kind of *list*, sometimes called an index, for looking up a code.
2. There may be some more information than an index, e.g. with synonyms, where *some codes are indicated* to choose from.
3. An automatic system which is backed by much more information than an index, in fact *an expert word system*. When the necessary activity descriptions are available a code can be given.

4. An automatic system which contains a system for *automatic updating and a parsing* system to assign a quality score (parsing is the grammatical analysis of a sentence).

It is clear that an automatic system needs activity descriptions of a good quality to function. For an overall upgrading of the system this asks for Tax or Chambers of Commerce support or other external sources with a broad scope.

Conclusions:

- Twelve countries don't have a coding system. Generally spoken these are the new member states, also Austria and Denmark
- The 'old' countries that don't have a c.a.c.-system seem to have reasons not to have one, so don't want assistance to get one
- Three new countries do not respond affirmative to the question whether they would like some assistance.
- The other seven countries would like assistance in developing one. The short answers seem to suggest this is a general not specified feeling

An overall conclusion may be that it is useful to develop a computer assisted coding system for all new countries that would like to have one. It should be a simple coding system and not a sophisticated system because this asks for a huge investment in time that should be allocated to NACE 2007 itself.

- Some fourteen countries do have a coding system, but there are large differences as explained before:  
Eight countries have a list with a tool to search. It is rather arbitrary to call this a c.a.c.-tool or just an index. On the other end of the continuum are the tools of Germany with about 35.000 activity descriptions or Switzerland with 11.000 keywords in 3 languages.  
The other six systems are more sophisticated by specifying parameters of quality, by an expert wording base and/or by standardizing descriptions by parsing
- Some countries have a list on the web that the respondent or the external user like Taxes can use.
- It also seems clear that the system is not working properly in all countries. Portugal would like to have assistance for this reason.
- Spain, France and the Netherlands have an automatic coding system, the systems of Finland and Switzerland are close to this. These certainly are not based on a simple index, but on much more extensive data-bases.
- Italy and UK share the (potential) use of a new system ACTR that is developed in Canada. UK expresses that it would like some help in further development of this system. This system looks the most sophisticated of all c.a.c.-systems used in Europe.

An overall conclusion may be that most 'old' countries that follow NACE and have to report to Eurostat use some kind of coding system. Mostly this is a simple system, a kind of index that is applied to the sources. Only a few countries use a more developed coding system. Assigning main activities is done by experts from Statistical offices.

*Question: is it possible to provide the new member countries with a simple index-based system in such a short time that it is feasible to be broadly used in all member-countries, or at least the ones that would like to be assisted.*

*It should be index based, because many (new) countries have no sources to obtain complete activity-descriptions. Besides it can only be used in case one activity is described. Otherwise expertise is needed.*

### **Question 2d**

**Do you use an index for classification purposes? If yes how is it created and how do you make use of it?**

As already mentioned: there is rather a lot of difference in the interpretation of the word 'index'. To summarize some meanings:

- A printed publicized version of the classification (not electronic)
- A list of synonyms
- An index of economic activity descriptions
- A systematic index

An index is sometimes used for a search machine. In this case (Germany) it could also have been interpreted as a c.a.c.-tool, but it is regarded as index. Other countries mentioned such a system under 2c).

The synonyms and economic activity descriptions may also be used in a c.a.c.-system.

#### **More specific:**

- Twelve countries do not use indexes as such.
- Eight countries do use indexes, however there is a direct relationship to the c.a.c.-system
- About five countries use systematic indexes, three of which do not have a c.a.c.-system.

Because most of the countries that don't use an index belong to the new countries it seems necessary to introduce a systematic way of dealing with activity information.

A distinction should be made between an index (systematic or alphabetic) and explanatory notes. The index is based on a further differentiated NACE used for national purposes. It may be published and can help to feed a search machine.

In case of more developed computer assisted coding a list of synonyms is needed and an automatic coding system requires economic activity descriptions of some quality.

From our point of view an index is a necessary tool for the implementation of NACE 2007, so the translation of the NACE explanatory notes should be started shortly after they are final. The explanatory notes can be the base for an index which can be updated systematically by e.g. Access or by a link to a coding system.

On European level much capacity and money can be saved by developing and maintaining a 'mother index' (in English) based on as many as possible existing national indexes. This might also become an important harmonisation tool.

### **Q. 2e Do you plan to double-code units in the Business Register?**

**If yes, and assuming that 1 January 2008 is the first reference year of NACE Rev.2 which year(s) or date(s) do you propose for double coding?**

Conclusion: All countries plan a double-coding, except one (where there is possibly a misunderstanding). The periods for the planned double-coding vary greatly and the decision for the period shall be left to the countries, which take into account the national circumstances and methods to be used. The minimum time is naturally the date of the switch of the register to NACE Rev. 2. The time of preparation to establish the new codes varies greatly among countries depending on their method; the earliest country will start the work already this year.

Most countries inform that they will double-code in 2007 and/or 2008. We understand that this means genuine double-coding, because when conversion keys are developed, the double-coding can be



continued by probabilistic models as long as it is deemed necessary, although the quality of the old classification will reduce. Many countries inform that they will continue the double-coding quite long, until 2010 or longer, depending on the requirements of users, e.g. national accounts, or they can keep the system operational until all statistics use NACE Rev. 2.

**Q.3a Do you have national legislation which needs to be changed following the adoption of revised NACE and CPA Regulation?**

**If yes, on which domain?**

**Can you start the legal process before final adoption of the NACE and CPA Regulation?**

**How much time is needed, after the final adoption of NACE and CPA Regulation, for having them implemented in your country?**

26 countries answered this question. 13<sup>1</sup> of them do not have national legislation which needs to be changed. The other 13 countries<sup>2</sup> need to update their national legislations.

For some of these countries (France, Lithuania, Romania, Spain), the adoption of the revised NACE/CPA Regulations will only affect the national version Regulation. However, other countries (Germany, Latvia, Austria, Czech Republic, Hungary, Poland, Portugal, Slovenia, and Croatia) should also revise other Regulations, apart from those related to their national versions, concerning statistical and non-statistical domains.

Among the Regulations in the statistical domain, we can mention those related to SBS, STS and Business Registers. About the non-statistical domain, we can find some tax Regulations.

Two specific cases are Austria and Sweden, which do not need to update specific Regulations for their national versions. However, Austria needs to revise some legal acts related to economic surveys, and Sweden has only some Regulations concerning the obligation to provide information.

Some countries will be able to start the works for the legal process when the structure and explanatory notes of NACE and CPA are available: Germany, Spain, Portugal, Austria, France and Croatia. Croatia is the only one who can implement it immediately, meanwhile the other countries will need a 4-18 months period to finalise the legal process.

We should underline that, although the countries can start the preliminary works before, they cannot start the legal process as itself until the NACE/CPA Regulations are officially approved. In this sense, any delay on the approval of NACE/CPA Regulations will imply a delay in the national processes.

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<sup>1</sup> Cyprus, Denmark, Estonia, Ireland, Italy, Latvia, Malta, Netherlands, Slovak Republic, Finland, United Kingdom, Norway, Switzerland.

<sup>2</sup> Czech Republic, Germany, Spain, France, Hungary, Lithuania, Austria, Poland, Portugal, Slovenia, Sweden, Romania, Croatia.

**Annex: Replies (extract)**

*Note: Country replies to other questions are available in CIRCA interest group NACE/CPA committee, or can be requested from  
Alice.Zoppe@cec.eu.int*

**Q. 2a Would you agree to implement NACE Rev. 2 in the Business Register on 1 January 2008?**

Country	Reply
Belgium	
Czech Republic	<p><i>Implementation in the Business Register depends on the timely completion of the new version of classification incl. methodology and on the preparation of the conversion table between NACE Rev. 1.1 and NACE Rev. 2. Another important factor is a solution to the way of recoding in cases of ambiguous factual transformation (one activity included in a single code of NACE Rev. 1.1 splits into more new codes). If this work is finished by the end of 2006, it will be possible to prepare the Business Register for surveys taken in 2008 already according to the new revised classification. If not, then from 1 January 2009.</i></p> <p><i>What should be stressed is the difference between implementation in the Business Register and implementation in industrial statistics surveys and outputs. We are able to ensure the full implementation of NACE Rev. 2 in statistical surveys from January 2009, <u>but only provided</u> the necessary conversion tables between both versions are available in the first half of 2006 and backward conversion according to the new version of NACE Rev. 2 is ensured at least from 2005.</i></p> <p><i>This requires that all reporting units be informed on NACE Rev. 2, on conversion tables between the versions and on methodological principles of the conversion (explanatory notes, etc.) already in 2007 (provided the version NACE Rev. 2 is applied in statistical surveys from 1 January 2009).</i></p>
Cyprus	Yes
Denmark	Yes
Germany	Yes
Greece	
Spain	<p><b>Our Business Register will be updated to the new classification on 1 January 2008, i.e. the structural surveys collected on 2008 will use this Business Register in the sampling process for data related to 2007.</b></p>
Estonia	<p><i>We will be able to implement NACE Rev.2 in the Business Register if the national version of the Classification will be ready by 1 January 2007 at the latest.</i></p>
France	<p><i>Yes, it is the best choice. French argumentation has been developed in document "Implementation of revised NACE and CPA in France" referenced as Doc.Class/05/FR/01 on CIRCA at 1-2 February 2005 Task Force</i></p>

Hungary	<p>The most problematic part for us is what data source will be available to classify enterprises by the NACE Rev. 2 from 1 January 2008. The budget of our Office unfortunately is much reduced and further restrictions will be expected. Reclassifying units in the register and data-processing are very costly, and it is not sure that the Office will have enough available sources.</p> <p>In divisions (e.g. in some parts of industry and construction) where correspondence is done for all items of the old and the revised NACE, automatic conversion will be possible.</p> <p>In divisions, however, (in other parts of industry and construction), where a class separates to more activities, or the new NACE will entirely be of different structure (multilateral correspondence), a certain level of data collection will be necessary.</p> <p>Possible data sources for NACE Rev.2. (new TEÁOR): In table 4. of the <b>annual statistical report on the economy</b> relating to 2006 as a reference period, the price revenue data of enterprises will be asked by the new NACE structure (on a full scope basis for enterprises with more than 20 employees). This information will be processed in 2007, and since 1 January 2008 the respondent companies will have new NACE listing. We wish to remark, that if in the integrated annual report of 2006 the activities will already be broken down by the new NACE, then for that year classification by the old TEÁOR will not be employed for that year. Listing of enterprises falling out of the scope of the annual integrated report will have to be solved separately. This data source would solve re-classification of industrial organizations; however, it would not solve that for construction and services branches, since in these latter the share of small enterprises is quite high.</p> <ul style="list-style-type: none"> <li>- Another possible solution: introduction of a <b>separate data collection</b> for those divisions, where unambiguous correspondence cannot be set up for old and the new NACE. Implementation of data collection and the timing depends on financial sources.</li> </ul> <p>The third possible solution: To ask price revenue data from enterprises according to the new TEÁOR in the <b>tax returns for 2006</b>. Namely, in the present tax returns, enterprises with double-entry book-keeping have to indicate separately the five major activities at 3 TEÁOR digits by the price revenues and by exports. Regarding 2006 this table should be modified according to the new TEÁOR, and price revenues should be asked at four-digit-level of activity. This data requirement of HCSCO has to be co-ordinated with the Ministry of Finance. At public administration level this would be the most economical solution.</p> <p>We agree to implement NACE Rev. 2 in the Business Register on 1 January 2008 if the explanatory notes will be completed until January 2006.</p>
Ireland	<i>Yes – however it is important that concordances, inclusions and exclusions are delivered as scheduled to ensure we achieve the target date.</i>
Italy	Yes, we agree but, in order to have a national version and a good quality of the Business Register, we need 24 months after the final version of NACE Rev. 2 complete with explanatory notes. In order to work to the national version we need the explanatory notes. So we should prefer to have the explanatory notes in autumn 2005 or, if it is not possible, at the beginning of January 2006.
Latvia	Yes
Lithuania	<i>Yes</i>
Luxembourg	
Malta	<b>YES</b>
Netherlands	<b>Yes</b>
Austria	<b>Yes, Austria would agree to switch the validity in the Business Register from NACE Rev. 1.1 to NACE Rev. 2 on 1 January 2008.</b>
Poland	<i>Yes</i>
Portugal	It's possible to start the NACE-Rev.2 implementation in the Business Registers on 1 January/2008 or before (June/2007). However, the changes only can be concluded about one year after if the Business Registers had a special budget support. We think that the Eurostat must to support (in part) the costs of the Nace-Rev.2 implementation.
Slovak Republic	<i>Yes, we agree</i>

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Slovenia	Yes, if there will be no delay preparing of NACE Rev. 2
Finland	Yes, we would agree
Sweden	We agree to the date 1 January 2008 provided that no delays in the important dates of the present "calendar of activities" for Operation 2007 (dated 14 January 2005) will happen
United Kingdom	Implementation is feasible if NACE is available in September 2005. A January 2006 date clearly puts pressure on resources and increases risks. In addition, the ONS intends to implement the change for the first survey selections of a year. If the January 2008 date is missed, the next available date is January 2009
Norway	We are planning to finalise the recoding of all units in the Business Register according to our national SIC-code based upon NACE Rev. 2 by 1 January 2008
Switzerland	Yes, we agree to implement NACE Rev. 2 in the Business Register on 1Jan2008
Romania	Yes
Croatia	<i>Yes, we agree</i>

**Q. 2b Please provide a description of methods and/or sources used for classifying units according to NACE classification in the Business Register in your country. If several methods are used, please clarify in which cases which methods.**

Country	Reply
Belgium	
Czech Republic	<p><i>To determine all activities performed by businesses, the Business Register uses predominantly administrative sources of information on legal birth of units (enterprises) – in some cases (natural persons) we receive from administrative data sources activities that are already coded and the CZSO takes over the codes directly (if the NACE classification is used) or does the recoding according to the conversion table. Data on activities of legal persons are acquired by the CZSO only in text form and the coding according to NACE is done by workers administering the Business Register.</i></p> <p><i>Determination of enterprise's principal (prevailing) activity represents a problem. To this end the CZSO uses either statistical surveys organised specifically to verify data entered in the Business Register or surveys taken by the CZSO in individual branches. If these data are unavailable, the point of departure is usually the text of the name of enterprises and the fact that the most important activity is usually given in the first place of the list of carried out activities of business data or according to descriptive information (using a report, by phone).</i></p>
Cyprus	<p><i>The main source of information for the classification of the economic activity of the enterprises in the Business Register is the Census of Establishments. The last Census was conducted in the year 2000.</i></p> <p><i>The classification of the activity of the establishments is mainly determined by the description of the economic activity of the enterprises, obtained from the Census, which is also double-checked with information from structural surveys.</i></p> <p><i><u>As regards the new enterprises, the procedure is as follows:</u></i></p> <p><i>The Electricity Authority of Cyprus in collaboration with the Statistical Service of Cyprus, provide us with a list of new customers (non-domestic), every six months. The Statistical Service of Cyprus, using interviewers, visits all the establishments included in the above list and determines which enterprises are really new, as well as their activity, and includes them in the Business Register.</i></p>
Denmark	<p><i>We classify according to the companies own description of activities. For companies participating in one or more of our statistics, we use information from these statistics as well.</i></p>

Germany	<p>According to the five main methods described above:</p> <ol style="list-style-type: none"> <li>1) Using production data Only for a part of units (generally units with 20 or more employed persons) in Section C and D Automatic programme that uses description table between WZ 2003 and GP 2002 (national versions of NACE Rev1.1 and PRODCOM respectively) This programme will be updated by a table between GP and NACE Rev.2</li> <li>2) Use of administrative sources For the main part of business register units. Files from the tax authorities (Value added tax files) File from the Federal Institute for Employment Those authorities will update their NACE classifications in own responsibility but in strong co-ordination (time-sheet, methodology) with our office</li> <li>3) Description of activities Only for a small part of new units that do not enter the register via administrative sources</li> <li>4) Modelling methods and</li> <li>5) Surveys We plan to use a method mix of 4) and 5)</li> </ol> <p>In the first stage we will re-classify <u>all</u> units in the register with a (preliminary) new NACE code. This will be done automatically by batch. In cases where there is a 1:1 or n:1 relation between old and new NACE code, the re-classification is finalized. In cases where there is a 1:n relation, one code will be chosen beforehand (by expert knowledge assuming that the probability that the new code is wrong is less than 0,5) and assigned to the unit. Those units will be sorted out and printed out for further treatments to check the activity, by further investigations or surveys for all or a part (the bigger ones) of them</p>
Greece	
Spain	<p>The Business Register in Spain is made up with information from some administrative sources, the Tax Agency and Social Security.</p> <p>In order to re-code the units in the Business Register, we are going to use four different methods:</p> <ul style="list-style-type: none"> <li>- Those units classified with a code of the NACE Rev.1 that has a correspondence with just one code of NACE Rev.2 are going to be re-coded directly.</li> <li>- The structural surveys collected on 2006 will include a double-coding for those units not directly recoded.</li> <li>- Automatic coding will be used for those units for which we have descriptions coming from external sources.</li> </ul> <p>For the reminder units we will use a probabilistic model based on a specifically designed survey.</p>

Estonia	<p><i>The primary source of information on the principal activity of an enterprise in Estonia is the Commercial Register, who receives the information from the registry card of the unit i.e. directly from the unit. As the information from Commercial Register is not sufficient – about 30% of units need re-classifying for statistical purposes, the additional sources are used. The special register survey for all new units is carried out, where the unit is asked to describe its activity in detail and to name 3 of units main products or services. According to this information the classification code from Commercial Register is validated or the unit will be re-classified. The information on unit's principal activity is updated with the help of information from regular statistical surveys, data from administrative sources such as the data from Estonian Customs Board and data from annual bookkeeping reports from Commercial Register. Also data from Internet, newspapers, business associations etc are used. According to the manual "Statistical Classification of Economic Activities in the European Community" the principal activity of a unit is the activity that contributes most to the gross value added at factor cost of the unit. In practice it is almost impossible to obtain information on value added about each activity of the enterprise. Therefore often the number of hours worked is used in the Statistical Office of Estonia for the determination of the principal activity. If the information on hours worked is not available, the number of employees or turnover is used.</i></p>
France	<p><i>Methods used for classifying units according to the French version of NACE (NAF) are not the same whether it is the usual process of registration (a) or whether it is the specific process of implementation of the new classification (NAF rev. 2) into the business register (b).</i></p> <p><i>(a) Usual process of registration :</i></p> <ul style="list-style-type: none"> <li><i>- we use an automatic coding system (SICORE) for coding the activity of new units or for changing, if necessary, the activity code of units, which are already in the Business Register.</i></li> <li><i>- the biggest units can be recoded each year according to their answer to the structural annual business surveys.</i></li> </ul> <p><i>(b) Implementation of NAF rev. 2 :</i></p> <p><i>To re-classify the units according to the new classification, France will use both existing annual business surveys for the largest enterprises (structural annual surveys and also annual Prodcom surveys) and specific surveys (the so-called "Surveys for the improvement of the Business Register"), where necessary, for the others. These surveys will be launched during the year 2007 and the results, available around September 2007, will be used to allocate the new code on the first of January 2008. The option taken by France is the one of a good quality of the new classification of units as soon as the switch date of the register, the other option, rejected, being an approximate switch followed by a progressive improvement brought by the launching of the different applications which use it.</i></p>
Hungary	<p>The regulation of the principal activity codes is correspond to NACE. In 2001 the HCSO introduced the concept of the so-called statistical principal activity code; now an enterprise has two principal activity codes: an administrative and a statistical one. The administrative principal activity codes are determined by the data supplier and the HCSO accepts it. The administrative principal activity codes are updated in full conformity with the administrative sources, the statistical principal activity codes are calculated on the base of statistical data collections. The HCSO uses the statistical principal activity code only for statistical purposes. It is not a public data of the enterprise, and it is communicated only to the data supplier and not to the administrative sources. The statistical principal activity code is determined once, in the beginning of the year, and it can not be automatically modified during the year.</p>

Ireland	<p>We issue a business register inquiry survey, where businesses are asked to provide a business activity description. When the forms are returned and the business description is entered on the business register system, the system will code the description based on the synonym list.</p> <p>This code is examined by Business Register staff to ensure accuracy of coding. In certain cases some adjustment may be required. For example if a business enters a lengthy description or if the activity is in a new economy, the coder will not be able to make an accurate match and therefore manual intervention will be required.</p> <p><b>Information that is received on survey forms is used to keep the NACE codes up-to-date.</b></p>
Italy	<p><i>In the Italian Business Register we collect different administrative sources that use the NACE Italian version ATECO 2002. The results of the business surveys are also utilized to correct the Register. Every single large enterprise (more than 100 employees) is checked by clerks in its economic activity code and number of employees</i></p>
Latvia	<ol style="list-style-type: none"> <li>1. Use of production data following Prodcom surveys</li> <li>2. Use of administrative sources</li> <li>3. Use of description of activities</li> <li>4. Surveys to units where correspondence tables and the other methods cannot be used</li> </ol>
Lithuania	<p><i>Lithuania: Main source for classifying units are statistical questionnaires where codes of economic activity are filled in and checked by statisticians. Another source is VAT and individual enterprises declarations from Tax Inspectorate. The enterprises put down activity codes into declarations. Both statistical questionnaires and declarations economic activity data are transmitted to the Business register in a computerised way or by an operator who enters activity code from questionnaires into the Business register database.</i></p>
Luxembourg	
Malta	<p>Initially newly registered units either in the VAT register or in the Registry of Companies are mailed a BR questionnaire where they are asked to describe their Principal activity. Subsequently they are mailed the SBS questionnaire on an annual basis which in turn updates the BR activity. Registry of Companies is also sometimes utilised for classification purposes since Memorandum and Company accounts may be easily accessed.</p>
Netherlands	<p>Main source: Surveys by Chambers of Commerce (coding to activity is responsibility of Statistics Netherlands). Non-response is dealt with by specialist of SN/Registers Second source: use of production data following Prodcom surveys</p>
Austria	<p>For the switch to NACE Rev.2 in the Business Register, Austria would use a variety of methods in order to minimise the burden on enterprises. Even if the structure of the new NACE will be quite different compared to current NACE, a great amount of the units could be reclassified automatically. This concerns especially all cases with a 1:1 correspondence between a new national subclass and an old one.</p> <p>For the rest of the units where an automatic reclassification is not feasible, all information available will be used. This refers to information from the PRODCOM survey and from other surveys as well as from the so called classification notification. However, also information from outside the statistical system will be utilised. Examples for such sources are the websites of the enterprises, descriptions from the Chamber of Commerce and other institutions.</p> <p>Lastly, the remaining units where information on the activity performed is not available or where the main activity cannot be specified by the information available, will have to be contacted. This will be done by postal questionnaires or by telephone calls, or a mixture of both. In any case, in order to minimise the response burden the questionnaires will be tailored to the concrete (re-)classification problem</p>



Poland	<ol style="list-style-type: none"> <li>1. Description of activity</li> <li>2. Using statistical information from statistical surveys for assessing the prevailing activity (top-down method basing on the enterprise income)</li> <li>3. Using in some cases information concerning production data</li> </ol> <p>Updating questionnaire</p>												
Portugal	<p>The Portuguese Business Registers uses the surveys when the correspondence table cannot be used. When one NACE-Rev.1.1 is split into two or more NACE-Rev.2, the non-responses are classified by aleatory method. Below we present an example of the aleatory method:</p> <p><u>Code x of the NACE-Rev.1.1 is split into y, z, k on the NACE-Rev.2</u></p> <table data-bbox="524 569 1403 741"> <thead> <tr> <th>NACE-Rev.2</th> <th>70% of survey responses</th> <th>30% non-responses</th> </tr> </thead> <tbody> <tr> <td>Y</td> <td>50</td> <td>22</td> </tr> <tr> <td>Z</td> <td>10</td> <td>4</td> </tr> <tr> <td>K</td> <td>10</td> <td>4</td> </tr> </tbody> </table> <p>The preliminary classification for the non-responses (30%) is a distribution of simple frequencies and it will be changed in the Business Registers when the NSI can to <a href="#">check this classification</a>.</p>	NACE-Rev.2	70% of survey responses	30% non-responses	Y	50	22	Z	10	4	K	10	4
NACE-Rev.2	70% of survey responses	30% non-responses											
Y	50	22											
Z	10	4											
K	10	4											
Slovak Republic	<p><i>In the case of new units administrative sources are used for attribution of the NACE code. This code is more accurately specified by the means of special statistical questionnaire that has been sending to all newly created enterprises. Other specifications of the 4-digits class level NACE are based on use of production data following statistical surveys.</i></p>												
Slovenia	<p><i>About 80% of units in business register (BR, which contains ca 180 000 units) can be recoded from NACE Rev. 1.1 (present SKD) to NACE Rev. 2 automatically – where relations are 1:1 and n:1 (in our country some proposed relation 1:n could be simplified to 1:1)</i> <i>Other units will be recoded by taking into account production, trade and services statistics, by considering names of firms, organizational forms of enterprises, etc. About 10 000 units need to be checked by special surveys.</i></p>												
Finland	<p>Statistics Finland’s main method is to carry out extra surveys of enterprises or establishments if correspondence between classifications (2002 and 2007) is other than one-to-one. The procedure results plenty of extra surveys but brings good quality. Also membership lists and other kinds of lists of companies, etc., can be exploited, though to a lesser degree</p>												
Sweden	<p>We have the following methods/sources for classifying units in the Business Register:</p> <ul style="list-style-type: none"> <li>• Production data from our yearly survey “Production of commodities and industrial services” in which data are collected according to Combined Nomenclature (CN). It is for the sections C and D (Mining and quarrying and Manufacturing) in NACE.</li> <li>• Administrative sources, for example classified new units from the Swedish National Tax Board.</li> <li>• Description of activities for units from for example the Swedish Companies Registration Office</li> <li>• Yearly surveys to enterprises with more than one establishment from the unit of Business Database at Statistics Sweden</li> <li>• Surveys to enterprises in specific areas where information of their activity/activities is needed because of important changes from NACE Rev.1.1 to NACE Rev.2</li> </ul>												

<p>United Kingdom</p>	<p>The UK classifies to the national 5-digit version based on NACE. The main source for coding is the business register survey, which collects descriptions of business activity. Each description is coded using an automated tool, currently the Precision Data Coder. For new business units and for small existing business units, the ONS uses information provided by HM Customs and Excise (VAT data) and by Inland Revenue (PAYE employer data). VAT data are currently coded to the latest UK SIC, which is a 5-digit version of NACE. The ONS is working with HMCE to set up a capture system for VAT business descriptions provided by VAT traders to improve the quality and flexibility of coding. For PAYE employers, the Inland Revenue department uses its own old coding system and the ONS uses look-up tables to convert. Coding is based partly on a coding list and partly on clerical examination of business description using the same coding list. The ONS is also working with IR to capture business descriptions but this is a long-term development that may not be in place for the new NACE. Companies House codes all businesses to the 4-digit NACE and supplies codes not descriptions. The codes are provided by companies selecting from a coding list.</p> <p>Once the ONS has classifications from more than one source, we use priority rules to determine the best SIC code. Normally the business register survey takes priority. In addition, PRODCOM provides evidence of SIC codes and where this differs from the preferred source, the codes are checked individually. For the largest businesses, the ONS checks coding through its business profiling team</p>
<p>Norway</p>	<p>All units registered in our BR are also in the Central Coordinating Register for Legal Entities. This register contains a description of the planned or actual activities of the units. All new units are coded according to this description. If necessary, this information is supplemented by direct contact by telephone to the new unit. Changes in codes are being made based upon written information about the actual activity. If this information is in conflict with the mentioned description of the activity this description has to be changed as well by contact to the CCRLE. Sources of information could be letters to the CCRLE, to Statistics Norway, response to an annual quality check of one of the associated registers to the CCRLE - the Employers - Employees Register or feedback to SN on the surveys. Information about the activity code is pre-printed on different questionnaires from both SN and several administrative government units and this leads to a number of reactions about possible and actual incorrect codes.</p> <p>The recoding of most units will be done automatically by the help of national correspondence tables based upon the NACE correspondence tables. Whenever an old SIC-code is split between two or more new codes we will use a computer-assisted method by looking for distinctive words in the description of activity. We plan to contact in writing the units where such a method is insufficient asking them to choose between the relevant codes. We have not decided yet whether this will be a separate survey or combined with the SBS surveys in 2007</p>
<p>Switzerland</p>	<p>The two main methods to classify units in the Business Register are the following:</p> <ul style="list-style-type: none"> <li>• Use of description of activities (provided by surveys)</li> </ul> <p>Profiling (direct contact with companies) for some big companies or enterprises groups</p>
<p>Romania</p>	<p><i>For the units already existing into the Business Register that were affected (main activity) we shall use the following methods:</i></p> <ul style="list-style-type: none"> <li>- <i>using of the Conversion table between NACE rev.1.1 and NACE rev.2 for the cases of aggregations and new codifies</i></li> <li>- <i>survey of the units for split cases</i></li> <li>- <i>PRODCOM (PRODROM) data for the industry domain.</i></li> </ul> <p><i>According to the Romanian Laws the administrative institutions have to implement the new versions of classifications in the same time with NSI of Romania. In these conditions for the new units created after implementation date we will use the following administrative sources:</i></p> <ul style="list-style-type: none"> <li>- <i>Trade Register</i></li> <li>- <i>Balance Sheet</i></li> </ul>

Croatia	<p><i>We will combine methods in regard with availability of sources for classifying unit as follows:</i></p> <p><i>in the cases 1:1 the correspondence tables will be used automatically</i></p> <p><i>in the cases 1:n</i></p> <ul style="list-style-type: none"><li>▪ <i>all available statistical sources will be used for classifying units</i><ul style="list-style-type: none"><li><i>use of production data following PRODCOM based survey (C to E)</i></li><li><i>use of structural data following SBS based survey (C to E and G)</i></li><li><i>use of STS and other data following sector based survey (F, H, I)</i></li><li><i>use of monthly surveys on employment (for all activities)</i></li></ul></li><li>▪ <i>all available administrative sources will be used for classifying units where statistical sources are not available</i><ul style="list-style-type: none"><li>▪ <i>description of activities will be also used as well as "indexes" (we plan to develop such tools)</i></li></ul></li></ul>
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**Q. 2c Do you have tools which assist the coding (computer assisted coding, automatic coding)?**

**If yes, could you describe how they work?**

**If no, do you see the need for those coding tools and would you like to have assistance to developing such tools?**

Country	Reply
Belgium	
Czech Republic	<p>Only recoding according to the conversion table for natural persons is used (see the preceding point). There is no tool for automatic coding available in the CZSO. Such a tool would certainly be useful, although the tool in itself does not create preconditions for its meaningful utilisation. Also important are conditions created for enterprises to present information about their activities – if it is a plain text or a description of possible activities which is prescribed in a way (choice from a list, etc.).</p> <p>The Top-Bottom method according to data classified by CPA is used for coding according to business data.</p>
Cyprus	<p><i>No, we do not have tools, which assist the coding</i></p> <p><i>We have not yet examined whether we need such coding tools; however, we might examine this issue in the future and require assistance to develop such tools.</i></p>
Denmark	<p>No coding tools <i>Maybe, but we expect such a coding tool to be very expensive and time consuming to develop.</i></p>
Germany	<p>No</p> <p>No need</p>
Greece	
Spain	<p>The tools we are going to use for the updating of the Business Register are mainly two:</p> <ul style="list-style-type: none"> <li>- An assisted coding tool, called AYUDACOD (<a href="http://www.ine.es/EX_INICIOAYUDACOD">http://www.ine.es/EX_INICIOAYUDACOD</a>)</li> <li>- An automatic coding tool.</li> </ul> <p><b>If yes, could you describe how they work?</b></p> <p>AYUDACOD is a computer assisted coding tool that, once the user has typed the description, offers a set of possible codes. The user has to select the most accurate code. The automatic coding tool selects itself just one code for the given description, considering the specified parameters of quality. We attached a document in 'pdf' format about the automatic coding tool used in the Census of population 2001.</p>
Estonia	<p><i>No, Statistical Office of Estonia does not have any tools to assist the coding. Yes, we see the need for such tool and would like to have assistance to developing such tool.</i></p>
France	<p><i>Yes, we have tools to assist the coding. The automatic tools are used mainly to code new units.</i></p> <p><i>This system works from an expert wording basis, which is made and updated from the administrative declaration forms filled up by the enterprises.</i></p>
Hungary	<p>No, we do not have coding tools and we do not need them either.</p>
Ireland	<p>Yes. We use computer assisted coding called SSAnames 3, details of the product can be found at <a href="http://www.identitysystems.com/products/name3T.htm">http://www.identitysystems.com/products/name3T.htm</a></p> <p><i>We also have a central classifications database called CARS (Classifications and Related Standards). The CARS system stores the synonym list and interacts with the business register to code enterprises.</i></p>

Italy	<p>Yes. We utilize ACTR (Automated Coding Text Recognition) a product developed by Statistics Canada. We utilized this product for the Industrial Census and we intend to apply ACTR to trans-code the Business Register with the new classification Nace 2007. ACTR works:</p> <p style="padding-left: 40px;">with a dictionary named "reference" that contains all the ATECO explanatory notes and the economic activity descriptions coming from the business surveys and with a file that support the software named "parsing"; the parsing standardizes the dictionary contents and the input that ACTR has to codify. At the end the software assigns a quality score to the classification.</p>
Latvia	No
Lithuania	No. We need assistance to develop such tools
Luxembourg	
Malta	<p>The type of computer assisted coding utilised requires that one chooses whether to use the lookup either by inserting the NACE Division and scrolling or by inserting part of the activity's description and scrolling for the right NACE class.</p> <p>If no, do you see the need for those coding tools and would you like to have assistance to developing such tools? NO</p>
Netherlands	Yes. The tool gives the code of one activity via several steps (questions). It doesn't determine the main activity of a unit. It will have to be adapted to new NACE.
Austria	No, Austria does not have automatic coding tools. Because of missing verbal descriptions of the activities performed by the enterprises, an automatic coding system cannot be developed
Poland	No
Portugal	<p>Yes. We have tools to assist the coding but the results are not goods.</p> <p>We are interested to improve our computer assisted coding and so we would like to know others similar tools. Please, you said me one Member-state with a good tool to change the experiences.</p>
Slovak Republic	<i>In our Business Register attribution of the NACE code is computer assisted and controlled. This tool consists of alphabetic list of activities which is implemented into the software application</i>
Slovenia	No. If no, do you see the need for those coding tools and would you like to have assistance to developing such tools? Yes
Finland	<p>Survey forms for the additional / extra surveys are not yet planned. A detailed description of the activity is inquired via pre-printed forms with the codes of present classification, TOL 2002. The data collection unit will be the local kind on activity unit. An application - called 'Classification Expert' – is employed as a tool to support manual work. However, it is not used for automatic coding by reason of quality. The application consists of a dictionary of 7000 reference words and definitions of classes.</p>

<p>Sweden</p>	<p>Yes. At Statistics Sweden we have developed an assistants coding system. It is a search-system used both by the Swedish Tax Board and Statistics Sweden. It is a web based system, which is reachable from Statistics Sweden's homepage and all users or persons interested in activity codes are able to use it.</p> <p>In Sweden the enterprises get their activity code at the Tax Board, who also sent out there "letter of registration". At Statistics Sweden we make revisions of the code if we find out it is incorrect or when new classifications are introduced. There are close co-operation between Statistics Sweden and the registration staff at the Tax Board in matters concerning activity coding.</p> <p>The system is as earlier mentioned a search-system where it is possible to find out the correct activity code by search alphabetical (search on products, services etc), numeric (search on a specific code) or direct in the list of codes. In the alphabetic search part it is possible to search on one word or a combination of words and the result will be a list of suggestions. From this list it is able to go further and in the end find the correct code for one enterprise.</p> <p>The system is updated continuously with new search words. The person who administrates the system looks on "search-failures" and adds new search words when it is needed.</p>
<p>United Kingdom</p>	<p>Currently, a coding tool called PDC (Precision Data Coder) is used. However, the Office recently bought the Canadian coding tool 'ACTR' and the intention is to use ACTR for coding to the new NACE and new SIC. ACTR works in a similar way to the PDC. ACTR has to be built specifically for the new NACE/SIC, however. In that sense, it is not an 'off the shelf' tool. Significant expert resources will be required, IT and statistical particularly, to build ACTR on the new basis. There will also be considerable time pressure as it is, for the most part, not possible to start the building process until a final new UK SIC becomes available and the business register requires a fully operational ACTR, which uses the new UK SIC, shortly thereafter.</p> <p>ACTR is a complex tool and cannot adequately be described in a few words. In crude terms, it is necessary to build one or more very large reference files containing business descriptions, each one linked to its correct UK SIC code. A large parsing file must then be constructed, in effect many specialist parsing sub-files within an overall parsing umbrella. This is particularly difficult and requires expertise in natural linguistic programming techniques. A complex, integrated IT framework containing these and other files then has to be set up.</p> <p>Once fully developed, ACTR will attempt to batch code the large numbers of business descriptions arriving at the business register. A target throughput and quality level will be set. ACTR will not code business descriptions where it cannot do so at or above the quality threshold specified. These descriptions will be referred for interactive coding, which ACTR output will assist in various ways.</p> <p>Government departments, and others, supplying business descriptions or in some cases only their codes to the business register may also use ACTR but may use other tools or coding lists. The ONS are working actively with the key administrative data providers, HM Customs and Excise, Inland Revenue and Companies House to agree methods and tools.</p> <p>To meet the likely implementation deadline, the UK would need assistance in developing ACTR. The most useful form of assistance would be financial support, which would be used to employ experts in the relevant fields</p>
<p>Norway</p>	<p>Yes.</p> <p>SN has designed an Internet based system that operates with the use of indexed words from the SIC codes. The system produces several proposals for SIC codes and the operator will have to choose between these.</p> <p>The employees at the Division for Business Register in SN do not use this tool, as they are very experienced in the coding work. The employees of the CCRLE have now taken over the coding of most new units and some of the changes and they are frequent users of this tool.</p>

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Switzerland	<p>We have a tool which assists the coding. It contains a list of 11'000 key-words (in 3 languages). By entering keywords into the program's search tool, users are able to quickly find the exact code that corresponds to a given activity.</p> <p>It is not an automatic coding system (you have to handle the units one by one), but it is more than just an index</p>
Romania	<p><i>No.</i></p> <p><i>Yes. Should be useful to create such tools.</i></p>
Croatia	<p><i>Unfortunately we do not have any tools that would assist the coding.</i></p> <p>If no, do you see the need for those coding tools and would you like to have assistance to developing such tools?</p> <p><i>Yes, we see the need for those coding tools and we would like to have assistance for developing such tools.</i></p>

**Q. 2d Do you use an index for classification purposes?  
If yes, how is it created and how do you make use of it?**

Country	Reply
Belgium	
Czech Republic	<i>No, the question seems, however, rather unclear</i>
Cyprus	<b>No.</b>
Denmark	<i>We have an index to our Danish activity classification publication, but only in a printed version. <b>If yes, how is it created and how do you make use of it?</b> See above – we do not use the index systematically.</i>
Germany	<i>Yes. For the national version of NACE Rev. 1.1 we have an alphabetical index (keyword list) with about 35.000 activity descriptions. It is not just a list of words but a list of terms, including specifications, exceptions and exclusions. This index is used as a basis for a search machine, together with a list of synonyms. The search machine is available for the public via Internet (<a href="http://w3gewan.bayern.de/klass/index.htm">http://w3gewan.bayern.de/klass/index.htm</a>), but only in German language. A similar system (more simply designed) is used internally in the Federal Statistical Office. The search machines can only assist in coding indirectly. They do not allow automatic coding and are normally not yet integrated in data processing procedures (see question 2c). The titles of the classification items and the text of the explanatory notes have been one source of the alphabetical index. Other (more important) sources are the classification problems we are faced with during our daily work and (as far as our capacity allows it) an analysis of the search machine inquiries that failed. An analysis of those unsuccessful attempts to find a code is very helpful for the extension and improvement of the alphabetical index</i>
Greece	
Spain	<i>Yes, our assisted and automatic coding tools use an index of activity descriptions. These indexes were created with descriptions coming from different sources, basically from different INE's surveys, but also from other administrative sources. They are updated in a continuous way with the most interesting consultations received at the unit of classifications.</i>
Estonia	<i>No, Statistical Office of Estonia does not use an index for classification purposes</i>
France	<i>See above. The expert wording basis used for automatic coding might be considered as an index, but the system takes the context into account and includes phonetisation and synonymisation algorithms. <b>If yes, how is it created and how do you make use of it?</b> It will be necessary to reinitialise the expert wording basis.</i>
Hungary	No.
Ireland	<i>Yes. We use a synonym list. This was created manually from the various business activity descriptions provided by businesses. The synonym list is continuously updated whenever a new or unrecognised activity description is received. As mentioned above the synonym list is stored on the classification database, which interacts with the business register system. The list of inclusions and exclusions to NACE is critical to the development of the synonym list.</i>
Italy	<i>Yes. The input to create the index is:</i> <ul style="list-style-type: none"> <li>- the titles of the classification (from the letter to the fifth digit)</li> <li>- the explanatory notes</li> <li>- Prodcom</li> <li>- CPA</li> <li>- Part of the profession classification (Isco).</li> </ul> <i>All the material is worked with software programs and then with manual checks. The index is an important part of our book on Classification of Economic Activities ATECO 2002</i>
Latvia	No
Lithuania	No



Luxembourg																							
Malta	NO																						
Netherlands	Yes. By practice, adding those terms which occur frequently enough. As a base for computer assisted coding we use much larger dictionaries																						
Austria	Austria uses an index for classification purposes, however, not to support automatic coding, rather than to identify the classification of the respective activity.																						
Poland	No																						
Portugal	<p>Yes. We have an Alphabetic Index. The Portuguese Alphabetic Index is organized in two parts: headings (goods and services) and codes (five digits) of Activities Portuguese Classification. The headings have three levels: 1<sup>st</sup> level (entry level) describes the goods and services; the 2<sup>nd</sup> level describes the economic operation and sometimes qualifies the goods and services; the 3<sup>rd</sup> level when it exists defines the economic operation. For a better comprehension we present below two examples:</p> <p><b>Steel</b></p> <table> <tr> <td>Casting of .....</td> <td>27520</td> </tr> <tr> <td>Manufacture of .....</td> <td>27100</td> </tr> <tr> <td>Wholesale of.....</td> <td>51520</td> </tr> </table> <p><b>Water</b></p> <table> <tr> <td>Mineral</td> <td></td> </tr> <tr> <td>    Bottling of .....</td> <td>15981</td> </tr> <tr> <td>    Retail sale of .....</td> <td>52250</td> </tr> <tr> <td>    Wholesale of .....</td> <td>51342</td> </tr> <tr> <td>Residual</td> <td></td> </tr> <tr> <td>    Treatment of.....</td> <td>90010</td> </tr> <tr> <td>Tonic</td> <td></td> </tr> <tr> <td>    Production of .....</td> <td>15982</td> </tr> </table> <p>This Alphabetic Index is used to classify the economic activities of statistical units. This Index permits a better coordination and fast classification.</p>	Casting of .....	27520	Manufacture of .....	27100	Wholesale of.....	51520	Mineral		Bottling of .....	15981	Retail sale of .....	52250	Wholesale of .....	51342	Residual		Treatment of.....	90010	Tonic		Production of .....	15982
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Slovak Republic	None																						
Slovenia	<i>We have constructed alphabetical indices that contain ca 7200 entries for SKD and 14 000 entries for CPA. We intend to recode the index to NACE Rev. 2 (SKD07) by September 2006</i>																						
Finland	No. Indexes (a manual and 'Classification Expert') serve data handlers as a supporting tool but not as a primary tool to code data																						
Sweden	Yes. We have an alphabetic index, which are connected to the different activity codes. The index consists of products and services and is fully integrated with the coding system described in question 2c.																						
United Kingdom	<p>The ONS Industrial Classifications Branch develops an SIC Index publication. Both an electronic and a paper Index publication are produced. The Index is in 2 sections: alphabetical and numerical. Both sections present the most useful activity descriptions, their new SIC code and their code in the previous version of the SIC. The Index is used within ONS to assist with coding the more difficult business descriptions, those that the automatic coding tool is unable to code. It is used widely outside government to assist anyone, businesses, trade associations, professional bodies and universities for example, who needs to know the correct SIC code for their activity or for the activities of an area of the economy that they may be studying. The Index for the new SIC, when it becomes available, will also be used as one of the sources of information for populating the new reference files that will be required for the automated coding tool (ACTR).</p>																						

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Norway	Yes. It is a mix of text used in the SIC and text or descriptive unit names known by experience to be helpful in coding work. Less experienced employees are the most frequent users.
Switzerland	See answer to question 2c
Romania	No
Croatia	<i>No, we do not use an index for classification purposes</i>

**Q. 2e Do you plan to double-code units in the Business Register?  
If yes, and assuming that 1 January 2008 is the first reference year of NACE Rev.2  
which year(s) or date(s) do you propose for double coding?**

<b>Country</b>	<b>Reply</b>
Belgium	
Czech Republic	<p><i>Yes, as the Business Statistics Branch of the CZSO express their needs, it should be at least a three-year period after the implementation of the new classification. The double coding of units in the Business Register would be maintained for these three years. The Industrial Statistics Department hold an opinion that if the date of 1 January 2009 is agreed for the application of NACE Rev. 2, it will be necessary to have monthly data for at least the whole years 2008 and 2007 according to both NACE versions: official ones, published still during 2008 according to NACE Rev. 1.1, and „shadow“ ones according to NACE Rev. 2, which will be used from 1 January 2009. Otherwise the monthly y-o-y indices on short-term business statistics from 1 January 2009 will not be produced. At the same time, if the above-mentioned date is assumed, impacts must be resolved as early as 2007 on product statistics, which provide a basis for the industrial production index (IPI), on the choice of representatives in individual CZ-NACE activities and weighting pattern for IPI calculation. In doing so, it will be necessary to revise the base of 2005 for IPI which will be applied from 2007 and indices from the year 2000 will be back-cast accordingly.</i></p> <p><i>In case we agreed to 1 January 2008 as the date of applying NACE Rev. 2, then it would be necessary to put all the above activities forward by a year and at same time to put the creation of base 2005 back by a year, i.e. from 2008 on grounds of NACE Rev. 2. However, this is ruled out by the assumed date of finalising NACE Rev. 2 in 2006. This revision should be completed already in 2005, incl. translation into Czech, Czech explanatory notes and Czech conversion tables and incl. „education“ in the business sphere.</i></p>
Cyprus	<p><i>Yes, starting from the new Census of Establishments, which will take place in the summer of 2005. The only weakness in applying the double-coding at this stage, is that the NACE Rev.2 will be finalised in January 2006. It would be much preferred if it was finalised by September 2005, as was originally planned.</i></p> <p><i>In any case, we will proceed and double-code the enterprises of the Census, using the latest available version of NACE Rev.2 and when the final version of NACE Rev. 2 becomes available, we plan to adjust all codes affected.</i></p> <p><i>Thus, assuming that all of the above will work out as planned, 2005 is the proposed year for double coding, with the results being available in year 2006.</i></p>
Denmark	<i>It is our plan to do the double coding for the year 2007.</i>
Germany	Yes. 2008
Greece	
Spain	<b>Yes, we do, but only in 2008</b>
Estonia	<i>Yes, the double-coding in Business Register for statistical purposes is planned for the period 01.01.2008 – 31.12.2008</i>
France	<p><i>Yes</i></p> <p><i>We will have a double coding at the exact date of the switch of the business register (for example the 31 of December 2007 at 12 p.m.). As for now we do not plan to have a double coding of the register during a period, except for new units created during year 2007 (these units will be out of the scope of both kinds of surveys described in Q.2b). It should however be noted that several thousands of units are introduced or are moving each day in the business register.</i></p>
Hungary	We plan to double-code units in the Business Register for one year from 1 January 2008.
Ireland	<i>For units live on the business register from 2005, we will double code until 2010 (depending on requirements for national accounts).</i>

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Italy	<i>Yes. Probably the year of the Businesses Register that we will transcode is the year referred to 2005 with date March 2007; in that case the years with double coding will be 2005, 2006 and 2007. So we will have double coding from March 2007 until March 2009 at least.</i>
Latvia	Yes. Dates of 2007 year
Lithuania	<i>Yes. As in Transition for STS we have chosen an option number 2 (document Class/05/04) we assume it should be 2008-2011.</i>
Luxembourg	
Malta	<b>NO</b>
Netherlands	<b>Yes</b> 2008, maybe also 2009. The system of double coding can be implemented when SIC 2008 is completed, but can be kept operational until all statistics use NACE 2008.
Austria	<b>It is planned that work on reclassification starts in the second half of 2006 and will be finished in summer 2007. Double-coding of all units in the Business Register will therefore be done for the years 2007 and 2008 and probably also for 2009. Double-coding for 2008 will be indispensable in order to develop conversion keys anyway.</b>
Poland	<b>Not longer than 2 years</b>
Portugal	<b>Yes. Portugal proposes for double coding 1 January/2008 (or before June/2007). The double code units in the Business Registers must be preserved during 5 until 10 years</b>
Slovak Republic	<i>Yes, we consider to double code Business Register units in 2007</i>
Slovenia	<i>Yes, at least till the end of 2010</i>
Finland	Basically, Statistics Finland plans to double-code the data of the reference years 2006 and 2007 by genuine double coding. The reference year 2005 will be double-coded ex post facto via methods of probabilistic models
Sweden	<b>Yes. Our plan is to change the production system of the Business Database and introduce double codes for activities, an old code for SNI 2002 and a new code for SNI 2007. The starting time of classifying units according to the new classification is in the beginning of 2006. The Business Register will have all the units reclassified at the end of 2007. From 1 January 2008 new units will only be classified to SNI 2007-code and old units which change their activity will get a new SNI 2007-code.</b>
United Kingdom	<b>Yes. The ONS proposes to maintain coding to the existing SIC up to the end of 2007, while introducing the new SIC during 2007. All selections in 2007 will be on the existing SIC. From the end of 2007, it will be possible to provide codes on the new SIC that customers can use on their existing register extracts. From January 2008, all annual selections will be carried out on the new SIC basis but the short term surveys will probably be selected on the basis of the old classification during 2008. Inevitably, the quality of the old classifications will then reduce. The business register will continue to hold both old and new classifications</b>
Norway	<b>Yes. The recoding of all units will take place during 2007. We will register both the registration date for the new code and the validity date as well. If the old code is correct the validity date for the new code will probably be backdated to the validity date of the old code. Units where the old code is discovered to be incorrect will probably not be backdated. We expect that most units alive during 2007 will have double codes for 2007.</b>
Switzerland	Yes, we plan to double-code units in the Business Register during the year 2007.
Romania	<i>Yes. (for double coding the year 2008).</i>
Croatia	<i>Yes, we plan to double-code units in the Business Register. Assuming that 1 January 2008 is the first reference year of NACE Rev. 2, we propose the double coding for two years, from 1 January 2008 to 1 January 2010.</i>