

**Development of a methodology for a long-term strategy
on the Continuing Vocational Training Survey (CVTS)
CVTS3 M**

**Work-package 7:
Needs and consequences of the extension of coverage
with respect to NACE and the size of the enterprises
Recommendations for future CVTS surveys**

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1. Introduction

On their meeting in December 2004 the CVTS Working Group decided that there would be no **compulsory** extension of enterprise size or NACE coverage for CVTS3. However, countries would be encouraged to extend, on a voluntary basis, their coverage to address these issues perhaps through pilot actions. These pilots should be designed to gather data and experience to inform possible implementation of these issues in future CVTS.

An extension to enterprises having 5-9 employees seems to be very important, since these enterprises cover between 51 to 97 % of all enterprises, employing up to almost 50 % in some European countries (see Table 1 below). This clearly underlines the political background to the European Parliament's requested extensions in this area. In addition there was a need to address this size group to improve the quality of comparisons at the international level.

In CVTS2 there were no particular difficulties in sampling the small size enterprises beyond the commonly accepted threshold of enterprise size being equal or larger than 9 employees. This size cut-off potentially leads to some distortion in the sense of over- or understating CVT efforts of individual countries. Another issue is the lower response rate of small enterprises and the possible relation between providing answers to the questionnaire and engagement in CVT (positive selection bias).

In evaluating the possibilities of including micro-enterprises (5-9 employees) into CVTS two questions have to be tackled:

- Extending the coverage with respect to size of enterprises depends on the availability of adequate enterprise registers in different countries and on comparability of their coverage (see chapter 3);
- Including small enterprises might have effects on quality and comparability of data (see chapter 5).

Given the fact that a substantial share of work force is employed in small enterprises, with an expected upward trend in future, some effort is to be invested in including this segment of enterprises in CVTS.

CVTS so far focused on private enterprises. NACE L (Public administration, government and municipal institutions) was excluded. However, some public enterprises were also included in the NACE categories covered in CVTS1 and CVTS2, but public ownership of enterprises in these NACE categories is usually very small. Some countries, e.g. Finland, decided to exclude public enterprises.

The coverage of NACE categories had been further narrowed down because of expected difficulties with data collection for specific sectors.

The following NACE-categories were not part of the earlier CVT surveys:

- Agriculture, forestry and fishing (NACE-categories A and B)
- Public administration, health and education (NACE-categories L, M and N)
- Households employing domestic staff (NACE-category P)
- Extra-territorial bodies (NACE-category Q)

An attempt to include some of these in the frame of further CVTS should be made as in general most countries considered NACE extension to be an issue for consideration at CVTS4. Generally problems were seen with regard to incomplete business registers for the proposed NACE extensions and also for micro-enterprises. Some specific problems were reported regarding the allocation of enterprises in the health and education sectors, which

were sometimes attributed to service sector and the difficulties of obtaining data at the enterprise level for these NACE categories, requiring expensive face to face interviews, so raising costs.

Extending coverage with respect to NACE poses again the question of availability of an adequate enterprise register in EU member states and candidate countries (see chapter 3). In this paper the possibilities of extension of coverage and its potential effects are evaluated by reviewing the state of Statistical Business Registers and summarizing other information.

The National Statistical Institute of the Republic of Bulgaria prepared a special expertise on the inclusion of micro-enterprises and additional NACE categories in CVTS in Bulgaria. In 2003 and 2005 they carried out two further continuing vocational training surveys that extended coverage to micro-enterprises and additional NACE categories (based on CVTS2 questionnaire, see chapter 4 and Annex 2).

For the preparation of the CVTS Working Group Meeting in December the CVTS3 M-consortium already discussed in a short paper (Eurostat Doc. ESTAT/D5/2004-CVTS 11-EN) the extension of size and NACE for CVTS3. Based on this document we consider the possibilities of extension for future CVTS.

2. Assessment of the degree of coverage regarding ‘employees’ and ‘continuing vocational training in enterprises’ realised in CVTS2 with respect to NACE and size of the enterprises

Any choice of a size threshold across the European countries remains somewhat arbitrary since the distribution of enterprise size across Europe differs from country to country. Therefore a varying proportion of enterprises will be excluded from the survey in each respective country.

In eleven countries micro-enterprises account for more than 90 % of all enterprises. Hungary is the only country where only nearly half of the enterprises are micro-enterprises. Also a considerable part of all employees are working in micro-enterprises. In Italy nearly half of all employees work in a micro-enterprise. On the other side in Hungary only 10 % of the employees are working in micro-enterprises. In the future an increase of persons employed in micro-enterprises can be expected due to high numbers of newly founded enterprises. This underlines the importance of gathering information on micro-enterprises for policy reasons. The following table gives an overview about the proportion of enterprises and persons employed in the different countries.

Table 1: Proportion of micro-enterprises (1–9 employees) to all enterprises and persons employed in micro-enterprises to all persons employed (NACE D, F, G, H, I and K, 2000)¹

Country	Proportion of micro-enterprises to all enterprises	Proportion of persons employed in micro-enterprises to all persons employed
PL ¹	96,5	- ⁷
IT	94,9	47,8
CZ ¹	94,6	31,2
SE (1998)	93,3	28,0
PT ⁵	93,0	43,4
ES ³	93,0	40,6
BE (1999)	92,1	30,0
FR (1999)	92,1	24,5
NL ⁴	91,3	22,3
SI ¹	91,0	- ⁷
FIN	90,2	22,5
UK	85,5	21,7
AT (1999)	83,2	22,4
LT ¹	81,5	20,8
DE ²	81,4	19,1
DK (1999, sections D / F)	79,7	13,9
EE ¹	78,5	21,5
LV ¹	76,9	- ⁷
HU ¹	51,0	10,4
NO ⁶	- ⁷	25,5

Source: Eurostat, Statistics in focus, topic 4, 39/2002 and 5/2004

¹ NACE C to I and K, 2001

² NACE, sections D, F, G and H, 1999

³ NACE sections D, G, H and K, 1999

⁴ NACE sections F, G, H, I and K, 1999

⁵ Number of enterprises excluding NACE section F, 1999

⁶ Excluding NACE section F, 1999

⁷ - No results available (valid for all tables in this paper)

The share of the total workforce working in micro-enterprises differs widely across European countries. An integration of micro-enterprises will therefore foster the comparability of the overall results between the countries.

The acquisition of new competencies or the development and improvement of existing ones through training become more and more important. The results of CVTS2 show that a higher proportion of large enterprises provide CVT than medium-sized or small enterprises. Nevertheless in 14 countries more than 50 % of the small enterprises provided training.

¹ No results for Bulgaria, Cyprus, Greece, Ireland, Luxembourg Malta, Romania and Slovakia.

Table 2: Training enterprises (any type of training) as a percentage of all enterprises in different size classes (CVTS2 – 1999)

Country	10-49 employees	50 – 249 employees	250 and more employees
DK	95	98	100
SE	88	99	99
NL	85	96	98
UK	85	91	98
NO	84	97	100
FI	78	97	99
IE	75	98	100
DE	71	87	98
FR	70	93	98
AT	68	91	96
LU	67	83	99
BE	66	93	100
CZ	62	84	96
EE	58	85	96
LV	49	70	91
LT	37	60	80
PL	36	52	63
SI	35	72	96
HU	32	51	79
ES	31	58	86
BG	24	34	62
IT	20	48	81
PT	17	46	78
GR	11	43	78
RO	8	13	38

Source: Eurostat, CVTS2 – 1999

Extending the survey coverage to additional NACE categories would bring us closer to a survey of “total” CVT efforts of enterprises and participation in Europe. Other reasons for the inclusion of public services and additional sectors are:

- Within public administration, one can expect well-developed structures of CVT, representing an important part of the overall engagement in CVT within a country. In some countries, a growing part of public administration is also in competition with private enterprises. Therefore, CVT becomes an important tool for enhancing the quality of services.
- The health sector (N) is growing substantially; to ensure quality, considerable investments in skills are necessary.
- The education sector (M) is of outstanding significance because of its functions. The transfer of new knowledge within a society is strongly affected by the CVT of professionals in the education sector.
- Based on individual level data it is known that these NACE categories have relatively extensive CVT.

The NACE-categories A and B are also excluded from CVTS. However, since these sectors tend to be characterised by relatively low rates of CVT provision and participation, their inclusion would be of interest for policy-making purposes. It should also be recognised that in most countries these NACE categories are also characterised by small enterprises. Most units would not be covered by CVTS if the existing size threshold of 10 employees will be retained. But in some countries – especially in Eastern Europe – rather large enterprises exist in NACE A and B (see chapter 3).

Within the NACE category P (Activities of households) the actual size restriction to enterprises with more than 10 employees is most likely to exclude most units, so that without a lowering of the eligible size for the survey the omission of this NACE category is unlikely to change the results. Also of minor importance in many countries is the NACE category Q (Extra-territorial organizations and bodies).

3. Review of the state of the Statistical Business Registers in countries with respect to NACE sections A, B, L, M, N and Q and enterprises with 5-9 employees / Business Register Coverage Survey

3.1 Introduction

Based on other sources (e.g. LLL-module of LFS) it is already known that continuing vocational training activities are on a rather high level in some sectors (health and education, public sector) which are not yet included in CVTS. On the other hand the exclusion of smaller enterprises (under 10 employees) makes it impossible to get a complete picture of the training activities in the private sector.

It is already known that there will also be difficulties regarding the enlargement of the CVTS sample scope. The Consortium designed a short survey concerning the coverage of national Business Registers and distributed the questionnaire to all CVTS countries during the Working Group meeting in December 2004 (see annex 1). In the following months answers from 23 countries² were collected. The information submitted refers to the situation early in 2005.

The results of the survey are summed up in the following.

3.2 A: Agriculture / forestry

In 12 countries the national business registers cover NACE A, furthermore in 4 countries more than 50 % of the enterprises are covered in the register. In 6 countries NACE A is only partly registered. In the Netherlands farmers without paid staff have not been recorded, in Germany only units which are contained in the VAT file or in the file of the Federal Agency for Employment are included.

Austria is the only country where NACE A is not covered by the national business register at all.

According to the current coverage of enterprises in the business register the inclusion of NACE A in future CVTS would not cause too many difficulties in most countries, even if no improvement of business register is implemented.

² All EU-member states with exception from Cyprus, France, Greece, Italy and Latvia; candidate countries Bulgaria and Romania; Norway

Table 3: Coverage of NACE A in the national business register

Yes, totally	Yes, mostly (>50%)	Yes, only partly (<50 %)	No (not at all)
Belgium Bulgaria Czech Republic Denmark Estonia Hungary Lithuania Norway Romania Sweden Slovenia Slovakia	Malta Portugal Poland United Kingdom	Germany Spain Finland Ireland Luxembourg Netherlands	Austria

Source: Own survey

The proportion of NACE A enterprises to all enterprises is very different across the European countries. It plays an important role in the northern countries (Finland, Sweden, Norway, Estonia and Denmark), but is of minor importance in other countries (e.g. United Kingdom, Spain, Romania and Slovenia). The data shows that in some countries a great amount of the enterprises will not be covered by CVTS if this NACE category is not included.

Table 4: Proportion of NACE A enterprises of all enterprises

Country	Proportion (%)
FIN	22,5
SE	20,1
NO	19,0
EE	13,8
DK	13,7
BE	9,0
MT	7,3
CZ	5,7
HU	4,5
NL	4,1
PT	3,6
DE	2,8
BG	2,8
SK	2,6
LU	2,3
PL	2,3
LT	2,2
IRL	2,0
SI	1,3
RO	1,2
ES	0,8
UK	<0,5
AT	-

Source: Own survey

The situation of the coverage of micro-enterprises in NACE A is similar to the situation in total. In 15 countries the national business registers cover the micro-enterprises (5-9 employees) in NACE A, furthermore in 4 countries more than 50 % of the enterprises are covered in the register. In 3 countries the micro-enterprises (5-9 employees) in NACE A are only partly registered. Austria is the only country where they are not covered by the national business register.

Statistics Sweden notes that the quality in the Swedish business register is not quite as good for enterprises with 5-9 employees as for enterprises with 10 or more employees (this information relates to all NACE categories, not only A). However, this is not a major problem for Sweden. But according to the persons responsible for the Swedish business register the quality for this size group seems to be considerably lower in the business registers in some other European countries.

According to the current coverage of enterprises in the business register the inclusion of the micro-enterprises (5-9 employees) of NACE A in future CVTS would not cause too many difficulties in most countries, even if no improvement of business register is implemented.

Table 5: Coverage of micro-enterprises (5-9 employees) in NACE A

Yes, totally	Yes, mostly (>50%)	Yes, only partly (<50 %)	No (not at all)
Belgium	Luxembourg	Germany	Austria
Bulgaria	Malta	Spain	
Czech Republic	Portugal	Ireland	
Denmark	United Kingdom		
Estonia			
Finland			
Hungary			
Lithuania			
Netherlands			
Norway			
Poland			
Romania			
Sweden			
Slovenia			
Slovakia			

Source: Own survey

In more than half of the countries micro-enterprises (5-9 employees) have a proportion of over 50 % of all enterprises in NACE A. However, in the Eastern European countries (with the exception of Poland) the proportion of the micro-enterprises is not so high (between 44 % in Romania and 4 % in Estonia). Because of the high share of micro-enterprises including NACE A without inclusion of the micro-enterprises would be no significant improvement.

Concerning especially the Nordic countries the following facts have to be considered: The number of small family farmers with no paid employees is furthermore exceptionally high - though on-going structural changes in this field. The proportion of NACE group A employees is, however, quite low compared to the proportion of enterprises in NACE group A. In terms of employee coverage this group is not very significant.

Table 6: Proportion of micro-enterprises (5-9 employees) of all enterprises with more than 4 employees in NACE A

Country	Proportion (%)
SE	71,4
IRL	71,0
UK	68,7
DK	65,9
BE	65,0
PL	64,0
PT	62,6
FIN	62,0
MT	60,0
LU	60,0
NO	57,0
NL	54,5
ES	53,7
DE	52,0
RO	44,4
HU	39,5
BG	36,6
SI	36,0
LT	32,5
CZ	23,9
SK	21,8
EE	4,1
AT	-

Source: Own survey

3.3 B: Fishing

In 14 countries the national business registers cover NACE B, furthermore in 4 countries more than 50 % of the enterprises are covered in the register.

In 4 countries NACE B is only partly registered. Spain explained that an important number of NACE B enterprises can be found in other specific registers. Therefore they only have available information about a short part of the enterprises in this category. In Ireland fishing is not covered in the register, however some fishing enterprises have been detected from administrative sources.

Austria is the only country where NACE B is not covered by the national business register.

According to the current coverage of enterprises in the business register the inclusion of NACE B in further CVTS would not cause too many difficulties in most countries, even if no improvement of business register is implemented.

Table 7: Coverage of NACE B in the national business register

Yes, totally	Yes, mostly (>50%)	Yes, only partly (<50 %)	No (not at all)
Belgium Bulgaria Czech Republic Denmark Estonia Hungary Lithuania Netherlands Norway Poland Romania Sweden Slovenia Slovakia	Luxembourg Malta Portugal United Kingdom	Germany Spain Finland Ireland	Austria

Source: Own survey

In all European countries fishing is a very small sector with only a few enterprises (see table 8). The highest share can be found in Norway with 2 %, but in most countries its share is really minimal. According to this the inclusion of the NACE B has not the highest priority in order to reach a complete picture of CVT in a country and across Europe.

Table 8: Proportion of NACE B enterprises of all enterprises

Country	Proportion (%)
NO	2,0
EE	1,2
MT	1,0
DK	0,5
UK	<0,5
LT	0,2
FIN	0,2
IRL	0,2
SI	0,2
SE	0,2
NL	0,1
PT	0,1
PL	0,1
BE	0,1
BG	0,04
RO	0,04
CZ	0,03
HU	0,03
LU	0,03
DE	0,03
ES	0,01
SK	0,01
AT	-

Source: Own survey

As shown in table 9, in 16 countries the national business registers cover micro-enterprises (5-9 employees) in NACE B, furthermore in 3 countries more than 50 % of these enterprises are covered in the register. In 3 countries the micro-enterprises (5-9 employees) in NACE B are only partly registered. Austria is the only country, where they are not covered in NACE B by the national business register.

According to the current coverage of enterprises in the business register the inclusion of the micro-enterprises (5-9 employees) of NACE B in future CVTS would not cause too many difficulties in most countries, even if no improvement of business register is implemented.

Table 9: Coverage of micro-enterprises (5-9 employees) in NACE B

Yes, totally	Yes, mostly (>50%)	Yes, only partly (<50 %)	No (not at all)
Belgium	Malta	Germany	Austria
Bulgaria	Portugal	Spain	
Czech Republic	United Kingdom	Ireland	
Denmark			
Estonia			
Finland			
Hungary			
Lithuania			
Luxembourg			
Netherlands			
Norway			
Poland			
Romania			
Sweden			
Slovenia			
Slovakia			

Source: Own survey

Even if in more than half of the countries the micro-enterprises (5-9 employees) of all enterprises in NACE B have a proportion of over 50 % (see table 10), the total share of fishing enterprises is very low. So the inclusion of the micro-enterprises (5-9 employees) in NACE B is of minor importance.

Table 10: Proportion of the micro-enterprises (5-9 employees) of all enterprises with more than 4 employees in NACE B

Country	Proportion (%)
BE	82,0
MT	78,0
DK	77,6
SE	76,3
UK	76,3
PL	73,0
SK	71,4
DE	59,0
NO	58,0
NL	57,0
BG	54,8
ES	54,7
FIN	53,0
HU	50,0
LT	49,3
PT	48,2
SI	43,0
RO	41,4
CZ	12,2
IRL	5,3
EE	0,5
LU	0,0
AT	-

Source: Own survey

3.4 L: Public administration, government and municipal institutions

In 17 countries the national business register covers NACE L, furthermore in 4 countries more than 50 % of the enterprises are covered in the register. Only in two countries NACE L is only partly registered. In Spain an important number of NACE L enterprises are covered in other special registers. Therefore, the business register contains only information about a small part of the enterprises in NACE L. In Portugal only entities with employees with a personnel contract (that means without public administrative attachments) are included in the register.

According to the current coverage of enterprises in the business register the inclusion of NACE L in future CVTS will not cause too many difficulties in most countries, even if no improvement of business register is implemented.

Table 11: Coverage of NACE L in the national business register

Yes, totally	Yes, mostly (>50%)	Yes, only partly (<50 %)	No (not at all)
Austria	Germany	Spain	
Belgium	Luxembourg	Portugal	
Bulgaria	Malta		
Czech Republic	United Kingdom		
Denmark			
Estonia			
Finland			
Hungary			
Ireland			
Lithuania			
Netherlands			
Norway			
Poland			
Romania			
Sweden			
Slovenia			
Slovakia			

Source: Own survey

With the exception of Poland, Finland and Slovenia the enterprises in NACE L have a share of about 1 % or less. There are no results for Austria, because units of this NACE group have been recently integrated. The current updating is not yet completed. In Slovakia the NACE group L units are not considered to be enterprises (according to the European system of Analysis 1995 methodology).

The differences of proportions in Table 12 are significant - from 0,1 in Sweden to 7,7 % in Poland. The differences in the phase of the development of public sector in European countries can not explain this variation. This clearly refers to the fact that the register unit of national Business Registers, concerning public institutions, are defined differently in participating countries (see more discussion about the statistical units in chapter 3.8).

An inclusion of NACE L is preferable. The proportion of employees can be rather high, even if in most countries the proportion of enterprise units is low. However there are major problems with the definition of local units. In cooperation with the statistical offices an improvement of the business registers has to be realized.

Table 12: Proportion of NACE L enterprises of all enterprises

Country	Proportion (%)
PL	7,7
FIN	3,0
SI	1,7
LT	1,0
NO	1,0
UK	1,0
LU	0,8
ES	0,7
DE	0,7
HU	0,6
EE	0,5
BE	0,5
RO	0,5
CZ	0,4
MT	0,3
BG	0,3
DK	0,2
IRL	0,1
NL	0,1
PT	0,1
SE	0,1
AT	-
SK	-

Source: Own survey

The situation of the coverage of micro-enterprises in NACE L follows exactly the pattern of larger enterprises. In 17 countries the national business register cover the micro-enterprises (5-9 employees) in NACE L, furthermore in 4 countries more than 50 % of the enterprises are covered in the register. In 2 countries they are only partly registered.

According to the current coverage of enterprises in the business register the inclusion of the micro-enterprises (5-9 employees) of NACE L in future CVTS would not cause too many difficulties in most countries, even if no improvement of business register is implemented.

Table 13: Coverage of micro-enterprises (5-9 employees) in NACE L

Yes, totally	Yes, mostly (>50%)	Yes, only partly (<50 %)	No (not at all)
Austria	Germany	Spain	
Belgium	Luxembourg	Portugal	
Bulgaria	Malta		
Czech Republic	United Kingdom		
Denmark			
Estonia			
Finland			
Hungary			
Ireland			
Lithuania			
Netherlands			
Norway			
Poland			
Romania			
Sweden			
Slovenia			
Slovakia			

Source: Own survey

Only in five countries the micro-enterprises (5-9 employees) have a share of more than 20 % in NACE L. In most countries there are only a few micro-enterprises in this NACE category. The inclusion of micro-enterprises is therefore not of a high priority with regards to this NACE, even if it has considerable political relevance and interest overall. However, the results of the Business Register survey refer to the fact that this NACE category can not be covered in a coherent way in participating countries. In most countries the public sector units are equivalent to enterprises in the private sector but in some countries this is not the case.

Table 14: Proportion of the micro-enterprises (5-9 employees) of all enterprises with more than 4 employees in NACE L

Country	Proportion (%)
CZ	36,0
FIN	36,0
PT	28,2
HU	23,9
SI	23,0
DE	19,0
SE	11,3
LU	10,8
NO	10,0
IRL	9,0
PL	8,4
BE	6,5
MT	5,0
DK	3,7
NL	3,7
RO	3,5
LT	3,5
BG	1,4
EE	1,1
AT	-
ES	-
UK	-
SK	-

Source: Own survey

3.5 M: Education

In 15 countries the national business register covers NACE M, furthermore in 4 countries more than 50 % of the enterprises are covered in the register. Only in three countries NACE M is only partly registered. Spain is the only country where NACE M is not covered by the national business register.

According to the current coverage of enterprises in the business register the inclusion of NACE M in future CVTS will not cause too many difficulties in most countries, even if no improvement of the business register is implemented.

Table 15: Coverage of NACE M in the national business register

Yes, totally	Yes, mostly (>50%)	Yes, only partly (<50 %)	No (not at all)
Austria Bulgaria Czech Republic Denmark Estonia Finland Hungary Lithuania Netherlands Norway Poland Romania Sweden Slovenia Slovakia	Germany Ireland Malta United Kingdom	Belgium Luxembourg Portugal	Spain

Source: Own survey

In most countries enterprises in NACE M have a share between 1,5 % and 5 %. There are no results for Austria, because units of this NACE group have been recently integrated. The current updating is not yet completed. In Belgium the number of units in NACE M is affected by the political / administrative organisation of the public schools. A part of the units are legal ones and are consequently available in the business register, since there are all legal units registered. Other units don't have the legal personality and are local units of the authority that organises a net of schools. These authorities are registered in the business register. In Portugal only private enterprises are registered. The lack of the public enterprises made it impossible to provide the proportions correctly.

The inclusion of NACE M enterprises is recommended. It plays an important role in most countries and in comparison with other NACE categories has a high share of all enterprises and also a rather high share of employees. Problems with the definition of local units will be discussed in chapter 3.8.

Table 16: Proportion of NACE group M enterprises of all enterprises

Country	Proportion (%)
LT	4,8
HU	4,3
FIN	4,0
PL	2,7
RO	2,4
MT	2,3
EE	2,2
NL	2,0
UK	2,0
ES	2,0
BG	2,0
DE	1,7
IRL	1,6
SE	1,5
SI	1,5
CZ	1,4
DK	1,3
PT	1,1
NO	<1
SK	0,9
BE	0,7
LU	0,6
AT	-

Source: Own survey

In 16 countries the national business registers cover all the micro-enterprises (5-9 employees) in NACE M, furthermore in 4 countries more than 50 % of the enterprises are covered in the register. In 2 countries the micro-enterprises (5-9 employees) are only partly registered. Spain is the only country where NACE M is not covered by the national business register.

According to the current coverage of enterprises in the business register the inclusion of the micro-enterprises (5-9 employees) of NACE M in future CVTS would not cause too many difficulties in most countries, even if no improvement of business register is implemented.

Table 17: Coverage of the micro-enterprises (5-9 employees) in NACE M

Yes, totally	Yes, mostly (>50%)	Yes, only partly (<50 %)	No (not at all)
Austria	Germany	Luxembourg	Spain
Belgium	Ireland	Portugal	
Bulgaria	Malta		
Czech Republic	United Kingdom		
Denmark			
Estonia			
Finland			
Hungary			
Lithuania			
Netherlands			
Norway			
Poland			
Romania			
Sweden			
Slovenia			
Slovakia			

Source: Own survey

The proportion of the micro-enterprises of all enterprises differs from 52 % in Romania and the United Kingdom to 3 % in Estonia. In ten countries this proportion is more than 30 %, in ten countries it is between 10 % and 30 %. As there are several countries with a high share, the inclusion of micro-enterprises in NACE category M is preferable.

Table 18: Proportion of the micro-enterprises (5-9 employees) of all enterprises with more than 4 employees in NACE M

Country	Proportion (%)
RO	52,0
UK	52,0
SE	50,9
SK	50,0
IRL	49,0
BE	48,0
PT	42,8
DE	41,0
NO	38,0
FIN	34,0
LU	29,2
PL	19,3
CZ	16,8
MT	16,0
DK	15,1
NL	14,0
LT	12,8
SI	12,0
BG	11,8
HU	11,7
EE	2,7
AT	-
ES	-

Source: Own survey

3.6 N: Health

In 15 countries the national business registers cover NACE N, furthermore in 6 countries more than 50 % of the enterprises are covered in the register. In Portugal NACE N is only partly registered. Spain is the only country where NACE N is not covered by the national business register.

According to the current coverage of enterprises in the business register the inclusion of NACE N in further CVTS would not cause too many difficulties in most countries, even if no improvement of business register is implemented.

Nevertheless, other problems may occur: In Sweden and many other Nordic countries, municipalities and county councils have the main responsibility for health issues in the society (NACE N). Both municipalities and county councils also have responsibility for a lot of other matters than health (other sectors). Therefore it seems usually not possible to collect CVTS-information from the enterprises directly. Different administration units usually have necessary information due to decentralised decisions. In other words the data collection will probably be somewhat troublesome for enterprises in this sector. The same problem also exists for NACE M (Education) as municipalities also play an important role concerning formal education.

Table 19: Coverage of NACE category N in the national business register

Yes, totally	Yes, mostly (>50%)	Yes, only partly (<50 %)	No (not at all)
Austria Belgium Bulgaria Czech Republic Denmark Estonia Finland Hungary Lithuania Norway Poland Romania Sweden Slovenia Slovakia	Germany Ireland Luxembourg Malta Netherlands United Kingdom	Portugal	Spain

Source: Own survey

With exception of the Czech Republic and Romania the share of the enterprises in NACE N is over 2 %. There are no results for Austria, because units of this NACE group have only recently been integrated. The current updating is not yet completed. In Portugal only private enterprises are registered. The lack of the public enterprises in the register made it impossible to provide the proportion correctly.

The inclusion of NACE N enterprises is recommended. It plays an important role in the countries and the share of the enterprises in NACE N to all enterprises is rather high. It also has a rather high share of employees in most countries. Problems with the definition of local units will be discussed in chapter 3.8.

Table 20: Proportion of NACE N enterprises of all enterprises

Country	Proportion (%)
FIN	10,0
DE	6,8
DK	5,4
NO	5,0
UK	5,0
LT	4,5
PL	4,3
NL	4,2
LU	4,0
BG	3,7
P	3,7
HU	3,5
E	3,2
BE	2,7
SE	2,6
MT	2,3
SI	2,3
SK	2,3
IRL	2,2
EE	2,0
CZ	1,5
RO	0,8
AT	-

Source: Own survey

In 17 countries the national business registers cover the micro-enterprises (5-9 employees) in NACE N, furthermore in 4 countries more than 50 % of the enterprises are covered in the register. In Portugal the micro-enterprises (5-9 employees) are only partly registered. Spain is the only country where NACE N is not covered by the national business register.

According to the current coverage of enterprises in the business register the inclusion of the micro-enterprises (5-9 employees) of NACE N in future CVTS would not cause too many difficulties in most countries, even if no improvement of business register is implemented.

Table 21: Coverage of the micro-enterprises (5-9 employees) in NACE N

Yes, totally	Yes, mostly (>50%)	Yes, only partly (<50 %)	No (not at all)
Austria	Germany	Portugal	Spain
Belgium	Ireland		
Bulgaria	Malta		
Czech Republic	United Kingdom		
Denmark			
Estonia			
Finland			
Hungary			
Lithuania			
Luxembourg			
Netherlands			
Norway			
Poland			
Romania			
Sweden			
Slovenia			
Slovakia			

Source: Own survey

In nine countries the share of micro-enterprises (5-9 employees) of all enterprises is over 40 %, in 6 further countries over 30 %. Estonia is the only country where micro-enterprises in NACE N are rare. Therefore the inclusion of micro-enterprises in NACE N would be preferable.

Table 22: Proportion of size class 5-9 enterprises of all enterprises with more than 4 employees in NACE N

Country	Proportion (%)
DE	61,0
BG	53,7
NO	51,0
DK	50,6
IRL	49,0
PL	44,4
PT	43,7
MT	42,0
SK	41,5
NL	37,8
UK	37,0
LU	36,9
SE	36,9
HU	35,0
FIN	31,0
BE	28,0
SI	25,0
LT	24,6
CZ	24,0
RO	14,2
EE	3,0
AT	-
ES	-

Source: Own survey

3.7 Q: Extra-territorial bodies

Only in six countries the national business register covers NACE category Q. Furthermore in four countries more than 50 % of the enterprises are covered in the register and in two countries they are partly registered. In ten countries the NACE category Q is not covered by the national business register. In Lithuania there are no enterprises in this NACE category.

Table 23: Coverage of NACE Q in the national business register

Yes, totally	Yes, mostly (>50%)	Yes, only partly (<50 %)	No (not at all)
Belgium	Hungary	Czech Republic	Austria
Bulgaria	Luxembourg	Finland	Germany
Denmark	Malta		Spain
Netherlands	Poland		Estonia
Norway			Ireland
Slovakia			Portugal
			Romania
			Sweden
			Slovenia
			United Kingdom

Source: Own survey

In all countries there are only a few enterprises in NACE Q. An inclusion in future CVTS therefore doesn't seem to be necessary.

Table 24: Proportion of NACE group Q enterprises of all enterprises

Country	Proportion (%)
MT	0,5
BE	0,03
HU	0,03
BG	0,02
DK	0,01
ES	0,01
LU	0,01
CZ	0,01
FIN	0
LT	0
NL	0
NO	0
PL	0

Source: Own survey

No results reported in the other countries.

In six countries the national business register covers the micro-enterprises (5-9 employees) in NACE Q, furthermore in four countries more than 50 % of the enterprises are covered in the register and in Finland they are partly registered. In eleven countries micro-enterprises in NACE Q are not covered by the national business register.

According to the current coverage of enterprises in the business register the inclusion of NACE Q in further CVTS will probably cause many difficulties in most countries.

Table 25: Coverage of size class 5-9 employees in NACE category Q

Yes, totally	Yes, mostly (>50%)	Yes, only partly (<50 %)	No (not at all)
Belgium	Luxembourg	Finland	Austria
Czech Republic	Malta		Bulgaria
Denmark	Netherlands		Germany
Hungary	Norway		Spain
Poland			Estonia
Slovakia			Ireland
			Portugal
			Romania
			Sweden
			Slovenia
			United Kingdom

Source: Own survey

Even if micro-enterprises (5-9 employees) have a high proportion in some countries, the total share of NACE Q enterprises is very low. The inclusion of micro-enterprises in NACE Q therefore doesn't seem to be necessary.

Table 26: Proportion of size class 5-9 enterprises of all enterprises with more than 4 employees in NACE category Q

Country	Proportion (%)
PL	75,0
NO	73,0
HU	66,7
NL	59,4
BE	49,0
CZ	36,4
LU	35,0
DK	33,3
LT	0
MT	0

Source: Own survey

No results reported in the other countries.

3.8 Survey results: The coverage of public sector statistical units

In all countries (no statement from Spain) private and public sector units are covered in the same national business register.

In 13 countries the concept of the governmental statistical unit is equivalent to enterprises. In Germany the concept is equivalent to the local unit. Germany explains that the main information source is the file from the Federal Agency for Employment containing information on local units (especially employees liable to social security contributions).

Six countries have a mixed concept. In Finland the equivalence for enterprises is conceptually difficult and therefore not consistent. In Slovenia there are no standardised definitions of governmental units in administrative files that are the main sources for SBR for those kind of units. Due to disharmonic rules some types of governmental units could be treated differently. For example governmental inspectorate of one ministry could be treated as an enterprise, while in another ministry it could have a status of a local unit.

In the Danish SBR, each governmental institution which is responsible for its own account, is an enterprise. The variety of the governmental activities is registered at the “Local Kind of Activity Unit” level from where it is possible to construct local units. The concept in the United Kingdom seems to be approximately equivalent to local unit.

Table 27: Concept of governmental statistical units in the countries³

Equivalent to enterprises	Equivalent to local unit	Mixed, both	Something else
Austria	Germany	Finland	Denmark
Belgium		Luxembourg	United Kingdom
Bulgaria		Norway	
Czech Republic		Poland	
Estonia		Sweden	
Hungary		Slovenia	
Ireland			
Lithuania			
Malta			
Netherlands			
Portugal			
Romania			
Slovakia			

Source: Own survey

³ No statement from Spain

In 13 countries the concept of municipal statistical unit is equivalent to private sector enterprises. In Germany and Finland the concept is equivalent to the local unit. The concept in the United Kingdom seems to be approximately equivalent to local unit. In the Danish SBR each municipality is an enterprise. The variety of the municipal activity is registered at the “Local Kind of Activity Unit” level from where it is possible to construct local units. In Malta this is not an issue in local context.

Table 28: Concept of municipal statistical units in the countries⁴

Equivalent to enterprises	Equivalent to local unit	Mixed, both	Something else
Austria	Germany	Denmark	United Kingdom
Belgium	Finland	Luxembourg	
Bulgaria		Norway	
Czech Republic		Poland	
Estonia		Sweden	
Hungary			
Ireland			
Lithuania			
Netherlands			
Portugal			
Romania			
Slovenia			
Slovakia			

Source: Own survey

Statistics Sweden mentions the following problem relating to the definition of local units: “Enterprises as well as local units in the Swedish Business Register are registered after the main branch (often called the first branch). Information is also provided in the register for other branches that can exist in an enterprise or a local unit. However, for sampling purposes of enterprises it's the main branch that is usually used. For the private sector that does not involve any major problems. However, for municipalities and county councils and the NACE categories M and N we have a clear problem here. In both municipalities and county councils the main branch may for instance just involve let’s say around 15 per cent of all the employees in the health sector while the rest of the employees in a municipality or a county council can be occupied in several different branches like for instance NACE category M (Education). To cover municipalities and county councils in a survey similar to the CVTS it will probably be necessary to have local units as the statistical unit instead of the enterprise.”

From the point of view of Statistics Finland the problem of statistical units is linked to the public sector units only, but not to private enterprises in the NACE groups M and N. NACE group L covers only public sector institutions and can therefore be excluded, until a solution can be found to the problem of statistical units. However, consideration can be taken to include private enterprises in NACE groups M and N in the future surveys after CVTS3.

The inclusion of NACE L, M and N in further CVTS is recommended because of the importance of these sectors. The problems mentioned here by Statistics Finland and Statistics Sweden are well-known. Nevertheless efforts to solve the problems should be made. In cooperation with the statistical offices an improvement of the business registers has to be realized.

⁴ No statement from Spain

3.9 Summary of the results of the Business Register Coverage Survey

The possibility of extension of NACE A, B, L, M, N, Q and the micro-enterprises of these NACE groups depends on the state and coverage of national business registers. The following table summarises the main results of the Business Register Survey carried out by the CVTS3-M Consortium.

It shows that in the majority of the countries the respective national business registers cover the NACE categories A, B, L, M and N in total. Only NACE Q is covered in the national business registers by a minority of countries. Furthermore, in most countries also the micro-enterprises of the NACE categories A, B, L, M and N are covered by the national business registers. This might be taken as a hint that in general inclusion of micro-enterprises in surveys would not be hampered by lacking information in business registers.

Table 29: Main results of the Business Register Coverage Survey

NACE	Coverage	Responses by countries			
		Yes, totally	Yes, mostly (> 50 %)	Yes, only partly (< 50 %)	No
A: Agriculture / forestry	Coverage of NACE group	12	4	6	1
	Coverage of micro-enterprises	15	4	3	1
B: Fishing	Coverage of NACE group	14	4	4	1
	Coverage of micro-enterprises	16	3	3	1
L: Public administration, government and municipal institutions	Coverage of NACE group	17	4	2	0
	Coverage of micro-enterprises	17	4	2	0
M: Education, including public services	Coverage of NACE group	15	4	3	1
	Coverage of micro-enterprises	16	4	2	1
N: Health, including public services	Coverage of NACE group	15	6	1	1
	Coverage of micro-enterprises	17	4	1	1
Q: Extra-territorial bodies	Coverage of NACE group	6	4	2	10
	Coverage of micro-enterprises	6	4	1	11

Source: Own survey

4. Expertise of Statistics Bulgaria

The National Statistical Institute of the Republic of Bulgaria (NSI) has been asked by the CVTS3-consortium to provide a special expertise on the inclusion of micro-enterprises and additional NACE groups in future CVTS surveys. The aim of this expertise was to analyse the effects of the enlargement on the sampling frame especially with regard to problems with the expansion of the sample size, non-response rates, quality and comparability of data and survey costs (see annex 2).

NSI carried out in 2003 and 2005 two additional national CVT surveys based on the CVTS2-concept. The scope of these surveys was extended with the micro-enterprises (5 to 9 employees) and the NACE categories L, M and N. NACE A was only included in 2003. NSI decided - because of survey difficulties - not to investigate this sector anymore.

The 2005 CVT-survey was carried out by the permanent staff of the 28 Regional Statistical Offices – no interviewers were recruited additionally. The NSI interviewer-staff are well-trained and experienced in implementing enterprise-based surveys. A mixed data collection method was used: telephone pre-contacts, face-to-face/postal interviews and follow up (telephone contacts, second visit).

In Bulgaria the response rate of CVTS2 and the additional CVT surveys was high (CVTS2: 89,2%, 2003 CVT survey: 95%, 2005 CVT survey: 96,5%). The share of the non-responses of micro-enterprises (5,8%) for the CVTS 2005 survey was somewhat higher than the general average non-response rate (3,5%). Also the non response for NACE N (3,8) and especially NACE L (4,8%) were higher than the general average non-response rate. The non-response rate for NACE M equals the general average non-response rate.

NSI reported no severe over-coverage problems. The share of the over-coverage relating to the size of enterprises was 2,7% for the micro-enterprises, which is somewhat higher than the average (1,2%). The over-coverage for the additional NACE groups centred around the average.

NSI reported that the extension resulted in a 25% to 30% increase of costs. The use of a common methodological approach in defining the sampling frame and the sample size guaranteed comparable data with high quality. The sample was calculated using the latest updated version of the Statistical Business Register (SBR). The Bulgarian SBR covers all the micro-enterprises and NACE groups and it contains the addresses of all the enterprises. The SBR is updated once a year on the basis of the so-called “Unified Annual Report” as well as the so-called “Annual Report of the persons employed”. Every month the register is updated also with the data from the Administrative Business Register.

NSI reported that generally the extension of the scope of CVT-surveys did not influence negatively the survey results. The response rate did not decrease - on the contrary, the rate of the item non-response stayed almost the same. No unusual problems were caused by the extension. Independently of the costs of the survey Bulgarian succeeded to satisfy the needs of the national users, especially authorities in the field of the labour market policy. The implementation of the survey every two years provides actual and comparable statistical information about training events, participants in CVT and IVT, hours spent in training and costs of training. NSI recommends - because of their positive experiences with the extension - the integration of micro-enterprises and additional NACE-groups (L, M, N) in future CVTS surveys.

The results of Bulgaria show that if certain national conditions for implementation of enterprise-based surveys (e.g. complete and regularly updated business register, well-trained interviewers, a differentiated use of data collection methods, support of political authorities) exist the inclusion of micro-enterprises (5-9 employees) and further NACE-categories does not generate major problems.

5. Conclusions and recommendations

The integration of additional NACE-classes as well as the integration of micro-enterprises would have consequences regarding sample size, sample stratification and survey costs. The possibility of an integration also depends on the state and coverage of national business registers. As shown in chapter 3, the coverage of enterprises in NACE-categories A, B, M, N and L is good enough to make their coverage in CVTS possible. But the national business registers, especially for NACE L, should be improved in cooperation with the statistical offices. The additional efforts to integrate micro-enterprises and additional NACE-classes will vary widely between the countries.

The political interest for inclusion of micro-enterprises is, of course, very high, because the proportion of employees in size group 5 to 9 employees from all employees (in enterprises with 5 or more employees) is rather high – even if it differs widely across European countries. Special problems with the integration of micro-enterprises are:

- They are less likely to be engaged in CVT.
- They would probably have lower response rates, because they do not feel obliged to answer a questionnaire regarding a topic in which they are not engaged. It can be also the case that they have less staff and time resources to answer to a questionnaire. Both could imply a positive selection bias of those micro-enterprises who freely choose to respond to the survey as those who are generally more likely to invest in training.
- High rates of birth and death of micro-enterprises make sampling more complicated. Business registers may insufficiently cover the dynamics in this field.⁵
- Even small changes in the numbers of employees affect the question whether a company is in or out of the range of the survey. Definitions concerning who is an employee and who is not are impacting on this.
- The sample has to be enlarged substantially to cover the micro-enterprises.

Regardless of these problems we recommend the integration of the micro-enterprises in CVTS. In Italy almost half of the employees are employed in micro-enterprises and in most countries with available data the proportion is at least one fifth. The following table suggest some changes in the questionnaire for micro-enterprises.

⁵ Enterprise birth rates (new enterprises as a part of all enterprises; 2001) and death rates (enterprises closed down as a part of all enterprises, 2000) for 10 member states: 0 Employees: birth rate: 10,5 %; death rate: 9,4 % 1-4 Employees: birth rate: 5,2 %; death rate 4,5 % 5-9 Employees: birth rate 3,4 %; death rate 2,3 %; 10-19 Employees: birth rate 2,6 %; death rate: 1,9 % 20 and more: birth rate 0,8 % death rate: 0,8 %. Birth rates and death rates underestimates the difficulties in sampling, because the numbers do not include changes due to mergers, take-overs, break-ups and restructuring. Therefore the dynamics within the companies registered are quite a bit stronger.

Table 30: Proposal for a leaner version of the questionnaire for micro-enterprises (based on CVTS3 Questionnaire version 5 / 26.9.2005)

Questions	Comment
A1-A6	Should be included (basic data)
B1-B4	Should be included
C1-C8	Should be included
C9-C10	Should be deleted – questions of specific CVT courses aimed at different groups of employees will not be an important issue for micro-enterprises
D: Training policy of the enterprise	It could be argued that all questions of block D are not relevant for micro-enterprises, because a more formalised policy does not exist in the micro-enterprises. On the other hand data (from CVTS2 for enterprises with 10-19 employees and data from specific economic sectors) show, that these questions could be important to ask. Therefore we are proposing not to delete all the questions of block D (see the proposal below).
D1	Should be deleted – micro-enterprises are most unlikely to run a training centre
D2/D4/D6-11/D15	Optional to delete – interesting to know about
D3/D5/D14	Should be included
D12/D13	The questions can be skipped because micro-enterprises do scarcely have formal structures involving employees' representatives and mostly do not fall in all cases under national, sectorial or other agreements between the social partners concerning CVT in particular
E1	Should be included – main question for most of the enterprises
F1-F3	Should be included

Our recommendation concerning enlargement of NACE-categories is summarised in table 31. Obviously, this reflects the current situation. Any changes in the legal obligations for the coverage of the national Business Registers would impact on these conclusions.

Probably the integration of the sectors A and B could be done without any significant difficulties, the integration of L, M, and N implies additional conceptual and practical work:

- An equivalent of the statistical unit “enterprises” has to be identified in the NACE-classes mentioned.
- The questionnaire for the statistical units of the NACE-classes mentioned may have to be modified, so that all questions can be applied appropriately to the organisations surveyed.
- In the categories L, M and N the definitions regarding which enterprises are private or public are not identical. Furthermore, these administrations and services are more amenable to policy interventions regarding the implementation of CVT than private enterprises. The same is valid for public administration and education.

Table 31: NACE enlargement options in CVTS

NACE group	Relevance	Problems
A	Relevance in some countries. Should be included.	Problems with register coverage in some countries only.
B	Minor relevance in most countries. Low priority for inclusion.	Problems with register coverage in some countries only.
L	High relevance and political interest. Should be included.	Major problems with coherent statistical units. Register problems have to be solved.
M	High relevance and political interest. Should be included.	Problems with coherent statistical units. Register problems have to be solved.
N	High relevance and political interest. Should be included.	Problems with coherent statistical units. Register problems have to be solved.
Q	Insignificant in terms of enterprise coverage. Should not be included.	

CVTS3-(M)ethods Project

Statistics Finland / BIBB

Business Register Coverage Survey Evaluation Form on National Business Registers

The Leonardo 2 project “Assessment of CVTS 2 Results” suggested in the CVTS2 methods report that the enlargement of the coverage of the NACE sectors should be considered when planning the CVTS3.

Based on other sources (LLL-module of LFS, Adult Education Survey) we know that continuing vocational training activities are on a rather high level in some sectors (health and education, public sector). On the other hand the exclusion of smaller enterprises (under 10 employees) makes it impossible to get a complete picture of the training activities in the private sector.

It is known already in advance that there will be also difficulties regarding to enlargement of the CVTS3 sample scope. In order to get facts and arguments to outline the possibilities of expanding the coverage of CVTS3 sample we need more information about the state of national business registers.

Therefore we ask you to consult the experts responsible of the business register in your institution or country and answer the following questionnaire. If there are some specialities regarding to your register that the questionnaire does not cover, please write your comments in the questionnaire also about that.

The CVTS3-(M)ethods project (co-ordinated by BiBB) will collect the information and sum up your reports about the national business registers regarding to the possibilities and limitations of enlargement of the CVTS sample in the future.

Please, discuss following items with the experts of your business register. Results of the mapping will be reported later in the CVTS3 Working Group.

Name and e-mail address of the business register expert:

Name:	
E-mail:	

Name and e-mail address of the respondent (CVTS3 contact person):

Name:	
E-mail:	

Please return your answers via e-mail to: *schoenfeld@bibb.de*

1. NACE and Size coverage of your business register

Does your business register cover the following NACE groups:	
1.1.1 NACE group A (Agriculture and forestry) ?	
<input type="checkbox"/> 1 YES, totally <input type="checkbox"/> 2 YES, mostly (>50 per cent) <input type="checkbox"/> 3 YES, only partly(<50 per cent) <input type="checkbox"/> 4 NO (not at all)	Comments or explanations if needed:

1.1.2 What is the proportion of NACE group A enterprises of all enterprises??	
<input type="text"/> percent	Comments or explanations if needed:

1.1.3. Does your business register cover size class 5 - 9 employees in this sector?	
<input type="checkbox"/> 1 YES, totally <input type="checkbox"/> 2 YES, mostly (>50 per cent) <input type="checkbox"/> 3 YES, only partly(<50 per cent) <input type="checkbox"/> 4 NO (not at all)	Comments or explanations if needed:

1.1.4 If YES - What is the <u>proportion of</u> size class 5 - 9 enterprises of all enterprises with more than 4 employees in this sector (excluding enterprises with size class 1 - 4 employees)?	
<input type="text"/> percent	Comments or explanations if needed:

**Does your business register cover the following NACE groups:
1.2.1 NACE group B (Fishing) ?**

<input type="checkbox"/> 1 YES, totally <input type="checkbox"/> 2 YES, mostly (>50 per cent) <input type="checkbox"/> 3 YES, only partly(<50 per cent) <input type="checkbox"/> 4 NO (not at all)	Comments or explanations if needed:
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1.2.2 What is the proportion of NACE group B enterprises of all enterprises?

<input type="text"/> percent	Comments or explanations if needed:
------------------------------	---

1.2.3. Does your business register cover size class 5 - 9 employees in this sector?

<input type="checkbox"/> 1 YES, totally <input type="checkbox"/> 2 YES, mostly (>50 per cent) <input type="checkbox"/> 3 YES, only partly(<50 per cent) <input type="checkbox"/> 4 NO (not at all)	Comments or explanations if needed:
---	---

1.2.4 If YES - What is the proportion of size class 5 - 9 enterprises of all enterprises with more than 4 employees in this sector (excluding enterprises with size class 1 - 4 employees)?

<input type="text"/> percent	Comments or explanations if needed:
------------------------------	---

Does your business register cover the following NACE groups:

1.3.1 NACE group L (Public administration, government and municipal institutions) ?

<input type="checkbox"/> 1 YES, totally <input type="checkbox"/> 2 YES, mostly (>50 per cent) <input type="checkbox"/> 3 YES, only partly(<50 per cent) <input type="checkbox"/> 4 NO (not at all)	Comments or explanations if needed:
---	-------------------------------------

1.3.2 What is the proportion of NACE group L enterprises of all enterprises?

<input type="text"/> percent	Comments or explanations if needed:
------------------------------	-------------------------------------

1.3.3. Does your business register cover size class 5 - 9 employees in this sector?

<input type="checkbox"/> 1 YES, totally <input type="checkbox"/> 2 YES, mostly (>50 per cent) <input type="checkbox"/> 3 YES, only partly(<50 per cent) <input type="checkbox"/> 4 NO (not at all)	Comments or explanations if needed:
---	-------------------------------------

1.3.4 If YES - What is the proportion of size class 5 - 9 enterprises of all enterprises with more than 4 employees in this sector (excluding enterprises with size class 1 - 4 employees)?

<input type="text"/> percent	Comments or explanations if needed:
------------------------------	-------------------------------------

**Does your business register cover the following NACE groups:
1.4.1 NACE group N (Health, including public services) ?**

<input type="checkbox"/> 1 YES, totally <input type="checkbox"/> 2 YES, mostly (>50 per cent) <input type="checkbox"/> 3 YES, only partly(<50 per cent) <input type="checkbox"/> 4 NO (not at all)	Comments or explanations if needed:
---	---

1.4.2 What is the proportion of NACE group N enterprises of all enterprises?

<input type="text"/> percent	Comments or explanations if needed:
------------------------------	---

1.4.3. Does your business register cover size class 5 - 9 employees in this sector?

<input type="checkbox"/> 1 YES, totally <input type="checkbox"/> 2 YES, mostly (>50 per cent) <input type="checkbox"/> 3 YES, only partly(<50 per cent) <input type="checkbox"/> 4 NO (not at all)	Comments or explanations if needed:
---	---

1.4.4 If YES - What is the proportion of size class 5 - 9 enterprises of all enterprises with more than 4 employees in this sector (excluding enterprises with size class 1 - 4 employees)?

<input type="text"/> percent	Comments or explanations if needed:
------------------------------	---

**Does your business register cover the following NACE groups:
1.5.1 NACE group M (Education, including public services) ?**

<input type="checkbox"/> 1 YES, totally <input type="checkbox"/> 2 YES, mostly (>50 per cent) <input type="checkbox"/> 3 YES, only partly(<50 per cent) <input type="checkbox"/> 4 NO (not at all)	Comments or explanations if needed:
---	---

1.5.2 What is the proportion of NACE group M enterprises of all enterprises?

<input type="text"/> percent	Comments or explanations if needed:
------------------------------	---

1.5.3. Does your business register cover size class 5 - 9 employees in this sector?

<input type="checkbox"/> 1 YES, totally <input type="checkbox"/> 2 YES, mostly (>50 per cent) <input type="checkbox"/> 3 YES, only partly(<50 per cent) <input type="checkbox"/> 4 NO (not at all)	Comments or explanations if needed:
---	---

1.5.4 If YES - What is the proportion of size class 5 - 9 enterprises of all enterprises with more than 4 employees in this sector (excluding enterprises with size class 1 - 4 employees)?

<input type="text"/> percent	Comments or explanations if needed:
------------------------------	---

**Does your business register cover the following NACE groups:
1.6.1 NACE group Q (Extra-territorial bodies) ?**

<input type="checkbox"/> 1 YES, totally <input type="checkbox"/> 2 YES, mostly (>50 per cent) <input type="checkbox"/> 3 YES, only partly(<50 per cent) <input type="checkbox"/> 4 NO (not at all)	Comments or explanations if needed:
---	---

1.6.2 What is the proportion of NACE group Q enterprises of all enterprises?

<input type="text"/> percent	Comments or explanations if needed:
------------------------------	---

1.6.3. Does your business register cover size class 5 - 9 employees in this sector?

<input type="checkbox"/> 1 YES, totally <input type="checkbox"/> 2 YES, mostly (>50 per cent) <input type="checkbox"/> 3 YES, only partly(<50 per cent) <input type="checkbox"/> 4 NO (not at all)	Comments or explanations if needed:
---	---

1.6.4 If YES - What is the proportion of size class 5 - 9 enterprises of all enterprises with more than 4 employees in this sector (excluding enterprises with size class 1 - 4 employees)?

<input type="text"/> percent	Comments or explanations if needed:
------------------------------	---

2. The coverage of public sector statistical units

2.1. Are the public sector units covered in your national business register or do you have a separate register for public sector institutions?	
<input type="checkbox"/> 1 Both private and public sector are covered in the same register <input type="checkbox"/> 2 Private and public sector are in two separate registers <input type="checkbox"/> 3 Some other combination	
Comments or explanations if needed:	

Unit equivalence of the business register(s)	
2.2. Is the concept of <u>governmental</u> statistical unit equivalent to private sector enterprise or private sector local unit?	
<input type="checkbox"/> 1 Equivalent to enterprise <input type="checkbox"/> 2 Equivalent to local unit <input type="checkbox"/> 3 Mixed, both <input type="checkbox"/> 4 Something else, DK	Comments or explanations if needed:

Unit equivalence of the business register(s)	
2.3. Is the concept of <u>municipal</u> statistical unit equivalent to private sector enterprise or private sector local unit?	
<input type="checkbox"/> 1 Equivalent to enterprise <input type="checkbox"/> 2 Equivalent to local unit <input type="checkbox"/> 3 Mixed, both <input type="checkbox"/> 4 Something else, DK	Comments or explanations if needed:



**Development of a methodology for a long term strategy
on the Continuing Vocational Training Survey (CVTS)
CVTS3 M**

**Work-package 7:
Needs and consequences of the extension of coverage with respect
to NACE and the size of the enterprises – recommendations for
future CVTS surveys**

**National Statistical Institute
of the Republic Bulgaria**

Expertise:

**Vocational Training Survey in enterprises – Bulgarian experience in
extension of the scope**

14 October 2005

1. Introduction

The National Statistical Institute of the Republic of Bulgaria has carried out in 2003 (reference year 2002) and 2005 (reference year 2004) two additional national surveys based on the concepts of CVTS2. These surveys of the Bulgarian NSI were carried out in order to supply the government and other bodies involved in the vocational training policy with up to date and more complete information. At the same time the task was to test some recommendations of the Draft Commission regulation and EUROSTAT recommendations for the further development of the statistics on vocational training in the enterprises. The scope of the survey in comparison with CVTS2 was extended – the NACE categories A, L, M and N and enterprises with 5 to 9 employees were included.

The aim of this expertise is to analyse the effects of the extension of the survey's scope especially with regard to problems with the extension of the sample size, non-response rates, quality and comparability of data, training costs etc.

We will consider the following points:

- Influence on the sampling frame and sample size
- Influence on the data collection method
- Influence on the unit and the item non-response (non-response rates in different size classes and NACE categories / noticeable problems with item non-response for micro-enterprises and enterprises in the new NACE-categories on certain questions)
- Costs aspects
- Assessment of the consequences for the quality and comparability of the data
- Problems with the correct classification of enterprises (especially in the health and education sectors) / importance of an actual Business register / existence of address of enterprises
- First experience with the planned survey for 2005 in Bulgaria / comparison with 2003

2. Influence on the sampling frame and sample size

In the 2003 survey four additional NACE categories (A - Agriculture, M – Education, L – Public administration and compulsory social security (excluding defence) and N - Health and social work) were included as well as the micro-enterprises with 5 to 9 employees. The sector A was excluded from the sample frame in 2005 because we decided not to investigate this sector in reason of decreasing the sample size and to avoid the difficulties by the interviewing of such units. In this way we reduced the sample frame from 4.000 in 2003 to 3.813 in 2005. In addition, the results of the 2003 CVTS showed that the rate of the agricultural enterprises who make training was too low.

The sampling frame of the 2005 survey comprises 53.060 enterprises (see Table 1) and the sample included 3.813 units allocated in 92 strata: 23 NACE categories and 4 size classes according to the number of employees (5 – 9, 10 – 49, 50 – 259, 250+) – see Table 2. The sample size was estimated using a maximum length of half the confidence interval (95%) $C=0.22$ and proportions of training enterprises and response rate from CVTS2. In this way the share of the micro enterprises in the sampling frame was 48.1% but in the sample 36.4%. We included additionally to the sample 13 large enterprises (250+).

Table 1: Bulgarian CVTS in 2005 – sampling frame

NACE/ Size	5-9		10-49		50 - 249		250+		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%
C–K, O	23404	51.2	17812	39.0	3772	8.3	718	1.6	45706	86.2
L	10	1.3	331	44.4	355	47.7	49	6.6	745	1.4
M	1006	21.8	2814	60.7	785	16.9	30	0.6	4635	8.7
N	1065	54.0	526	26.6	307	15.6	76	3.8	1974	3.7
Total	25485	48.1	21483	40.5	5219	9.8	873	1.6	53060	100.0

Table 2: Bulgarian CVTS in 2005 – sample size

NACE/ Size	5-9		10-49		50 - 249		250+		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%
C–K, O	1275	37.2	1220	35.6	609	17.8	322	9.4	3426	89.8
L	10	11.9	30	35.7	26	31.0	18	21.4	84	2.2
M	57	33.5	60	35.3	33	19.4	20	11.8	170	4.5
N	45	33.8	38	28.6	30	22.6	20	15.0	133	3.5
Total	1387	36.4	1348	35.4	698	18.3	380	10.0	3813	100.0

The share of the units L, M and N belonging to the sampling frame was 13.8% and the share of the surveyed units from the same NACE categories 10.2%.

The total number of L, M and N enterprises accordingly SBR is 17663. More of the half of them belongs to the Health and social work sector (Table 3):

Table 3: Enterprises from NACE L, M and N (SBR)

NACE	Number (SBR)	Percent (%)
L	750	4.3
M	7389	41.8
N	9524	53.9
Total	17663	100.0

The share of the enterprises from NACE L, M and N accordingly SBR is 4.93% but the persons employed in these enterprises are 16.04% (Table 4).

Table 4: Persons employed in NACE L, M and N

NACE	Share from all enterprises in the SBR (%)	Share from the person employed in all enterprises of the SBR (%)
L	0.23	4.57
M	2.27	6.57
N	2.93	4.90

Almost all enterprises from Public administration and compulsory social security (745 of 750) were included in the survey. The surveyed Educational organizations were 62.7%. However, only 20.7% enterprises and organizations from Health and social work.

3. Influence on the data collection method

The national 2005 CVT-survey was carried out by the permanent staff of the 28 Regional Statistical Offices (RSO's) – no interviewers were recruited additionally. Our colleagues are well-trained and experienced in implementing such type of surveys and this is a guarantee for success. A mixed data collection method (telephone pre-contacts, face-to-face/postal interviews) with all the 3813 enterprises in the sample and follow up (telephone contacts, second visit) was applied. As a measure to ensure higher response rate after the pre-contacts no more than 2 or 3% of the enterprises were replaced with another units from the same strata.

The staff of RSO's is taking care to update the enterprises address list. This way the number of the enterprises not-found, out of the scope by NACE or by size is minimum.

4. Influence on the unit and the item non-response

The response rate is high. 96.5% of the questionnaires were completed. It is more in comparison with the CVTS_2003 response rate (95.2%) and CVTS2 (89.2%). In the following tables of the state of the art of the questionnaire - response rate and over overages broken down by NACE and size are presented.

Table 5: Bulgarian CVTS in 2005 – response rate by NACE

NACE	Respon- dents		Non- response		Refusals		Not found		Not in business in 2004		Over- coverage NACE		Over- Coverage size	
	Num ber	%	Num ber	%	Num ber	%	Num ber	%	Num ber	%	Num ber	%	Num ber	%
C-K, O	3306	96.5	120	3.5	30	0.9	25	0.7	19	0.6	3	0.1	43	1.3
L	80	95.2	4	4.8	2	2.4	2	2.4	-	-	-	-	-	-
M	164	96.5	6	3.5	1	0.6	-	-	1	0.6	1	0.6	3	1.8
N	128	96.2	5	3.8	2	1.5	1	0.8	1	0.8	-	-	1	0.8
Total	3678	96.5	135	3.5	35	0.9	28	0.7	21	0.6	4	0.1	47	1.2

Table 6: Bulgarian CVTS in 2005 – response rate by size

Size	Respon- dents		Non- response		Refusals		Not found		Not in business in 2004		Over- coverage NACE		Over- coverage size	
	Num ber	%	Num ber	%	Num ber	%	Num ber	%	Num ber	%	Num ber	%	Num ber	%
5 - 9	1307	94.2	80	5.8	12	0.9	17	1.2	12	0.9	2	0.1	37	2.7
10 - 49	1317	97.7	31	2.3	7	0.5	10	0.7	4	0.3	1	0.1	9	0.7
50 - 249	685	98.1	13	1.9	8	1.1	-	-	4	0.6	1	0.1	-	-
250+	369	97.1	11	2.9	8	2.1	1	0.3	1	0.3	-	-	1	0.3
Total	3678	96.5	135	3.5	35	0.9	28	0.7	21	0.6	4	0.1	47	1.2

The average non-response rate is 3.5%. Higher non-response was found in the sector L with 4.8% (“refusals” 2.4% and “not found” 2.4%). The “refusals” were mainly insurance

companies and “not found” – security firms, probably because of restructuring changes in this sector. In the other sectors (M and N) the response rate is close to the average. Some differences are noticed by over-coverages in sector M where the indicators in respect of NACE and size are respectively 0.6% and 1.8% compared to the same averages of 0.1% and 1.2%.

The share of the non-response micro-enterprises (5.8%) is higher than the average share of the non-response. “Not found” are 1.2% from the micro enterprises (the average is nearly two times lower – 0.7). The share of the over-coverage in respect of size is 2.7% for the micro-enterprises, which is comparatively higher than the average indicator – 1.2%. The micro-enterprises in principle are more mobile and changes in the size and the economic activities happen more often because of their small production scale. The transition period itself also causes often changes in the size and NACE of the enterprises because of economy in fluid state.

Items non-response were found in the following questions

1. Main ways to obtain or develop the skills needed by the enterprise
2. Reasons to have a written CVT plan
3. Does the enterprise have formal procedures for evaluating the effect of CVT courses? (It corresponds to question C7 from CVTS2)
4. If the enterprise has formal procedures for evaluating the effect of CVT courses it is made by: (It corresponds to question C7y from CVTS2)
5. Enterprises without formal procedures for evaluating the effect of CVT courses because of: (It corresponds to question C7n from CVTS2)

In our opinion the enterprises did not answer this questions because they are not pointed as compulsory but on the other side they are somewhat difficult to answer.

Especially for the sectors L, M, and N the non-response rate of the questions above ranges from 19.1% to 25.6%, which is higher than in the other NACE categories.

There is not an essential difference between the shares of the missing answers to the questions from section A (Training policy) and section B (Forms of training) according to the size classes. They varied from 0.1% to 0.5%. There was no problem by the answering the quantitative questions – they are compulsory. Only a few big enterprises refused to answer the number of training hours, because the CVT courses have taken place out of the working time (in the free time).

The non-response rate of the question “If the enterprise has formal procedures for evaluating the effect of CVT courses it is made by:” is 52.7% for the micro-enterprises and 73.2% for the big enterprises. The share of the enterprises not answering to the question “Enterprises without formal procedures for evaluating the effect of CVT courses because of:” is respectively 47.9% and 26.7%.

5. Costs aspects – influence on the extension

In fact the extension of the sampling frame of additional NACE-groups and especially the inclusion including the micro-enterprises in the survey affected the survey costs. It is very difficult to point the real part of the higher expenditure caused separately by size extension and by NACE extension. In comparison with CVTS2 the sample encompasses 25% units

more. This means an increase of 25% of the interviewers costs. The share of these costs is about 1/3 from the total survey costs in Bulgaria.

More complicated is the situation relating to the travel and subsistence costs of the interviewers. The location of the units from L is mainly in the capital and in the regional centres but the micro-enterprises are scattered around the broken down over whole country. We estimated approximately that travel and subsistence costs increased by 30% (travel and subsistence costs are about 1/4 of the total costs). The estimated costs of the extension lies between 25% and 30%.

6. Assessment of the consequences for the quality and comparability of the data

The extension of the survey gave us the opportunity to obtain more complete information about the training policy of the micro-enterprises and enterprises/organisations from the sectors of the Public Administration, Education and Health. For our country this is because of political reasons very important. The inclusion of some questions concerning IVT gave an overall picture of the training provision in the enterprises. At the same time, the implementation of subsequent CVT surveys has ensured the data comparability and possibility to satisfy users needs.

The using of a common methodological approach in defining the sample frame and the sample size guarantees comparable data with high quality.

7. Problems with the correct classification of enterprises

The sample was calculated using the last updated version of the Statistical Business Register (SBR). The SBR covers all the NACE groups and the micro-enterprises and contains the addresses of all the enterprises. The SBR is updated once a year on the basis of the Unified Annual Report, which the enterprises fill in compulsory and the Annual Report of the persons employed. Every month the register is updated also with the data from the Administrative Business Register. Both registers contain information about the same units but the structure and the content of the information differ from each other. As it was mentioned above the RSO's hold up the current list of the enterprises from their regions. Analysing the non-response rate could be noticed that the enterprises not found were only 0.7% average but in the L 2.4. It was influenced from the substantial changes made in the insurance and security firms sector in the last 2 years.

“Not found” were 1.2% from the micro-enterprises in comparison to the average 0.5%. The over-coverages by size were 2.7 for micro-enterprises (1.2 average). No deviations were noticed by over-coverages in respect of NACE (0.1%).

It could be concluded that the extension does not caused serious problems with correct classification of enterprises in M and N.

8. Comparison CVTS 2003/CVTS 2005 in Bulgaria

In comparison with the previous survey the sampling frame of the 2005 CVT-survey included more units from L, M and N sectors – 13.8% (10.0% in 2003) – see table 7. The structure of the sample frame and the sample in 2005 has differ because of structural changes – the number of L units have decreased but in M increased (many educational firms have appeared in the last years).

Table 7: Comparison of the 2003 and 2005 surveys

NACE	2003				2005			
	Sampling frame		Sample		Sampling frame		Sample	
	Number	Share of total (%)	Number	Share of total (%)	Number	Share of total (%)	Number	Share of total (%)
L	1322	2.9	178	4.4	745	1.4	84	2.2
M	1357	3.0	177	4.4	4635	8.7	170	4.5
N	1849	4.1	196	4.9	1974	3.7	133	3.5
Total	4528	10.0	551	13.7	7354	13.8	387	10.2

The number of the micro-enterprises increased too. In 2003 their share in the sampling frame was 45.6% and 30.6% in the sample size. In 2005 the same figures are 48.0% (sampling frame) and 36.6% (sample size). As the Bulgarian economy is still under transition, it could be a national particularity and in our opinion these restructuring processes are not so typical for the Member states.

The key indicators characterising vocational training in enterprises are presented in table 8.

Table 8: Some main CVT-results

	1999	2002	2004
Training enterprises - share of total (%)	28.2	34.5	30.31
Hours spent in CVT courses – (hours per a participant)	35	24	17
Costs of CVT courses - BG levs (per a participant)	401	117	162

9. Experiences/conclusions/recommendations

Generally the extension of the scope CVT-surveys does not influence negatively the survey results. The response rate did not decrease, on the contrary, the rate of the item non-response stayed almost the same. The national CVT-survey team did not face unusual problems caused by the extension.

Independently of the costs of the survey Bulgarian NSI succeed to satisfy the user needs of the bodies responsible for labour market policy. The data collected did allow to characterise more completely the training policy in the enterprises of the public administration of Education, Health and social policy and in the micro-enterprises as well.

The implementation of the survey every two years provides actual and comparable statistical information about training events, participants in CVT and IVT, hours spent in training and costs of training.

Having in mind the extension effects we find the extension very useful and recommend the experience of Bulgarian NSI to be applied in other European countries as well.