# Continuing Vocational Training Survey (CVTS) 2010 CVTS (CVTS 4) scientific-use files – anonymisation methods

Version 19 November 2018[1]

---

[1] NACE 5 codes added in annex 2.

**Background information**

The Continuing Vocational Training Survey (CVTS) is one of the surveys identified in Commission Regulation No 1000/2007 amending Commission Regulation (EC) No 831/2002 as being eligible for microdata access for scientific purposes.

Commission Regulation (EC) No 831/2002 was repealed in June 2013 by Commission Regulation (EU) No 557/2013 on access to confidential data for scientific purposes. CVTS remains eligible for being available for scientific purposes under the new legal framework.

Commission Regulation (EU) No 557/2013 considers two types of confidential data for scientific purposes:

− Secure-use files (non-anonymised data available so far only in Eurostat safe centre)

− Scientific-use files (anonymised data transmitted to researchers on electronic devices)

Article 7(3) of Commission Regulation (EU) No 557/2013 states that: *"in cooperation with national statistical authorities, the Commission (Eurostat) shall prepare datasets for research use which target the different types of confidential data for scientific purposes. When preparing a dataset for research use, the Commission (Eurostat) and the national statistical authorities shall take into account the risk and the impact of unlawful disclosure of confidential data."*

This document describes the anonymisation methods for the CVTS 4 (reference year 2010) scientific-use files agreed with national statistical authorities which provided the CVTS data.

The CVTS 4 scientific-use files (SUF) are released subject to the agreement of national statistical authorities on the research project submitted by the eligible researcher[2].

CVTS 4 in the form of secure-use files is not available.

**Basic principles for the anonymisation criteria**

Although some protection is derived from the fact that CVTS 4 is a sample survey, there is a need for further safeguards in compiling scientific-use files, which enable scientists to access data outside the "safe centres" of official statistics. The methods described below attach particular importance to coarsening those categorical variables that a potential data intruder might use as overlaps with confidential CVTS 4 data.

The anonymisation method consists in a differentiation of the criteria described in annex 1 according to the number of persons employed. A differentiation should indeed be made between enterprises with a high disclosure risk (large enterprises) and enterprises with a low disclosure risk. A threshold of 1000 persons employed is used to define large enterprises on a common basis for all countries[3].

**Two types of datasets**

The criteria 1, 2, 3 and 4 below are common to all countries who agreed to deliver anonymised data to researchers (heading "I. Standard dataset"). An additional dataset might be included for countries allowing for more details. This is described under heading "II. Optional dataset B".

---

[2] See the procedure http://ec.europa.eu/eurostat/web/microdata/overview.

[3] Please note that the definition of large enterprises chosen for CVTS 4 anonymisation differs from the general definition of large enterprises in business statistics (http://ec.europa.eu/eurostat/statistics-explained/index.php/Glossary:Enterprise_size).

The following four principles are applied to define the standard anonymised dataset for each participating country. This allows providing all data on a set of common but restricted anonymisation criteria.

**1. The costs variables** are anonymised in the following way **for all enterprises[4]**:

- The variables C7sub (direct CVT course costs), B5a (contributions) and B5b (receipts) are replaced by a set of five new variables each. The new variables are expressed in relation to

    - total training costs (C7tot+PAC)
    - persons employed (A2tot)
    - participants (CVT courses) (C1tot)
    - training hours (CVT courses) (C3tot)
    - total labour costs (A5)

    Example for C7sub: C7subtot (C7sub as a percentage of total training costs), C7subemp (C7sub per person employed), C7subpar (C7sub per participant), C7subhour (C7sub per training hour) and C7sublab (C7sub as a percentage of total labour costs).

- Five new variables are created to reflect the labour costs of participants ('personnel absence cost' PAC=C3tot*A5/A4), i.e. PACtot (PAC as a percentage of total training costs), PACemp (PAC per person employed), PACpar (PAC per participant), PAChour (PAC per training hour) and PAClab (PAC as a percentage of total labour costs).

- C7tot is replaced with a new total (C7tot+PAC = total training costs) and for this new total four new variables are created as described in annex 1 (C7totemp – per person employed, C7totpar – per participant, C7tothour – per training hour and C7totlab – as a percentage of total labour costs).

- The components of C7sub (C7a, C7b, C7c, C7d) are provided in percentages of C7sub and of total training costs (C7tot+PAC).

**2. For all enterprises,** some variables are removed from the dataset, or modified. This concerns the following variables:

- All ID-variables are removed, except COUNTRY, REFYEAR, WEIGHT and a new modified ENTERPR as sequential number.

---

[4] To allow for a coherent set of data for small, medium and large enterprises even though some of these variables could be derived by researchers (according to the availability of e.g. the total number of persons employed).

**3. For large enterprises** (1000 and more persons employed), the following anonymisation criteria would apply:

  – NACE 5 is used (see annex 2).

  – The value of A2tot is not given but replaced by a unique value (=1000).

  – The values for the following variables are modified as described in annex 1:
    – A3tot, A2m, A2f, A4, A5
    – B2a, B2b, B2c, B2d, B2e
    – C1tot, C2m, C2f
    – C3tot, C3i, C3e
    – F1tot

**4. For small and medium enterprises** (10-999 persons employed), the criteria as described in '3' above are relaxed as follows.

  – NACE 5 is used (see annex 2).

  – The variable A2tot is kept as total number[5].

  – The following variables are kept as absolute values:
    – A3tot, A2m, A2f, A4, A5
    – B2a, B2b, B2c, B2d, B2e
    – C1tot, C2m, C2f
    – C3tot, C3i, C3e
    – F1tot

## II. OPTIONAL DATASET B

The following dataset can be made available for certain countries where national rules allow for more details (see table 1). This set allows providing additional data using wider anonymisation criteria.

For the optional dataset B, the point of departure is given by the 20 economic sectors of the NACE 20 classification used for drawing the sample for the survey. If on the basis of expansion factors some economic sectors are revealed as particularly vulnerable in a given country, they have to be pooled together with other economic sectors within sections. The exceptions are notified in table 1 below.

### OPTIONAL DATASET B FOR SMALL AND MEDIUM ENTERPRISES (10-999 PERSONS EMPLOYED)

  – The cost variables are treated as in the standard dataset.

  – NACE 20 (see annex 2) is used, or other grouping applicable at national level but more detailed than NACE 5 as explained above.

  – The variable A2tot is kept as total number[4].

  – The following variables are kept as absolute values:
    – A3tot, A2m, A2f, A4, A5
    – B2a, B2b, B2c, B2d, B2e
    – C1tot, C2m, C2f
    – C3tot, C3i, C3e
    – F1tot

---

[5] All variables representing shares of A2tot in annex 1 are kept in the file to allow for a unique structure in all anonymised datasets (standard dataset, optional dataset B).

**Table 1 – Availability of datasets by country**

| Country | Standard dataset | Optional dataset B | Country | Standard dataset | Optional dataset B |
|---------|------------------|--------------------|---------|------------------|--------------------|
| BE | Y* | N | LU | Y | N |
| BG | Y | Y | HU | Y | N |
| CZ | Y | Y | MT | Y* | N |
| DK | Y | Y | NL** | N | N |
| DE | Y | Y* | AT | N | N |
| EE | Y | N | PL | Y | N |
| EL | N | N | PT | Y | N |
| ES | Y | Y | RO | Y | N |
| FR | Y | N | SI | N | N |
| HR | N | N | SK | Y | N |
| IT | Y | Y | FI | Y | Y |
| CY | Y | N | SE | Y | N |
| LV | N | N | UK | Y | Y |
| LT | Y | N | NO | Y | N |

* Special criteria

** Access to the Dutch CVTS 4 microdata is possible via the "Dutch remote access", for details see
http://www.cbs.nl/en-GB/menu/informatie/beleid/zelf-onderzoeken/default.htm

Note: no CVTS 4 data available for IE.

## REMARKS FOR RESEARCHERS

NACE groups: NACE 5 and NACE 20 are described in annex 2.

For all variables, values like "9 999 999 998" (not applicable) and "9 999 999 999" (no answer) are kept.

It is reminded that in some countries, non-training enterprises might have costs (contributions).

IVT related data: it is difficult to compare the number of IVT participants (F1tot) all over the year with the number of persons employed at the end of the year. The variable has been anonymised using the latter although the results have no real meaning as such. The data should be used for classification purposes. An additional ratio per CVT participant (C1tot) is also available.

### COUNTRY SPECIFIC REMARKS

- **Belgium**: for all enterprises, the variable A2tot is only in classes, i.e. 10-19 (code = 1), 20-49 (code = 2), 50-249 (code = 3), 250-499 (code = 4), 500-999 (code = 5), 1000+ (code = 6) persons employed. Belgium requested to set the information for seven enterprises to missing except for the variables country, weight, A1 (NACE 5), B1a, B1b.

- **Germany**: 18 NACE groups instead of 20 as follows:
    - (1 B + 5 C19-C23)
    - 2 C10-C12
    - 3 C13-C15
    - 4 C17-C18
    - 6 C24-C25

- – 7 C26-C28+C33
- – 8 C29-C30
- – 9 C16+C31-C32
- – 10 D-E
- – 11 F
- – 12 G45
- – 13 G46
- – 14 G47
- – 15 H
- – 16 I
- – 17 J
- – (18 K64-K65 + 19 K66)
- – 20 L+M+N+R+S

- **Germany, Finland**: B5a and B5b are set to 0 as they cannot be disseminated. In both countries B5a and B5b are of minor importance.

- **Finland**: Variable F1tot (participation in IVT): the number of IVT participants is an underestimation compared to the information available from a register-based data gathering. The IVT registry is individual based, but, unfortunately, the registry data could not be allocated properly to CVTS-data at enterprise level. Participation rates to IVT are, therefore, not entirely reliable in Finnish data.

  CVTS 4 covers about 60 percent of all apprentices in CVTS 4 sample frame (excluding small enterprises and public sector). The difference between register and CVTS4 data is as follows:

  Number of apprentices

  CVTS 4 = 15 900 apprentices

  Register = 26 300 apprentices

  Percentage of enterprises offering apprenticeships

  CVTS 4 = 21 %

  Register = 31 %

- **Finland**: NACE category C13-C15 (manufacturing of textiles, clothing and leather products): this branch is rather small in Finland, especially concerning larger enterprises. The few non-responses among bigger companies have most likely caused underestimation concerning participation rate in training (variables C1tot - C3tot) and training costs (C7).

- **Malta**: for the standard dataset, A2tot up to 999 is not given as original data. A2tot is grouped into 3 size groups as follows: 10-49 (code = 1), 50-249 (code = 2) and 250+ (code = 3). All quantitative variables are given as percentages and ratios only.

## Annex 1: Variable list and codes for CVTS 4 anonymised datasets

### 1. Variables collected from all enterprises: sample characteristics

| Variable name | Variable Group | Variable description | Treatment | Specification/Description |
|---|---|---|---|---|
| COUNTRY | ID | Country code | | Country specific coding, e.g. for Germany = DE |
| ENTERPR | ID | Enterprise ID | Replace with a sequential number | Lower bound = 1<br>Upper bound = 999996 |
| REFYEAR | ID | Reference year | | 2010 |
| WEIGHT | ID | Weight with two decimal positions – decimal operator ".". | | >= 1 |
| NACE_SP | ID | Sampling plan NACE – category economic activity | Delete | |
| SIZE_SP | ID | Sampling plan size group | Delete | |
| NSTRA_SP | ID | Sampling plan – Number of enterprises in the stratum defined by NACE_SP and SIZE_SP, i.e. the population | Delete | |
| N_SP | ID | Sampling plan - Number of sampled enterprises from the sample-frame in the stratum defined by NACE_SP and SIZE_SP | Delete | |
| SUB_SP | ID | Sub-sample indicator, shows if enterprise belongs to sub-sample | Delete | |
| N_RESPST | ID | Number of responding enterprises in the stratum defined by NACE_SP and SIZE_SP, i.e. the population | Delete | |
| N_EMPREG | ID | Number of persons employed according to the register | Delete | |
| RESPONSE | ID | Response indicator | | only enterprises with response = 1 |
| PROC | ID | Data collection mode | Delete | |
| IDLANGUA | ID | Language of data collection | Delete | |
| IDREGION | ID | Region identification NUTS - level 1 | Delete | |
| EXTRA1 | ID | Extra variable 1 | Delete | |
| EXTRA2 | ID | Extra variable 2 | Delete | |
| EXTRA3 | ID | Extra variable 3 | Delete | |

### 2. Variables collected from all enterprises: background data

| Variable name | Variable Group | Variable description | Treatment | Specification/Description |
|---|---|---|---|---|
| A1 | Core | Actual NACE code | NACE 5 or NACE 20 | NACE 5 for standard dataset<br>NACE 20 for optional dataset B |
| A2tot | Core | Total number of persons employed on 31-12-2010 | Original data up to 999; unique code 1000 if A2tot≥1000 | Without changes except for large enterprises (unique code: 1000) |
| A2m | | Total number of males employed on 31-12-2010 | Original data if A2tot≤999; if A2tot≥1000: Percentage of all persons employed | 999999 = no answer<br>A2mperc = (A2m/A2tot)*100 |
| A2f | | Total number of females employed on 31-12-2010 | Original data if A2tot≤999; if | 999999 = no answer<br>A2fperc = (A2f/A2tot)*100 |

| Variable name | Variable Group | Variable description | Treatment | Specification/Description |
|---|---|---|---|---|
| | | | A2tot≥1000: Percentage of all persons employed | |
| A3tot | Key | Total number of persons employed on 31-12-2009 | Original data if A2tot≤999; if A2tot≥1000: Ratio 2009 to 2010 | 999998 = not applicable<br>A3totratio = A3tot/A2tot |
| A4 | Key | Total number of hours worked in the reference year 2010 by persons employed | Original data if A2tot≤999; if A2tot≥1000: Per person employed | A4ratio = A4/A2tot |
| A5 | Key | Total labour costs (direct + indirect) of all persons employed in the reference year 2010 | Original data if A2tot≤999; if A2tot≥1000: Per person employed | A5ratio = A5/A2tot |
| A6 | | New or significantly improved goods, services or methods of producing or delivering products and services during the reference year | | 0 = no<br>1 = yes<br>9 = no answer |

## 3. Variables collected from all enterprises: CVT strategies

| Variable name | Variable Group | Variable description | Treatment | Specification/Description |
|---|---|---|---|---|
| A7 | | Own or shared training centre | | 0 = no<br>1 = yes<br>9 = no answer |
| A8 | | Specific person or unit within the enterprise having the responsibility for the organisation of CVT | | 0 = no<br>1 = yes<br>9 = no answer |
| A9 | | Assessment of future skill needs of the enterprise (for the next few years) | | 0 = no<br>1 = yes, not regularly (mainly linked to changes in personnel)<br>2 = yes, it is part of overall planning process in the enterprise<br>9 = no answer |
| (A10) | | *Reaction to future needs of skills and competences through:* | | |
| A10a | | Continuing vocational training of available staff | | 0 = no<br>1 = yes<br>9 = no answer |
| A10b | | Recruitment of new staff with the suitable qualifications, skills and competences | | 0 = no<br>1 = yes<br>9 = no answer |
| A10c | | Recruitment of new staff combined with specific training of the recruited staff | | 0 = no<br>1 = yes<br>9 = no answer |
| A10d | | Internal reorganisation | | 0 = no<br>1 = yes<br>9 = no answer |
| A11a | | Review of future skill and training needs of individual employees | | 0 = no<br>1 = yes, mainly by way of structured interviews<br>2 = yes, but mainly by way of other methods<br>9 = no answer |

| Variable name | Variable Group | Variable description | Treatment | Specification/Description |
|---|---|---|---|---|
| *(A11b)* | | *The review of skill and training needs of individual employees focuses on:* | | |
| A11ba | | Occupations or a group of occupations | | 0 = no<br>1 = yes<br>8 = not applicable<br>9 = no answer |
| A11bb | | Skills and competences | | 0 = no<br>1 = yes<br>8 = not applicable<br>9 = no answer |
| A11bc | | Working tasks and activities | | 0 = no<br>1 = yes<br>8 = not applicable<br>9 = no answer |
| A11bd | | Formal qualifications | | 0 = no<br>1 = yes<br>8 = not applicable<br>9 = no answer |
| A12flag | | Type of skills and competences important in the next few years | | 0 = none of the categories below (A12l = 1)<br>1 = at least one category from "a" to "k" below<br>2 = no needs or do not know (A12o = 1)<br>9 = no answer |
| | | *List of skills (multiple responses allowed)* | | |
| A12a | | General IT skills | | 0 = no<br>1 = yes |
| A12b | | IT professional skills | | 0 = no<br>1 = yes |
| A12c | | Management skills | | 0 = no<br>1 = yes |
| A12d | | Team working skills | | 0 = no<br>1 = yes |
| A12e | | Customer handling skills | | 0 = no<br>1 = yes |
| A12f | | Problem solving skills | | 0 = no<br>1 = yes |
| A12g | | Office administration skills | | 0 = no<br>1 = yes |
| A12h | | Foreign language skills | | 0 = no<br>1 = yes |
| A12i | | Technical, practical or job-specific skills | | 0 = no<br>1 = yes |
| A12j | | Oral or written communication skills | | 0 = no<br>1 = yes |
| A12k | | Numeracy and/or literacy skills | | 0 = no<br>1 = yes |
| A12l | | None of these | | 0 = no<br>1 = yes |
| A12o | | No needs or do not know | | 0 = no<br>1 = yes |
| A12Main | | Most important | | a-l = category "a" to "l" above<br>8 = not applicable<br>9 = no answer |
| A13 | | Planning of CVT in the enterprise usually lead to a written training plan or programme | | 0 = no<br>1 = yes<br>9 = no answer |
| A14 | | Annual training budget, which usually includes provision for CVT | | 0 = no<br>1 = yes<br>9 = no answer |

| Variable name | Variable Group | Variable description | Treatment | Specification/Description |
|---|---|---|---|---|
| A15 | | National, sectoral or other agreements between the social partners, which usually cover the provision of CVT | | 0 = no<br>1 = yes<br>9 = no answer<br>8 = do not know, not applicable (no agreements) |
| A16a | | Staff representatives/committees usually involved in the management process of CVT | | 0 = no<br>1 = yes<br>8 = not applicable (no staff representatives)<br>9 = no answer |
| (A16b) | | *Aspects covered by staff representatives/committees* | | |
| A16ba | | Objective setting of training | | 0 = no<br>1 = yes<br>8 = not applicable<br>9 = no answer |
| A16bb | | Criteria for the selection of participants or specific target groups | | 0 = no<br>1 = yes<br>8 = not applicable<br>9 = no answer |
| A16bc | | Form/type of training | | 0 = no<br>1 = yes<br>8 = not applicable<br>9 = no answer |
| A16bd | | Content of training | | 0 = no<br>1 = yes<br>8 = not applicable<br>9 = no answer |
| A16be | | Budget for training | | 0 = no<br>1 = yes<br>8 = not applicable<br>9 = no answer |
| A16bf | | Selection of external training providers | | 0 = no<br>1 = yes<br>8 = not applicable<br>9 = no answer |
| A16bg | | Evaluation/assessment of training outcomes | | 0 = no<br>1 = yes<br>8 = not applicable<br>9 = no answer |
| (A17) | | *Sources of information* | | |
| A17a | | Public information centres/services and authorities | | 0 = no<br>1 = yes<br>9 = no answer |
| A17b | | Private training providers | | 0 = no<br>1 = yes<br>9 = no answer |
| A17c | | Personnel/staff representatives | | 0 = no<br>1 = yes<br>9 = no answer |
| A17d | | Others | | 0 = no<br>1 = yes<br>9 = no answer |
| A17e | | Do not use any such source of information | | 0 = no<br>1 = yes<br>9 = no answer |

## 4. Variables collected from all enterprises: CVT characteristics

| Variable name | Variable Group | Variable description | Treatment | Specification/Description |
|---|---|---|---|---|
| B1a | Core | Provision of internal CVT courses | | 0 = no<br>1 = yes |
| B1b | Core | Provision of external CVT courses | | 0 = no<br>1 = yes |
| B2aflag | Core | Provision of guided on-the-job training | | 0 = no<br>1 = yes |
| B2a | | Number of participants in guided on-the job training | Original data if A2tot≤999; if A2tot≥1000: Percentage of all persons employed | 999998 = not applicable<br>999999 = no answer<br>B2aperc = (B2a/A2tot)*100 |
| B2bflag | Core | Provision of job rotation, exchanges, secondments or study visits | | 0 = no<br>1 = yes |
| B2b | | Number of participants in job-rotation, exchanges, secondments or study visits | Original data if A2tot≤999; if A2tot≥1000: Percentage of all persons employed | 999998 = not applicable<br>999999 = no answer<br>B2bperc = (B2b/A2tot)*100 |
| B2cflag | Core | Conferences, workshops, trade fairs or lectures | | 0 = no<br>1 = yes |
| B2c | | Number of participants in conferences, workshops, trade fairs or lectures | Original data if A2tot≤999; if A2tot≥1000: Percentage of all persons employed | 999998 = not applicable<br>999999 = no answer<br>B2cperc = (B2c/A2tot)*100 |
| B2dflag | Core | Learning or quality circles | | 0 = no<br>1 = yes |
| B2d | | Number of participants in learning or quality circles | Original data if A2tot≤999; if A2tot≥1000: Percentage of all persons employed | 999998 = not applicable<br>999999 = no answer<br>B2dperc = (B2d/A2tot)*100 |
| B2eflag | Core | Self-directed learning/e-learning | | 0 = no<br>1 = yes |
| B2e | | Number of participants in self-directed learning/e-learning | Original data if A2tot≤999; if A2tot≥1000: Percentage of all persons employed | 999998 = not applicable<br>999999 = no answer<br>B2eperc = (B2e/A2tot)*100 |
| B3a | | Provision of CVT courses for persons employed in the previous year (2009) | | 0 = no<br>1 = yes<br>8 = not applicable<br>9 = no answer |
| B4a | | Provision of other forms of CVT for persons employed in the previous year (2009) | | 0 = no<br>1 = yes<br>8 = not applicable<br>9 = no answer |
| B5aflag | | Existence of CVT contributions | | 0 = no<br>1 = yes<br>9 = no answer |
| B5a | | Amount of CVT contributions | Percentage of total training | 9999999998 = not applicable<br>9999999999 = no answer |

| Variable name | Variable Group | Variable description | Treatment | Specification/Description |
|---|---|---|---|---|
| | | | costs, per person employed, per participant, per training hour, percentage of total labour costs | B5atot = (B5a/(C7tot+PAC))*100<br>B5aemp = B5a/A2tot<br>B5apar = B5a/C1tot<br>B5ahour = B5a/C3tot<br>B5alab = B5a/A5*100 |
| B5bflag | | Existence of CVT receipts | (could also be deleted if the number of cases with receipts is too small) | 0 = no<br>1 = yes<br>9 = no answer |
| B5b | | Amount of CVT receipts | Percentage of total training costs, per person employed, per participant, per training hour, percentage of total labour costs | 9999999998 = not applicable<br>9999999999 = no answer<br>B5btot = (B5b/(C7tot+PAC))*100<br>B5bemp = B5b/A2tot<br>B5bpar = B5b/C1tot<br>B5bhour = B5b/C3tot<br>B5blab = B5b/A5*100 |
| (B6) | | *Measures from which the enterprise usually benefits from, for the provision of CVT* | | |
| B6a | | Tax incentives (tax allowances, tax exemptions, tax credits, tax relief, tax deferrals) | | 0 = no<br>1 = yes<br>8 = not applicable<br>9 = no answer |
| B6b | | Receipts from training funds (national, regional, sectoral) | | 0 = no<br>1 = yes<br>8 = not applicable<br>9 = no answer |
| B6c | | EU subsidies (e.g. European Social Fund) | | 0 = no<br>1 = yes<br>8 = not applicable<br>9 = no answer |
| B6d | | Government subsidies | | 0 = no<br>1 = yes<br>8 = not applicable<br>9 = no answer |
| B6e | | Other sources (e.g. private foundations, revenue for the use of own training resources by or training provision to external bodies/persons) | | 0 = no<br>1 = yes<br>8 = not applicable<br>9 = no answer |
| B6f | | None of these | | 0 = no<br>1 = yes<br>8 = not applicable<br>9 = no answer |

## 5. Variables collected from enterprises which provided CVT courses: CVT participants, hours, subjects and providers

| Variable name | Variable Group | Variable description | Treatment | Specification/Description |
|---|---|---|---|---|
| C1tot | Key | Total number of CVT course participants | Original data if A2tot≤999; if A2tot≥1000: Percentage of all persons employed | 999998 = not applicable<br>C1totperc = (C1tot/A2tot)*100 |
| C2m | | Number of CVT course participants – males | Original data if A2tot≤999; if A2tot≥1000: Percentage of male persons employed | 999998 = not applicable<br>999999 = no answer<br>C2mperc = (C2m/A2m)*100 |
| C2f | | Number of CVT course participants – females | Original data if A2tot≤999; if A2tot≥1000: Percentage of female persons employed | 999998 = not applicable<br>999999 = no answer<br>C2fperc = (C2f/A2f)*100 |
| C3tot | Key | Paid working time (in hours) spent on all CVT courses | Original data if A2tot≤999; if A2tot≥1000: Per person employed and per participant | 9999999998 = not applicable<br>C3totemp = C3tot/A2tot<br>C3totpar = C3tot/C1tot |
| C3i | | Paid working time (in hours) for internal CVT courses | Original data if A2tot≤999; if A2tot≥1000: Percentage of paid working time on all CVT courses | 9999999998 = not applicable<br>9999999999 = no answer<br>C3iperc = (C3i/C3tot)*100 |
| C3e | | Paid working time (in hours) for external CVT courses | Original data if A2tot≤999; if A2tot≥1000: Percentage of paid working time on all CVT courses | 9999999998 = not applicable<br>9999999999 = no answer<br>C3eperc = (C3e/C3tot)*100 |
| C4 | | Share of training hours spent on health and safety at work | | 0-100 = Health and safety at work<br>998 = not applicable<br>999 = no answer |
| C5flag | | Skills targeted by CVT courses | | 0 = none of the categories below (C5l = 1)<br>1 = at least one category from "a" to "k"<br>8 = not applicable<br>9 = no answer |
| | | *List of skills (multiple responses allowed)* | | |
| C5a | | General IT skills | | 0 = no<br>1 = yes<br>8 = not applicable |
| C5b | | IT professional skills | | 0 = no<br>1 = yes<br>8 = not applicable |
| C5c | | Management skills | | 0 = no<br>1 = yes |

| Variable name | Variable Group | Variable description | Treatment | Specification/Description |
|---|---|---|---|---|
| | | | | 8 = not applicable |
| C5d | | Team working skills | | 0 = no<br>1 = yes<br>8 = not applicable |
| C5e | | Customer handling skills | | 0 = no<br>1 = yes<br>8 = not applicable |
| C5f | | Problem solving skills | | 0 = no<br>1 = yes<br>8 = not applicable |
| C5g | | Office administration skills | | 0 = no<br>1 = yes<br>8 = not applicable |
| C5h | | Foreign language skills | | 0 = no<br>1 = yes<br>8 = not applicable |
| C5i | | Technical, practical or job-specific skills | | 0 = no<br>1 = yes<br>8 = not applicable |
| C5j | | Oral or written communication skills | | 0 = no<br>1 = yes<br>8 = not applicable |
| C5k | | Numeracy or literacy skills | | 0 = no<br>1 = yes<br>8 = not applicable |
| C5l | | Other (none of these) | | 0 = no<br>1 = yes<br>8 = not applicable |
| C5main | | Most important | | a-l = category a to l above<br>8 = not applicable<br>9 = no answer |
| C6flag | | Providers (external CVTS courses) | | 0 = none of the categories below (C6g = 1)<br>1 = at least one category from "a" to "f" below<br>8 = not applicable<br>9 = no answer (no answer to any category "a" to "g") |
| C6a | | Schools, colleges, universities and other higher education institutions | | 0 = no<br>1 = yes<br>8 = not applicable |
| C6b | | Public training institutions (financed or guided by the government; e.g. adult education centres) | | 0 = no<br>1 = yes<br>8 = not applicable |
| C6c | | Private training companies | | 0 = no<br>1 = yes<br>8 = not applicable |
| C6d | | Private companies whose main activity is not training (e.g. equipment suppliers , parent / associate companies) | | 0 = no<br>1 = yes<br>8 = not applicable |
| C6e | | Employers' associations, chambers of commerce, sector bodies | | 0 = no<br>1 = yes<br>8 = not applicable |
| C6f | | Trade unions | | 0 = no<br>1 = yes<br>8 = not applicable |
| C6g | | Other training providers | | 0 = no<br>1 = yes<br>8 = not applicable |
| C6main | | Most important | | a-g = categories a to g above |

| Variable name | Variable Group | Variable description | Treatment | Specification/Description |
|---|---|---|---|---|
| | | | | 8 = not applicable<br>9 = no answer |

## 6. Variables collected from enterprises which provided CVT courses: CVT costs

| Variable name | Variable Group | Variable description | Treatment | Specification/Description |
|---|---|---|---|---|
| C7aflag | | Existence of fees and payments for courses for persons employed | | 0 = no<br>1 = yes<br>8 = not applicable<br>9 = no answer |
| C7a | | CVT course costs - fees and payments for courses for persons employed (in euros) | Percentage of subtotal costs (C7sub) and total training costs (C7tot+PAC) | 9999999998 = not applicable<br>9999999999 = no answer<br>C7apercC7s = (C7a/C7sub)*100<br>C7apercC7t = (C7a/(C7tot+PAC))*100 |
| C7bflag | | Existence of travel and subsistence payments | | 0 = no<br>1 = yes<br>8 = not applicable<br>9 = no answer |
| C7b | | CVT course costs - travel and subsistence payments (in euros) | Percentage of subtotal costs (C7sub) and total training costs (C7tot+PAC) | 9999999998 = not applicable<br>9999999999 = no answer<br>C7bpercC7s = (C7b/C7sub)*100<br>C7bpercC7t = (C7b/(C7tot+PAC))*100 |
| C7cflag | | Existence of labour costs of internal trainers | | 0 = no<br>1 = yes<br>8 = not applicable<br>9 = no answer |
| C7c | | CVT course costs - labour costs of internal trainers (in euros) | Percentage of subtotal costs (C7sub) and total training costs (C7tot+PAC) | 9999999998 = not applicable<br>9999999999 = no answer<br>C7cpercC7s = (C7c/C7sub)*100<br>C7cpercC7t = (C7c/(C7tot+PAC))*100 |
| C7dflag | | Existence of training centre and teaching materials for CVT courses | | 0 = no<br>1 = yes<br>8 = not applicable<br>9 = no answer |
| C7d | | CVT course costs - training centre, or rooms and teaching materials for CVT courses (in euros) | Percentage of subtotal costs (C7sub) and total training costs (C7tot+PAC) | 9999999998 = not applicable<br>9999999999 = no answer<br>C7dpercC7s = (C7d/C7sub)*100<br>C7dpercC7t = (C7d/(C7tot+PAC))*100 |
| C7sflag | | "Sub-total only" flag | Delete | |
| C7sub | Key | CVT costs sub-total (in euros) | Percentage of total training costs, per person employed, per participant, per training hour, percentage of total labour costs | 9999999998 = not applicable<br>C7subtot= (C7sub/(C7tot+PAC))*100<br>C7subemp = C7sub/A2tot<br>C7subpar = C7sub/C1tot<br>C7subhour = C7sub/C3tot<br>C7sublab = C7sub/A5*100 |

| Variable name | Variable Group | Variable description | Treatment | Specification/Description |
|---|---|---|---|---|
| C7tot | Key | Total cost CVT | Replaced with a new total (total training cost = C7tot+PAC), per person employed, per participant, per training hour, percentage of total labour costs | 9999999998 = not applicable<br>C7totemp = (C7tot+PAC)/A2tot<br>C7totpar = (C7tot+PAC)/C1tot<br>C7tothour = (C7tot+PAC)/C3tot<br>C7totlab = (C7tot+PAC)/A5*100 |
| PAC | Key | Personal absence cost - to be calculated (PAC = C3tot*A5/A4) (in euros) | Percentage of total training costs, per person employed, per participant, per training hour, percentage of total labour costs | 9999999998 = not applicable<br>PACtot = (PAC/(C7tot+PAC))*100<br>PACemp = PAC/A2tot<br>PACpar = PAC/C1tot<br>PAChour = PAC/C3tot<br>PAClab = PAC/A5 *100 |

## 7. Variables collected from enterprises which provided CVT courses or other forms of CVT: CVT quality, outcomes and difficulties

| Variable name | Variable Group | Variable description | Treatment | Specification/Description |
|---|---|---|---|---|
| (D1) | | *Aspects considered to ensure the quality of CVT* | | |
| D1a | | Certification of external providers (e.g. use of national registers) | | 0 = no<br>1 = yes<br>8 = not applicable<br>9 = no answer |
| D1b | | Continuous training of internal trainers | | 0 = no<br>1 = yes<br>8 = not applicable<br>9 = no answer |
| D1c | | Continuing vocational training and certification is based on national/sectoral recognised standards or frameworks | | 0 = no<br>1 = yes<br>8 = not applicable<br>9 = no answer |
| D1d | | Others | | 0 = no<br>1 = yes<br>8 = not applicable<br>9 = no answer |
| D1e | | Does not consider any particular aspect to ensure the quality of CVT | | 0 = no<br>1 = yes<br>8 = not applicable<br>9 = no answer |
| D2a | | Assessment and/or documentation of the outcomes of CVT activities | | 0 = no, confirmation participation sufficient<br>1 = yes, for all activities<br>2 = yes, for some activities<br>8 = not applicable<br>9 = no answer |
| (D2b) | | *Forms of assessment* | | |
| D2ba | | Certificate after written or practical test | | 0 = no<br>1 = yes |

| Variable name | Variable Group | Variable description | Treatment | Specification/Description |
|---|---|---|---|---|
| | | | | 8 = not applicable<br>9 = no answer |
| D2bb | | Satisfaction survey amongst participants | | 0 = no<br>1 = yes<br>8 = not applicable<br>9 = no answer |
| D2bc | | Assessment of participants' behaviour/performance after training | | 0 = no<br>1 = yes<br>8 = not applicable<br>9 = no answer |
| D2bd | | Assessment / measurement of the impact of training on performance of relevant department or the whole enterprise | | 0 = no<br>1 = yes<br>8 = not applicable<br>9 = no answer |
| *(D3)* | | *Factors limiting the provision of CVT activities in the reference year* | | |
| D3a | | No limiting factors: the level of training was appropriate to the enterprise's needs | | 0 = no<br>1 = yes<br>8 = not applicable<br>9 = no answer |
| D3b | | Preferred to recruit individuals with the required skills and competencies | | 0 = no<br>1 = yes<br>8 = not applicable<br>9 = no answer |
| D3c | | Difficulties in assessing training needs | | 0 = no<br>1 = yes<br>8 = not applicable<br>9 = no answer |
| D3d | | Lack of suitable CVT courses in the market | | 0 = no<br>1 = yes<br>8 = not applicable<br>9 = no answer |
| D3e | | High costs of CVT courses | | 0 = no<br>1 = yes<br>8 = not applicable<br>9 = no answer |
| D3f | | Higher focus on IVT provision than on CVT | | 0 = no<br>1 = yes<br>8 = not applicable<br>9 = no answer |
| D3g | | Major efforts in CVT realised in recent years | | 0 = no<br>1 = yes<br>8 = not applicable<br>9 = no answer |
| D3h | | No available time for participation in CVT | | 0 = no<br>1 = yes<br>8 = not applicable<br>9 = no answer |
| D3i | | Other reasons | | 0 = no<br>1 = yes<br>8 = not applicable<br>9 = no answer |

## 8. Variables collected from non-training enterprises: reasons for the non-provision of CVT activities

| Variable name | Variable Group | Variable description | Treatment | Specification/Description |
|---|---|---|---|---|
| *(E1)* | | *Reasons for non-provision of CVT activities in the reference year* | | |
| E1a | | The existing skills and competences were appropriate to the current needs | | 0 = no<br>1 = yes<br>8 = not applicable<br>9 = no answer |
| E1b | | Preferred to recruit individuals with the required skills and competencies | | 0 = no<br>1 = yes<br>8 = not applicable<br>9 = no answer |
| E1c | | Difficulties in assessing training needs | | 0 = no<br>1 = yes<br>8 = not applicable<br>9 = no answer |
| E1d | | Lack of suitable CVT courses in the market | | 0 = no<br>1 = yes<br>8 = not applicable<br>9 = no answer |
| E1e | | High costs of CVT courses | | 0 = no<br>1 = yes<br>8 = not applicable<br>9 = no answer |
| E1f | | Higher focus on IVT provision than on CVT | | 0 = no<br>1 = yes<br>8 = not applicable<br>9 = no answer |
| E1g | | Major efforts in CVT realised in recent years | | 0 = no<br>1 = yes<br>8 = not applicable<br>9 = no answer |
| E1h | | No available time for participation in CVT | | 0 = no<br>1 = yes<br>8 = not applicable<br>9 = no answer |
| E1i | | Other reasons | | 0 = no<br>1 = yes<br>8 = not applicable<br>9 = no answer |

17

## 9. Variables collected from all enterprises: IVT

| Variable name | Variable Group | Variable description | Treatment | Specification/Description |
|---|---|---|---|---|
| F1tot | Core | Total number of apprentices in the enterprise during the reference year (2010) | Original data if A2tot≤999; if A2tot≥1000: Per person employed and per participant | F1totratioA2 = F1tot/A2tot<br>F1totratioC1 = F1tot/C1tot<br>(see the section 'remarks for researchers' above for the use of this variable) |
| (F2) | | Reasons to offer IVT | | |
| F2a | | To qualify future employees according to the needs of the firm | | 0 = no<br>1 = yes<br>8 = not applicable<br>9 = no answer |
| F2b | | To choose among the best apprentices for future employment after completion of apprenticeship | | 0 = no<br>1 = yes<br>8 = not applicable<br>9 = no answer |
| F2c | | To avoid possible mismatch with enterprise needs in case of external recruitment | | 0 = no<br>1 = yes<br>8 = not applicable<br>9 = no answer |
| F2d | | To make use of the productive capacities of apprentices already during their vocational training | | 0 = no<br>1 = yes<br>8 = not applicable<br>9 = no answer |
| F2e | | None of these | | 0 = no<br>1 = yes<br>8 = not applicable<br>9 = no answer |

**Annex 2: NACE Rev. 2 groups**

**NACE 5 classification of enterprises** (also used for CVTS 4 data dissemination on Eurostat website)

|   | **NACE Rev. 2** | |
|---|---|---|
| 1 | B, C, D, E | Industry (except construction) |
| 2 | F | Construction |
| 3 | G, H, I | Wholesale and retail trade, transport, accommodation and food service activities |
| 4 | J, K | Information and communication; financial and insurance activities |
| 5 | L, M, N, R, S | Real estate activities; professional, scientific and technical activities; administrative and support service activities; arts, entertainment and recreation; other service activities |

**NACE 20 classification of enterprises**

| | |
|---|---|
| 1 | B |
| 2 | C10-C12 |
| 3 | C13-C15 |
| 4 | C17-C18 |
| 5 | C19-C23 |
| 6 | C24-C25 |
| 7 | C26-C28+C33 |
| 8 | C29-C30 |
| 9 | C16+C31-C32 |
| 10 | D-E |
| 11 | F |
| 12 | G45 |
| 13 | G46 |
| 14 | G47 |
| 15 | H |
| 16 | I |
| 17 | J |
| 18 | K64-K65 |
| 19 | K66 |
| 20 | L+M+N+R+S |

For details on NACE Rev. 2 see
http://epp.eurostat.ec.europa.eu/portal/page/portal/nace_rev2/introduction