Annexes to the report:

Job-related adult learning and continuing vocational training in Europe: a statistical picture
Cedefop research paper No 48
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Additional analysis, tables and figures, supporting discussions

Introduction

The following document incorporates the four annexes to the report *Job-related adult learning and continuing vocational training in Europe: a statistical picture*. Annexes provide supporting background information as well as further analysis to complement the main report.

The document is organised as follows.

Annex 1: is structured in 7 subsections and contains supporting material to the seven chapters of the main report. They follow the order and the numbering of the main report, which contains reference to them. They can be consulted together with the related sections of the main report.

Annex 2 provides a summary introduction to the adult education survey (AES) and the continuing vocational training survey (CVTS) in the wider context of the European system of statistics on lifelong learning.

Annex 3 introduces into key indicators available based on AES and CVTS and its particular strong points as well as weaknesses.

Annex 4 provides more in depth methodological information on AES and CVTS, including changes between the waves of the surveys as well as the quality of data according to national quality reports.

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ANNEX 1.

Additional analysis and supporting tables and data to the chapters of the main report

This chapter intends to provide the reader a better knowledge and understanding of the data used in this report as well as a summary theoretical scheme to help their interpretation.

A1.1. Annex to Chapter 1

Table A1. **Distributions of enterprises according to size-classes; CVTS4**

	Number of entreprises				%		
	10-49	50-249	250 and more	Total	10-49	50-249	250 and more
EU*	1 243 541	223 833	45 106	1 512 480	82	15	3
BE	21 673	4 344	886	26 903	81	16	3
BG	26 920	4 681	734	32 335	83	14	2
CZ	35 085	6 834	1 485	43 404	81	16	3
DK							
DE	155 106	47 203	9 912	212 220	73	22	5
EE	5 051	994	138	6 183	82	16	2
IE	(:)	(:)	(:)	(:)	(:)	(:)	(:)
EL	21 574	2 816	508	24 898	87	11	2
ES	131 999	16 802	3 084	151 886	87	11	2
FR	158 060	24 919	5 616	188 595	84	13	3
HR	10 917	1 963	480	13 359	82	15	4
IT	191 437	20 637	3 460	215 534	89	10	2
CY	3 280	586	80	3 946	83	15	2
LV	7 693	1 342	197	9 233	83	15	2
LT	10 327	2 250	302	12 878	80	17	2
LU	3 297	757	144	4 198	79	18	3
HU	25 520	4 086	713	30 319	84	13	2
MT	1 461	306	58	1 825	80	17	3
NL	39 180	10 044	1 950	51 174	77	20	4
AT	32 048	5 300	1 165	38 512	83	14	3
PL	72 225	16 467	3 210	91 902	79	18	3
PT	34 202	5 184	807	40 193	85	13	2
RO	36 614	8 012	1 653	46 279	79	17	4

	Number of entreprises				%		
	10-49	50-249	250 and more	Total	10-49	50-249	250 and more
SI	6 115	1 264	246	7 625	80	17	3
SK	12 846	2 406	527	15 780	81	15	3
FI	12 863	2 894	623	16 380	79	18	4
SE	29 556	4 958	901	35 415	83	14	3
UK	158 490	26 785	6 229	191 504	83	14	3
NO	(:)	(:)	(:)	(:)	(:)	(:)	(:)

NB: * EU without Denmark; (:) missing value.
Source: CVTS, Eurostat, data of extraction 3.4.204.

A1.2. Annex to Chapter 2

To interpret data in this report, summary information has been provided in Chapter 2.

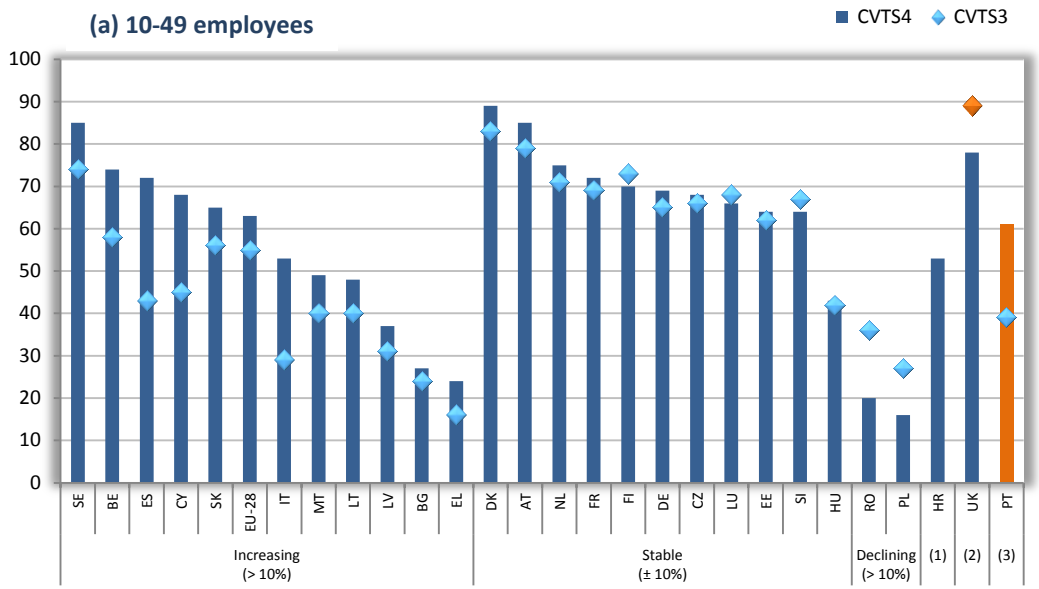
Additional information is presented Annex 2, 3 and 4.

Further methodological information is freely accessible at the following web pages:

- Eurostat: basic metadata on lifelong learning statistics
  http://ec.europa.eu/eurostat/cache/metadata/en/trng_esms.htm
- Eurostat basic metadata on AES
  http://ec.europa.eu/eurostat/cache/metadata/EN/trng_aes_esms.htm
- Eurostat basic metadata on CVTS
  http://ec.europa.eu/eurostat/cache/metadata/en/trng_cvts_esms.htm
- Eurostat detailed metadata on AES and CVTS
  CIRCABC (European Commission): Browse categories: Eurostat: education and training statistics: Library: Public: Lifelong learning statistics:
  https://circabc.europa.eu/faces/jsp/extension/wai/navigation/container.jsp

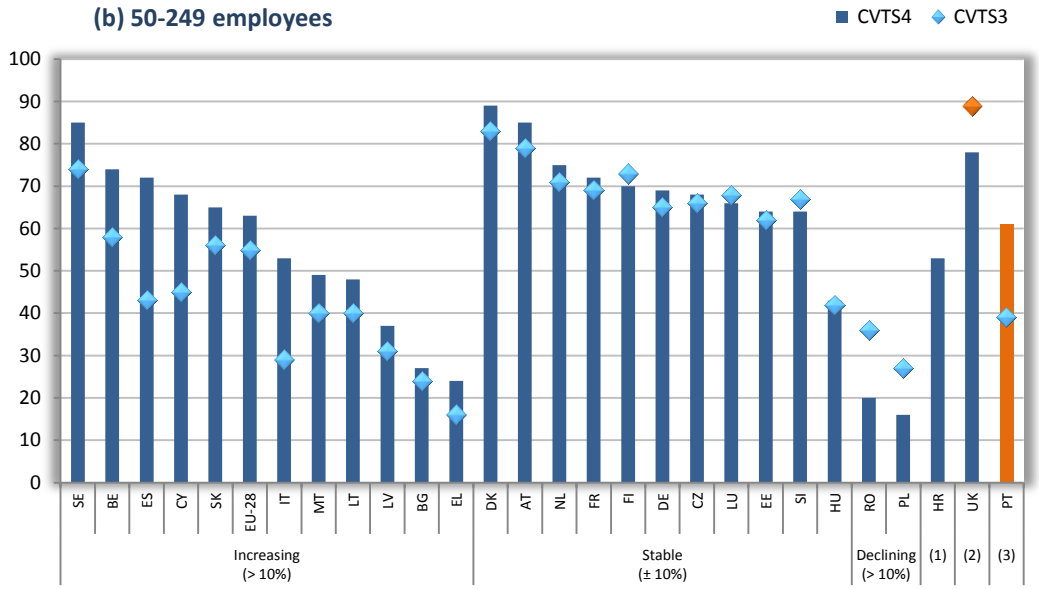
A1.3. Annex to Chapter 3

Figure A1. **Training incidence – enterprises providing any type of training (courses or other forms) by size class – CVTS4 (2010) compared to CVTS3 (2005)**



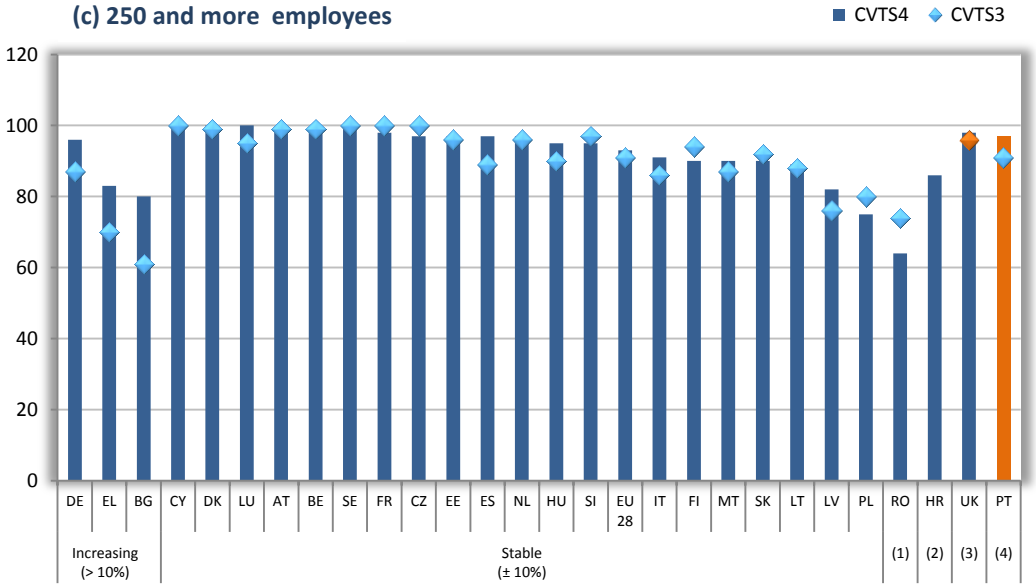
NB: (1) = not participated in CVTS3;
(2) = data for CVTS3 not fully comparable;
(3) = data for CVTS4 not comparable.

Source: Eurostat, CVTS and dissemination database (accessed 3.4.2014).



NB: (1) = not participated in CVTS3;
(2) = data for CVTS3 not fully comparable;
(3) = data for CVTS4 not comparable.

Source: Eurostat, CVTS and dissemination database (accessed 3.4.2014).



NB: (1) declining (> 10 %);
(2) not participated in CVTS3;
(3) data for CVTS3 not comparable;
(4) data for CVTS4 not comparable;
Break in time series for PT for CVTS4 not comparable (use of register information on training incidence).

Source: Eurostat, CVTS and dissemination database (accessed 3.4.2014).

Table A2. **Training participation. Relative participation rate by size class of employees participating in courses (all enterprises); CVTS3**

Country	Participation rate	Relative participation rate (index, 50-249 employees = 100)			Range (Maximum/ minimum)
	Total	10-49 employees	50-249 employees	250 and more employees	
EU-28	33	72	100	141	69
BE	40	54	100	160	106
BG	15	50	100	192	142
CZ	59	72	100	108	36
DK	35	86	100	100	14
DE	30	93	100	122	30
EE	24	73	100	115	42
EL	14	63	100	313	250
ES	33	60	100	167	107
FR	46	72	100	149	77
IT	29	48	100	217	170
CY	30	56	100	150	94
LV	15	62	100	185	123
LT	15	64	100	227	164
LU	49	74	100	174	100
HU	16	64	100	227	164
MT	32	42	100	221	179
NL	34	79	100	157	79
AT	33	86	100	150	64
PL	21	47	100	200	153
PT	28	56	100	170	115
RO	17	90	100	250	160
SI	50	73	100	173	100
SK	38	69	100	183	114
FI	39	97	100	155	58
SE	46	78	100	111	33
UK	33	91	100	106	16

NB: Add-on to legend: elements in grey represented non-comparable values.
Name/code of the indicator within source: percentage of employees (all enterprises) participating in CVT courses (trng_cvts42)
Data for the UK for CVTS3 not comparable. Croatia did not participated in CVTS3.

Source: Eurostat, CVTSand dissemination database (accessed 25.4.2014).

Contrasting the individual perspective (AES) and the enterprise perspective (CVTS) on participation

The two surveys in the European statistical system dedicated to lifelong learning (LLL) examine the same core issue; however, they differ in several aspects, inter alia regarding coverage, particularly with regard to the types of education and training, the economic sectors, the size classes and the age cohorts covered. Based on available aggregate data, the following section provides overall trends reported for employer-financed training.

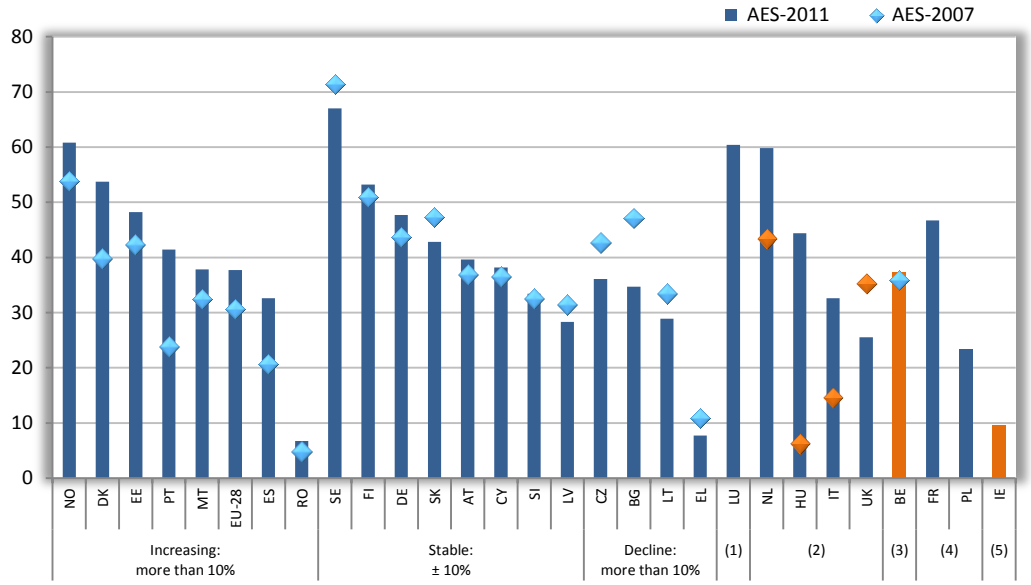
Participation rates of employed persons in employer-financed CVT are available from AES-2011 and CVTS4 (Table A3). Eurostat provides tables on participation rates of employed persons aged 25-64 years in employer-financed job-related non-formal education and training (NFE), which are selected as such for comparison. They include and summarise participation in various forms of non-formal learning. CVTS participation rates are available as participation rates of employees in employer-financed training separately (but not all together) for different forms of training. For comparison CVTS participation rates in continuing vocational training (CVT) courses (formal and non-formal) are selected.

For 24 countries participation rates based on AES-2011 and CVTS4 are available for comparison (Table A3). In 15 of these countries, reported participation rates based on AES are higher than participation rates according to CVTS. In nine countries, the opposite is true. Considerably higher values based on AES are reported in most north and west European countries that can be analysed (Denmark, Germany, Luxembourg, the Netherlands, Austria, Finland and Sweden), with France featuring only small differences between AES and CVTS participation rates, and only one country (the UK) reporting higher values for CVTS than for AES. In five east European countries (Bulgaria, Estonia, Latvia, Lithuania and Hungary), AES participation rates are higher than those reported based on CVTS, five others have the opposite situation (Czech Replublic, Poland, Romania, Slovenia and Slovakia); for Slovakia, the difference between the participation rates of AES and CVTS are small. The south European countries also do not have a uniform pattern: Greece, Spain and Italy have markedly higher participation in CVT courses (based on CVTS); Cyprus and Malta do not have much difference between the participation rates reported from both sources. Possible explanations for these differences include divergences of coverage; the differences in countries' economic structures according to enterprise size and sector have different impacts on reported participation rates. Furthermore, the quality of participant's information on the source of financing, in particular in the presence of strong funding systems, deserves attention. Changes of employment status during the reference period, as during strong cyclical downturns in the labour market, are to be considered, too, as impacting on reported participation according to employment status at the time of the interview. Finally, the reference periods of the surveys only partially overlap. These issues need further discussion based on more detailed analyses of the data.

Moreover, the development of participation rates in countries according to the two surveys is of interest. Are both surveys indicating the same direction of change or do they contradict each other? The currently limited analysis can only

provide a first impression. For 17 countries, information based on AES-2007, AES-2011, CVTS3 and CVTS4 is available and assessed comparable across waves within the surveys. As shown in the main report, development of participation rates of employees based on CVTS increased by more than 10% in 15 countries, remained stable in eight countries and only one country had a substantial decrease. The AES (Figure A2) notes only seven countries with increased participation rates of employees in employer-financed CVT, and four countries with a downward trend.

Figure A2. **Participation rate of employees (aged 25-64) in job-related employer-financed NFE; AES-2011 versus AES-2007**



NB: (1) no participation in AES-2007;
(2) data for AES-2007 not comparable to AES-2011;
(3) data for AES-2011 not comparable;
(4) no data available for AES-2007;
(5) no participation in AES-2007, data for AES-2011 not comparable.
Reference time for the data differs between countries and the timespan between the two waves is not always four years.

Source: Eurostat, AES and dissemination database (accessed 2.4.2014); own calculation.

Based on the two similar, although different, selected indicators on participation in employer-financed CVT, from CVTS and AES, the following results emerge:

(a) in Estonia, Spain and Malta, both sources indicate a substantial increase of participation in employer-financed CVT (Table A3). In Austria, Finland and Sweden, both sources indicate stability of the rates. At first sight, this can be interpreted as the two sources supporting one another in six countries;

(b) in Denmark and Romania, AES indicates increasing participation rates in employer-financed NFE; while according to CVTS, participation in CVT courses remained stable. In the Czech Republic, AES indicates a decrease, CVTS notes stability in participation rates. In Germany, Cyprus, Latvia and Slovakia, AES reports stability, while CVTS indicates an increase. According to CVTS, Slovenia was the only country with a substantial decrease of employer-financed CVT; however, AES signals stability. In these eight countries, results do not correspond with one another, but also do not strongly contradict;

(c) finally, three countries reported opposing trends. In Bulgaria, Greece and Lithuania, AES indicates a decrease of participation in employer-financed CVT, while CVTS indicates an increase.

Table A3. **Training participation: participation rate of employees (aged 25-64) in job-related employer-financed NFE in AES-2007 and AES-2011 versus employees participating in courses (all enterprises) in CVTS3 and CVTS4**

Country	AES-2007	AES-2011	CVTS3	CVTS4
EU-28	30.6	37.7	33	38
Countries with comparable data for both AES and CVTS waves				
BG	47.1	34.7	15	22
CZ	42.6	36.1	59	61
DK	39.7	53.7	35	37
DE	43.6	47.7	30	39
EE	42.3	48.2	24	31
EL	10.9	7.7	14	16
ES	20.6	32.6	33	48
CY	36.5	38.2	30	37
LT	33.4	28.9	15	19
LV	31.4	28.3	15	24
MT	32.4	37.8	32	36
AT	36.8	39.6	33	33
RO	4.8	6.7	17	18
SI	32.5	33.4	50	43
SK	47.3	42.8	38	44
FI	50.9	53.2	39	40
SE	71.4	67.0	46	47
Countries with comparable data only for AES-2011 and CVTS4				
LU (1)		60.4	49	51
IT (2)	14.6 (b)	32.6	29	36
HU (2)	6.3 (b)	44.4	16	19
NL (2)	43.4 (b)	59.8	34	39
UK (2)	35.2 (b)	25.5	33 (b)	31
FR (3)		46.7	46	45
PL (3)		23.4	21	31
Countries with missing data or data not comparable				
BE (4)	35.8	37.3 (b)	40	52
PT (5)	23.8	41.4	28	40 (b)
IE (6)		9.5 (b)	49	
NO (7)	53.8	60.8	29 (b)	
HR (8)	22.6			23

NB: (1) no participation in AES-2007; (2) data for AES-2007 not comparable to AES-2011; (3) no data available for AES-2007; (4) data for AES-2011 not comparable; (5) data for CVTS4 not comparable; (6) no participation in AES-2007, no data available for CVTS4, data for AES-2011 not comparable; (7) no data available for CVTS4, data for CVTS3 not comparable; (8) no participation in AES-2011 and in CVTS3; (b) = break in time series.

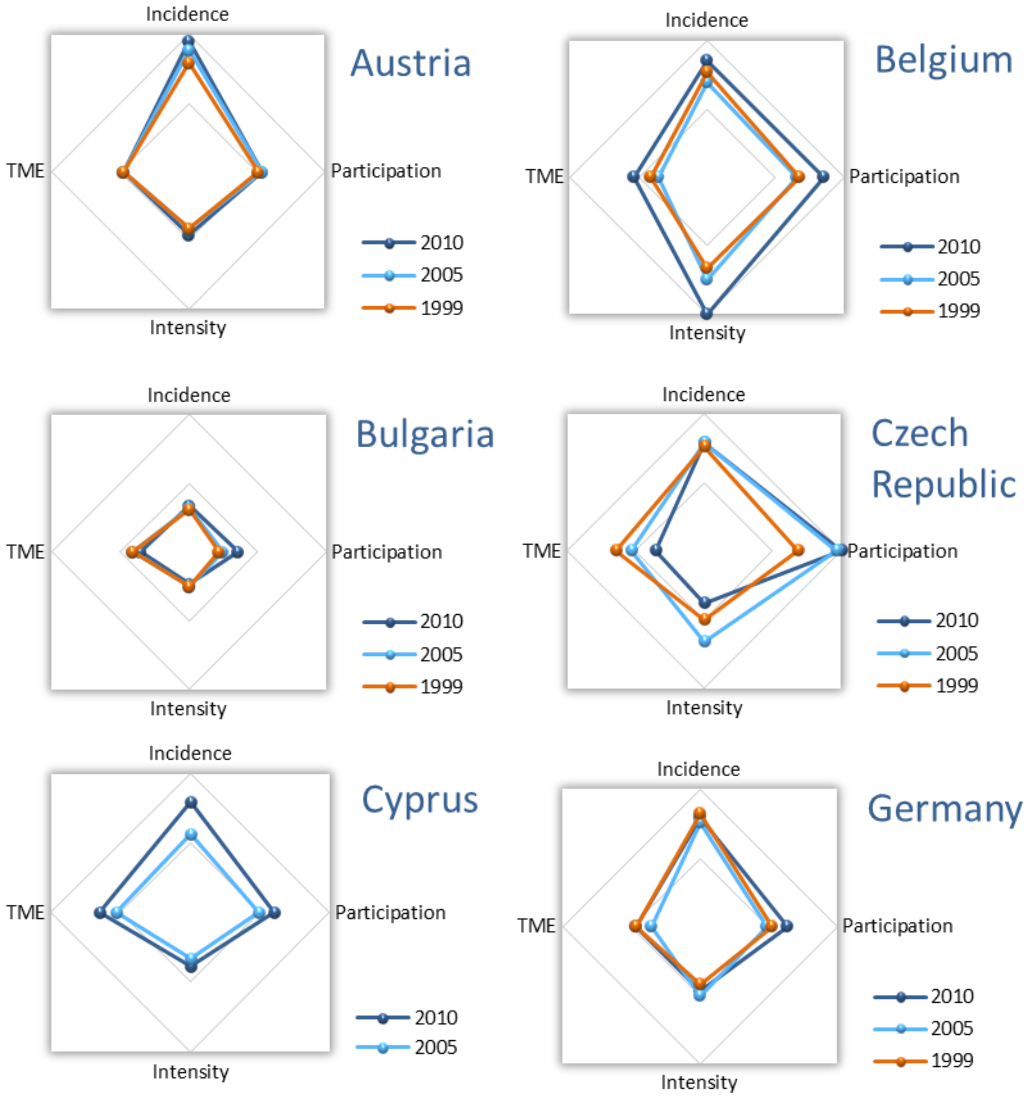
Reference time for the data differs between countries and the timespan between the two waves is not always four years.

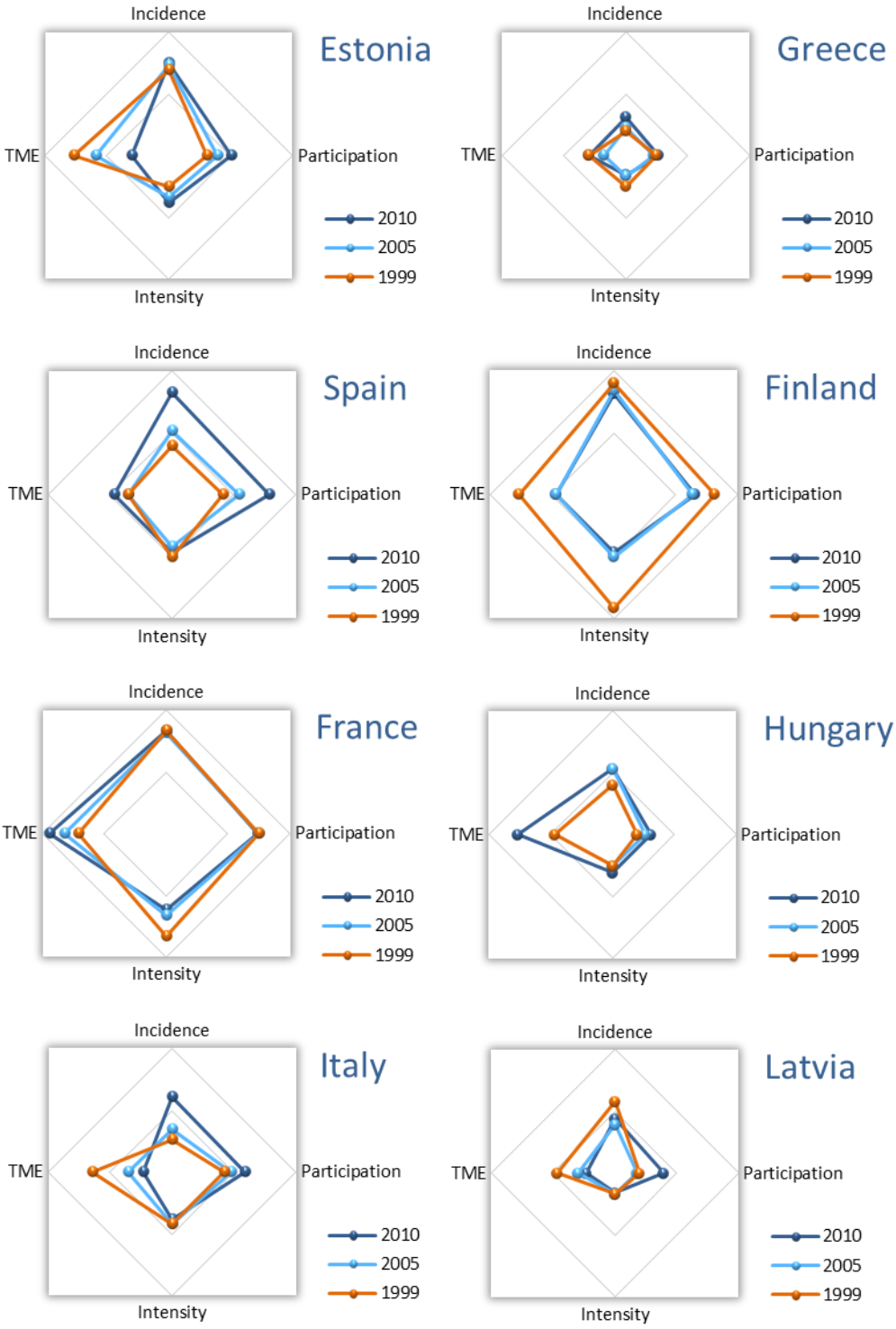
Source: Eurostat, CVTS and dissemination database (accessed date 3.4.2014); own calculation.

Summing up the preliminary results based on tables published by Eurostat: the picture of employer-financed CVT relying on enterprises' information is less positive for the year 2010 than the impression based on individuals' reports for

the reference period 2011-12. In most countries included in this analysis, participation rates in employer-financed, job-related education and training as measured with CVTS are lower than those measured with AES. However, the results are not uniform across countries. Regarding development over time, CVTS suggests more frequently increases of employer-financed CVT than AES. However, drawing conclusions based on the data currently accessible at Eurostat would be premature. Further careful analysis based on microdata is necessary.

Figure A3. **Radar charts on incidence, participation, intensity and total monetary expenditure (TME) in 1999, 2005 and 2010**




Estonia
Incidence
TME
Participation
Intensity
2010
2005
1999
Greece
Incidence
TME
Participation
Intensity
2010
2005
1999
Spain
Incidence
TME
Participation
Intensity
2010
2005
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Finland
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TME
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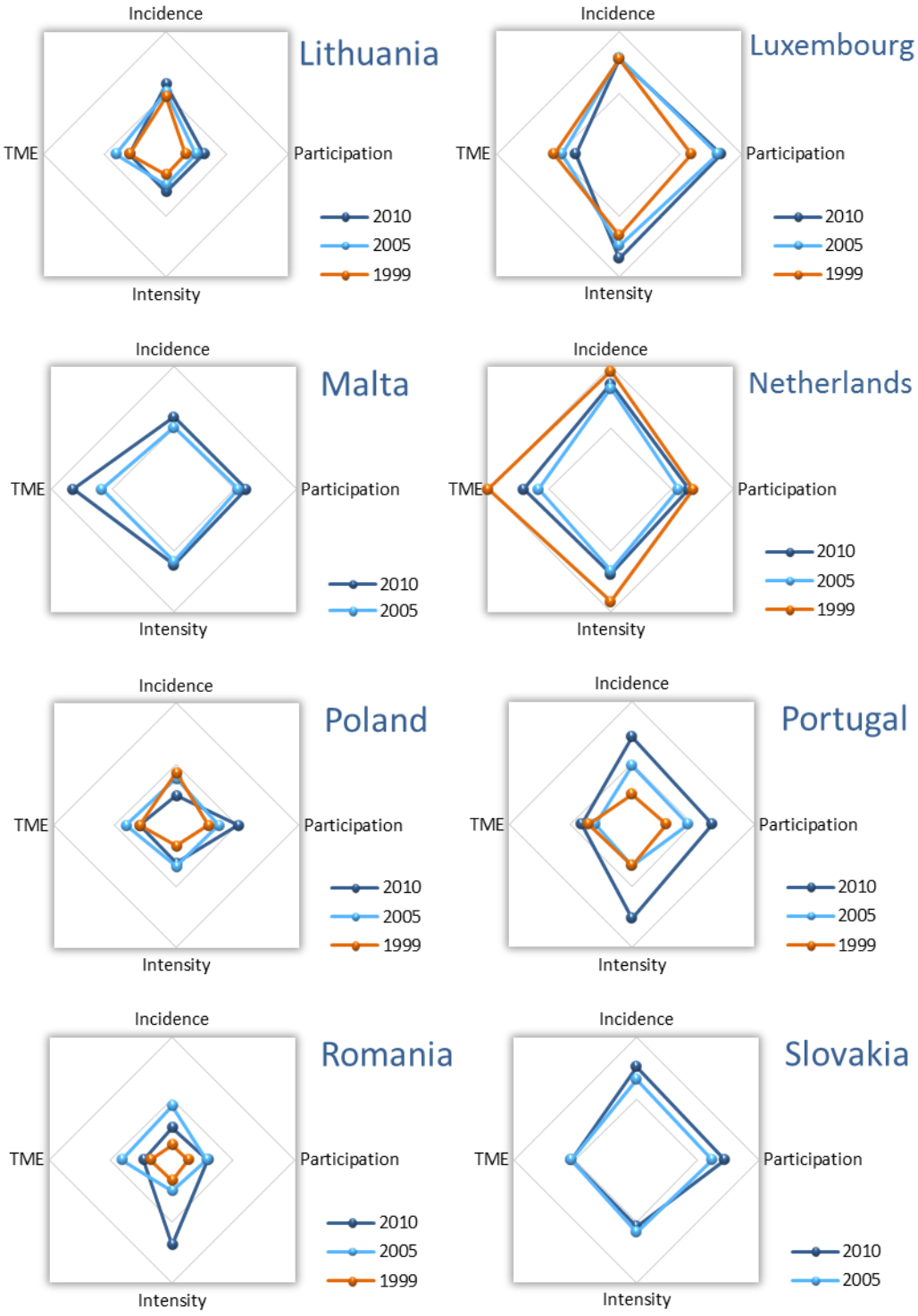
Lithuania
Incidence
TME
Participation
Intensity
2010
2005
1999
Luxembourg
Incidence
TME
Participation
Intensity
2010
2005
1999
Malta
Incidence
TME
Participation
Intensity
2010
2005
Netherlands
Incidence
TME
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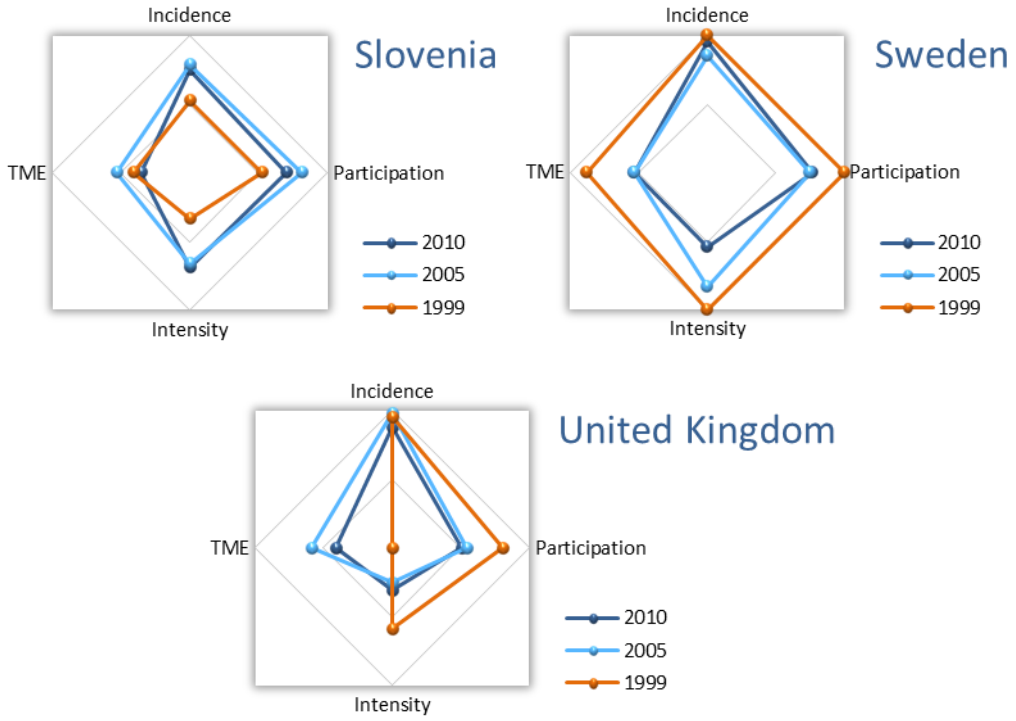
2005



NB: Names/codes of the indicators within the source: training enterprises as % of all enterprises, by type of training and size class [trng_cvts02]; percentage of employees (all enterprises) participating in CVT courses, by sex and size class [trng_cvts42]; hours in CVT courses per 1 000 hours worked (all enterprises), by size class [trng_cvts76]; cost of CVT courses as % of total labour cost (all enterprises), by type of cost and size class [trng_cvts54].

Source: Eurostat, CVTS and dissemination database (accessed 19.12.2013); own calculations.

Radar charts methodology

The radar chart approach used is a simple and intuitive bench-making tool (described in detail in Käpplinger, 2006; and Behringer et al., 2008b). It compares four main indicators (enterprises with training – incidence; participation rate in all enterprises – participation; hours per 1000 hours worked – all enterprises; total monetary expenditure (TME) for CVT courses as % of the total labour cost (relative to all enterprises)) over time (1999, 2005, 2010) for one country to the best-performing country for a single indicator. Values are standardised. The best performing country receives the value 1 (equal to 100% of the highest value achieved). All other countries receive a value between 0 and 1, as the indicator (e.g. TME as a percentage of the labour cost) is expressed as a percentage of the highest value achieved. One example may demonstrate the principle. France has the highest TME for training per employed (all enterprises) in 2010, namely 1.6%. Therefore, France receives the value 1. Austria has TME of 0.8%, equal to 50% of the value for France (the benchmark). It receives the value 0,5 (0,8/1,6) for 2010. When comparing radar charts across time, changing benchmarks for

the various indicators across time should be considered. To continue the example. In 2005, France had also the highest TME, namely 1.4% of the labour costs, equal to 1 in the radar chart. Austria had a ‘TME of 0.8% of the labour costs which is equal to the value of 2010. However, the value in the radar chart is 0.58 (0.8/1.4) and thereby higher than for 2010.

A1.4. Annex to Chapter 4

Table A4. **Participation rates in FED by age groups; AES-2011 versus AES-2007, countries ordered by change in total participation rates and further by 35-44 participation rate in 2011**

		AES-2007					AES-2011					Difference in 2007 and 2011 ratios
		25-34	35-44	45-54	55-64	Ratio 35-44/ 45-54	25-34	35-44	45-54	55-64	Ratio 35-44/ 45-54	
Decline in total participation rates: more than 10%	NO	20.8	9.9	6.5 (u)	(u)	1.5	14.2	8.8	5.7 (u)	(u)	*1.5*	(↔)
	BE (b)	21.8	14.3	8.2	7.4	1.7	12.9 (b)	7.5 (b)	6 (b)	3.6 (b)	*1.3*	
	FR	11.7 (b)	3.8 (b)	3.2 (b)	0.8 (bu)	1.2 (b)	8.8	3.2	2.0	0.5 (u)	*1.6*	
	IT	12.5 (b)	3.2 (b)	1.7 (b)	0.7 (bu)	1.9 (b)	9.7	1.8 (u)	0.8 (u)	(u)	*2.3*	
	SI	22.3	9.0	2.0 (u)	(u)	4.5	7.2	1.4	0.4 (u)	(u)	*3.5*	(↓↓)
Stable change: ± 10%	UK	23.1 (b)	15.2 (b)	14.1 (b)	7.7 (b)	1.1 (b)	22.6	16.4	13.1	6.1 (u)	*1.3*	
	SE	26.5	13.9	8.4	2.7 (u)	1.7	28.3	13.9	8.4	3.4 (u)	*1.7*	(↔)
	SK	12.7	6.9	2.2 (u)	(u)	3.1	12.0	6.0	3.0 (u)	(u)	*2.0*	(↓↓)
	EU	14.2	5.8	3.9	2.0	1.5	13.2	5.9	3.7	1.6	*1.6*	(↔)
	PL	13.4	5.5	1.4	(u)	3.9	12.7	5.1	1.9	(u)	*2.7*	(↓↓)
Increase in total participation rates: more than 10%	NL	15.2 (b)	5.4 (bu)	4.8 (bu)	2.4 (bu)	1.1	21.4	13.0	9.9	4.5 (u)	*1.3*	
	PT	13.9	6.4	3.1	1.2 (u)	2.1	17.4	12.6	7.8	3.0	*1.6*	(↓)
	DK	28.0	8.7	5.3 (u)	(u)	1.6	30.6	10.9	8.4	3.2 (u)	*1.3*	(↓)
	HU	7.2 (b)	2.3 (bu)	0.8 (bu)	(u)	2.9	13.1	7.5	3.8	0.9 (u)	*2.0*	
	ES	11.8	4.6	3.4	1.8	1.4	14.3	6.2	4.1	2.1	*1.5*	(↑)
Data (partly) not available	FI	24.0	11.0	6.1	(u)	1.8	26.9	12.5	7.5	2.4	*1.7*	(↔)
	LU						17.8	8.6	7.2	5.7 (u)	*1.2*	
	MT	10.0 (u)	5.5 (u)	(u)	(u)		7.4	6.5 (u)	(u)	(u)		
	AT	11.4	3.5	(u)	(u)		13.1	5.6	3.2	1.9 (u)	*1.8*	
	EE	11.3	5.3 (u)	(u)	(u)		18.1	5.2 (u)	(u)	(u)		
	LV	10.8	6.3 (u)	(u)	(u)		8.9	4.7 (u)	2.3 (u)	(u)	*2.0*	
	CZ	9.8	3.6	1.5 (u)	(u)	2.4	9.2	3.4	(u)	(u)		

	AES-2007					AES-2011					Difference in 2007 and 2011 ratios
	25-34	35-44	45-54	55-64	Ratio 35-44/ 45-54	25-34	35-44	45-54	55-64	Ratio 35-44/ 45-54	
LT	16.4	5.2	(u)	(u)		11.9	3.2 (u)	(u)	(u)		
DE	14.8	3.6	1.9 (u)	1.8 (u)	1.9	11.7	2.1 (u)	(u)	(u)		
EL	5.8	1.8 (u)	(u)	(u)		8.1	1.5 (u)	(u)	(u)		
RO	8.7	3.6	1.1 (u)	(u)	3.3	3.4	1.1 (u)	(u)	(u)		
BG	7.4	2.1 (u)	(u)	(u)		7.4	(u)	(u)	(u)		
CY	7.8	(u)	(u)	(u)		9.1	(u)	(u)	(u)		
IE											

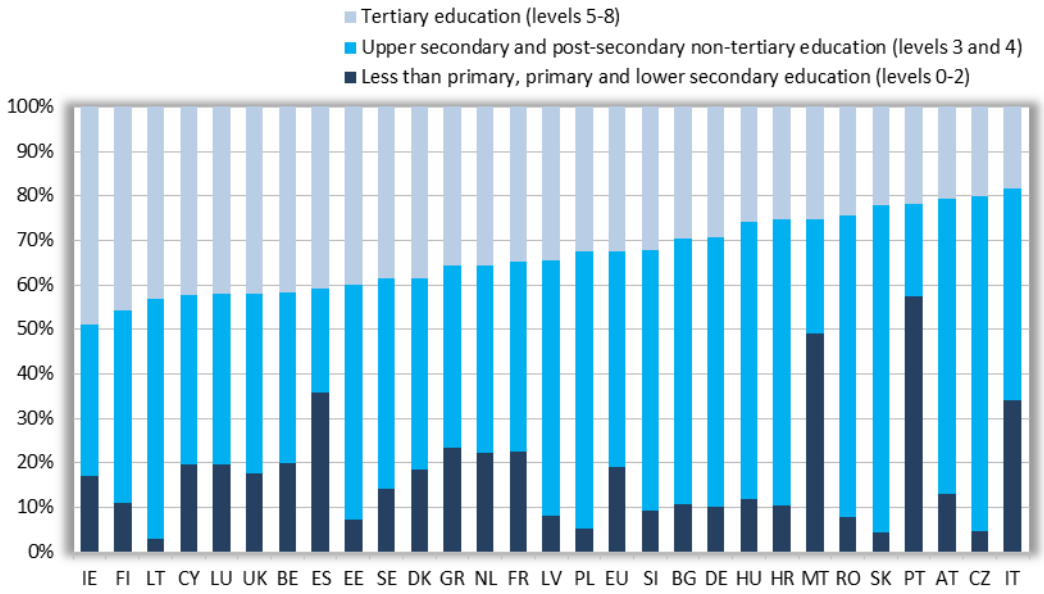
NB: Dispersion of reference periods (12 month): the AES-2007 reference period started in 2004 for SE, UK; in 2005: FR, IT, CY, LT, HU, PL, FI; in 2006 for DE, EE, EL, ES, HR, LV, AT, SI, SK and NO; in 2007 for BE, CZ, NL (missing: DK, PT, RO); the AES-2011 reference period started in 2010 for BE, BG, CZ, EE, ES, LV, AT, PT, RO, SI, SK; in 2011 for DK, DE, EL, FR, IT, CY, LT, LU, HU, MT, NL, PL, SE (missing: IE, FI, UK).

Name/code of the indicator within source: trng_aes_101.

(↓) = decrease in ratio between 0.2 and 0.5 points; (↓↓) = decrease in ratio by 0.5 points or more; (↑) = increase in ratio 0.2 up to 0.5; (↔) = no change, change smaller than ± 0.2 points of the ratio; (b) = break in time series; (u) = low reliability

Source: Eurostat, AES and dissemination database (accessed 14.11.2013).

Figure A4. **Educational attainment of the population (25-64) in 2011 – countries ordered according to the highest educational attainment (ISCED levels 5-6)**



Source: Eurostat, LFS and dissemination database (accessed7.10.2013).

Table A5. **Participation rates in formal adult education and training by labour market status – AES-2011 versus AES-2007, countries ordered by inactive participation rate in 2011**

		AES-2007				AES-2011				Difference in 2007 and 2011 ratios
		Employed	Inactive	Unemployed	Ratio employed/ inactive	Employed	Inactive	Unemployed	Ratio employed/ inactive	
Inactive participation 0-5%	HU	2.9 (b)	2.0 (bu)	(u)	*1.5 (b)*	7.5 (b)	4.7 (b)	5.4 (bu)	*1.6*	
	IT	3.6 (b)	5.3 (b)	8.0 (b)	*0.7 (b)*	2.2	4.2	3.6 (u)	*0.5*	
	CZ	3.6	5.0	(u)	*0.7*	3.5	4.0	(u)	*0.9*	(↓)
	LT	7.4	3.8 (u)	(u)	*1.9*	4.4	4.0 (u)	(u)	*1.1*	(↓↓)
	SI	9.1	7.2	8.7 (u)	*1.3*	1.7	3.8	2.3	*0.4*	(↑↑) *(r)*
	BG	2.5	4.6	(u)	*0.5*	2.2	3.8 (u)	(u)	*0.6*	(↔)
	EL	2.3	2.5 (u)	(u)	*0.9*	2.2	3.8 (u)	2.4 (u)	*0.6*	(↑)
	FR	5.3 (b)	3.1 (b)	8.1 (b)	*1.7*	3.4	3.5	5.8	*1.0*	
	PL	6.9	2.1	6.2	*3.3*	6.4	2.8	4.7	*2.3*	(↓↓)
	RO	4.0	1.9	(u)	*2.1*	1.4	1.5 (u)	(u)	*0.9*	(↓↓)
Inactive participation 6-9%	DE	4.2	8.6	5.6 (u)	*0.5*	2.2	8.8	(u)	*0.3*	(↑)
	AT	3.0	7.3	(u)	*0.4*	5.1	8.3	(u)	*0.6*	(↓)
	BE	13.5	8.3	16.3	*1.6*	7.3 (b)	7.9 (b)	6.9 (bu)	*0.9*	
	EE	5.0	5.3 (u)	(u)	*0.9*	6.8	7.2 (u)	(u)	*0.9*	(↔)
	ES	6.1	5.1	6.4	*1.2*	6.9	7.2	7.2	*1.0*	(↓)
	EU-28	6.6	6.3	7.1	*1.0*	5.9	6.6	6.4	*0.9*	(↔)

		AES-2007				AES-2011				Difference in 2007 and 2011 ratios
		Employed	Inactive	Unemployed	Ratio employed/ inactive	Employed	Inactive	Unemployed	Ratio employed/ inactive	
	PT	6.0	6.4	11.7	*0.9*	9.7	6.5	18.3	*1.5*	(↑)
	SK	6.4	5.1 (u)	(u)	*1.3*	5.8	5.8 (u)	(u)	*1.0*	(↓)
Inactive participation 10% and more	SE	8.5	29.2	20.0 (u)	*0.3*	9.8	30.1	21.9 (u)	*0.3*	(↔)
	DK	9.5	12.9	(u)	*0.7*	9.7	23.6	16.3 (u)	*0.4*	(↑)
	NO	8.0	17.7	(u)	*0.5*	6.4	13.4	(u)	*0.5*	(↔)
	NL	6.8 (b)	6.8 (b)	(u)	*1.0 (b)*	12.8	11.0	(u)	*1.2*	
	UK	16.2 (b)	11.6 (b)	(u)	*1.4 (b)*	16.1	10.3	16.0 (u)	*1.6*	
Data (partly) not available	FI	8.8	17.1	(u)	*0.5*	9.9	21.8	(m)	*0.5*	(↔)
	LU	(m)	(m)	(m)	(m)	10.2	8.3	(u)	*1.2*	
	MT	6.8	(u)	(u)		5.8	(u)	(u)	(m)	
	LV	6.8	(u)			5.2	2.6 (u)	(u)	*2.0*	
	CY	2.7	(u)	(u)		3.9	(u)	(u)	(m)	
	IE	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	

NB: Dispersion of reference periods (12 month): the AES-2007 reference period started in 2004 for SE, UK; in 2005 for FR, IT, CY, LT, HU, PL, FI; in 2006 for DE, EE, EL, ES, HR, LV, AT, SI, SK and NO; in 2007 for BE, CZ, NL (missing: DK, PT, RO); the AES-2011 reference period started in 2010 for BE, BG, CZ, EE, ES, LV, AT, PT, RO, SI, SK; in 2011 for DK, DE, EL, FR, IT, CY, LT, LU, HU, MT, NL, PL, SE (missing: IE, FI, UK).

(↓) = decrease in ratio between 0.2 and 0.5 points; (↓↓) =decrease in ratio by 0.5 points or more;
(↑) = increase in ratio 0.2 up to 0.5; (↔) = no change, change smaller than ± 0.2 points of the ratio;
(b) = break in time series; (r) = inequality reversed; (u) = low reliability.

Source: Eurostat, AES and dissemination databases (accessed 15.11.2013).

Table A6. **Equality in participation rates in FED highest education attainment; AES-2011 versus AES-2007, countries in protocol order**

	AES-2007 ISCED				AES-2011 ISCED				Difference in 2007 and 2011 ratios
	0-2	3-4	5-6	Ratio 5-6 to 3-4	0-2	3-4	5-6	Ratio 5-6 to 3-4	
EU-28	1.9	6.0	12.6	2.1	2.5	5.4	11.0	2.0	(↔)
BE	6.6	10.9	19.0	1.7	3.9 (b)	6.6 (b)	11.4 (b)	1.7 (b)	
BG		2.5	6.0	2.4		2.1	4.2	2.0	(↑)
CZ		2.8	9.7	3.5		2.5	10.3	4.1	(↓)
DK	7.5	9.5	13.4	1.4	7.1	11.1	17.7	1.6	(↔)
DE	2.5	4.2	7.1	1.7	2.2	3.4	5.2	1.5	(↔)
EE		3.4	8.5	2.5		4.3	10.4	2.4	(↔)
IE					2.3 (b)	6.3 (b)	10.1 (b)	1.6 (b)	
EL		2.5	5.2	2.1		2.6	5.5	2.1	(↔)
ES	1.7	6.6	12.6	1.9	2.5	7.9	12.7	1.6	(↑)
FR	2.6 (b)	4.9 (b)	8.5 (b)	1.7 (b)		2.8	6.9	2.5	
IT	0.4 (b)	5.7 (b)	13.8 (b)	2.4 (b)		4.2	6.8	1.6	
CY			7.8				6.8		
LV		2.0	14.7	7.4		2.9	7.7	2.7	(↑)
LT		5.7	12.6	2.2		2.6	6.8	2.6	(↓)
LU			:		5.5	7.6	15.0	2.0	
HU		2.4 (b)	5.5 (b)	2.3 (b)	1.4	6.5	10.8	1.7	
MT	2.0		18.1			7.8	16.3	2.1	

NL	3.6 (b)	5.9 (b)	11.3 (b)	1.9 (b)	5.3	13.3	17.1	1.3	
AT		3.2	8.1	2.5	3.7	4.2	13.2	3.1	(↓)
PL	0.7	3.2	16.1	5.0	1.0	2.9	13.6	4.7	(↑)
PT	3.6	14.2	14.7	1.0	8.3	15.4	13.4	0.9	(↔)
RO		3.3	8.4	2.5		1.0	4.5	4.5	(↓)
SI		8.9	13.6	1.5		2.8	3.0	1.1	(↑)
SK		4.5	11.2	2.5		2.9	14.4	5.0	(↓)
FI	3.7	11.6	12.7	1.1	5.6	13.2	13.7	1.0	(↔)
SE	4.6	7.3	24.8	3.4	8.8	9.5	20.5	2.2	(↑)
UK		13.4 (b)	20.6 (b)	1.5 (b)	7.0	14.1	18.8	1.3	
NO	5.6	7.3	17.0	2.3		5.8	9.8	1.7	(↑)

NB: Dispersion of reference periods (12 month): the AES-2007 reference period started in 2004 for SE, UK; in 2005 for FR, IT, CY, LT, HU, PL, FI; in 2006 for DE, EE, EL, ES, HR, LV, AT, SI, SK and NO; in 2007for BE, CZ, NL (missing: DK, PT, RO); the AES-2011 reference period started in 2010 for BE, BG, CZ, EE, ES, LV, AT, PT, RO, SI, SK; in 2011 for DK, DE, EL, FR, IT, CY, LT, LU, HU, MT, NL, PL, SE, PL (missing: IE, FI, UK).

(↓) = equalities decreased by 0.3 at least; (↑) = equalities increased by 0.3; (↔) = equality relatively stable (change in ration in between ±0.3); (b) = break in time series.

Source: Eurostat, AES and dissemination database (accessed 4.3.2014).

Table A7. **Participation rates in FED by occupation; AES-2011 versus AES-2007, countries ordered by ISCO 1-3 participation rate in 2011**

		AES-2007					AES-2011					Difference in 2007 and 2011 ratios
		ISCO 1-3	ISCO 4-5	ISCO 6-8	ISCO 9	Ratio ISCO 1-3/4-5	ISCO 1-3	ISCO 4-5	ISCO 6-8	ISCO 9	Ratio ISCO 1-3/4-5	
ISCO 1-3 participation 0-6%	CZ	6.6	4.2	(u)	(u)	1.6	6.4 (b)	3.0 (b;u)	(b;u)	(b;u)	2.1	No comparison possible (change in classification)
	FR	5.3 (b)	5.1 (b)	4.6 (b)	6.2 (b)	1.0 (b)	4.7	3.7	1.2 (u)	(b;u)	1.3	
	RO	5.9	9.7 (u)	0.9 (u)	(u)	0.6	3.2 (b;u)	2.0 (b;u)	(b;u)	(b;u)	1.6	
	SI	13.0	10.5	3.8 (u)	(u)	1.2	2.8 (b)	1.5 (b;u)	0.7 (b;u)	(b;u)	1.9	
ISCO 1-3 participation 7-10%	ES	12.3	6.0	2.0	1.9 (u)	2.1	10.1 (b)	7.6 (b)	2.4 (b;u)	2.1 (b;u)	1.3	
	BE	16.5	14.7	7.4 (u)	(u)	1.1	9.4 (b)	6.3 (b)	4.4 (b;u)	(b;u)	1.5 (b)	
	AT	5.2	2.4 (u)	(u)	(u)	2.2	9 (b)	3.5 (b;u)	(b;u)	(b;u)	2.6	
	NO	10.3	7.2 (u)	(u)	(u)	1.4	8.2 (b)	5.7 (b;u)	(b;u)	(b;u)	1.4	
	SK	11.0	4.9 (u)	(u)		2.2	8.0 (b)	7.3 (b)	(b;u)	(b;u)	1.1	
	EU-28	9.7	8.3	2.8	3.5	1.2	7.9	5.9	2.5	3.3	1.3	
ISCO 1-3 participation 11% and more	UK	17.7 (b)	21.5 (b)	7.7 (bu)	(u)	0.8 (b)	17.3	17.1	12.5 (u)	(u)	1.0	
	NL	7.6 (b)	8.8 (b;u)	(u)		0.9 (b)	15.3 (b)	12.2 (b)	8.3 (b;u)	(b;u)	1.3	
	SE	12.8	6.7	(u)	(u)	1.9	13.0 (b)	7.9 (b)	3.5 (b;u)	(b;u)	1.6	
	PL	12.7	7.2	2.0	2.8 (u)	1.8	11.7 (b)	6.5 (b)	1.6 (b)	2.8 (b;u)	1.8	
	DK	10.7	14.4	(u)	(u)	0.7	11.1 (b)	8.7 (b)	7.1 (b;u)	(b;u)	1.3	
	PT	9.6	6.9	3.1	3.9 (u)	1.4	11.0 (b)	12.0 (b)	6.3 (b)	9.0 (b)	0.9	
	HU	5.9 (b)	2.2 (b;u)	(u)	(u)	2.7	10.9 (b)	8.6 (b)	4.4 (b)	(b;u)	1.3	
Data (partly) not available	LU						11.9 (b)	7.4 (b)	(b;u)	(b;u)	1.6	
	EE	9.8	4.8 (u)	(u)	(u)	2.0	11.3 (b)	(b;u)	(b;u)	(b;u)		
	MT	11.6 (u)	(u)	(u)	(u)		10.8 (b)	(b;u)	(b;u)	(b;u)		
	LV	14.0	(u)	(u)	(u)		8.7 (b)	4.1 (b;u)	(b;u)	(b;u)	2.1	
	LT	12.6	8.2 (u)	2.9 (u)	(u)	1.5	6.6 (b)	(b;u)	(b;u)			
	FI	12.2	8.3 (u)	3.5 (u)	(u)	1.5	12.7	9.9	5.3		1.3	
	CY	5.9	(u)	(u)	(u)		6.3 (b;u)	(b;u)	(b;u)	(b;u)		
	EL	3.7 (u)	3.1 (u)	(u)	(u)	1.2	3.9 (b;u)	(b;u)	(b;u)	(b;u)		

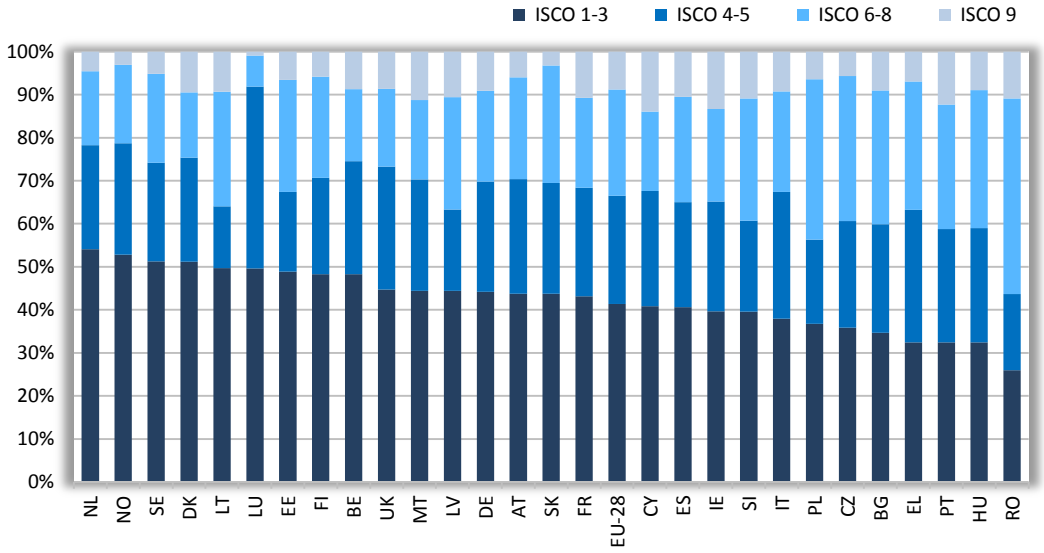
	AES-2007					AES-2011					Difference in 2007 and 2011 ratios
	ISCO 1-3	ISCO 4-5	ISCO 6-8	ISCO 9	Ratio ISCO 1-3/4-5	ISCO 1-3	ISCO 4-5	ISCO 6-8	ISCO 9	Ratio ISCO 1-3/4-5	
DE	6.1	3.8 (u)	2.1 (u)	(u)	1.6	3.3 (b)	(b;u)	(b;u)	(b;u)		
BG	5.1 (u)	(u)	(u)	(u)		3.2 (b;u)	2.7 (b;u)	(b;u)		1.2	
IT						3.0 (b)	2.9 (b;u)	(b;u)	(b;u)		
IE											

NB: Dispersion of reference periods (12 month): the AES-2007 reference period started in 2004 for SE, UK; in 2005 for FR, IT, CY, LT, HU, PL, FI; in 2006 for DE, EE, EL, ES, HR, LV, AT, SI, SK and NO; in 2007 for BE, CZ, NL (missing: DK, PT, RO); the AES-2011 reference period started in 2010 for BE, BG, CZ, EE, ES, LV, AT, PT, RO, SI, SK; in 2011 for DK, DE, EL, FR, IT, CY, LT, LU, HU, MT, NL, PL, SE (missing: IE, FI, UK).

(b) = break in time series; (u) = low reliability.

Source: Eurostat, AES and dissemination database (accessed 15.11.2013).

Figure A5. **Distribution of employed adults (25-64) according to ISCO groups; AES-2011**



NB: Reference time for the data differs between countries and the timespan between the two waves is not always four years.

Source: AES-2011 Micro-data set, own calculations; EU-28 estimate for Member States except Croatia.

Inequalities in participation in NFE

When considering gender, survey results indicate practically no significant differences in NFE participation between men and women (Table A9). In 2011 in the EU, the participation rate for women is 36.2s% and for men 37.5%. Only the Netherlands has more men (59.5%) than women (50.1%) participating in NFE. Gender differences may become significant with more detailed study of participation in education and training. For example, in Belgium-Flanders, considerably more men participated in on-the-job training (Boeren, 2011).

Largely adults participating in NFE do this for job-related reasons (84% of all adults participate at least also in one job-related activity in the EU). Hence in analysing inequalities in NFE participation, adults most active and sought-after on the labour market – between 35 to 44 years old, those with high-level qualifications, working as managers or professionals – can be expected to participate in NFE more often than others.

In terms of age, participation in NFE in the EU according to AES-2011 is about 41% among 25-34 and 35-44 year-olds, 38.7% among 45-54 year-olds and 25.6% among 55-64 year-olds (Table A10). Those closest to retirement age have fewer opportunities to train, also because employers may not be willing to invest in workers who have a relatively short time to gain from training (Fouarge and

Schils, 2009). Data show a strong age-related disadvantage in 2011 for Romania and Greece where 35-44 year-olds participate in NFE 4 to 4.3 times more often compared to 55-64 year-olds. In eight countries, the respective participation ratio is 2 to 2.7 (Belgium, Bulgaria, Czech Republic, Hungary, Malta, Poland, Portugal and Slovakia). However, when respective participation ratios are compared, inequality in participation according to age has remained stable in nine countries (Bulgaria, Czech Republic, Estonia, Latvia, Lithuania, Malta, Portugal, Slovakia and Sweden) out of 20 or decreased in six countries (Denmark, Germany, Spain, Austria, Poland and Slovenia) since 2007, especially – gauged by the ratio used – so in Cyprus and Poland, while inequality has increased the most in Greece and Romania. (Comparisons across time are not possible in case of Belgium, Ireland, France, Luxembourg, Hungary, the Netherlands and the UK).

In 2011, the average NFE participation rate in the EU is 20.1% for adults with low, 34.4% with medium and 55.8% with high educational attainment (Table A8).

Inequalities between low and medium educated are 4.7 times greater for the medium educated in Romania (however, percentages compared are very low). The respective difference is also high (2.4 to 3.1) in the Czech Republic, Greece, Latvia, Poland and Slovenia. Smaller differences are observable in case of Denmark, Germany, Estonia, Ireland, Spain, France, Luxembourg, Hungary, the Netherlands, Austria, Finland, Sweden, the UK, and Norway (1.2 to 1.9).

In several countries, inequalities between adults with low and medium levels of education have considerably decreased since 2007, such as Bulgaria, Greece, Portugal and Slovenia. Decrease has also taken place in Germany, Spain, Cyprus, Austria, and Poland; while an increase is observable in Denmark, Latvia, Sweden, and especially in Romania. Countries with stable developments are the Czech Republic, Denmark, Estonia, Malta and Finland. (No information available for Belgium and Ireland).

Inequalities between those with medium and high education are also significant. In Lithuania, adults with high education are 3.6 times more active in NFE than their counterparts with medium qualifications. The same difference is about threefold in Greece, Poland and Romania. Inequalities between medium and high educated are decreasing in six countries (Denmark, Austria, Portugal and Romania) by 0.2 or more and increasing in three using the same threshold (Bulgaria, Greece and Slovakia)

Table A8. **Participation rates in NFE by highest educational attainment (AES-2011); countries ordered by ISCED 3-4 participation rates**

	ISCED 0-2	ISCED 3-4	ISCED 5-6	Ratio 2007 5-6/3-4	Ratio 2011 5-6/3-4	Trend
EU-28	20.1	34.4	55.8	1.7	1.6	(↓)
BE (b)	12.0	28.7	57.0	1.8	2.0	(b)
BG	11.9	23.4	37.3	1.3	1.6	(↑↑)
CZ	10.4	32.3	58.8	1.7	1.8	(↑)
DK	33.0	49.4	68.4	1.6	1.4	(↓↓)
DE	25.6	43.5	66.5	1.5	1.5	(↔)
EE	22.0	40.2	64.3	1.7	1.6	(↓)
IE (b)	8.7	14.8	29.7	(m)	2.0	
EL	2.9	7.4	21.7	2.5	2.9	(↑↑)
ES	20.8	36.0	51.9	1.4	1.4	(↔)
FR (b)	27.4	47.6	70.3	1.7	1.5	(b)
IT (b)	19.0	40.2	63.4	1.8	1.6	(b)
CY	16.5	34.9	60.8	1.6	1.7	(↑)
LV	9.4	22.8	50.7	2.3	2.2	(↔)
LT	(m)	14.0	50.6	3.2	3.6	(↑)
LU	54.8	66.1	78.3	(m)	1.2	(m)
HU (b)	23.6	36.2	52.8	2.3	1.5	(b)
MT	22.2	49.2	68.2	1.5	1.4	(↓)
NL (b)	29.5	56.7	74.2	1.5	1.3	(b)
AT	23.0	44.4	67.3	1.8	1.5	(↓↓)
PL	5.1	14.6	44.3	3.6	3.0	(↓)
PT	27.5	55.1	71.3	1.6	1.3	(↓↓)
RO	1.3	6.1	18.5	4.3	3.0	(↓↓)
SI	13.0	32.5	61.7	1.9	1.9	(↔)
SK	(m)	33.7	55.7	1.5	1.7	(↑↑)
FI	31.4	45.5	68.3	1.5	1.5	(↔)
SE	37.7	65.2	80.2	1.3	1.2	(↓)
UK (b)	12.3	22.2	31.8	1.4	1.4	(b)
NO	29.0	51.4	70.5	1.4	1.4	(↔)

NB: (↓) = inequalities decreased by at least 10%; (↓↓) = inequalities decreased by at least 25%; (↑) = inequalities increased by at least 10%; (↑↑) = inequalities increased by at least 25%; (↔) = no change, change in between ± 10%; (b) = break in time series; (m) = value missing.

Source: Eurostat, AES and dissemination database (accessed 2.4.2014); own calculation.

Because NFE is mostly job-related, the participation rates in Member States are considerably lower for inactive (15.2%) and unemployed (22.9%) compared to employed (45.2%) adults (Table A11). Employed participate six to eight times more often than inactive in Lithuania, Hungary, Poland and Slovakia. Employed participate fourfold more often in NFE then inactive adults in the Czech Republic, Greece, Cyprus, Latvia and Portugal. Inequalities are smaller in case of

employed and unemployed; biggest differences (3-4 times) in favour of employed are in Lithuania, Hungary, Poland and Slovakia.

In general, inequalities among employed and inactive are decreasing, while no consistent trend in changes of levels of inequality can be seen between employed and unemployed.

According to occupational groups, managers, professionals and technicians have the highest participation level in training. In 2011 in Member States, NFE participation rate among managers and professionals is 60.3%, among clerks, service and sales workers 42.1%, among skilled manual workers 31.1% and among those employed in elementary occupations 25.8%. This confirms findings by Korpi and Tåhlin (2008) that jobs largely determine the likelihood of training and implying that the driving factors are employers' training needs.

In 2011, the biggest difference between managers and professionals and clerks, service and sales workers are in Lithuania, Poland and Romania (2.2 to 2.8 times greater for managers and professionals). In Lithuania and Romania, this participation gap has considerably increased since 2007. Still, there is no general trend for changes in inequalities among clerical, service and sales workers and managers, professionals and technicians.

Greece (3.6) and the UK (2.0) have the highest inequalities between skilled manual workers compared to clerks, service and sales workers; but in most countries difference between these occupational groups are decreasing. Adults working in elementary occupations compared to clerks, service and sales workers are most disadvantaged in the Czech Republic, Cyprus and Slovenia (about three times); but also in Malta, Austria and Romania (about two times).

In sum, most NFE is job-related; therefore the participation gaps are widest between persons with different labour-market status – the employed participate considerably more compared to inactive and also unemployed, but with a smaller difference among employed and unemployed. Labour-market status inequalities are partly decreasing since 2007 between employed and inactive; trends are mixed in case of employed and unemployed. Data also confirm considerable inequalities by educational attainment, occupation and age. For most countries, data indicate lowering of educational and age inequalities in NFE participation. Results on occupational inequalities are mixed, only differences among clerks, service and sales workers and skilled manual workers are mostly decreasing. Gender differences in NFE participation rates are practically non-existent.

Table A9. **Participation rates in NFE by gender; AES-2011 versus AES-2007; countries ordered by change in total participation rates and further by female participation rate in 2011**

		AES-2007			AES-2011			Difference in 2007 and 2011 ratios
		Male	Female	Ratio F/M	Male	Female	Ratio F/M	
Decline in total participation rates: more than 10%	LT	26.0	35.3	1.4	21.3	30.1	1.4	(↔)
	BG	36.8	33.7	0.9	25.7	23.2	0.9	(↔)
	UK	39.2 (b)	41.4 (b)	1.1(b)	22.9	25.7	1.1	
	EL	12.6	12.8	1.0	8.0	11.2	1.4	(↑)
Stable change: ± 10%	SE	67.7	71.2	1.1	65.3	68.7	1.1	(↔)
	CY	41.6	37.5	0.9	41.7	40.2	1.0	(↔)
	SK	43.4	39.1	0.9	38.9	37.7	1.0	(↔)
	CZ	39.6	31.2	0.8	34.9	34.9	1.0	(↓)
	SI	34.5	37.9	1.1	33.3	36.3	1.1	(↔)
	MT	32.3	30.3	0.9	35.6	32.6	0.9	(↔)
	BE	34.6	32.3	0.9	34.1 (b)	32.2 (b)	0.9	
	LV	24.6	36.2	1.5	24.2	35.4	1.5	(↔)
Increase in total participation rates: more than 10%	NO	50.0	51.2	1.0	56.6	57.2	1.0	(↔)
	NL	45.0 (b)	39.3 (b)	0.9 (b)	59.5	50.1	0.8	
	DK	37.6	37.6	1.0	50.5	55.0	1.1	(↔)
	FR	33.1 (b)	31.0 (b)	0.9	49.0 (b)	49.2 (b)	1.0	
	DE	45.8	40.4	0.9	50.7	46.2	0.9	(↔)
	EE	35.8	44.2	1.2	44.3	51.3	1.2	(↔)
	AT	41.8	37.8	0.9	46.2	44.8	1.0	(↔)
	PT	23.3	21.6	0.9	39.1	40.1	1.0	(↔)
	HU	6.6 (b)	6.9 (b)	1.0 (b)	39.7	35.5	0.9	(↔)
	EU-28	31.9	30.5	1.0	37.5	36.2	1.0	(↔)
	IT	20.3 (b)	20.1 (b)	1.0 (b)	36.2	32.5	0.9	(↔)
	ES	27.3	27.1	1.0	35.4	32.8	0.9	(↔)
	PL	18.2	18.9	1.0	20.6	21.4	1.0	(↔)
	RO	4.7	4.7	1.0	7.0	6.7	1.0	(↔)
Data (partly) not available	LU	(m)	(m)	(m)	69.3	66.6	1.0	
	FI	45.2	57.2	1.3	44.7	58.1	1.3	(↔)
	IE	(m)	(m)	(m)	18.8 (b)	18.7 (b)	1.0	

NB: Dispersion of reference periods (12 month): the AES-2007 reference period started in 2004 for SE, UK; in 2005 for FR, IT, CY, LT, HU, PL, FI; in 2006 for DE, EE, EL, ES, HR, LV, AT, SI, SK and NO; in 2007 for BE, CZ, NL (missing: DK, PT, RO); the AES-2011 reference period started in 2010 for BE, BG, CZ, EE, ES, LV, AT, PT, RO, SI, SK; in 2011for DK, DE, EL, FR, IT, CY, LT, LU, HU, MT, NL, PL, SE, PL (missing: IE, FI, UK).

(↓) = inequalities decreased; (↑) = inequalities increased; (↔) = (in)equalities same; (b) = break in time series.

Source: Eurostat, AES and dissemination database (accessed 7.1.2013).

Table A10. **Participation rates in NFE by age groups; AES-2011 versus AES-2007; countries ordered by change in total participation rates and further by 35-44 participation rate in 2011**

		AES-2007					AES-2011					Difference in 2007 and 2011 ratios
		25-34	35-44	45-54	55-64	Ratio 35-44/55-64	25-34	35-44	45-54	55-64	Ratio 35-44/55-64	
Decline in total participation rates: more than 10%	BG	41..2	40.5	38.2	20.3	2.0	25.8	29.4	27.8	15.0	2.0	(↔)
	LT	33.6	35.1	32.9	18.9	1.9	29.0	28.7	28.0	16.1	1.8	(↔)
	UK	44.3 (b)	42.7 (b)	40.8 (b)	32.5 (b)	1.3 (b)	23.9	24.8	25.9	22.3	1.1	
	EL	18.5	13.4	12.2	5.1	2.6	13.7	12.3	8.2	3.1	4.0	(↑↑)
Stable change: ± 10%	SE	72.4	73.6	71.8	60.1	1.2	67.0	72.9	70.3	57.1	1.3	(-)
	CY	50.0	46.5	34.9	20.0	2.3	46.3	46.1	39.8	27.7	1.7	(↓↓)
	MT	45.6	35.4	29.9	15.5	2.3	40.4	44.3	33.8	18.8	2.4	(↔)
	SK	44.6	48.5	44.6	23.8	2.0	42.7	44.0	42.1	21.6	2.0	(↔)
	CZ	38.0	43.6	39.9	21.5	2.0	38.8	41.0	38.7	20.1	2.0	(↔)
	SI	40.0	43.4	37.0	22.0	2.0	38.6	39.6	38.5	22.7	1.7	(↓)
	BE	44.4	40.4	31.6	19.1	2.1	41.3 (b)	39.6 (b)	33.6 (b)	17.6 (b)	2.3 (b)	
	LV	35.2	37.3	27.7	20.9	1.8	33.1	35.0	30.9	19.3	1.8	(↔)
Increase in total participation rates: more than 10%	NL	52.5 (b)	43.5 (b)	43.8 (b)	28.2 (b)	1.5 (b)	62.8	61.5	56.4	35.7	1.7	
	NO	56.0	53.9	51.2	40.3	1.3	65.4	61.0	59.8	40.0	1.5	(↑)
	DK	35.7	45.1	41.7	27.3	1.7	52.2	58.2	55.2	44.7	1.3	(↓)
	FR	41.1 (b)	36.3 (b)	31.1 (b)	15.9 (b)	2.3 (b)	57.5	56.5	49.6	32.7	1.7	
	DE	46.8	49.0	46.0	27.1	1.8	51.3	51.6	51.0	38.0	1.4	(↓)
	EE	48.0	46.6	36.7	27.2	1.7	59.2	50.9	47.0	32.6	1.6	(↔)
	AT	40.2	46.9	42.5	25.2	1.9	49.3	48.1	47.7	35.2	1.4	(↓)
	PT	31.8	24.9	20.1	10.2	2.4	53.2	46.2	36.7	20.0	2.3	(↔)
	HU	9.7 (b)	8.4 (b)	6.8 (b)	2.5 (b)	3.4 (b)	44.3	43.3	41.1	21.2	2.0	
	EU-28	36.2	35.5	31.7	19.8	1.8	40.9	40.8	38.7	25.5	1.6	(↓)
	IT	24.1 (b)	22.8 (b)	21.3 (b)	11.6 (b)	2.0 (b)	38.2	38.8	36.1	22.3	1.7	
	ES	32.5	30.7	25.3	15.7	2.0	40.5	36.6	34.0	22.0	1.7	(↓)
	PL	26.0	22.8	15.7	6.7	3.4	28.1	25.7	19.5	9.4	2.7	(↓↓)

		AES-2007					AES-2011					Difference in 2007 and 2011 ratios
		25-34	35-44	45-54	55-64	Ratio 35-44/55-64	25-34	35-44	45-54	55-64	Ratio 35-44/55-64	
	RO	6.7	5.6	4.0	2.5	2.2	10.1	8.1	6.1	1.9	4.3	(↑↑)
Data (partly) not available	LU						75.7	71.5	71.4	48.5	1.5	
	FI	55.7	57.0	54.9	37.1	1.5	54.8	61.2	56.3	34.7	1.8	(↑)
	IE											

NB: Dispersion of reference periods (12 month): the AES-2007 reference period started in 2004 for SE, UK 2005: FR, IT, CY, LT, HU, PL, FI; in 2006 for DE, EE, EL, ES, HR, LV, AT, SI, SK and NO; in 2007 for BE, CZ, NL (missing: DK, PT, RO). The AES-2011 reference period started in 2010 for BE, BG, CZ, EE, ES, LV, AT, PT, RO, SI, SK; in 2011 for DK, DE, EL, FR, IT, CY, LT, LU, HU, MT, NL, PL, SE, PL (missing: IE, FI, UK).

(↓) = decrease in ratio between 0.2 and 0.5 points; (↓↓) = decrease in ratio by 0.5 points or more; (↑) = increase in ratio 0.2 up to 0.5; (↑↑) = Increase in ratio of 0.5 or more; (↔) = no change, change smaller than ± 0.2 points of the ratio; (b) = break in time series.

Source: Eurostat, AES and dissemination database (accessed 14.11.2013).

Table A11. **Participation rates in non-formal adult education and training by labour market status – AES-2011 versus AES-2007, countries ordered by employed participation rate in 2011**

		AES-2007				AES-2011				Difference in 2007 and 2011 ratios
		Employed	Inactive	Unemp-loyed	Ratio employed/ inactive	Employed	Inactive	Unemp-loyed	Ratio employed/ inactive	
Employed participation 0-39%	EL	16.3	3.2	11.3 (u)	5.1	12.9	3.1 (u)	7.9	4.2	(↓↓)
	UK	47.4 (b)	21.2 (b)	23.8 (bu)	2.2 (b)	29.0	11.8	15.5 (u)	2.5	
	PL	26.3	3.0	8.8	8.8	29.1	4.3	9.7	6.8	(↓↓)
	LT	40.3	4.7 (u)	14.6 (u)	8.6	35.4	4.4 (u)	9.4	8.0	(↓)
	LV	37.6	9.6 (u)	16.3 (u)	3.9	37.5	9.2	19.1	4.1	(↑)
Employed participation 40-54%	HU	9.6 (b)	1.6 (b)	4.5 (bu)	6.0 (b)	53.3	9.4	16.7	5.7	
	AT	47.1	19.4	37.5	2.4	51.9	26.4	38.3	2.0	(↓)
	PT	28.3	5.1	12.3	5.5	50.4	11.6	25.0	4.3	(↓↓)
	CY	47.3	13.6	26.7 (u)	3.5	49.2	12.3 (u)	22.6	4.0	(↑)
	SK	51.5	7.2	12.1 (u)	7.2	47.3	7.0 (u)	14.0 (u)	6.8	(↓)
	IT	26.4 (b)	8.1 (b)	13.6 (b)	3.3 (b)	45.6	13.9	20.7	3.3	
	EU-27	38.8	12.4	19.5	3.1	45.2	15.2	22.9	3.0	(↔)
	MT	43.0	13.4	(u)	3.2	44.5	13.0	30.1	3.4	(↑)
	CZ	45.9	5.6	11.8 (u)	8.2	43.1	10.3	22.8	4.2	(↓↓)
	SI	43.6	16.5	22.1	2.6	42.9	16.4	25.5	2.6	(↔)
	BE	41.9	11.8	23.2	3.6	42.2 (b)	10.6 (b)	21.0 (b)	4.0 (b)	
	ES	32.3	12.9	20.7	2.5	40.5 (b)	17.9	28.4	2.3	(↓)
Employed participation (55% and more	SE	78.0	38.0	47.4	2.1	75.2	30.9	43.4	2.4	(↑)
	NL	50.7 (b)	21.2 (b)	39.3 (bu)	2.4 (b)	66.0	24.8	38.6 (u)	2.7	
	NO	58.1	18.9	33.0 (u)	3.1	64.9	19.9	48.4 (u)	3.3	(↑)
	DK	42.5	15.2	(u)	2.8	59.7	27.2	41.4	2.2	(↓↓)
	EE	47.7	11.1	16.3 (u)	4.3	56.7	17.6	32.8	3.2	(↓↓)
	FR	39.4 (b)	10.0 (b)	22.5 (b)	3.9 (b)	56.4	21.1	35.7	2.7	
	DE	51.6	21.5	25.9	2.4	55.8	25.9	26.9	2.2	(↓)

		AES-2007				AES-2011				Difference in 2007 and 2011 ratios
		Employed	Inactive	Unemp-loyed	Ratio employed/ inactive	Employed	Inactive	Unemp-loyed	Ratio employed/ inactive	
Data (partly) not available	LU					77.5 (b)	35.5	42.1 (u)	2.2	
	FI	59.5	26.9	31.3	2.2	60.6	26.1	28.1	2.3	(↔)
	BG	49.3	4.2 (u)	6.3 (u)	11.7	37.3	(u)	3.8 (u)		
	RO	6.6	0.6 (u)	(u)	11.0	9.4	(u)	6.0 (u)		
	IE									

NB: Dispersion of reference periods (12 month): the AES-2007 reference period started in 2004 for SE, UK; in 2005: FR, IT, CY, LT, HU, PL, FI; in 2006 for DE, EE, EL, ES, HR, LV, AT, SI, SK and NO; in 2007 for BE, CZ, NL (missing: DK, PT, RO); AES-2011 reference period started in 2010 for BE, BG, CZ, EE, ES, LV, AT, PT, RO, SI, SK; in 2011 for DK, DE, EL, FR, IT, CY, LT, LU, HU, MT, NL, PL, SE, PL (missing: IE, FI, UK).

(↓) = decrease in ratio between 0.2 and 0.5 points; (↓↓) = decrease in ratio by 0.5 points or more; (↑) = increase in ratio 0.2 up to 0.5; (↔) = no change, change smaller than ± 0.2 points of the ratio; (b) = break in time series; (u) = low reliability.

Source: Eurostat, AES and dissemination database (accessed 15.11.2013).

Box A1. **Code used for calculating participation rates in job-related and employer-sponsored NFE**

```
Programme for AES-2007
(CASE WHEN (INDEX(NFERAN1,'G') > 0 OR NFEPURP1 = 1)
                        OR (INDEX(NFERAN2,'G') > 0 OR NFEPURP2 = 1)
                        OR (INDEX(NFERAN3,'G') > 0 OR NFEPURP3 = 1) THEN
'JOB_NFE'
                ELSE "0" END)  as TYPTRAI,
(CASE WHEN (INDEX(NFERAN1,'G') > 0 or (NFEPURP1=1 and (NFEWRK_HR1 in
(1,2) or (NFEEMSUPS1 in (1,2) or NFEEMSUPG1 in (1,2)) or (STAPRO in (1,2) and
(NFEHOUSS1 in (1,2) or NFEHOUSG1 in (1,2) ))))
                        or (INDEX(NFERAN2,'G') > 0 or (NFEPURP2=1 and
(NFEWRK_HR2 in (1,2) or (NFEEMSUPS2 in (1,2) or NFEEMSUPG2 in (1,2)) or
(STAPRO in (1,2) and (NFEHOUSS2 in (1,2) or NFEHOUSG2 in (1,2) ))))
                        or (INDEX(NFERAN3,'G') > 0 or (NFEPURP3=1 and
(NFEWRK_HR3 in (1,2) or (NFEEMSUPS3 in (1,2) or NFEEMSUPG3 in (1,2)) or
(STAPRO in (1,2) and (NFEHOUSS3 in (1,2) or NFEHOUSG3 in (1,2) ))))
                         THEN 'JOB_NFE_ES'
        ELSE "0" END)  as TYPTRAI,
(CASE WHEN (INDEX(NFERAN1,'G') > 0 or (NFEPURP1=1 and (NFEWRK_HR1 in
(1,2) or (NFEEMSUPS1 in (1,2) or NFEEMSUPG1 in (1,2)) or (STAPRO in (1,2) and
(NFEHOUSS1 in (1,2) or NFEHOUSG1 in (1,2) ))))
                        or (INDEX(NFERAN2,'G') > 0 or (NFEPURP2=1 and
(NFEWRK_HR2 in (1,2) or (NFEEMSUPS2 in (1,2) or NFEEMSUPG2 in (1,2)) or
(STAPRO in (1,2) and (NFEHOUSS2 in (1,2) or NFEHOUSG2 in (1,2) ))))
                        or (INDEX(NFERAN3,'G') > 0 or (NFEPURP3=1 and
(NFEWRK_HR3 in (1,2) or (NFEEMSUPS3 in (1,2) or NFEEMSUPG3 in (1,2)) or
(STAPRO in (1,2) and (NFEHOUSS3 in (1,2) or NFEHOUSG3 in (1,2) ))))
                        THEN "0"
                WHEN (INDEX(NFERAN1,'G') > 0 or NFEPURP1=1)
                        or (INDEX(NFERAN2,'G') > 0 or NFEPURP2=1)
                        or (INDEX(NFERAN3,'G') > 0 or NFEPURP3=1) THEN
'JOB_NFE_NES'
        ELSE "0" END)  as TYPTRAI

Programme for AES-2011

(CASE WHEN NFERAND1_TYPE=3 or (NFEPURP1=1 and (NFEWORKTIME1 in
(1,2) or NFEPAIDBY1_1=1 or (JOBSTAT in (11,12) and  NFEPAIDBY1_5=1))) THEN
1 ELSE 0 END) AS EMPSPON_NFE1,
(CASE WHEN NFERAND2_TYPE=3 or (NFEPURP2=1 and (NFEWORKTIME2 in
(1,2) or NFEPAIDBY2_1=1 or (JOBSTAT in (11,12) and  NFEPAIDBY2_5=1))) THEN
calculated EMPSPON_NFE1 + 1 ELSE calculated EMPSPON_NFE1 END) AS
EMPSPON_NFE2,
(CASE WHEN NFERAND3_TYPE=3 or (NFEPURP3=1 and (NFEWORKTIME3 in
(1,2) or NFEPAIDBY3_1=1 or (JOBSTAT in (11,12) and  NFEPAIDBY3_5=1))) THEN
calculated EMPSPON_NFE2 + 1 ELSE calculated EMPSPON_NFE2 END) AS
EMPSPON_NFE
```

Source: Provided by Eurostat on request of Cedefop.

Table A12. **Participation rates in FED by gender; AES-2011 versus AES-2007; countries ordered by change in total participation rates and further by female participation rate in 2011**

		AES-2007			AES-2011			Difference in 2007 and 2011 ratios
		Male	Female	Ratio F/M	Male	Female	Ratio F/M	
Decline in total participation rates: more than 10%	NO	8.3	11.6	1.4	6.8	8.3	1.2	(↓)
	BE	12.0	13.0	1.1	7.1 (b)	7.7 (b)	1.1 (b)	
	LV	3.0 (u)	7.7	2.6	4.0	4.6	1.2	(↓↓)
	MT	4.8 (u)	5.6 (u)	1.2	4.2	4.6	1.1	(↔)
	LT	5.2	7.2	1.4	3.5 (u)	4.4	1.3	(↔)
	DE	6.1	4.2	0.7	4.3	3.3	0.8	(↔)
	FR	5.6 (b)	4.6 (b)	0.8 (b)	3.2	3.8	1.2	
	IT	3.9 (b)	5.0 (b)	1.3 (b)	2.6	3.2	1.2	(↔)
	BG	2.3 (u)	3.1	1.3	2.6	2.1	0.8	(↓); (r)
	SI	7.7	9.7	1.3	1.9	2.6	1.4	(↔)
	RO	2.9	3.7	1.3	1.1 (u)	1.6	1.5	(↑)
Stable change: ± 10%	UK	12.3 (b)	17.8 (b)	1.4 (b)	13.7	15.8	1.2	
	SE	9.6	16.0	1.7	10.9	16.1	1.5	(↓)
	EU 28	6.1	7.0	1.1	5.8	6.7	1.2	(↔)
	SK	4.1	8.0	2.0	3.9	7.6	1.9	(↔)
	PL	4.8	6.2	1.3	4.5	6.2	1.4	(↔)
	CZ	3.4	4.3	1.3	3.4	3.9	1.1	(↔)
Increase in total participation rates: more than 10%	DK	9.4	10.9	1.2	10.4	14.8	1.4	(↑)
	FI	8.2	9.2	1.5	9.2	14.8	1.6	(↔)
	NL	7.1 (b)	6.4 (b)	0.9 (b)	10.9	13.7	1.3	
	PT	6.0	7.0	1.2	10.0	10.9	1.1	(↔)
	ES	5.5	6.4	1.2	6.5	7.5	1.2	(↔)
	EE	2.8 (u)	6.9	2.5	5.3	7.8	1.5	(↓↓)
	HU	2.0 (b)	3.0 (b)	1.5 (b)	6.3	6.0	1.1	
	AT	4.4	3.9	0.9	5.7	6.1	1.1	(↔); (r)
	CY	3.8 (u)	2.0 (u)	0.5	3.8 (u)	3.7 (u)	1.0	(↓)
	EL	2.3	2.3	1.0	2.7	2.6	1.0	(↔)
Data (partly) not available	LU				10.7	9.1	0.9	
	IE				6.3 (b)	7.0 (b)	1.1	

NB: Dispersion of reference periods (12 month) the AES-2007 reference period started in 2004 for SE, UK; in 2005 for FR, IT, CY, LT, HU, PL, FI; in 2006 for DE, EE, EL, ES, HR, LV, AT, SI, SK and NO; in 2007 for BE, CZ, NL (missing: DK, PT, RO); the AES-2011 reference period started in 2010 for BE, BG, CZ, EE, ES, LV, AT, PT, RO, SI, SK; in 2011 for DK, DE, EL, FR, IT, CY, LT, LU, HU, MT, NL, PL, SE, PL (missing: IE, FI, UK).

(↓) = decrease in ratio between 0.2 and 0.5 points; (↓↓) = decrease in ratio by 0.5 points or more; (↑) = increase in ratio 0.2 up to 0.5; (↔) = no change, change smaller than ± 0.2 points of the ratio; (b) = break in time series; (r) = inequalities reversed; (u) = low reliability.

Source: Eurostat, AES and dissemination database (accessed 7.1.2013).

Table A13. **Participation rates in job-related employer-sponsored NFE of employed (25-64 year-olds); AES-2011; in %**

	Total	Male	Female	ISCED0_2	ISCED3_4	ISCED5_6	ISCO1-3	ISCO4-5	ISCO6-8	ISCO9	25-34	35-44	45-54	55-64
EU	37.1	36.8	37.5	23.3	33.8	50.5	49.3	33.3	25.3	18.8	37.5	37.6	38.2	33.3
BE (b)	37.3	35.9	39.0	16.4	29.2	55.3	52.0	29.8	18.4	12.1	41.2	38.6	35.6	29.6
BG	34.7	35.4	33.9	32.2	32.5	39.4	37.4	30.6	35.7	31.7	34.4	34.8	36.4	31.8
CZ	36.1	35.2	37.4	19.6	33.4	52.6	49.5	32.8	28.5	10.0	37.8	37.0	35.5	31.9
DK	53.7	50.6	57.2	35.2	49.0	68.1	57.4	52.4	42.3	43.0	51.7	59.2	52.2	50.1
DE	47.7	48.9	46.2	25.4	42.2	63.2	62.2	41.5	35.4	20.8	49.4	47.6	48.3	44.7
EE	48.2	44.6	51.4	26.4	38.3	62.2	62.6	45.5	29.2	18.9	55.8	47.3	45.6	41.0
IE (b)	9.5	8.9	10.2	10.3	4.9	12.7	12.3	8.4	6.9	7.3	9.8	7.8	10.2	11.8
EL	7.7	6.4	9.8	2.8	4.5	16.2	13.6	7.2	2.6	2.5	8.2	9.6	6.3	5.0
ES	32.6	33.9	31.0	21.6	31.2	43.5	42.1	28.7	27.5	16.2	33.4	33.8	34.3	24.6
FR	46.7	48.0	45.3	27.6	44.7	61.0	59.8	41.2	34.8	28.6	51.9	49.5	46.1	34.2
IT	32.6	33.5	31.2	20.6	35.0	48.7	46.2	27.1	23.7	14.4	29.7	33.5	35.2	28.5
CY	38.2	38.8	37.5	15.4	32.1	52.8	56.4	33.5	25.2	9.3	38.0	40.3	38.1	34.5
LV	28.3	23.7	32.7	9.5	20.4	43.3	43.5	21.5	15.1	8.3	28.5	30.0	27.2	26.7
LT	28.9	24.1	33.3	8.6	14.7	47.2	48.1	13.2	10.1	4.6	28.8	28.6	30.4	26.5
LU	60.4	65.9	54.3	55.1	59.6	64.2	63.9	56.7	55.6	27.2	61.8	60.9	61.0	53.2
HU	43.2	43.8	42.6	41.4	41.6	47.6	46.6	39.2	44.1	39.4	44.9	44.3	42.7	38.1
MT	37.8	34.9	42.8	25.1	44.8	62.0	53.2	35.3	19.0	12.1	37.8	44.8	36.3	26.4
NL	59.8	60.5	58.9	38.2	58.4	72.8	69.8	51.6	48.5	22.8	64.0	61.3	60.3	47.2
AT	39.6	40.7	38.3	28.0	37.7	53.4	48.8	37.2	30.6	10.8	36.9	39.5	41.8	39.8
PL	23.4	21.8	25.4	6.4	16.1	41.0	39.7	17.7	12.3	8.9	25.8	24.5	21.1	19.4
PT	41.4	41.1	41.9	32.5	49.6	59.1	54.0	45.7	31.4	22.2	47.5	44.8	37.8	28.8
RO	6.7	6.4	7.1	1.7	5.3	15.4	14.2	5.5	3.9	1.8	7.6	6.6	6.3	5.3
SI	33.4	31.5	35.7	13.6	28.7	52.5	48.6	34.1	19.6	11.7	31.2	32.4	35.8	36.4
SK	42.8	42.1	43.5	29.6	40.9	55.1	52.7	35.2	36.2	24.2	42.2	43.9	45.0	37.1
FI	53.2	46.8	60.2	37.0	46.7	65.3	64.8	51.6	36.3	30.4	54.6	59.4	54.1	42.8
SE	67.0	63.3	71.2	47.8	63.5	78.9	79.2	63.1	48.0	37.1	64.5	70.2	68.3	63.7
UK	25.5	22.9	28.5	17.1	23.1	31.0	29.9	26.1	12.8	17.3	26.3	24.1	26.5	25.5
NO	60.8	58.8	63.0	49.0	63.8	70.9	70.8	53.9	46.4	27.0	(m)	(m)	(m)	(m)

NB: (b) data not fully comparable; (m) data missing.

Source: Eurostat , AES-2011 micro data set; own calculations.

Table A14. **Participation rates in job-related employer-sponsored NFE of employed (25-64 year-olds); AES-2007; in %**

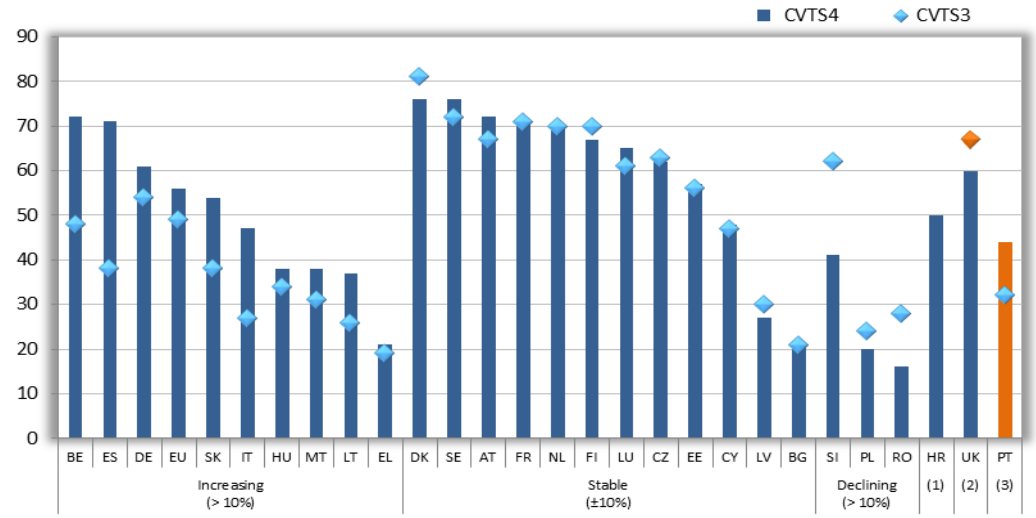
	Total	Male	Female	ISCED0_2	ISCED3_4	ISCED5_6	25-34	35-44	45-54	55-64
EU	31.0	30.7	31.3	16.0	30.2	44.3	32.0	31.7	30.9	27.3
BE	35.7	36.7	34.7	16.9	30.8	51.8	41.2	37.1	32.2	29.4
BG	47.1	47.4	46.7	34.4	48.1	51.4	49.3	46.3	46.9	44.6
CZ	42.3	45.1	38.8	26.5	40.8	57.5	40.4	43.5	41.9	44.3
DK	39.7	38.6	40.9	24.6	35.9	55.0	35.2	44.3	42.7	33.4
DE	43.2	45.3	40.6	16.3	42.5	58.2	44.1	46.4	43.2	34.6
EE	42.3	37.3	47.3	21.6	35.4	58.3	48.9	45.5	37.1	35.8
EL	10.9	10.0	12.3	3.1	11.2	20.5	12.9	10.9	11.2	5.8
ES	20.6	21.3	19.6	12.3	21.2	30.0	20.8	22.1	21.2	15.0
FR (b)	32.1	33.4	30.6	19.6	30.2	46.4	37.8	32.8	29.7	20.1
IT (b)	14.6	14.2	15.3	6.4	17.6	26.4	13.7	14.9	15.9	12.8
CY	36.3	34.5	38.8	14.0	33.8	53.4	40.4	40.2	33.5	22.7
LV	31.4	25.2	37.9	15.3	24.1	50.9	33.8	36.7	26.6	26.6
LT	33.4	28.4	38.2	13.6	23.3	53.2	33.3	34.2	33.9	30.3
HU (b)	6.3	5.9	6.8	4.5	5.6	9.4	6.8	6.9	5.9	4.8
NL (b)	43.3	43.5	43.1	25.8	40.1	56.5	50.8	42.7	42.8	32.9
AT	36.7	37.9	35.0	14.1	36.0	54.8	33.1	40.4	37.4	29.9
PL	24.1	21.7	27.2	7.3	17.4	47.3	26.8	25.5	21.0	19.6
PT	23.7	23.4	24.1	14.9	36.5	49.8	28.1	23.3	22.7	16.3
RO	4.8	4.5	5.1	1.3	3.5	12.7	5.1	4.7	4.2	5.4
SI	32.5	30.4	35.1	11.3	29.0	49.7	30.1	34.3	34.0	28.1
SK	47.2	47.7	46.8	31.5	45.1	55.1	45.0	49.5	46.7	49.4
FI	50.9	45.3	57.0	34.9	44.0	66.9	51.3	54.2	51.7	43.8
SE	70.2	68.0	72.8	55.3	67.9	84.6	71.0	71.6	72.4	65.2
UK (b)	35.2	34.1	36.6	28.2	37.5	38.5	40.2	32.8	35.8	32.0
NO	53.7	51.3	56.5	42.1	50.7	65.1	55.7	54.5	54.3	49.4

NB: (b) = break in time series.
Reference time for the data differs between countries and the timespan between the two waves is not always four years.

Source: Eurostat, AES-2007 micro data set; own calculations.

A1.5. Annex to Chapter 5

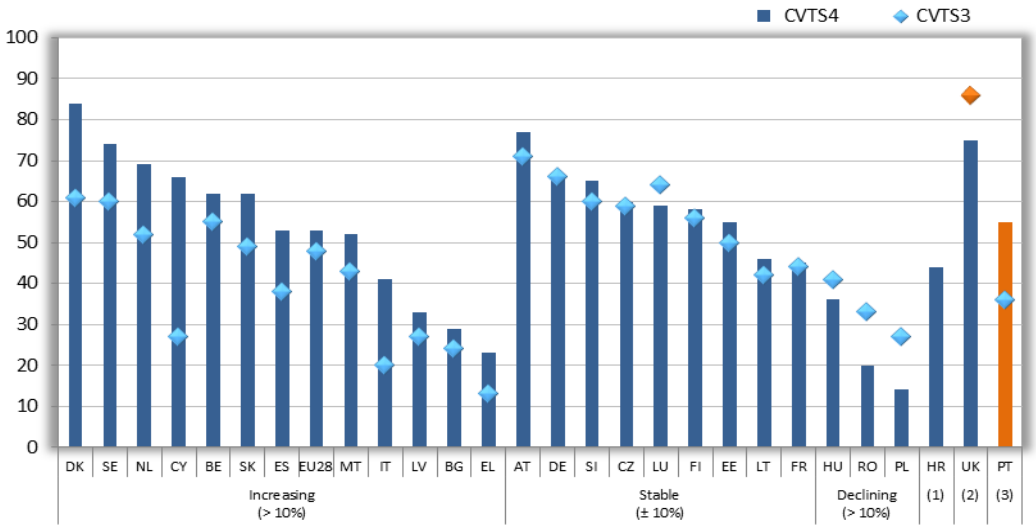
Figure A6. **Training incidence; enterprises providing CVT courses; CVTS4 versus CVTS3**



NB: (1) no information is available for the earlier spot of time;
(2) cross-period comparability is strongly limited;
(3) comparability within one survey is strongly limited.

Source: Eurostat, CVTS and dissemination database (accessed 29.4.2013).

Figure A7. **Training incidence – enterprises providing any type of other form; CVTS4 versus CVTS3**



NB: (4) no information is available for the earlier spot of time;
(5) cross-period comparability is strongly limited;
(6) comparability within one survey is strongly limited.

Name/code of the indicator within source: training enterprises as % of all enterprises, by type of training (trng_cvts02)

Source: Eurostat, CVTS and dissemination database (accessed 29.4.2013).

Table A15. **Enterprises providing any other form of training as % of all enterprises, by form of training; CVTS3**

Country	Any type of other forms of continuing vocational training	Guided on-the job-training in work situation	Conferences, workshops, lectures and seminars	Self-directed learning	Job-rotation, exchanges, secondments, study visits	Learning circles, quality circles
EU-28	48	33	33	13	11	10
BE	55	41	36	17	13	13
BG	24	17	15	5	3	4
CZ	59	42	46	17	4	9
DK	61	30	53	19	14	25
DE	66	48	58	15	9	16
EE	50	31	38	16	15	6
EL	13	6	8	3	3	5
ES	38	26	18	11	10	11
FR	44	29	23	9	10	8
HR	(:)	(:)	(:)	(:)	(:)	(:)
IT	20	11	12	2	5	2
CY	27	19	18	4	8	14
LV	27	9	23	3	3	3
LT	42	18	37	9	1	11
LU	64	44	49	21	14	19
HU	41	18	32	7	3	7
MT	43	31	30	12	10	11
NL	52	31	36	18	9	10
AT	71	32	64	13	19	28
PL	27	17	19	4	4	2
PT	36	22	24	3	4	4
RO	33	19	13	8	12	6
SI	60	28	54	11	5	14
SK	49	32	35	9	3	8
FI	56	35	49	22	11	11
SE	60	34	44	16	29	8
UK	86	75	60	36	27	20
NO	79	60	37	18	33	32

NB: Croatia did not participate in CVTS3. Values for the UK and Norway are not comparable with other countries; (:) = missing data.

Source: Eurostat, CVTS and dissemination database (accessed 29.4.2013).

Table A16. **Training participation; employees participating in courses and other forms, EU averages by size classes (all enterprises); CVTS4 versus CVTS3**

Form of learning	Size class	2005	2010	Change 2010 to 2005 in % points	Change 2010 to 2005 in %
Courses	Total	33	38	5	13
	10-49 employees	21	25	4	16
	50-249 employees	29	34	5	15
	250 and more employees	41	46	5	11
Guided on-the job-training in work situation	Total	16	20	4	20
	10-49 employees	10	14	4	29
	50-249 employees	14	17	3	18
	250 and more employees	21	26	5	19
Conferences, workshops, lectures and seminars	Total	7	8	1	13
	10-49 employees	7	8	1	13
	50-249 employees	6	8	2	25
	250 and more employees	7	9	2	22
Self-directed learning (including e-learning)	Total	5	8	3	38
	10-49 employees	2	3	1	33
	50-249 employees	2	3	1	33
	250 and more employees	9	12	3	25
Job-rotation, exchanges, secondments, study visits	Total	2	2	0	0
	10-49 employees	2	2	0	0
	50-249 employees	2	2	0	0
	250 and more employees	2	3	1	33
Learning circles, quality circles	Total	3	3	0	0
	10-49 employees	2	3	1	33
	50-249 employees	3	3	0	0
	250 and more employees	3	3	0	0

NB: UK data for CVTS3 not comparable. PT data for CVTS4 not comparable.

Source: Eurostat, CVTS and dissemination database (accessed 30.4.2014); own calculation.

Table A17. **Training participation; relative participation rate of employees participating in courses and other forms; EU averages by size classes (all enterprises); CVTS4 versus CVTS3**

Form of learning	Year	10-49 employees	50-249 employees	250 and more employees
Courses	2005	72	100	141
	2010	74	100	135
Guided on-the job-training in work situation	2005	71	100	150
	2010	82	100	153
Conferences, workshops, lectures and seminars	2005	117	100	117
	2010	100	100	113
Self-directed learning (including e-learning)	2005	100	100	450
	2010	100	100	400
Job-rotation, exchanges, secondments, study visits	2005	100	100	100
	2010	100	100	150
Learning circles, quality circles	2005	67	100	100
	2010	100	100	100

NB: UK data for CVTS3 not comparable. PT data for CVTS4 not comparable.

Source: Eurostat, CVTS and dissemination database (accessed date 30.4.2014); own calculation.

Table A18. **Training participation; relative participation rate by size classes of employees participating in guided on-the-job-training (all enterprises); CVTS3**

Country	Participation rate	Relative participation rate (index, 50-249 employees = 100)			Range (Maximum - minimum)
	Total	10-49 employees	50-249 employees	250 and more employees	
EU-28	16	71	100	150	79
BE	21	70	100	145	75
BG	12	73	100	145	73
CZ	32	82	100	106	24
DK	25	42	100	189	147
DE	26	73	100	108	35
EE	16	100	100	185	85
EL	4	50	100	350	300
ES	19	71	100	165	94
IT	7	57	100	143	86
CY	6	86	100	100	14
LV	7	43	100	171	129
LT	11	78	100	178	100
LU	23	208	100	215	115
HU	13	80	100	170	90
MT	17	53	100	193	140
NL	11	82	100	109	27
AT	9	60	100	110	50
PL	15	70	100	210	140
PT	9	70	100	120	50
RO	14	80	100	190	110
SI	20	79	100	186	107
SK	20	119	100	150	50

Country	Participation rate	Relative participation rate (index, 50-249 employees = 100)			Range (Maximum - minimum)
	Total	10-49 employees	50-249 employees	250 and more employees	
FI	16	108	100	167	67
SE	21	60	100	130	70
FR	7	(m)	(m)	(m)	(m)
UK	(m)	(m)	(m)	(m)	(m)
NO	18	117	100	61	56

NB: (m) = missing data.

Croatia did not participate in CVTS3. Values for France for size classes are not available. Values for Norway are not comparable with other countries.

Source: Eurostat, CVTS and dissemination database (accessed 30.4.2013).

1.5.1. Participation rates in any other form

There is no indicator available to sum up the participation in any other form of CVT. To accommodate for this limitation, two approaches are possible and pursued here. First an overview of participation rates is provided with respect to the other forms of learning separately considered; see discussion above. Second, a summary participation rate in other forms of training is targeted and the lower and the upper limits of it are estimated.

Other forms of training can also be considered altogether. Table A19 provides estimates of the lower and upper limit of participation in any of the other forms. The lower limit is estimated at the highest value of the participation rate across the single other forms of CVT: this corresponds to the assumption that all employees having participated in any of these other forms also participated in the most attended form (100% multiple participation). The upper limit is estimated as the sum of participation rates across all other forms of CVT, up to the logically possible maximum value of 100%: this corresponds to the assumption that any employee participated in one and only one other form of training (no multiple participation).

Table A19. **Training participation; employees participating in courses (all enterprises) and minimum and maximum estimated participation rate for all other forms; CVTS4 versus CVTS3**

Country	2010			2005		
	Participation in courses	Participation in other forms – estimates (a)		Participation in courses	Participation in other forms – estimates (a)	
		Minimum	Maximum		Minimum	Maximum
EU-28	38	20	41	33	16	33
BE	52	21	40	40	21	44
BG	22	20	38	15	12	18
CZ	61	31	52	59	32	52
DK	37	20	54	35	38	87
DE	39	28	60	30	26	54
EE	31	14	34	24	16	31
EL	16	6	15	14	4	9
ES	48	20	39	33	19	38
FR	45	14	23	46	7	13
HR	23	15	32	(m)	(m)	(m)
IT	36	11	29	29	7	19
CY	37	18	49	30	6	17
LV	24	21	31	15	7	15
LT	19	25	57	15	11	29
LU	51	20	50	49	23	49
HU	19	12	28	16	13	26
MT	36	15	33	32	17	35
NL	39	14	38	34	11	27
AT	33	14	45	33	9	27
PL	31	11	20	21	15	23
PT	40 (b)	20 (b)	38 (b)	28	9	17
RO	18	10	21	17	14	23
SI	43	31	70	50	20	46
SK	44	21	50	38	20	34
FI	40	12	40	39	16	33
SE	47	24	57	46	21	57
UK	31	30	54	33 (b)	(m)	(m)

NB: UK data for CVTS3 not comparable. PT data for CVTS4 not comparable. Due to multiple participation of employees in the different types of other forms, it is not possible to calculate the general participation rate for the other forms. Only minimum and maximum participation rates can be estimated, which range logically between the highest value for a single other form to the summation of all participation rates for the other forms, up to the logically possible maximum value of 100%.

(a) = own calculation; (b) = break in time series; (m) = missing data.

Source: Eurostat, CVTS and dissemination database (accessed 30.4.2014); own calculation.

Even with this indicator, main results are confirmed. In addition, it is possible to appreciate better the importance of the other forms of training when considered altogether (Table A19): when courses are contrasted against other forms considered altogether, at the general EU level, no statement is possible regarding preponderance of participation in courses or other forms of learning. Nevertheless, it is possible to confirm that other forms of training play an

important role, beyond courses. For seven countries participation rates in courses are higher than in other forms taken together ([1]) (Belgium, Czech Republic, Spain, France, Italy, Malta, Poland). For four countries, the participation rate in courses is about the same as the upper estimate of participation in other forms (Greece, Luxembourg, the Netherlands and Finland); with a high probability course participation will exceed the 'real' participation in other forms. Lithuania and the UK are the only countries reporting higher participation rates in other forms than in courses, as the lower estimate of participation in other forms is at the same level or exceeds course participation. In the other countries, the data are insufficient to indicate whether workers predominately take courses or engage in other forms of learning. Overall, participation in employer-financed CVT in forms other than courses, according to the answers given by employers, involves a smaller part of employees than employer-financed courses in many countries. But this part is not negligible and plays an important role.

Increasing participation in courses was mostly not at the expense of participation in other forms of learning: in those countries with increasing participation in courses, the participation rate in other forms also increased or remained stable, except Poland where participation in other forms decreased by more than 10% ([2]). Countries with stable participation rates in courses mostly had stable participation in other forms of CVT. The exceptions are France and Austria, where stable participation in courses was accompanied by increasing participation in other forms, as well as Denmark and Romania, which had stable course participation and a decrease in estimated participation in other forms. Slovenia is the only country displaying a remarkable decrease of participation in courses, accompanied by a strong increase of participation in other forms of CVT.

There is a general trend of participation rates increasing with size class of the enterprise not only for participation in courses, but for participation in other forms of CVT, too. The magnitude of the differences according to size class, however, varies across countries and across type of training. In six countries (Belgium, Czech Republic, Spain, France, Italy and Poland), participation in courses is higher than participation in other forms – even when they are considered altogether – in all size classes. In some countries, small enterprises

(1) In these countries, participation in courses exceeds the maximum estimate of participation in other forms.

([2]) No other country combines an increase in course participation of 10% or more with a decrease of both estimates of participation in other forms of CVT of 10% or more.

have higher participation in other forms of CVT, while big enterprises predominately have participation in courses (e.g. Bulgaria and Latvia). No coherent picture emerges – which might be related to the weak indicator on participation in any other form of CVT that estimates only upper and lower limits.

Table A20. **Training participation; employees participating in courses (all enterprises) and minimum and maximum estimated participation rate for all other forms by size classes; CVTS4**

	10-49 employees			50-249 employees			250 and more employees		
	Participation in courses	Participation in other forms – estimates (a)		Participation in courses	Participation in other forms – estimates (a)		Participation in courses	Participation in other forms – estimates (a)	
		Minimum	Maximum		Minimum	Maximum		Minimum	Maximum
EU-28	25	14	30	34	17	33	46	26	53
BE	34	12	30	51	17	33	61	29	54
BG	8	13	22	16	20	31	44	28	60
CZ	46	26	45	60	31	49	70	34	60
DK	36	17	40	40	17	48	37	23	65
DE	28	20	43	35	21	42	44	32	70
EE	22	12	34	31	14	35	41	15	36
EL	7	3	9	11	5	10	31	10	22
ES	35	17	31	45	19	34	61	22	47
FR	27	8	20	42	13	19	56	18	26
HR	19	10	23	19	9	20	27	21	43
IT	21	8	19	32	10	22	54	19	43
CY	24	15	42	31	19	44	61	29	67
LV	14	16	24	22	20	31	39	29	43
LT	11	9	26	17	12	33	28	53	100
LU	34	15	44	44	17	41	69	25	63
HU	11	9	18	15	9	19	28	18	41
MT	15	13	33	33	17	35	60	16	31
NL	29	12	34	35	11	29	45	17	43
AT	26	15	39	33	15	46	38	14	51
PL	9	3	5	21	7	13	48	18	32
PT(b)	27	19	34	42	19	32	52	22	46
RO	6	4	11	11	7	15	28	15	29
SI	24	20	45	36	33	71	60	41	87
SK	28	16	46	44	19	44	54	27	57
FI	32	11	30	32	10	29	48	15	53
SE	40	22	58	48	24	59	53	27	54
UK	25	22	48	28	27	48	33	33	59

NB: PT data for CVTS4 not comparable.

Due to multiple participation of employees in the different types of other forms, it is not possible to calculate the general participation rate for the other forms. Only minimum and maximum participation rates can be estimated; the range lays logically between the highest value for a single other form of learning to the sum of all participation rates for the other forms, up to the logically possible maximum value of 100%.

(a) own calculation; (b) = break in time series.

Source: Eurostat, CVTS and dissemination database (accessed 25.4.2014); own calculation.

Table A21. **Detailed tables on the skills considered as important (A12)**

	General IT skills				IT professional skills				Management skills				Team working skills				Customer handling skills				Problem solving skills			
	A12a				A12b				A12c				A12d				A12e				A12f			
	10-49	50-249	250+	ALL	10-49	50-249	250+	ALL	10-49	50-249	250+	ALL	10-49	50-249	250+	ALL	10-49	50-249	250+	ALL	10-49	50-249	250+	ALL
AT	50	71	76	54	28	48	57	31	53	67	82	56	85	90	89	86	80	85	91	81	68	74	80	69
BE	45	54	65	47	10	14	23	11	22	40	70	27	55	57	70	56	56	61	73	57	49	56	66	51
BG	60	70	73	62	25	41	56	28	34	59	77	39	84	88	92	84	76	77	74	76	65	74	80	67
CY	51	66	68	54	34	42	57	36	58	70	80	60	84	85	94	84	86	85	96	86	74	82	85	76
CZ	26	35	44	28	12	18	25	13	28	46	62	32	44	51	61	45	58	64	67	60	27	35	41	29
DE	52	67	70	56	9	18	22	11	28	48	80	35	79	77	80	78	75	79	84	76	58	63	74	60
EE	57	60	67	57	29	36	57	31	41	62	79	45	67	80	88	69	58	67	71	60	61	71	80	63
ES	46	58	63	47	21	32	40	23	24	42	60	27	59	68	78	61	59	59	63	59	46	53	63	47
FI	49	53	60	50	21	30	48	24	53	73	79	58	67	65	63	66	67	77	81	69	60	58	55	60
FR	36	44	52	37	28	37	47	30	45	70	91	49	54	62	80	56	53	63	73	55	53	51	62	53
EL	44	53	53	45	29	42	54	31	32	50	65	34	56	61	70	57	72	67	70	71	53	57	70	54
HR	58	73	80	61	11	19	32	13	44	68	79	49	74	78	80	75	59	64	74	60	59	67	74	60
HU	23	35	43	25	17	27	36	19	10	26	59	13	41	51	56	43	30	35	42	31	39	52	66	41
IT	48	50	46	48	28	30	29	28	37	53	62	39	43	46	43	43	50	49	46	50	42	47	45	43
LT	54	55	52	54	27	31	38	28	46	60	73	49	66	72	75	67	68	67	71	68	57	65	73	59
LU	51	56	70	52	15	20	32	16	31	39	53	33	72	68	73	71	66	62	82	66	56	56	63	57
LV	22	29	41	23	15	23	34	17	20	34	48	23	17	24	26	18	46	51	59	47	29	39	44	30
MT	49	60	71	52	18	23	49	20	43	64	84	48	73	79	70	74	73	73	74	73	53	63	69	55
NL	31	37	47	33	11	15	22	12	34	51	73	39	38	43	53	40	56	65	77	58	37	43	50	39
PL	15	18	23	16	9	18	34	11	19	36	61	23	32	37	51	33	45	48	57	46	19	25	39	20
PT	41	55	64	44	29	45	57	31	41	59	74	44	69	74	83	70	52	57	64	53	49	54	63	50
RO	18	27	34	20	16	17	29	17	37	47	57	39	67	71	78	68	56	51	55	55	45	54	64	48
SE	39	44	39	39	28	28	35	28	38	68	83	43	34	42	48	35	51	57	65	52	42	39	52	42
SI	68	79	87	70	17	27	42	20	58	82	94	63	82	89	93	83	78	83	87	79	75	85	88	77
SK	58	70	77	60	33	40	58	35	61	77	91	65	59	68	85	61	74	76	81	75	69	80	85	72
UK	61	70	76	63	27	35	51	29	65	82	93	68	80	88	91	81	80	86	88	81	70	78	83	71
EU-28	44	53	58	46	21	27	36	23	38	56	76	42	59	66	74	61	61	66	73	62	50	56	65	52

	Office administration skills				Foreign language skills				Technical, practical or job-specific skills				Oral or written communication skills				Numeracy and/or literacy skills				Other			
	A12g				A12h				A12i				A12j				A12k				A12l			
	10-49	50-249	250+	ALL	10-49	50-249	250+	ALL	10-49	50-249	250+	ALL	10-49	50-249	250+	ALL	10-49	50-249	250+	ALL	10-49	50-249	250+	ALL
AT	50	49	39	49	46	57	65	48	66	67	79	67	65	72	82	66	50	47	44	50	18	19	17	18
BE	25	27	34	26	26	32	46	28	64	74	83	66	29	31	41	30	12	8	8	11	0	0	0	0
BG	42	59	56	45	32	48	61	35	80	86	94	81	53	59	58	54	61	59	49	60	0	1	0	0
CY	44	55	64	46	36	47	53	38	66	70	82	67	40	52	62	42	27	33	38	28	0	1	0	1
CZ	24	26	24	24	22	44	58	27	55	61	67	56	23	30	43	25	10	9	7	10	2	1	1	2
DE	40	48	42	42	17	33	47	22	66	67	68	67	40	41	43	41	29	28	31	29	12	11	21	12
EE	40	53	67	43	52	60	74	54	64	76	86	66	30	34	42	31	34	32	27	33	2	1	1	2
ES	38	41	36	38	26	44	55	28	55	70	78	57	14	22	36	15	9	10	12	9	2	2	4	2
FI	35	40	28	36	29	35	42	30	63	68	62	64	32	37	35	33	22	21	19	22	1	1	0	1
FR	43	44	46	44	24	37	55	27	74	88	93	76	26	30	48	28	26	25	31	26	8	2	1	7
EL	21	32	30	23	30	37	38	31	52	62	72	53	19	28	27	21	9	12	10	9	0	0	1	0
HR	49	62	61	51	42	55	61	45	62	70	79	64	18	28	35	20	24	28	28	24	4	3	1	4
HU	12	16	14	12	23	38	59	26	33	43	57	35	14	23	30	16	8	7	5	8	4	3	1	4
IT	34	32	26	34	25	33	29	26	36	38	36	36	25	24	25	25	17	16	12	17	5	3	1	4
LT	36	43	43	37	37	45	48	39	43	55	71	46	30	32	36	31	26	28	22	26	1	1	0	1
LU	33	31	45	33	45	55	64	47	61	72	86	64	38	40	53	39	23	16	18	22	1	0	2	1
LV	12	16	11	12	24	30	38	26	48	56	68	50	22	26	35	23	0	0	0	0	5	6	6	5
MT	44	43	46	44	23	32	36	25	56	58	80	57	41	44	60	42	35	36	54	36	3	1	0	2
NL	22	24	28	23	14	15	19	14	49	57	64	51	26	25	45	26	12	11	17	12	2	1	1	2
PL	15	18	19	15	13	23	39	16	49	57	68	51	4	4	3	4	2	2	2	2	4	2	1	3
PT	34	37	41	35	26	42	52	28	57	70	79	59	19	22	30	20	9	10	13	9	5	2	1	4
RO	19	24	26	20	15	20	32	17	66	71	81	67	15	20	29	16	3	4	4	4	0	0	0	0
SE	21	22	16	21	15	17	22	15	51	55	63	52	27	28	42	28	12	9	10	11	2	2	0	2
SI	56	57	48	56	55	68	81	58	65	81	85	68	36	41	43	37	43	40	32	42	2	0	0	2
SK	57	63	62	58	47	61	74	50	73	83	86	75	64	67	76	65	39	38	31	38	1	1	0	1
UK	53	55	62	54	10	16	23	11	78	88	92	80	55	67	77	57	55	61	66	56	0	0	0	0
EU-28	36	40	39	37	22	32	43	24	59	68	74	61	30	35	44	31	24	24	27	24	5	4	6	5

Source: CVTS, extraction by Eurostat on request of Cedefop (December 2013); own calculations.

Table A22. **Detailed tables on skills targeted by the courses (C5)**

	General IT skills				IT professional skills				Management skills				Team working skills				Customer handling skills				Problem solving skills			
	C5a				C5b				C5c				C5d				C5e				C5f			
	10-49	50-249	250+	ALL	10-49	50-249	250+	ALL	10-49	50-249	250+	ALL	10-49	50-249	250+	ALL	10-49	50-249	250+	ALL	10-49	50-249	250+	ALL
AT	31	43	70	35	14	25	49	17	30	53	72	35	36	51	71	40	36	51	67	40	27	39	49	30
BE	29	46	67	35	9	16	32	11	20	40	69	27	20	32	59	24	29	35	59	32	23	28	45	25
BG	16	14	23	16	20	20	40	22	19	27	53	24	35	34	51	36	37	38	44	38	32	38	46	35
CY	19	29	41	22	29	39	54	33	29	50	77	36	42	46	70	44	47	57	72	51	42	49	60	45
CZ	18	30	41	22	14	21	26	16	31	46	60	35	30	41	57	33	43	48	55	45	22	30	39	25
DE	32	47	70	39	7	17	33	11	23	37	79	30	31	34	66	34	48	51	71	50	38	32	54	37
EE	9	19	38	12	16	30	44	20	18	38	65	24	21	37	56	26	28	35	49	31	18	29	37	21
ES	25	38	60	28	11	21	40	13	14	29	58	17	18	31	57	21	21	28	49	23	12	19	39	14
FI	15	32	62	21	16	27	48	20	35	58	88	43	19	28	51	23	33	50	74	38	18	17	34	18
FR	19	34	64	23	18	25	44	20	23	48	90	30	19	34	67	23	24	36	64	28	19	23	52	21
EL	18	29	32	22	24	29	46	27	22	39	55	28	22	42	45	28	45	56	58	48	31	43	51	35
HR	15	24	49	19	8	12	24	9	20	32	54	25	15	23	43	18	19	27	38	22	20	23	35	22
HU	14	19	35	16	19	22	41	21	10	20	53	15	12	17	36	15	16	18	32	17	14	17	37	16
IT	14	18	33	15	19	25	42	21	21	37	67	24	29	38	57	31	30	37	57	31	31	38	53	33
LT	11	14	18	12	13	17	25	15	28	45	57	34	25	34	45	29	29	33	43	31	21	28	38	24
LU	36	55	67	42	17	23	34	19	25	38	62	29	32	36	57	34	33	41	68	37	28	29	43	29
LV	9	14	32	11	13	18	34	15	13	26	46	18	9	14	23	11	22	34	47	27	12	20	34	15
MT	26	37	50	31	21	27	41	24	39	68	71	49	45	59	52	49	49	58	63	52	36	34	48	36
NL	20	27	50	23	10	11	25	11	26	42	72	32	16	26	46	20	34	45	64	38	20	21	35	21
PL	13	19	38	18	11	19	41	17	31	46	74	41	26	33	54	32	33	36	55	37	24	28	46	28
PT	28	41	60	32	24	38	54	28	33	46	67	37	40	43	58	41	36	37	52	37	29	32	44	30
RO	12	17	24	15	13	19	28	16	21	34	44	28	32	43	50	38	38	39	45	39	30	36	48	34
SE	12	25	37	15	21	27	39	23	21	48	75	28	17	28	42	20	28	37	45	30	21	24	33	22
SI	30	47	64	37	16	27	43	21	45	67	80	53	51	56	74	54	50	57	73	53	51	57	71	54
SK	21	29	49	24	25	33	51	28	35	51	72	40	23	40	60	28	38	45	57	40	36	42	62	39
UK	30	34	54	31	12	17	36	14	45	60	82	49	51	62	77	54	53	63	77	56	47	48	65	48
EU-28	23	34	55	26	14	21	38	16	25	43	74	31	28	38	62	31	34	44	63	37	27	31	50	29

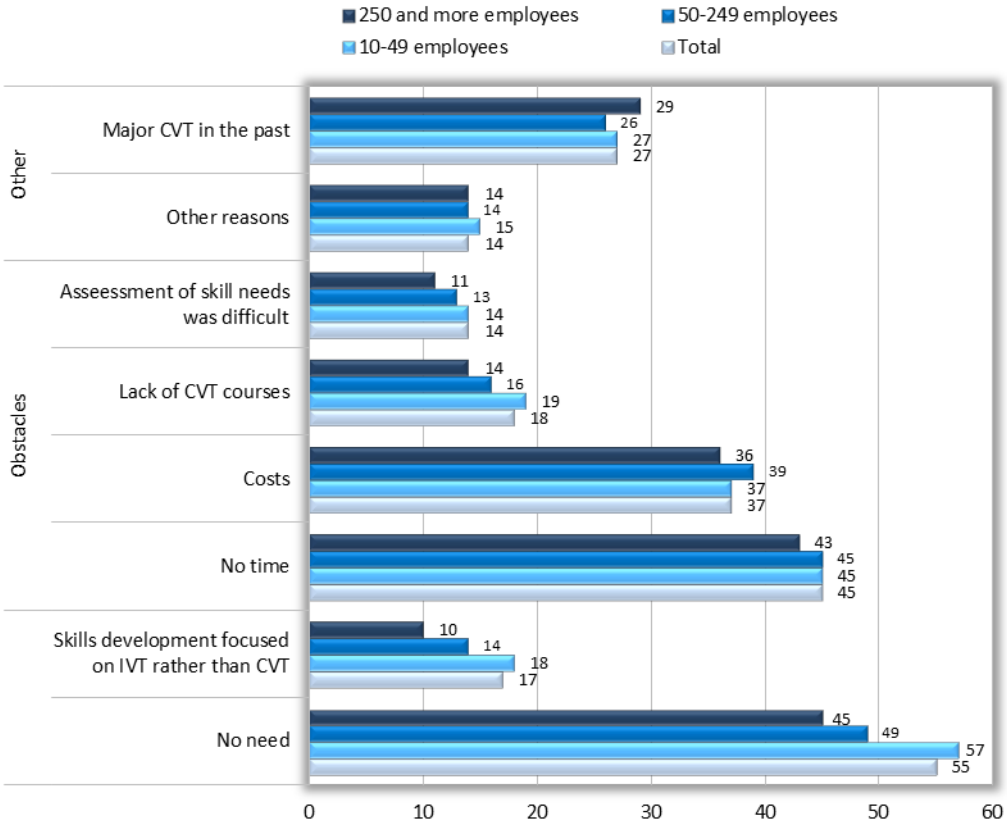
	Office administration skills				Foreign language skills				technical, practical or job-specific skills				Oral or written communication skills				Numeracy and/or literacy skills				Other			
	C5g				C5h				C5i				C5j				C5k				C5l			
	10-49	50-249	250+	ALL	10-49	50-249	250+	ALL	10-49	50-249	250+	ALL	10-49	50-249	250+	ALL	10-49	50-249	250+	ALL	10-49	50-249	250+	ALL
AT	19	24	32	21	12	30	60	17	68	69	82	69	22	39	73	27	6	5	10	6	16	8	4	14
BE	15	20	37	17	13	27	53	18	75	83	89	78	12	18	38	14	2	3	5	3				
BG	20	19	20	20	19	23	37	21	84	87	91	85	17	15	21	17	8	3	6	7	1	0		1
CY	28	32	32	29	5	14	18	8	54	60	80	57	16	20	41	18	5	7	9	6	10	6		9
CZ	26	31	27	27	21	44	60	28	71	76	79	72	16	23	41	19	2	3	3	3	5	3	1	5
DE	31	37	50	34	9	22	54	16	62	69	74	65	8	12	32	11	3	3	14	4	20	27	35	23
EE	9	17	32	12	8	23	49	13	55	67	74	58	4	8	15	5	2	4	5	2	13	5	3	11
ES	19	24	37	20	15	33	57	19	55	69	82	58	4	8	27	5	2	3	10	3	16	16	15	16
FI	31	50	54	37	9	19	52	14	64	72	87	67	6	16	34	10	0	2	9	1	8	2	1	7
FR	28	43	72	33	12	32	66	18	71	83	95	74	10	16	48	12	3	4	17	3	11	5	1	9
EL	15	21	20	16	11	18	32	14	65	73	79	68	7	9	15	8	1	1	1	1	4	3	3	4
HR	19	27	34	21	11	22	44	15	59	63	76	61	9	8	23	9	2	3	5	2	20	13	6	18
HU	8	10	14	9	19	34	63	25	34	45	66	38	6	10	27	8	1	1	1	1	21	15	5	18
IT	20	29	40	22	10	25	47	13	57	61	70	58	7	9	22	8	4	3	4	4	12	8	3	11
LT	49	56	60	51	8	18	20	12	49	66	79	55	6	7	13	7	3	4	4	4	5	2	1	4
LU	19	27	43	22	24	41	63	30	73	81	89	76	17	19	38	19	8	5	11	7	6	5	1	5
LV	4	10	16	6	7	15	24	10	62	72	74	65	6	11	28	9					29	26	31	29
MT	27	19	29	25	7	5	9	7	61	62	78	63	15	27	25	19	9	13	16	11	7	1	4	5
NL	11	21	36	15	5	10	27	7	62	62	72	62	14	19	47	17	4	4	17	4	10	8	3	9
PL	23	32	49	29	12	25	52	21	57	64	80	62	4	3	12	5	3	1	4	2	1	1	2	1
PT	26	34	43	29	14	30	49	19	61	72	84	64	7	11	22	9	3	4	9	4	10	4	2	8
RO	13	14	22	15	8	10	28	11	75	80	86	78	10	11	22	12	1	2	1	1	8	5	1	6
SE	19	27	20	20	3	9	26	5	50	52	64	51	10	12	30	11	1	3	3	2	8	4	2	7
SI	27	34	34	29	18	48	68	30	61	79	87	68	13	20	26	16	7	10	14	8	5	1	1	3
SK	29	38	44	32	25	38	64	30	70	81	86	73	22	31	54	25	5	6	6	5	5	2	1	4
UK	27	35	48	30	5	7	14	6	85	86	90	85	33	38	56	35	27	29	44	29	0	0	1	0
EU-28	24	32	46	27	11	24	47	15	65	72	81	67	12	17	37	14	6	6	15	7	11	10	10	11

Source: Eurostat, CVTS. Extraction by Eurostat on request of Cedefop (December 2013); own calculations.

1.5.2. Obstacles for training enterprises in providing not more training

Enterprises providing training are asked for the reasons why they provide not even more training than they do. For this purpose, training enterprises answer to a set of questions – with one exception – similar to the questions asked to non-training enterprises (Question D1 of the master questionnaire). Results are reported as the trng_cvts38 in the Eurostat data base, which delivers data for 28 European countries.

Figure A8. **Reasons for not providing more training mentioned by training enterprises; EU, according to size classes**



Source: Eurostat, CVTS and dissemination database (accessed 23.9.2014); own calculation.

Figure A8 introduces in the main results of the question on obstacles for more training supported by enterprises with (at least some) training.

As for non-training enterprises, a majority of training-providing enterprises (55%) see no need for more training activities. Small enterprises (57%) supported more often this item than medium (49%) and large ones (45%). Insofar this item can be interpreted as an indication for a dispositional barrier, among

training enterprises, it find substantially less support than among non-training enterprises (55% compared to 77%).

Only a minority (17%) of training-providing enterprises explain the absence of further training activities by a focus on IVET. Small enterprises (18%) support this item more often than large ones (10%).

Among obstacles, 'lack of time' is clearly the item which finds most support. 45% of training-providing enterprises with almost no variation by size support the item. Among training enterprises, time is more often an obstacle considered important than among non-training firms. 'Costs' were put forward as a barrier to more training by roughly a third of enterprises with courses (37%) with no significant variation according to size. 'Costs' are only slightly more often regarded as an obstacle among training-providing enterprises than other enterprises without training.

Only a minority of enterprises with courses report difficulties with need assessment (14%) or the absence of appropriate training opportunities (18%). The items receive nearly identical support by training and non-training enterprises. However, as expressed for the non-training firms, firms may simply be unaware of possible difficulties due to low levels of training activity.

Among training firms, past training activities were considerably often mentioned as a reason for currently not providing more training than reported. 27% of enterprises agreed with the item with little variation according to size. Notably, among training firms, more than twice as much enterprises supported the item in question than among non-training firms (12%).

Although hard comparison over time is not fully feasible, a summary meta-analysis is possible. When looking solely at the three main reasons in 2005 and 2010 for not providing more CVT courses, the results mostly remain quite stable in cross-country and cross-time comparison.

Table A23. **Reasons for not providing more training mentioned by training enterprises in 2005 and in 2010**

2005	2010
'No need' (which is in 25 out of 27 countries one of the three main reasons)	'Too expensive' (which is in 24 out of 26 countries one of the most often mentioned reasons)
'No time' (which is in 25 out of 27 countries one of the three main reasons)	'No need' (which is in 24 out of 26 countries one of the most often mentioned reasons)
'Too expensive' (which is in 21 out of 27 countries one of the three main reasons)	'No time' (which is in 23 out of 26 countries one of the three most often mentioned reasons)

Source: Eurostat, CVTS and dissemination database (accessed 30.4.2014); own calculation.

In 2005, the three main and most frequently mentioned reasons in training enterprises for not providing training are identical to those in 2010, although the order of reasons has changed. Especially, compared to other reasons, an increasing number of respondents noted a financial issue. This might be explainable by the more difficult economic situation in 2010 after the crisis in many countries, although the crisis has affected European countries very differently.

When taking an analytical look at these three main reasons, it is challenging that enterprises' representatives frequently mention 'no need for training' as a main reason for not providing more training. This poses questions on the political and scholarly claim for an increased need to provide more continuing training in a knowledge society. This result could easily be interpreted as an indication that many enterprises' representatives, particularly in small enterprises, are not aware of the need for training and/or of its benefits for their enterprises, which may go beyond the satisfaction of short-term needs and be related to wider medium – long-term developments. If this interpretation is correct, it would suggest a need for more awareness campaigns and/or more efforts to improve the benefits of training for enterprises (Behringer and Käpplinger, 2008). A different interpretation is also possible and compatible with the previous one: part of the employers do not perceive that their enterprises or some jobs in them require more and more skills and therefore think they do not need much more training (Abel et al., 2009), despite the general macro-economic trend towards an increasing need for higher skills in economically developed countries. Analysis of the benefits of continuing vocational training are often based on macro-economic analyses and perhaps these analyses are valid in terms of averages and aggregates, but not valid for each field of work and for each country. This would suggest a need for more detailed and differentiated analysis of the national fields of works and the specific needs for continuing training beyond general trends. Finally, the result could be an artefact, meaning that the respondents choose this answer option as an easy answer, which avoids admitting that enterprises do not do enough. It is not possible to go beyond these three hypothesis here, but the relatively dominance of these three reasons over time and in cross-country comparison suggest the need for further analysis.

More detailed information about the three reasons and their relative importance compared to other reasons is given in the two following tables for 2010, which display mainly the situation within SMEs since they form the biggest size class in relation to the number of enterprises. Bigger enterprises have only a slim effect on these national averages, because of the small number of big enterprises.

Table A24. **Reasons for not providing more training mentioned by training enterprises; CVTS4 (%)**

	Too expensive		No need		No time		Major training effort realised in a previous year		Rather focus on IVT than on CVT		Lack of suitable CVT courses		Other reasons		Difficult to assess enterprises' needs	
	2010	L/S(*)	2010	L/S(*)	2010	L/S(*)	2010	L/S(*)	2010	L/S(*)	2010	L/S(*)	2010	L/S(*)	2010	L/S(*)
EU-28	37	1	55	12	45	2	27	-2	17	8	18	5	14	1	14	3
BE	24	-9	28	3	41	-7	8	-4	2	1	9	3	1	-4	7	-4
BG	46	0	48	-9	43	-10	16	-4	33	4	19	-11	1	-1	10	-5
CZ	30	-12	44	19	28	-22	15	-9	3	-1	4	-4	9	3	2	-4
DK	28	-21	50	25	45	9	23	2	27	26	14	0	13	2	21	0
DE	30	3	11	1	47	11	17	-5	20	10	12	4	10	-3	2	1
EE	55	-11	13	2	39	-25	9	3	13	2	19	-21	45	-13	10	-5
EL	(:)	(:)	(:)	(:)	(:)	(:)	(:)	(:)	(:)	(:)	(:)	(:)	(:)	(:)	(:)	(:)
ES	48	-9	62	25	56	-5	14	-3	1	2	28	5	33	9	13	-3
FR	48	6	57	22	60	9	40	-2	33	29	22	6	13	-4	31	20
HR	46	1	53	-2	42	-2	25	6	5	1	12	-4	12	0	6	-4
IT	28	7	78	-3	33	4	67	-11	16	11	17	7	19	2	12	1
CY	33	-13	42	2	42	-5	11	-4	18	19	15	2	7	2	7	3
LV	49	1	60	17	36	-17	26	-17	30	9	17	-9	19	-6	15	6
LT	55	-8	52	-16	35	-1	22	-27	7	-2	13	1	8	1	25	3
LU	23	-9	29	-14	34	2	6	-4	6	6	15	5	15	3	7	1
HU	27	-9	61	-6	16	-14	4	-1	7	2	9	-13	7	-4	3	-6
MT	37	-6	59	-18	52	-8	16	-9	7	(:)	18	-2	18	-10	12	-13
NL	36	-5	67	7	39	-9	13	-21	15	5	13	4	13	-1	9	-12
AT	29	6	63	3	47	-2	8	1	11	5	12	1	8	-7	6	-11
PL	38	-2	78	2	13	0	11	4	21	13	9	-1	18	-1	6	0
PT	53	6	60	4	36	6	13	-18	14	4	27	12	25	0	15	4
RO	27	4	41	-8	16	-2	7	-1	2	-2	5	-1	1	-1	2	0
SI	38	-1	52	-7	21	3	29	-5	16	7	9	0	10	1	6	-4
SK	38	-2	67	5	28	-10	27	-4	11	-2	10	-1	12	-3	5	-4
FI	39	-4	45	30	61	7	5	-4	22	13	19	5	11	-5	20	1
SE	19	10	22	5	8	-10	42	-20	7	-3	34	4	19	6	21	9
UK	41	-2	83	4	55	-3	24	-4	21	1	20	2	7	-3	21	0

NB: Elements in grey represents high values. (*) = difference between large enterprises and small enterprises; negative values point to barriers more important for small enterprises; (:) = missing data.

Source: Eurostat, CVTS and dissemination database (accessed 30.4.2014); own calculation.

Table A25 demonstrates the relative dominance of these three reasons in most countries in 2010. Similar results could be observed in 2005 (Table A24). Only some countries depart from this common pattern. Polish and German enterprises stress that they partly focus on initial vocational training (IVT) rather than on continuing vocationl training (CVT). Italian, Slovenian and Swedish enterprises often reported that they had provided much training in previous years. Only Sweden noted that the main obstacle was lack of suitable training. Estonian enterprises often mentioned other reasons.

Overall, lack of financial and time resources beside 'no need' are the main obstacles in most countries. The other obstacles such as a preference for IVT, lack of suitable training offers or problems in assessing the training needs are not totally unimportant, but a clear gap exists between the importance of the three major reasons and other (minor) reasons in most countries. Thus, a relatively high degree of agreement between training enterprises in the countries exists in relation to the major obstacles for not providing more training.

Nonetheless, this is the perspective of representatives of the training enterprises. Surveys on employees' or training providers' perspectives could enrich or even complete the analysis. Perhaps this would also highlight diverging emphases depending on the perspectives of the people asked. For example, training providers or consultants might have a very different perspective on the ability of enterprises to assess training needs. Thus, these provisional results from the available data suggests that public policies should certainly provide financial incentives to pay for fees and buy time for CVT. Beyond reducing the burden of training costs, policies need to change the perceptions of managers responsible for decisions on training. This is especially valid for SMEs. Table A25 uses the EU averages to come back to the issue that the differences between big and small enterprises in perceived obstacles to training are in many respects not that large.

Table A25. **Reasons for not providing more training mentioned by training enterprises; CVTS4 (%); EU averages**

	Too expensive	No need	No time	Major training effort realised in a previous year	Rather focus on IVT than on CVT	Lack of suitable CVT courses	Other reasons	Difficult to assess enterprises' needs
All	37	55	45	27	17	18	14	14
10-49	37	57	45	27	18	19	15	14
500+	36	45	43	29	10	18	14	11

Source: Eurostat, CVTS and dissemination database (accessed 30.4.2014); own calculation.

The figures are almost identical for many of the reasons stated (e.g. too expensive, no time, training in previous years, lack of courses, other reasons), major differences can only be observed in some cases:

(a) the 'no need' reason seems much more valid for small (57%) than for big enterprises (45%);
(b) small enterprises also seem much more focused on IVT than on CVT, because 18% do not train for CVT, but rather for IVT. This is only valid for 10% of big enterprises;
(c) small enterprises have more difficulties in assessing the needs (14% versus 11% in big enterprises). It is reasonable to assume that the last percentage is even higher, because enterprises must acknowledge their own shortcomings, while the other possible answers point to external causes or to a general (and socially more accepted) lack of resources.

The research literature (Backes-Gellner, 2005) has for many years pointed out that SMEs especially lack professional staff in assessing, planning and organising training because this is often part of general leadership within small enterprises; however, bigger enterprises have more resources to invest in professionalised and specialised staff. This is one traditional reason in explaining the lower participation in CVT by SMEs.

Table A26. **Reasons having an influence on the scope of training enterprise's CVT activities; CVTS3 (%)**

	No need	No time	Too expensive	Other reasons	Lack of suitable CVT courses	Mayor training effort realised in a previous year	Difficult to assess enterprises needs	Either focus on IVT than CVT
EU-28	42	52	36	22	22	14	13	15
BE	39	70	46	26	28	14	17	11
BG	50	65	47	32	28	9	13	27
CZ	65	57	32	39	10	8	9	3
DK	38	62	36	19	20	8	18	21
DE	40	54	44	36	18	9	9	15
EE	40	33	54	53	30	5	9	5
EL	41	73	48	19	33	19	16	28
ES	45	74	39	11	49	5	20	17
FR	52	61	35	9	17	20	13	20
IT	36	57	44	27	30	41	13	11
CY	40	65	34	11	24	12	8	20
LV	49	52	51	29	30	14	23	15
LT	48	58	74	46	22	18	31	3
LU	36	61	27	28	21	11	12	21
HU	54	40	43	6	22	10	11	9
MT	53	77	47	27	31	9	14	13
NL	4	10	7	5	3	1	5	0
AT	44	71	48	22	24	10	15	15
PL	51	28	60	38	14	27	6	20
PT	37	37	56	19	33	6	21	13
RO	67	70	75	2	45	12	24	2
SI	51	36	51	49	23	12	15	6
SK	72	18	23	5	12	8	14	11
FI	35	65	32	4	41	2	22	16
SE	21	50	17	22	20	9	11	18
UK	43	46	24	28	19	13	11	21
NO	34	26	22	7	13	6	4	6

NB: Add-on to legend: Elements represented in grey represents high values.
Source: Eurostat, CVTS and dissemination database (accessed 30.4.2014).

A1.6. Annex to Chapter 6

Table A27. **PPP rates used in CVTS3 and CVTS4 – relative changes**

	EUR 1= PPP 2005	EUR 1= PPP 2010	Change in relative purchasing power in % in % (of 2005)
LV	1.931025	1.3844852	28.3
CZ	1.719505	1.3294983	22.7
LT	1.822626	1.5358611	15.7
BG	2.311796	1.9685761	14.8
EE	1.54592	1.3370771	13.5

	EUR 1= PPP 2005	EUR 1= PPP 2010	Change in relative purchasing power in % in % (of 2005)
SI	1.315312	1.1823336	10.1
RO	1.83604	1.7004219	7.4
LU	0.895696	0.8295657	7.4
EL	1.132621	1.0512959	7.2
MT	1.367839	1.2825791	6.2
ES	1.097085	1.0303521	6.1
NO	0.710615	0.6739952	5.2
BE	0.939417	0.8976258	4.4
AT	0.975239	0.9409197	3.5
PT	1.175178	1.1340607	3.5
NL	0.95501	0.9294717	2.7
HU	1.577816	1.5399494	2.4
FR	0.923813	0.9024212	2.3
SE	0.8396	0.8221102	2.1
DK	0.712144	0.7022972	1.4
PL	1.636863	1.6161293	1.3
SK	1.408873	1.3955234	0.9
DE	0.967886	0.9587819	0.9
CY	1.122517	1.1216446	0.1
FI	0.808708	0.8094282	-0.1
IT	0.954636	0.9657823	-1.2
IE	0.829084	0.8393487	-1.2
UK	0.910797	0.9974814	-9.5
HR		1.3169534	

Source: Eurostat, CVTS; data extraction by Eurostat on request of Cedefop (3.4.2014).

Table A28. **Share of each category of costs as percentage of direct costs**

	Small enterprises (from 10 to 49 employees)				Large enterprises (250 employees and more)				medium enterprises (from 50 to 249 salaries)				All sizes of enterprises			
	Fees and payments	Travel and subsistence payments	Labour costs of internal trainers for CVT courses	Costs for training centre, and teaching materials	Fees and payments	Travel and subsistence payments	Labour costs of internal trainers for CVT courses	Costs for training centre, and teaching materials	Fees and payments	Travel and subsistence payments	Labour costs of internal trainers for CVT courses	Costs for training centre, and teaching materials	Fees and payments	Travel and subsistence payments	Labour costs of internal trainers for CVT courses	Costs for training centre, and teaching materials
NL	78	4	13	5	78	4	10	8	81	5	10	4	78	5	10	8
LV	65	28	3	4	83	10	7	1	71	19	5	5	77	15	6	2
SK	72	16	3	9	71	16	8	5	82	12	3	3	73	15	7	5
IT	80	6	12	2	70	10	17	2	80	7	12	1	71	10	17	2
EE	71	20	4	5	78	11	7	5	63	10	25	2	69	12	16	3
FI	75	19	4	2	68	17	12	4	73	20	5	2	68	17	11	3
PL	73	11	16	1	68	13	12	7	78	9	12	1	68	13	12	7
SE	75	13	8	4	62	8	23	6	74	10	13	2	68	10	18	5
CZ	75	8	15	3	65	8	20	7	76	8	13	3	67	8	19	6
HU	89	7	3	1	62	6	26	6	87	6	6	1	66	6	23	5
PT	81	5	6	9	60	10	22	8	77	5	13	6	64	9	20	7
ES	76	8	14	3	62	12	20	7	77	8	12	2	63	11	19	7
EU	71	11	13	5	60	9	23	7	74	10	12	4	62	9	22	7
LT	76	18	5	1	51	20	21	8	76	13	11	1	61	18	16	5
AT	75	16	7	3	59	15	17	8	70	17	9	5	61	16	16	8
DE	69	13	14	4	58	10	22	10	71	13	14	2	59	10	22	9
HR	69	21	7	2	68	17	14	1	45	21	13	20	58	19	13	9
LU	58	12	26	4	55	10	23	12	64	13	20	3	58	11	23	8
BG	43	43	3	12	65	24	4	7	48	33	7	12	56	30	5	9
FR	78	9	11	1	55	9	29	7	87	8	4	1	56	9	29	7
BE	66	5	25	4	50	4	36	10	67	4	25	3	52	4	35	9
EL	59	21	13	7	50	20	17	13	68	12	13	7	51	20	17	12
CY	47	36	14	3	46	8	31	15	62	13	20	6	49	12	27	12
SI	47	20	20	13	43	11	44	2	68	16	10	6	48	12	36	4
MT	32	10	14	43	46	24	14	16	63	20	17	1	48	20	15	17
UK	51	19	25	5	32	6	45	17	49	24	24	3	38	11	38	13
RO	44	5	31	20	29	4	55	12	41	8	31	20	29	5	53	13

Source: Eurostat, CVTS; data extraction on behalf of Cedefop (3.4.2014).

Table A29. **Percentage of enterprises (all enterprises) profiting from the type of benefits as a percentage of all enterprises; total**

	Any measures (1)	Tax incentive	Reciepts from training funds	EU subsidies	Government subsidies	Other sources	None of these
AT	24	8	9	7	11	5	1
BE	33	3	19	1	11	2	2
BG	0	0	0	0	0	0	0
CY	26	3	16	2	5	2	5
CZ	6	0	0	4	1	0	0
DE	0	0	0	1	2	0	2
EE	8	1	0	5	2	1	0
ES	36	35	2	1	2	1	0
EU	17	4	7	1	2	5	1
FR	71	1	39	2	3	35	0
EL	10	1	3	1	2	1	3
HR	3	2	0	0	1	0	0
HU	4	1	2	1	0	0	0
IT	5	0	4	1	0	0	0
LT	4	0	0	2	1	0	0
LU	19	2	2	1	16	0	1
LV	1	0	0	0	0	0	0
MT	8	1	3	6	2	0	0
NL	16	7	13	4	2	1	1
PL	1	0	0	1	0	0	0
PT	3	0	1	3	1	0	0
RO	0	0	0	0	0	0	0
SE	3	0	0	2	0	1	0
SI	8	0	4	4	3	0	0
SK	2	0	1	1	1	0	0
UK	12	1	5	2	6	2	3

NB: (1) any measures is calculated with the B6 code ‘not applicable” which come from the B5b flag question ‘did the enterprise receive payments from such funds [collective/mutual or other training funds] or any financial subsidies for the provision of CVT courses’.

Source: Eurostat, CVTS; data extraction on behalf of Cedefop (3.4.2014).

Table A30. **Percentage of enterprises (all enterprises) profiting from the type of benefits as a percentage of all enterprises; small enterprises (10-49 employees)**

	Any measures (1)	Tax incentive	Reciepts from training funds	EU subsidies	Government subsidies	Other sources	None of these
AT	19	6	7	4	8	4	1
BE	27	3	14	1	9	2	2
BG	0	0	0	0	0	0	0
CY	20	2	12	1	4	2	4
CZ	3	0	0	2	1	0	0
DE	0	0	0	1	1	0	2
EE	6	1	0	4	2	1	0

	Any measures (1)	Tax incentive	Reciepts from training funds	EU subsidies	Government subsidies	Other sources	None of these
ES	32	31	1	0	1	1	0
EU28	16	4	7	1	2	5	1
FR	67	1	36	1	2	32	0
EL	7	1	2	1	1	1	3
HR	2	2	0	0	0	0	0
HU	3	1	2	1	0	0	0
IT	3	0	2	0	0	0	0
LT	3	0	0	2	1	0	0
LU	13	1	2	0	11	0	1
LV	0	0	0	0	0	0	0
MT	5	1	2	4	1	0	0
NL	13	5	11	2	1	1	1
PL	0	0	0	0	0	0	0
PT	2	0	0	2	1	0	0
RO	0	0	0	0	0	0	0
SE	3	0	1	2	0	1	0
SI	6	0	3	3	2	0	0
SK	2	0	1	0	0	0	0
UK	10	1	4	1	4	2	2

Source: Eurostat, data extraction on behalf of Cedefop (3.4.2014).

Table A31. **Percentage of enterprises (all enterprises) profiting from the type of benefits as a percentage of all enterprises; medium enterprises (50-249 employees)**

	Any measures (1)	Tax incentive	Reciepts from training funds	EU subsidies	Government subsidies	Other sources	None of these
AT	43	16	16	19	20	7	2
BE	54	5	36	1	17	3	3
BG	1	0	0	1	0	0	0
CY	51	7	30	4	13	1	9
CZ	13	0	1	10	3	0	0
DE	0	0	0	1	3	0	1
EE	13	1	0	8	2	2	0
ES	54	53	4	2	4	1	0
EU28	23	6	11	3	5	6	1
FR	92	1	53	3	6	46	0
EL	20	3	6	3	6	1	6
HR	4	2	1	0	1	0	0
HU	6	1	3	2	0	1	0
IT	15	0	13	2	2	1	0
LT	8	0	0	6	2	0	1
LU	37	5	4	1	30	0	1
LV	1	0	0	1	0	0	0
MT	16	3	3	12	3	0	0
NL	24	12	20	8	4	1	1
PL	1	0	0	1	0	0	0

	Any measures (1)	Tax incentive	Reciepts from training funds	EU subsidies	Government subsidies	Other sources	None of these
PT	11	0	2	10	4	1	0
RO	0	0	0	0	0	0	0
SE	3	0	0	3	0	0	0
SI	14	1	6	8	4	1	1
SK	5	0	1	3	2	1	0
UK	21	2	8	4	12	4	4

Source: Eurostat, CVTS4, ,data extraction on behalf of Cedefop (3.4.2014).

Table A32. **Percentage of enterprises (all enterprises) profiting from the type of benefits as a percentage of all enterprises; large enterprises (250 employees or more)**

	Any measures (1)	Tax incentive	Reciepts from training funds	EU subsidies	Government subsidies	Other sources	None of these
AT	74	28	38	46	34	8	1
BE	71	5	53	9	17	2	1
BG	8	0	1	6	0	0	1
CY	97	14	76	10	16	7	9
CZ	30	0	1	25	6	1	1
DE	0	0	1	3	6	1	1
EE	22	2	0	19	3	0	0
ES	75	75	8	6	8	2	0
EU-28	32	8	16	7	8	7	1
FR	97	2	60	4	8	46	0
EL	51	6	20	7	17	3	14
HR	6	4	1	0	2	0	0
HU	7	2	2	3	1	1	0
IT	41	0	38	4	5	1	0
LT	10	0	0	8	3	0	0
LU	65	7	6	1	59	1	0
LV	2	0	0	2	0	1	0
MT	45	7	8	37	10	2	0
NL	28	21	21	16	6	3	0
PL	8	0	1	7	0	0	0
PT	19	0	2	17	8	1	0
RO	2	1	0	0	0	0	0
SE	5	1	0	4	0	0	2
SI	13	0	7	9	6	1	0
SK	11	0	2	7	3	2	1
UK	25	3	11	5	15	3	4

Source: Eurostat, CVTS4, data extraction on behalf of Cedefop (3.4.2014).

Table A33. **Percentage of enterprises paying for direct cost by category of costs and enterprise size class (enterprise with CVT courses only)**

	Small enterprises (from 10 to 49 salariees)				medium enterprises (from 50 to 249 salaries)				Large enterprises (250 employees and more)				All sizes of enterprises			
	Fees and payments	Travel and subsistence payments	Labour costs of internal trainers for CVT courses	Costs for training centre, and teaching materials	Fees and payments	Travel and subsistence payments	Labour costs of internal trainers for CVT courses	Costs for training centre, and teaching materials	Fees and payments	Travel and subsistence payments	Labour costs of internal trainers for CVT courses	Costs for training centre, and teaching materials	Fees and payments	Travel and subsistence payments	Labour costs of internal trainers for CVT courses	Costs for training centre, and teaching materials
EU-28	77	33	22	14	83	47	33	21	87	58	55	37	78	37	26	16
AT	88	51	21	16	92	61	32	32	99	79	66	61	89	54	24	21
BE	70	24	25	9	84	28	38	18	90	50	67	43	74	26	29	13
BG	61	29	6	5	66	34	12	11	63	44	11	16	62	31	8	8
CY	54	20	19	11	65	20	28	15	71	39	49	29	57	21	22	13
CZ	82	25	35	6	90	45	45	14	94	66	58	30	84	31	39	9
DE	86	49	34	27	92	69	44	37	91	64	64	48	88	56	39	31
EE	84	26	11	15	87	37	22	25	87	59	44	55	84	29	15	19
ES	86	14	13	5	91	23	23	11	96	41	46	28	87	16	15	7
FI	86	49	10	5	93	74	17	11	99	85	53	37	89	56	14	8
FR	55	39	9	4	75	58	17	5	80	78	52	23	60	44	12	5
EL	82	29	24	17	94	29	26	16	98	46	32	30	86	30	25	18
HR	43	17	2	2	38	20	4	2	38	22	10	4	42	18	3	2
HU	75	15	5	3	86	24	8	6	92	48	23	15	78	19	6	5
IT	89	15	12	4	88	19	22	6	90	32	37	19	89	16	14	5
LT	71	16	11	6	79	29	14	6	85	34	25	13	74	20	13	7
LU	80	49	51	32	87	62	59	30	94	70	85	56	82	53	55	33
LV	49	15	7	7	57	17	7	9	61	26	19	9	51	16	8	7
MT	70	30	54	17	82	28	73	17	85	60	78	33	74	32	61	18
NL	79	34	15	14	83	45	27	24	85	63	48	46	80	38	19	18
PL	85	34	51	2	91	48	61	4	96	61	75	14	88	42	57	4
PT	59	19	11	7	72	20	19	16	84	36	39	31	63	20	14	10
RO	70	12	100	100	76	12	100	100	86	19	100	100	74	13	100	100
SE	77	70	63	64	54	48	46	44	36	32	33	33	71	65	59	60
SI	57	45	18	13	71	54	18	14	82	63	36	19	63	49	19	13
SK	75	29	6	9	85	45	16	14	85	53	32	24	78	33	9	11
UK	75	45	36	21	72	48	46	25	82	63	59	50	75	47	39	23

Source: Eurostat, CVTS4, data extraction on behalf of Cedefop (3.4.2014).

Table A34. **Change in GDP per capita 2005 to 2011, adjusted to increase in consumer prices**

	2005 (PPP)	2011 (PPP)	Change (market prices) (PPP)	Increase (in %) consumer prices (2005 to 2011)	Adjusted change* (PPP)
EU-28	22400	25100	2700	15.38	-745
BE	26900	30200	3300	15.14	-773
BG	8200	11700	3500	41.21	121

	2005 (PPP)	2011 (PPP)	Change (market prices) (PPP)	Increase (in %) consumer prices (2005 to 2011)	Adjusted change* (PPP)
CZ	17800	20300	2500	16.20	-384
DK	27700	31500	3800	13.80	-23
DE	26000	30800	4800	11.10	1914
EE	13800	17400	3600	33.40	-1009
IE	32400	32300	-100	6.60	-2238
EL	20400	20300	-100	21.35	-4455
ES	22900	24300	1400	16.35	-2344
FR	24700	27400	2700	11.28	-86
HR	13200	15200	2000	18.49	-441
IT	23600	25500	1900	13.80	-1357
CY	20800	23500	2700	15.93	-613
LV	11100	15000	3900	43.73	-954
LT	12300	16900	4600	33.90	430
LU	57000	66700	9700	17.32	-172
HU	14200	16900	2700	34.79	-2240
MT	18000	21700	3700	15.19	966
NL	29300	32500	3200	10.23	203
AT	28100	32300	4200	13.42	429
PL	11500	16400	4900	20.10	2589
PT	17900	19300	1400	12.72	-877
RO	8000	12900	4900	43.04	1457
SI	19600	21200	1600	18.03	-1934
SK	13500	18900	5400	16.79	3133
FI	25700	29000	3300	14.16	-339
SE	27300	31400	4100	12.31	739
UK	27800	26400	-1400	19.60	-6849
NO	39800	46600	6800	13.10	1586

Source: Eurostat, dissemination database (accessed 7.6.2014); own calculations.

Table A35. **Change of contributions and receipts per employed (contributions and receipts for training enterprises related to employed of all enterprise)**

	Contributions			Receipts		
	2005	2010	Increase (% of 2005)	2005	2010	Increase (% of 2005)
EU-28	58.4	69.9	20	21.5	38.4	79
BE	48.4	61.4	27	24.8	40.6	64
BG	0.2	0.2	47	0.3	4.2	1293
CZ	0.6	0.6	3	2.4	18.9	701
DK	22.4			6.3		
DE	0.6	2.7	355	0.6	2.7	355
EE	0.2	0.0		4.1	8.1	98
IE	2.5			3.9		-100
EL	14.0	51.0	265	37.5	25.8	-31
ES	71.0	138.2	95	32.7	44.6	37
FR	232.8	322.2	38	37.7	139.1	269
HR		0.2			7.8	
IT	54.2	74.2	37	11.9	52.2	339
CY	76.8	97.7	27	33.0	44.0	33
LV	0.2	0.5	220	2.7	1.4	-47
LT	0.2	3.0	1927	1.1	20.1	1818
LU	16.2	16.3	1	67.1	98.4	47
HU	77.9	111.2	43	6.1	20.1	231
MT	7.7	13.3	73	45.1	10.1	-78
NL	45.6	33.9	-26	107.1	21.1	-80
AT	9.2	5.3	-43	20.1	25.4	26
PL	0.2	1.9	786	0.8	18.9	2151
PT	0.6	4.4	686	8.7	34.0	292
RO	0.2	3.2	1806	0.0	73.3	
SI	1.0	1.3	29	56.5	25.8	-54
SK	2.3	13.6	498	16.0	21.1	32
FI	6.2		-100	3.9		-100
SE	0.9	1.4	53	6.0	7.5	26
UK	73.3	19.8	-73	40.3	16.1	-60
NO	12.2			3.8		

Source: Eurostat, dissemination database (accessed 3.4.2014); own calculations.

An analysis of job-related NFE activities by source of funding.

In Chapter 3 of this report it has been shown that according to the AES-2011, in the EUaverage, adults participate mainly in education and training which is non

formal, which has job-related purposes and which is sponsored by employers. This was done based on headcounts of participants.

In this section, based on AES-2011 data, further information is provided on job-related NFE activities and in particular on their distribution by source of funding.

The units of analysis are no longer the adults but rather the learning activities carried out by adults ([3]), which are then broken down to support relevant analysis. Indeed, the AES makes available not only a sample of individuals but also a sample of learning activities. At the level of the activities, additional information is collected, including more complete information of the various entities which financially contributed to the payment of such activities, so that different patterns of funding/cofounding can be investigated in more detail.

Following AES methodological framework, sources of funding are captured by using AES variables targeting the entities (persons, services, etc.) which provided full or partial payment for the learning activities in which adults participated. The variables consider entities which paid to cover the following costs: tuition, registration, exam, fees, expenses for books and other technical study means. These variables consider entities as they are reported by interviewees: adults participating in education and training are administered a list of entities and are asked to indicate which ones, if any, provided full or partial payment for those expenditures. Multiple answers are allowed. The following entities are considered: (a) employer or prospective employer; (b) public employment services; (c) other public institutions; (d) a household member or a relative; (e) yourself; (f) other (i.e. none of the items above).

Data should be interpreted with caution, keeping in mind at least two important aspects. First, information is about entities providing payments, but AES methodology considers entities disbursing morning money only for selected types of expenses. Second, information on entities involved is that reported by the interviewees. Interviewees may not be fully aware the complete spectrum of entities involved in other (previous and more complex) transactions which came

([3]) This is possible due to the methodological settings of the AES. For each adults who participate in NFE, a random set of learning activities is selected for in depth investigation and the interviewee is asked questions specifically related to those selected activities. Questions refer to various aspects including the purpose of the learning activity (mainly job-related or not) and the source of funding of the activity. In so far the AES makes available a sample of learning activities for in depth analysis which can be broken down by characteristics of activities and/or by the characteristics of the adults who participated in them.

to finance their learning and which are often provided for by financing mechanisms.

The analysis carried out in this section is restricted to job-related education and training which has non-formal nature for various reasons ([4]). It is carried out by making use of AES-2011 microdata. Answers are treated in a way which aggregates some categories and make them mutually exclusive. Derived categories include: only individuals (i.e. payment only by particpant's household, relatives, or the very participant); only employers (i.e. payment only by employers/prospective employers); only public sources (i.e. payment only by public employment service or only by other public institutions); various types of joint combinations. Only valid answers are considered for the analysis.

The direct costs of job-related NFE activities that European adults followed in 2011 may be paid by three types of agents: individuals themselves (including their households of relatives); their employers; or public employment services and other public sources. Which agent pays job-related NFE activities most often?

In 2011, 75.5% of job-related NFE activities were paid by the employer only, while 9.7% were paid by individuals only, 4.2% by public sources only and 2.2% through joint funding (Table A36). Mainly due to methodological reasons, co-funded activities seem to account only for a small share of the total both on EU average and at country level

Results are robust across countries. In almost all European country, the majority of job-related NFE activities are paid by the employer. Some specificity at country level emerge. Self-financed training is particularly important in Greece. In this country, as much as 40.6% of job-related NFE activities were paid only by the individuals themselves (or household members/relatives); relatively speaking, this is more than 10 times higher than the EU average for self-financed training and almost on par with training by the employers in the country. In Spain, Latvia and Lithuania, public authorities directly disbursed money for no less than 12%-13% of job-related NFE activities of adults (much more than EU average and probably reflecting public responses to the first rise in unemployment).

Job-related NFE activities' sources of co-funding vary by educational attainment level (Figure A9). On average, in Europe, self-financed training is

([4]) For formal education activities, no information is available whether they are job-related or not, therefore the analysis is restricted to non-formal activities. This is perceived as a limitation of the current AES and as a serious loss of information as compared to the AES-2007. On the other hand, NFE activities constitute the majority of the sample. (For an analysis of the funding sources of formal adult education, based on AES-2007, see Hefler et al., 2011).

more frequent among adults with medium (ISCED 0-2) and high educational attainment (ISCED 5-6) than among those with low educational attainment, with corresponding shares being estimated at 5%, 8% and 12% (shares refer to activities paid only by adults, their households or relatives). This may be due to various cultural, occupational and economic reasons, including an income effect: better educated and better paid people can afford more of their training activities themselves. This relation holds in almost all countries ([5]). For low educated adults (ISCED 0-2), activities paid by public entities tends to be more frequent (6.2% on EU average) than for adults with medium and high educational attainment (both at 4% on EU average) (shares refer to activities paid only by public entities). Differences are particularly high in Germany, Malta, Poland, Slovenia and to some extent Ausria, where relatively many job-related NFE activities of unskilled people (levels 0-2) are funded by public sources only; this may be due to specific public policies aiming at increasing unskilled people's productivity (or employability).

Table A36. **Job-related NFE activities according to entities providing payment for learning expenses (% of activities, based on responses of participants), AES-2011**

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
					Joint combination by				
	Only individuals	Only employers	Only public entities	Any form of joint combi-nation	Individuals and Employers	Individuals and public sources	Employers and public sources	Individuals, employers and public sources	Other entities ([b])
	In % of job-related NFE activities, non-answers excluded								
EU	9.7	75.5	4.2	2.2	1.3	0.4	0.4	0	8.4
BE ([c])	8.8	75.4	4.8	0.4	0.1	0	0.3	0	10.6
BG	4.5	91.5	3.1	0.5	0.5	0.1	0	0	0.4
CZ	19.8	71.9	2.9	4.6	3.9	0.4	0.2	0.1	0.8
DK	11.9	79.9	4.0	3.1	1.8	0.4	0.8	0	1.1
DE	11.4	74.8	4.0	3.2	2.1	0.5	0.5	0.1	6.6
EE	5.1	69.6	2.3	0.7	0.1	0	0.6	0	22.2
IE*	:	:	:	:	:	:	:	:	:
EL	40.6	42.5	8.4	4.3	3.6	0.4	0.4	0	4.1
ES	11.1	72.3	13.1	1.8	0.4	0.5	1.0	0	1.6
FR	4.8	80.8	5.3	1.3	0.8	0.3	0.1	0	7.9
IT	15.3	62.7	2.3	1.3	0.8	0.4	0.1	0	18.4

([5]) However, the opposite statistical relationship holds in Denmark and, to a lesser extent, in Norway and Slovenia (where self-financed learning is more common among adult with low qualifications than for those with high level qualifications). The reasons for this finding are unclear. One explanation could be that the way in which the AES question are formulated or understood do not allow to capture the peculiarities of the country specific systems. For instance, financing mechanism could provide for allowances and tax reductions in favour of low qualified adult learners, but the final payment to the provider may be done by adults.

CY	8.3	71.7	9.0	4.5	0.5	1.4	2.5	0.1	6.5
LV	13.0	69.6	12.3	1.5	0	0.1	1.4	0	3.5
LT	9.5	68.0	12.0	3.8	2.6	0.4	0.8	0	6.7
LU	9.4	75.5	5.2	4.5	2.2	0.5	1.4	0.4	5.4
HU	8.3	48.7	0.4	3.2	2.2	0.2	0.7	0.1	39.4
MT	17.4	66.5	11.8	1.2	0.7	0.3	0.2	0	3.1
NL	11.3	81.1	0.4	1.1	1.0	0	0.1	0	6.1
AT	16.0	65.9	5.5	7.0	3.7	0.9	1.8	0.6	5.6
PL	14.1	72.5	5.9	5.5	3.2	1.4	0.8	0.2	2.0
PT	9.6	75.3	5.0	1.6	1.1	0.1	0.4	0	8.6
RO	16.8	71.8	5.3	1.1	0.9	0.1	0.1	0	5.0
SI	8.8	81.1	6.9	1.7	1.4	0.1	0.2	0	1.4
SK	10.5	84.3	1.1	2.4	1.7	0.1	0.5	0	1.6
FI	6.1	76.0	2.7	3.4	0.8	0.6	1.9	0.1	11.7
SE*	:	:	:	:	:	:	:	:	:
UK*	:	:	:	:	:	:	:	:	:
NO	5.1	85.7	2.4	2.7	1.5	0.2	1	0.1	4.1

NB: Learning expenses refer to: tuition, registration, exam, fees, expenses for books and other technical study means.

Column (1) refers to the share of job-related NFE activities for which only individuals (participants, their household members or relatives) provided payments; column (2) refers to the share of job-related NFE activities for which only employers/prospective employers provided payments;column (3) refers to the share of job-related NFE activities for which only public entities (public employment services and other public institutions provided payments; column (4) all together consider various type of combinations between columns (1), (2) and (3); columns (5) to (8) consider specific combinations; column (9) consider other types of entities.

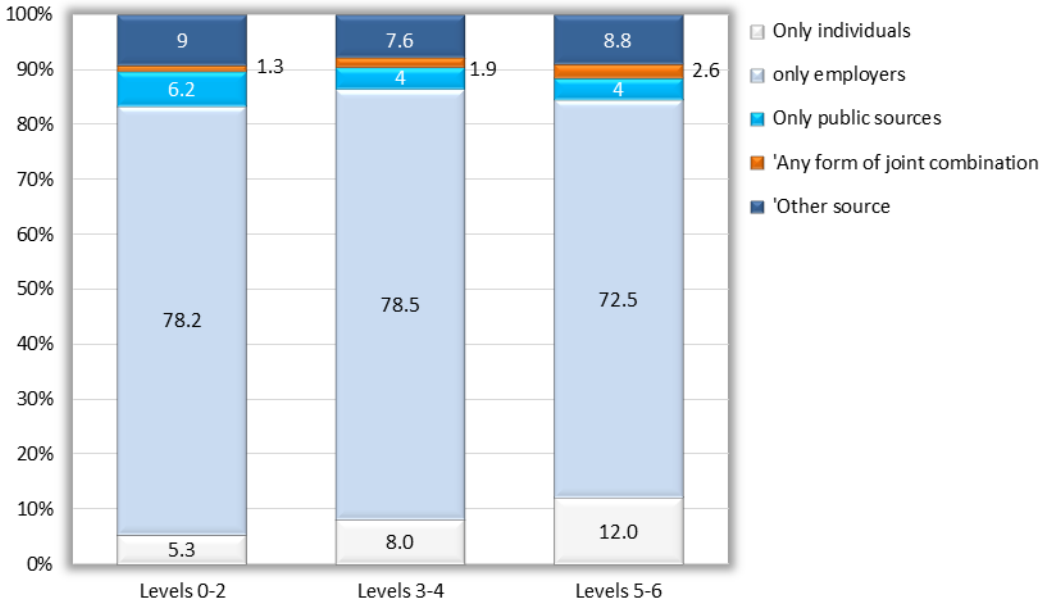
Reference time for the data differs between countries and the timespan between the two waves is not always four years.

([b]) These 'other sources' are funding sources which the respondents knew but which were not listed in the questionnaire (item 0 question NFEPAIDBY1: 'none of the persons/services above, but somebody else not listed here').

(c) Data for Belgium and Ireland are not fully comparable. Data are not presented for Ireland, Sweden (to high number of non responses) and the UK (lack of face validity). Field: 156 855 940 job-related NFE activities whose funding sources were mentioned by the respondents (out of 163 023 106 job-related NFE activities), i.e. non-responses excluded.

Source: Eurostat, AES-2011 micro data set; own calculations.

Figure A9. **Job-related NFE activities according to entities providing payment for learning expenses and educational attainment of participants (% of activities, based on responses of participants), AES-2011**



NB: Reference time for the data differs between countries and the timespan between the two waves is not always four years.

Source: Eurostat, AES-2011 micro data set; own calculations.

A1.7. Annex to Chapter 7

Underlying data for the analysis carried out in Chapter 7 are presented in the following pages.

Table A37. **Indicators for Chapter 7; indicator 1 to 6**

	1_1	1_2	1_3	1_4	1_5	2_1	2_2	2_3	2_4	2_5	3_1	3_2	3_3	3_4	3_5
	Participation (four weeks) – LFS (employed)					Participation in job-related NFE (employed)					Participation in employer-provided courses – CVTS (employed)				
	Value 2005	Value 2010	Diff % – country 2005	Diff % – EU 2005	Breaks	Value 2007	Value 2011	Diff % – country 2007	Diff % – EU 2007	Breaks	Value 2005	Value 2010	Diff % – country 2005	Diff % – EU 2010	Breaks
EU	10.6	9.7	-8.5	-8.5	(b)	34.1	40.8	20	20		33	38	15	15	
BE	9.3	7.6	-18.3	-16.0		38.5	39.8	3	4	(b)	40	52	30	36	
BG	0.9	1.0	11.1	0.9		48.4	36	-26	-36		15	22	47	21	
CZ	6.3	8.6	36.5	21.7		43.8	38.6	-12	-15		59	61	3	6	
DK	27.7	33.0	19.1	50.0		40.9	55.8	36	44		35	37	6	6	
DE	8.1	7.7	-4.9	-3.8		48.1	50.9	6	8		30	39	30	27	
EE	6.4	12.9	101.6	61.3		44.3	51.2	16	20		24	31	29	21	
IE	7.4	6.1	-17.6	-12.3		:	19.5	na	na		49	:	na	na	
EL	1.3	2.8	115.4	14.2		14.8	10.4	-30	-13		14	16	14	6	
ES	10.7	10.6	-0.9	-0.9		26.2	36.7	40	31		33	48	45	45	
FR	6.3	5.1	-19.0	-11.3		:	49.1	na	na	(b)	46	45	-2	-3	
HR	1.7	1.7	0.0	0.0		23.8	:	na	na		:	23	na	na	
IT	5.7	6.2	8.8	4.7		20.8	37.1	78	48	(b)	29	36	24	21	
CY	6.7	8.2	22.4	14.2		40.7	41.9	3	4		30	37	23	21	
LV	9.4	5.3	-43.6	-38.7		34.3	32.4	-6	-6		15	24	60	27	
LT	6.7	4.4	-34.3	-21.7		37.4	32.3	-14	-15		15	19	27	12	
LU	8.7	14.5		54.7	(b)	:	66	na	na		49	51	4	6	
HU	4.3	2.5	-41.9	-17.0		8.3	50.6	510	124	(b)	16	19	19	9	
MT	6.7	7.3	9.0	5.7		35	44.5	27	28		32	36	13	12	
NL	17.4	18.1		6.6	(b)	45.6	61.8	36	48	(b)	34	39	15	15	
AT	14.2	14.5	2.1	2.8		41.2	44.2	7	9		33	33	0	0	
PL	6.2	6.2	0.0	0.0		24.2	26.3	9	6		21	31	48	30	
PT	3.5	5.1	45.7	15.1		25.3	45.7	81	60		28	40			(b)
RO	1.3	0.9	-30.8	-3.8		5.6	8	43	7		17	18	6	3	
SI	17.4	18.3	5.2	8.5		34.3	35.4	3	3		50	43	-14	-21	
SK	5.5	2.9	-47.3	-24.5		48.7	44.6	-8	-12		38	44	16	18	

	1_1	1_2	1_3	1_4	1_5	2_1	2_2	2_3	2_4	2_5	3_1	3_2	3_3	3_4	3_5
	Participation (four weeks) – LFS (employed)					Participation in job-related NFE (employed)					Participation in employer-provided courses – CVTS (employed)				
	Value 2005	Value 2010	Diff % – country 2005	Diff % – EU 2005	Breaks	Value 2007	Value 2011	Diff % – country 2007	Diff % – EU 2007	Breaks	Value 2005	Value 2010	Diff % – country 2005	Diff % – EU 2010	Breaks
FI	24.9	25.0	0.4	0.9		54.2	55.2	2	3		39	40	3	3	
SE	16.1	23.2		67.0	(b)	73.4	69.1	-6	-13		46	47	2	3	
UK	29.0	21.4		-71.7	(b)	38.7	27.8	-28	-32		33	31	-6	-6	
NO	18.3	18.6	1.6	2.8		55.7	61.7	11	18		29	(:)	na	na	

	4_1	4_2	4_3	4_4	4_5	5_1	5_2	5_3	5_4	5_5	6_1	6_2	6_3	6_4	6_5
	Participation in FED					Participation in GOJT – CVTS (employed)					Time – CVTS (per employed)				
	Value 2007	Value 2011	Diff % - country 2007	Diff % - EU 2007	Breaks	Value 2005	Value 2010	Diff % – country 2005	Diff % - EU 2010	Breaks	Value 2005	Value 2010	Diff % - country 2005	Diff % - EU 2010	Breaks
EU	6.6	6.2	-6	-6		16	20	25	25		9	10	11.1	11.1	
BE	12.5	7.4	-41	-77		21	21	0	0		12	18	50.0	66.7	
BG	2.7	2.4	-11	-5		12	20	67	50		4	5	25.0	11.1	
CZ	3.9	3.7	-5	-3		32	31	-3	-6		14	9	-35.7	-55.6	
DK	10.1	12.6	25	38		25	16	-36	-56		10	18	80.0	88.9	
DE	5.2	3.8	-27	-21		26	28	8	13		9	9	0.0	0.0	
EE	5.0	6.6	32	24		16	14	-13	-13		7	8	14.3	11.1	
IE	:	6.7	(na)	(na)				(na)	(na)		12	(:)	(na)	(na)	
EL	2.3	2.6	13	5		4	6	50	13		3	3	0.0	0.0	
ES	5.9	7.0	19	17		19	20	5	6		9	10	11.1	11.1	
FR	5.1	3.5	-31	-24	(b)	7	14	100	44		13	13	0.0	0.0	
HR	4.5	(:)	(na)	(na)		(:)	15	(na)	(na)		(:)	6	(na)	(na)	
IT	4.4	2.9	-34	-23	(b)	7	11	57	25		7	8	14.3	11.1	
CY	2.9	3.7	28	12		6	18	200	75		7	10	42.9	33.3	
LV	5.4	4.3	-20	-17		7	21	200	88		4	4	0.0	0.0	
LT	6.3	4.0	-37	-35		11	25	127	88		5	6	20.0	11.1	
LU	(:)	9.9	(na)	(na)		23	20	-13	-19		16	19	18.8	33.3	

	4_1	4_2	4_3	4_4	4_5	5_1	5_2	5_3	5_4	5_5	6_1	6_2	6_3	6_4	6_5
	Participation in FED					Participation in GOJT – CVTS (employed)					Time – CVTS (per employed)				
	Value 2007	Value 2011	Diff % - country 2007	Diff % - EU 2007	Breaks	Value 2005	Value 2010	Diff % – country 2005	Diff % - EU 2010	Breaks	Value 2005	Value 2010	Diff % - country 2005	Diff % - EU 2010	Breaks
HU	2.5	6.5	160	61	(b)	13	12	-8	-6		6	6	0.0	0.0	
MT	5.2	4.4	-15	-12		17	15	-12	-13		11	14	27.3	33.3	
NL	6.8	12.3	81	83	(b)	11	14	27	19		12	14	16.7	22.2	
AT	4.2	5.9	40	26		9	12	33	19		9	10	11.1	11.1	
PL	5.5	5.4	-2	-2		15	11	-27	-25		6	7	16.7	11.1	
PT	6.5	10.4	60	59		9	20			(b)	7	17			(b)
RO	3.3	1.4	-58	-29		14	10	-29	-25		5	7	40.0	22.2	
SI	8.7	2.3	-74	-97		20	25	25	31		14	16	14.3	22.2	
SK	6.1	5.8	-5	-5		20	21	5	6		12	12	0.0	0.0	
FI	10.2	12.0	18	27		16	12	-25	-25		10	9	-10.0	-11.1	
SE	12.7	13.5	6	12		21	24	14	19		15	11	-26.7	-44.4	
UK	15.1	14.8	-2	-5		(:)	30	(na)	(na)		7	8	14.3	11.1	
NO	9.9	7.6	-23	-35		18	(:)	(na)	(na)		9	(:)	(na)	(na)	

NB: (:) = missing value; (b) = break in time series; (na) = not available.

Source: Eurostat, dissemination database (access date 7.6.2014), own calculations.

Table A38. **Indicators for Chapter 7; indicators 7-12**

ISCED-97	7_1	7_2	7_3	7_4	7_5	7_6	7_7	7_8	7_9	7_10
	FED, all ISCED-97 levels		FED, ISCED 0-2		FED, ISCED 3-4		FED, ISCED 5-6		Ratio 2011	Change ratio
	2007	2011	2007	2011	2007	2011	2007	2011		
EU-28	6.6	6.2	1.9	2.5	6.0	5.4	12.6	11.0	2.04	0.06
BE	12.5	7.4	6.6	3.9	10.9	6.6	19.0	11.4	1.73	0.02
BG	2.7	2.4	(:)	(:)	2.5	2.1	6.0	4.2	2.00	0.40
CZ	3.9	3.7	(:)	(:)	2.8	2.5	9.7	10.3	4.12	-0.66
DK	10.1	12.6	7.5	7.1	9.5	11.1	13.4	17.7	1.59	-0.18
DE	5.2	3.8	2.5	2.2	4.2	3.4	7.1	5.2	1.53	0.16

ISCED-97	7_1	7_2	7_3	7_4	7_5	7_6	7_7	7_8	7_9	7_10
	FED, all ISCED-97 levels		FED, ISCED 0-2		FED, ISCED 3-4		FED, ISCED 5-6		Ratio 2011	Change ratio
	2007	2011	2007	2011	2007	2011	2007	2011		
EE	5.0	6.6	(:)	(:)	3.4	4.3	8.5	10.4	2.42	0.08
IE	(:)	6.7	(:)	2.3	(:)	6.3	(:)	10.1	1.60	
EL	2.3	2.6	(:)	(:)	2.5	2.6	5.2	5.5	2.12	-0.04
ES	5.9	7.0	1.7	2.5	6.6	7.9	12.6	12.7	1.61	0.30
FR	5.1	3.5	2.6	(:)	4.9	2.8	8.5	6.9	2.46	-0.73
HR	4.5	(:)	(:)	(:)	5.1	(:)	9.5	(:)		
IT	4.4	2.9	0.4	(:)	5.7	4.2	13.8	6.8	1.62	0.80
CY	2.9	3.7	(:)	(:)	(:)	(:)	7.8	6.8		
LV	5.4	4.3	(:)	(:)	2.0	2.9	14.7	7.7	2.66	4.69
LT	6.3	4.0	(:)	(:)	5.7	2.6	12.6	6.8	2.62	-0.40
LU	(:)	9.9	(:)	5.5	(:)	7.6	:	15.0	1.97	
HU	2.5	6.5	(:)	1.4	2.4	6.5	5.5	10.8	1.66	0.63
MT	5.2	4.4	2.0	(:)	(:)	7.8	18.1	16.3	2.09	
NL	6.8	12.3	3.6	5.3	5.9	13.3	11.3	17.1	1.29	0.63
AT	4.2	5.9	(:)	3.7	3.2	4.2	8.1	13.2	3.14	-0.61
PL	5.5	5.4	0.7	1.0	3.2	2.9	16.1	13.6	4.69	0.34
PT	6.5	10.4	3.6	8.3	14.2	15.4	14.7	13.4	0.87	0.17
RO	3.3	1.4	(:)	(:)	3.3	1.0	8.4	4.5	4.50	-1.95
SI	8.7	2.3	(:)	(:)	8.9	2.8	13.6	3.0	1.07	0.46
SK	6.1	5.8	(:)	(:)	4.5	2.9	11.2	14.4	4.97	-2.48
FI	10.2	12.0	3.7	5.6	11.6	13.2	12.7	13.7	1.04	0.06
SE	12.7	13.4	4.6	8.8	7.3	9.5	24.8	20.5	2.16	1.24
UK	15.1	14.8	(:)	7.0	13.4	14.1	20.6	18.8	1.33	0.20
NO	9.9	7.6	5.6	(:)	7.3	5.8	17.0	9.8	1.69	0.64

ISCED-97	8_1	8_2	8_3	8_4	8_5	8_6	8_7	8_8	8_9	8_10
	NFE, all ISCED-97 levels		NFE, ISCED 0-2		NFE, ISCED 3-4		NFE, ISCED 5-6		Ratio 2011	Change ratio
	2007	2011	2007	2011	2007	2011	2007	2011		
EU-28	31.2	36.8	13.5	20.1	29.9	34.4	51.5	55.8	1.62	0.10
BE	33.5	33.1	15.1	12.0	30.8	28.7	54.1	57.0	1.99	-0.23
BG	35.2	24.4	15.0	11.9	38.3	23.4	50.0	37.3	1.59	-0.29
CZ	35.4	34.9	11.3	10.4	33.4	32.3	57.1	58.8	1.82	-0.11
DK	37.6	52.7	22.9	33.0	35.0	49.4	54.8	68.4	1.38	0.18
DE	43.1	48.6	18.5	25.6	39.6	43.5	60.3	66.5	1.53	-0.01
EE	40.2	48.1	18.5	22.0	33.9	40.2	58.3	64.3	1.60	0.12
IE	(:)	18.8	(:)	8.7	:	14.8	(:)	29.7	2.01	
EL	12.7	9.6	3.1	2.9	11.2	7.4	28.2	21.7	2.93	-0.41
ES	27.2	34.1	15.8	20.8	30.8	36.0	43.9	51.9	1.44	-0.02
FR	32.0	49.1	17.2	27.4	31.4	47.6	52.1	70.3	1.48	0.18
HR	18.4	(:)	(:)	(:)	17.7	(:)	49.8	(:)		
IT	20.2	34.3	6.9	19.0	25.3	40.2	46.7	63.4	1.58	0.27
CY	39.5	40.9	16.0	16.5	38.3	34.9	61.9	60.8	1.74	-0.13
LV	30.7	30.0	11.0	9.4	23.3	22.8	53.0	50.7	2.22	0.05
LT	30.9	25.9	7.4	(:)	17.8	14.0	57.5	50.6	3.61	-0.38
LU	(:)	68.1	(:)	54.8	(:)	66.1	(:)	78.3	1.18	
HU	6.8	37.6	2.3	23.6	6.3	36.2	14.6	52.8	1.46	0.86
MT	31.3	34.2	21.1	22.2	45.6	49.2	68.3	68.2	1.39	0.11
NL	42.1	54.8	23.7	29.5	40.6	56.7	61.0	74.2	1.31	0.19
AT	39.8	45.5	17.0	23.0	36.0	44.4	64.8	67.3	1.52	0.28
PL	18.6	21.0	4.0	5.1	12.9	14.6	46.4	44.3	3.03	0.56
PT	22.5	39.6	13.1	27.5	36.5	55.1	57.6	71.3	1.29	0.28
RO	4.7	6.9	1.1	1.3	3.4	6.1	14.7	18.5	3.03	1.29
SI	36.1	34.7	10.9	13.0	33.7	32.5	63.3	61.7	1.90	-0.02
SK	41.2	38.3	12.8	(:)	38.0	33.7	56.8	55.7	1.65	-0.16
FI	51.2	51.3	33.6	31.4	46.1	45.5	69.4	68.3	1.50	0.00
SE	69.4	67.1	48.2	37.7	66.6	65.2	84.6	80.2	1.23	0.04

ISCED-97	8_1	8_2	8_3	8_4	8_5	8_6	8_7	8_8	8_9	8_10
	NFE, all ISCED-97 levels		NFE, ISCED 0-2		NFE, ISCED 3-4		NFE, ISCED 5-6		Ratio 2011	Change ratio
	2007	2011	2007	2011	2007	2011	2007	2011		
UK	40.3	24.3	21.4	12.3	36.5	22.2	50.7	31.8	1.43	-0.04
NO	50.6	57.0	35.6	29.0	48.4	51.4	66.3	70.5	1.37	0.00

ISCO-08	9_1	9_2	9_3	9_4	9_5	9_6	9_7	9_8	9_9	9_10
	NFE – all status		Employed persons		Unemployed persons		Inactive persons		Ratio 2011	Change ratio
	2007	2011	2007	2011	2007	2011	2007	2011		
EU-28	31.2	36.9	38.7	45.4	19.2	22.8	12.3	15.4	2.9	0.2
BE	33.5	33.1	41.9	42.2	23.2	21.0	11.8	10.6	4.0	-0.4
BG	35.2	24.5	49.3	37.3	6.3	3.8	4.2	(:)		
CZ	35.4	34.9	45.9	43.1	11.8	22.8	5.6	10.3	4.2	4.0
DK	37.6	52.7	42.5	59.7	(:)	41.4	15.2	27.2	2.2	0.6
DE	43.1	48.5	51.6	55.8	25.9	26.8	21.5	26.7	2.1	0.3
EE	40.2	48.0	47.7	56.7	16.3	32.8	11.1	17.5	3.2	1.1
IE	(:)	10.9	(:)	(:)	(:)	(:)	(:)	(:)		
EL	12.7	9.7	16.3	12.9	11.3	7.9	3.2	3.1	4.2	0.9
ES	27.2	34.1	32.3	40.5	20.7	28.4	12.9	17.9	2.3	0.2
FR	32.0	49.1	39.4	56.3	22.5	35.7	10.0	21.1	2.7	1.3
HR	18.4	(:)	28.9	(:)	4.5	(:)	3.3	(:)		
IT	20.2	34.4	26.4	45.6	13.6	20.7	8.1	13.9	3.3	0.0
CY	39.5	40.9	47.3	49.2	26.7	22.6	13.6	12.3	4.0	-0.5
LV	30.7	30	37.6	37.5	16.3	19.1	9.6	9.0	4.2	-0.3
LT	30.9	25.9	40.3	35.4	14.6	9.4	4.7	4.4	8.0	0.5
LU	(:)	68.2	(:)	77.5	(:)	42.1	(:)	35.5	2.2	
HU	6.8	37.6	9.6	53.3	4.5	16.7	1.6	9.4	5.7	0.3
MT	31.3	34.1	43.0	44.6	(:)	30.0	13.4	13.0	3.4	-0.2
NL	42.1	54.9	50.7	66.0	39.3	38.6	21.2	24.8	2.7	-0.3
AT	39.8	45.5	47.1	51.9	37.5	38.3	19.4	26.4	2.0	0.5

ISCO-08	9_1	9_2	9_3	9_4	9_5	9_6	9_7	9_8	9_9	9_10
	NFE – all status		Employed persons		Unemployed persons		Inactive persons		Ratio 2011	Change ratio
	2007	2011	2007	2011	2007	2011	2007	2011		
PL	18.6	21.0	26.3	29.1	8.8	9.7	3.0	4.3	6.8	2.0
PT	22.5	39.6	28.3	50.4	12.3	25.0	5.1	11.6	4.3	1.2
RO	4.7	6.9	6.6	9.4	(:)	6.0	0.6	(:)		
SI	36.1	34.7	43.6	42.9	22.1	25.5	16.5	16.4	2.6	0.0
SK	41.2	38.3	51.5	47.3	12.1	14.0	7.2	7.0	6.8	0.4
FI	51.2	51.3	59.5	60.6	31.3	28.1	26.9	26.1	2.3	-0.1
SE	69.4	67.0	78.0	75.2	47.4	43.4	38.0	30.9	2.4	-0.4
UK	40.3	24.3	47.4	29.0	23.8	15.5	21.2	11.8	2.5	-0.2
NO	50.6	57.0	58.1	64.9	33.0	48.4	18.9	19.9	3.3	-0.2

NFE	10_1	10_2	10_3	10_4	10_5	10_6	10_7	10_8	10_9	10_10	10_11	10_12
	From 25 to 34 years		From 35 to 44 years		From 35 to 54 years		From 45 to 54 years		From 55 to 64 years		Ratio 2011	Change ratio
	2007	2011	2007	2011	2007	2011	2007	2011	2007	2011		
EU-28	36.1	40.8	35.4	40.7	33.6	39.8	31.6	38.8	19.7	25.6	1.59	0.21
BE	44.4	41.3	40.4	39.6	35.9	36.5	31.6	33.6	19.1	17.6	2.25	-0.13
BG	41.2	25.8	40.5	29.4	39.2	28.6	38.2	27.8	20.3	15.0	1.96	0.04
CZ	38.0	38.8	43.6	41.0	41.8	39.9	39.9	38.7	21.5	20.1	2.04	-0.01
DK	35.7	52.2	45.1	58.2	43.4	56.6	41.7	55.2	27.3	44.7	1.30	0.35
DE	46.8	51.4	49	51.7	47.6	51.6	46.0	51.4	27.1	38.1	1.36	0.45
EE	48.0	59.2	46.6	50.9	41.5	48.9	36.7	47.0	27.2	32.6	1.56	0.15
IE	(:)	19.4	(:)	21.4	(:)	20.0	(:)	18.3	(:)	14.3	1.50	
EL	18.5	13.7	13.4	12.3	12.8	10.3	12.2	8.2	5.1	3.1	3.97	-1.34
ES	32.5	40.5	30.7	36.6	28.3	35.4	25.3	34.0	15.7	22.0	1.66	0.29
FR	41.1	57.5	36.3	56.5	33.8	53.0	31.1	49.6	15.9	32.7	1.73	0.56
HR	24.7	(:)	21.2	(:)	19.1	(:)	17.1	(:)	9.0	(:)		
IT	24.1	38.2	22.8	38.8	22.1	37.5	21.3	36.1	11.6	22.3	1.74	0.23

CY	50.0	46.3	46.5	46.1	40.9	43.0	34.9	39.8	20.0	27.7	1.66	0.66
LV	35.2	33.1	37.3	35.0	32.5	32.9	27.7	30.9	20.9	19.1	1.83	-0.05
LT	33.6	29.0	35.1	28.7	34.0	28.3	32.9	28.0	18.9	16.1	1.78	0.07
LU	(:)	75.7	(:)	71.5	(:)	71.4	(:)	71.4	(:)	48.5	1.47	
HU	9.7	44.3	8.4	43.3	7.6	42.3	6.8	41.1	2.5	21.2	2.04	1.32
MT	45.6	40.9	35.4	44.0	32.4	38.9	29.9	33.9	15.5	19.7	2.23	0.05
NL	52.5	62.8	43.5	61.5	43.7	58.9	43.8	56.4	28.2	35.7	1.72	-0.18
AT	40.2	49.3	46.9	48.1	44.9	47.9	42.5	47.7	25.2	35.2	1.37	0.49
PL	26.0	28.1	22.8	25.7	18.9	22.6	15.7	19.5	6.7	9.4	2.73	0.67
PT	31.8	53.2	24.9	46.2	22.6	41.6	20.1	36.7	10.2	20.0	2.31	0.13
RO	6.7	10.1	5.6	8.1	4.8	7.2	4.0	6.1	2.5	1.9	4.26	-2.02
SI	40.0	38.6	43.4	39.6	40.2	39.0	37.0	38.5	22.0	22.7	1.74	0.23
SK	44.6	42.7	48.5	44.0	46.5	43.1	44.6	42.1	23.8	21.6	2.04	0.00
FI	55.7	54.8	57.0	61.2	55.9	58.6	54.9	56.3	37.1	34.7	1.76	-0.23
SE	72.4	67.0	73.6	72.9	72.8	71.6	71.8	70.3	60.1	57.1	1.28	-0.05
UK	44.3	23.9	42.7	24.8	41.8	25.4	40.8	25.9	32.5	22.3	1.11	0.20
NO	56.0	65.4	53.9	61.0	52.6	60.4	51.2	59.8	40.3	40.0	1.53	-0.19

	11_1	11_2	12_1	12_2	not included
	Job-related employer sponsored NFE - Ratio		Age		ISCO blue-collar skilled workers versus managers and professionals
	Ratio 2011	Change ratio	Ratio 2011	Change ratio	Ratio 2011
Micro-data calculations - employed in job-related, employer-sponsored education and training					
EU-28	1.49	0.03	1.13	0.03	1.95
BE	1.90	0.22	1.30	-0.04	2.83
BG	1.21	0.14	1.09	-0.06	1.05
CZ	1.58	0.17	1.16	-0.18	1.74
DK	1.39	-0.14	1.18	0.15	1.36
DE	1.50	0.12	1.07	0.27	1.76
EE	1.62	-0.02	1.15	0.12	2.14

	11_1	11_2	12_1	12_2	not included
	Job-related employer sponsored NFE - Ratio		Age		ISCO blue-collar skilled workers versus managers and professionals
	Ratio 2011	Change ratio	Ratio 2011	Change ratio	Ratio 2011
Micro-data calculations - employed in job-related, employer-sponsored education and training					
IE	3.62	1.79	1.90	-0.04	5.24
EL	2.61		0.66		1.77
ES	1.40	-0.02	1.37	0.10	1.53
FR	1.36	-0.17	1.45	0.19	1.72
IT	1.39	-0.11	1.18	-0.01	1.95
CY	1.64	0.07	1.17	0.60	2.24
LV	2.13	0.02	1.13	0.26	2.87
LT	3.21	0.93	1.08	0.05	4.78
LU	1.08		1.14		1.15
HU	1.15	-0.53	1.16	0.28	1.05
MT	1.38		1.69		2.80
NL	1.25	-0.16	1.30	0.00	1.44
AT	1.42	-0.11	0.99	0.36	1.60
PL	2.55	-0.17	1.26	0.04	3.22
PT	1.19	-0.17	1.56	-0.13	1.72
RO	2.88	-0.76	1.24	-0.38	3.69
SI	1.83	0.11	0.89	0.33	2.48
SK	1.35	0.13	1.18	-0.18	1.45
FI	1.40	-0.12	1.39	-0.15	1.79
SE	1.24	0.00	1.10	0.00	1.65
UK	1.34	0.32	0.94	0.08	2.33
NO	1.11	-0.17	1.25	-0.15	1.53

Source: For indicators 7 to 10: Eurostat, dissemination database (access date 7.6.2014); own calculations.
For indicators 11 and 12: Eurostat, AES-2011 micro data; own calculations.

Table A39. **Overview on country results for ratios and trends in ratios (2005 to 2010) between small and large enterprises**

	Ratio incidence courses 2010		Ratio incidence other forms 2010		Ratio – participation – all enterprises 2010		Ratio GOTJ – all enterprises 2010		Ratio/hours employed 2010		Ratio direct expenditure/ employed 2010		Ratio TME employed 2010	
	R	T	R	T	R	T	R	T	R	T	R	T	R	T
Below-average hours/employed (all enterprises) – Above-average level of inequality (small versus large)														
EL	4.6	0.4	3.1	2.1	4.4	0.6	3.3	3.7	3.0	3.0	2.2	-0.5	2.0	-0.1
LV	3.3	-0.4	2.2	0.6	2.8	0.2	1.8	2.2	3.0	0.0	3.1	2.8	2.6	na
BG	4.4	-0.8	3.2	-0.6	5.5	-1.7	2.2	-0.2	4.0	-1.0	3.3	-1.1	3.2	-1.1
LT	2.6	1.5	1.9	0.4	2.5	1.0	5.9	-3.6	1.8	2.3	2.1	1.6	2.0	0.9
HU	2.9	0.4	2.7	-0.4	2.5	1.0	1.7	0.5	5.5	-2.2	2.0	-1.0	2.0	-0.5
PL	5.1	-0.6	6.1	-3.0	5.3	-1.0	6.0	-3.0	5.5	-0.5	2.1	-1.5	2.1	-2.7
IT	2.0	1.5	2.1	1.8	2.6	2.0	1.8	0.8	3.5	0.8	2.1	1.2	1.3	1.4
Below-average hours/employed (all enterprises) – Below-average level of inequality (small versus large)														
EE	1.8	0.1	1.7	0.2	1.9	-0.3	1.3	0.6	3.3	-1.7	1.1	-0.2	1.2	-0.3
UK	1.5	-0.2	1.3	-0.2	1.3	-0.1	1.5		1.1	-0.1	0.8	0.0	0.8	0.1
CZ	1.7	0.1	1.6	0.0	1.5	0.0	1.3	0.0	1.8	0.3	2.1	0.3	2.0	0.4
DE	1.6	-0.1	1.4	-0.1	1.6	-0.3	1.6	-0.1	2.2	-0.5	2.1	0.0	2.1	-0.1
FI	1.4	-0.1	1.6	0.0	1.5	0.1	1.7	-0.1	1.6	-0.2	1.7	-0.5	1.7	-0.5
Above-average hours/employed (all enterprises) – Above-level of inequality (small versus large)														
ES	1.4	1.1	1.5	0.6	1.7	1.0	1.3	1.0	2.3	0.9	2.4	1.0	3.3	-0.2
CY	2.4	0.1	1.5	1.7	2.5	0.1	1.5	-0.3	3.4	-0.7	2.0	0.2	3.0	-1.2
FR	1.5	0.0	1.5	0.3	2.1	0.0	2.3		2.3	-0.2	3.2	0.1	2.1	-0.4
MT	2.9	0.5	1.8	0.4	4.0	1.3	1.2	2.4	5.8	-2.6	1.5	2.0	1.5	1.4
SI	2.5	-0.8	1.6	0.0	2.5	-0.1	1.5	0.9	1.8	-0.3	1.9	-0.5	2.5	-1.5
BE	1.5	0.8	1.6	0.3	1.8	1.2	2.4	-0.3	2.2	0.8	3.1	0.8	2.6	0.5

	Ratio incidence courses 2010		Ratio incidence other forms 2010		Ratio – participation – all enterprises 2010		Ratio GOTJ – all enterprises 2010		Ratio/hours employed 2010		Ratio direct expenditure/ employed 2010		Ratio TME employed 2010	
	R	T	R	T	R	T	R	T	R	T	R	T	R	T
Above-average hours/employed (all enterprises) – Below-level of inequality (small versus large)														
AT	1.4	0.1	1.3	0.2	1.5	0.3	1.1	0.7	1.6	1.4	2.2	1.7	2.1	1.8
SE	1.3	0.2	1.3	0.4	1.3	0.1	1.2	0.9	0.8	1.5	1.0	0.8	1.0	0.8
SK	1.8	0.7	1.4	0.3	1.9	0.7	1.7	-0.4	2.1	1.5	1.1	1.9	1.1	1.5
NL	1.4	0.0	1.3	0.2	1.6	0.4	1.5	-0.2	1.6	0.3	1.9	0.9	1.8	1.4
DK	1.3	-0.1	1.2	0.5	1.0	0.1	2.6	1.9	0.6	0.7	2.0	-0.5	2.0	0.4
LU	1.7	0.0	1.6	-0.1	2.0	0.3	1.7	-0.6	2.0	0.3	1.4	1.7	0.9	1.5
EU-28	1.7	0.2	1.7	0.2	1.8	0.1	1.9	0.2	2.0	0.2	1.3	0.0	2.0	-0.1

NB: R= Ratio (value for large enterprises (250+)/value for small enterprises (10-49);
T= Ratio for 2005 minus ratio for 2010; positive values signal an increase in equality, negative value decrease in equality; Reading example: In the EU-28 average, in 2010, 1.7 times more large enterprises provide courses than small enterprises; equality have increased by 0.2 of this relationship.

Source: Eurostat, CVTS and dissemination database (accessed 18.5.2014); own calculation.

Table A40. **Composite indicator on trends in adult education and training: indicators considered, metrics and thresholds**

Indicator	positive (or negative) developments	Source	Years (waves) selected
1. Participation rate in education and training (employed adults)	Positive: (2010 value - 2005 value)/2005 EU average *100 >+10% Negative: (2010 value - 2005 value)/2005 EU average *100 <-10%	LFS	2005-10
2. Participation rate in job-related NFE (employed adults)	Positive: (2011 value - 2007 value)/2007 EU average *100 >+10% Negative: (2011 value - 2007 value)/2007 EU average *100 <-10%	AES	2007*-11*
3. Participation rate in formal education and training (adults)	Positive: (2011 value - 2007 value)/2007 EU average *100 >+10% Negative: (2011 value - 2007 value)/2007 EU average *100 <-10%	AES	2007*-11*
4. Participation in employer- sponsored CVT courses – (employed)	Positive: (2010 value - 2005 value)/2005 EU average *100 >+10% Negative: (2010 value - 2005 value)/2005 EU average *100 <-10%	CVTS	2005-10
5. Participation in employer- sponsored guided on-the-job training (employed)	Positive: (2010 value - 2005 value)/2005 EU average *100 >+10% Negative: (2010 value - 2005 value)/2005 EU average *100 <-10%	CVTS	2005-10
6. Hours spent in employer-sponsored CVT courses per employed	Positive: (2010 value - 2005 value)/2005 EU average *100 >+10% Negative: (2010 value - 2005 value)/2005 EU average *100 <-10%	CVTS	2005-10
7. Participation rate of adults in FED by educational attainment (participation rates for those with high educational attainment, ISCED5-6, versus participation rates of those with medium attainment, ISCED 3-4, ratio of values)	Positive (reduction in inequality): 2011 ratio - 2007 ratio <-0.2 Negative (increase in inequality): 2011 ratio - 2007 ratio >0.2	AES	2007*-11*
8. Participation rate of adults in NFE by educational attainment (participation rates of those with high educational attainment, ISCED 5-6, versus participation rate of those with medium attainment, ISCED 3-4, ratio of values)	Positive (reduction in inequality): 2011 ratio - 2007 ratio <-0.2 Negative (increase in inequality): 2011 ratio - 2007 ratio >0.2	AES	2007* -2011*
9. Participation rates of employed adults in job-related employer sponsored NFE by educational attainment (participation rates of those with high educational attainment, ISCED 5-6, versus participation rate of those with medium attainment, ISCED 3-4, ratio of values)	Positive (reduction in inequality): 2011 ratio - 2007 ratio <-0.2 Negative (increase in inequality): 2011 ratio - 2007 ratio >0.2	AES	2007*-11*
10. Participation rate of adults in NFE by age group (participation rates of those aged 55-64 versus participation rate of those aged 35-44, ratio of values)	Positive (reduction in inequality): 2011 ratio - 2007 ratio <-0.2 Negative (increase in inequality): 2011 ratio -2007 ratio >0.2	AES	2007* -2011*

Indicator	positive (or negative) developments	Source	Years (waves) selected
11. Participation rates of employed adults in job-related employer sponsored NFE by age group (participation rates of those aged 55-64 versus participation rate of those aged 35-44, ratio of values)	Positive (reduction in inequality): 2011 ratio - 2007 ratio <-0.2 Negative (increase in inequality): 2011 ratio - 2007 ratio >0.2	AES	2007*-11*
12. Participation rate of adults in NFE by labour market status (participation rates of those employed versus participation rate of those inactive, ratio of values)	Positive (reduction in inequality): 2011 ratio - 2007 ratio <-0.2 Negative (increase in inequality): 2011 ratio - 2007 ratio >0.2	AES	2007* -2011*
13. % of enterprises providing CVT courses for their employee by enterprise size class (large versus small enterprises, ratio of values)	Positive (reduction in inequality): 2010 ratio - 2005 ratio <-0.2 Negative (increase in inequality): 2010 ratio - 2005 ratio >0.2	CVTS	2005-10
14. % of enterprises providing other forms of CVT by enterprise size class (large versus small enterprises, ratio of values)	Positive (reduction in inequality): 2010 ratio - 2005 ratio <-0.2 Negative (increase in inequality): 2010 ratio - 2005 ratio >0.2	CVTS	2005-10
15. % of employee participating in CVT courses by enterprise size class (large versus small enterprises, ratio of values)	Positive (reduction in inequality): 2010 ratio - 2005 ratio <-0.2 Negative (increase in inequality): 2010 ratio - 2005 ratio >0.2	CVTS	2005-10
16. % of employee participating in guided on-the-job training by enterprise size class (large versus small enterprises, ratio of values)	Positive (reduction in inequality): 2010 ratio - 2005 ratio <-0.2 Negative (increase in inequality): 2010 ratio - 2005 ratio >0.2	CVTS	2005-10
17. Hours in employer sponsored CVT courses (hours per employee) by enterprise size class (large versus small enterprises, ratio of values)	Positive (reduction in inequality): 2010 ratio - 2005 ratio <-0.2 Negative (increase in inequality): 2010 ratio - 2005 ratio >0.2	CVTS	2005-10
18. Enterprises direct monetary expenditure in CVT courses by enterprise size class in PPS per employed large versus small enterprises, ratio of values)	Positive (reduction in inequality): 2010 ratio - 2005 ratio <-0.2 Negative (increase in inequality): 2010 ratio - 2005 ratio >0.2	CVTS	2005-10
19. Enterprises total monetary expenditure in CVT courses in PPS per employed by enterprise size class (large versus small enterprises, ratio of values)	Positive (reduction in inequality): 2010 ratio - 2005 ratio <-0.2 Negative (increase in inequality): 2010 ratio - 2005 ratio >0.2	CVTS	2005-10
20. Enterprises direct expenditure on CVT courses (PPS per employed)	Positive: (2010 value - 2005 value)/2005 EU average *100 >+10% Negative: (2010 value - 2005 value)/2005 EU average *100 <-10%	CVTS	2005-10
21. Enterprises TME on CVT courses (PPS per employed)	Positive: (2010 value - 2005 value)/2005 EU average *100 >+10% Negative: (2010 value - 2005 value)/2005 EU average *100 <-10%	CVTS	2005-10

Source: Authors.

1.7.1. Methodology

The composite indicator provides more comprehensive yet still synthetic information on trends in adult education and training at country level. The aim of the composite indicator is not to provide a general measure of trends in adult education and training as such. The aim is rather to have a reference measure to be analysed in combination with economic and financial developments over time.

The composite indicator has three levels: (a) mainly positive: at least nine of the indicators point in a positive direction; (b) stable or mixed development: positive developments are mixed with negative ones and/or indicators represent mainly stability over time; (c) mainly negative developments: a least nine indicators point in a negative direction.

For each indicator, a specific metric and threshold is adopted to assess country trends ad positive, negative or stable. For indicators which are not expressed as ratios between groups (e.g. number 1), the criteria for positive/stable/negative development was the following. An indicator represent a positive development, when values has been increased by at least 10% of the EU-28 average of the previous round, respectively, a negative development, when values has decreased by 10% of the EU-28 average. In all other cases, the development was rated as stable. By using the EU-28 of the previous round as a base, base-effects (i.e. when countries show strong relative increases, yet, from a very low base) are diminished. For indicators which are expressed as ratios between groups (e.g. number 7) the absolute change in ratios is considered and a threshold of 0.2 absolute point is adopted.

Eighteen countries have been included in the analysis. In three countries, GDP per capita is 10% higher in 2011 than in 2005 (Poland, Romania and Slovakia). In six countries, by 2011, GDP has fully recovered to pre-crisis levels (Bulgaria, Germany, Lithuania, Malta, Austria and Sweden). In six countries, GDP per capita has not fully recovered to pre-crisis levels (the Czech Republic, Estonia, Denmark, Cyprus, Latvia and Finland). Finally, three countries have a GDP per capita which is 10% or more lower than in 2005 (Spain, Greece and Slovenia). (Nine countries have not been analysed due to insufficient data on trends in job-related learning – Belgium, Ireland, France, Croatia, Italia, Luxembourg, the Netherlands, the UK and Norway).

1.7.2. Results

Three countries with gains in GDP per capita between 2005 and 2011 show – based on the previously mentioned composite indicator – completely different patterns in job-related learning, with mainly negative developments in Romania, mixed development or stability in Poland and mainly positive developments in

Slovakia. The six countries which have recovered mainly to pre-crisis levels in 2011, again, have diverse developments for job-related learning. In Austria, Lithuania, Malta, and Sweden, developments are mainly positive; however, they are mixed or stable in Germany and negative in Bulgaria.

Among countries not fully recovered from the crisis, the Czech Republic, Estonia and Finland show stable or mixed developments for job-related adult learning, while Cyprus, Denmark and Latvia show positive developments for the selected indicators on participation/equality.

Among the three countries with the strongest declines in GDP per capita between 2005 and 2011, Slovenia shows mainly negative developments and Greece and Spain show mainly positive developments in the field of LLL.

Overall, the results confirm previous findings (Felstead et al., 2013; Dieckhoff, 2013) that no straightforward relation exists between an economic crisis and development of job-related adult learning.

Despite this unfavourable economic environment, most countries included in the analysis have no overall negative development in job-related, further education and training (based on the selected 21 indicators). Actual decreases in certain indicators are often counterbalanced at least to some degree by gains in other indicators (based on the selected 21 indicators). Actual decreases in certain indicators are often counterbalanced at least to some degree by gains in other indicators. For example, in Slovenia, despite considerable losses in CVT and decreasing equality in participation, gains are to be observed in average hours in NFE per capita or in participation in guided on-the-job learning.

Table A41. **Country developments in LLL (21 indicators represented in Table 32 in the report) and exposition to the economic crisis (2005-11)**

		Developments according to 21 indicators		
		(More) negative (9 and more negative – less than 9 positive)	Mixed or stable developments	(More) positive (9 and more positive – less than 9 negative)
Effects of the crisis and (non-)recovery: GDP per capita – development between 2005 and 2011	Strong gains (+10%)	RO	PL	SK
	Weak gains (0 up to +10%)	BG	DE	AT, LT, MT, SE
	Weak losses (0 up to -10%)		CZ, EE, FI	CY, DK, LV
	Strong losses (more than 10%)	SI		EL, ES

NB: Insufficient information for IE, HR, LU, NO; BE, FR, IT, NL, UK; GDP per capita market prices, corrected for increase in consumer prices 2005-11 versus GDP per capita 2011; see data in the Annex 1.7

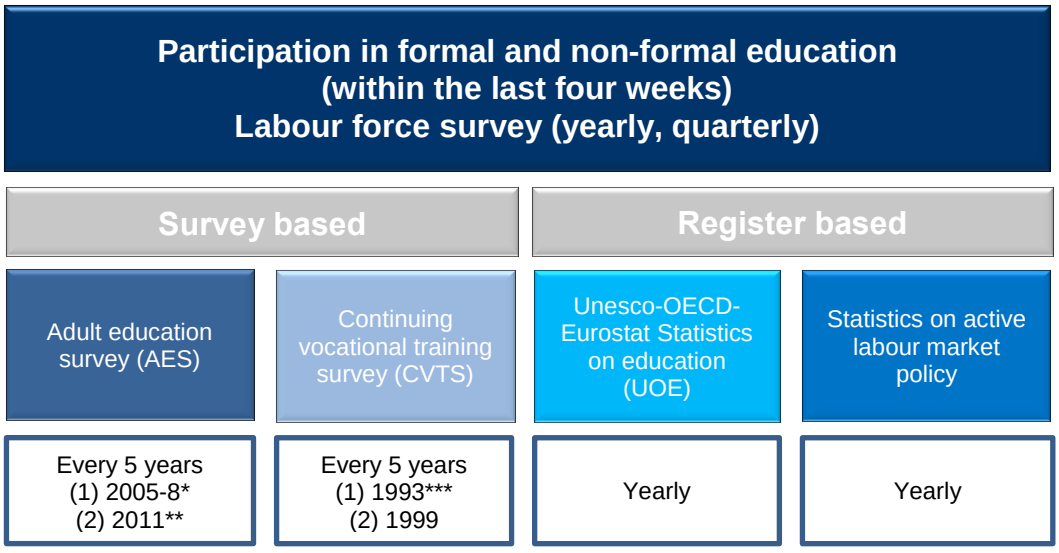
Source: Eurostat, AES and dissemination database (accessed 18.5.2014); own calculation.

ANNEX 2.

The structural indicator on LFS, AES and CVTS within the European system of statistics on lifelong learning

AES and CVTS, implemented every fifth year and both with a reference period of 12 months, complement information on participation on lifelong learning (LLL) collected by the labour force survey (LFS) on a quarterly basis and referring to the past four weeks prior to the survey. The surveys represent two main pillars of the European system of statistics on lifelong learning, which – beyond LFS – further includes the annual, register-based UOE ([6]) statistics on participation in and financing of formal education, covering participation in formal education from early childhood until adulthood and the annual, register-based statistics of further education and training (participants; financial resources) within the statistics on active labour market policy (Figure A10).

Figure A10. **The European system of statistics on lifelong learning (main components)**



NB: (*) pilot status; (**) reference period 12 month prior to survey, starting between 2011 and 12; (***) pilot only

Source: Own description.

([6]) Unesco, OECD and Eurostat: the joint, register-based data basis on participation in formal education.

While the quarterly LFS collect basic information only, AES and CVTS collect a broad variety of indicators on LLL, variables on contexts and outcomes of participations, reasons for and barriers to participation as well as break downs for in-depth analysis.

Within the past decade, statistical concepts have been harmonised – up to a certain extent – between LFS, AES and CVTS. Nevertheless, an integrated use of the three surveys remains challenging. Table A42 summarises the main differences between the three surveys. Relating AES and CVTS to LFS is particularly difficult, as statistical offices of the Member States still apply a different methodological or operational approach for measuring LLL participation in LFS.

Table A42. **Content and selected differences between LFS, AES-2011 and CVTS4**

Item	LFS	AES-2011	CVTS4
Statistical units	**Households**	**Households OR individuals**	**Enterprises**
Attribution to territorial entities	Place of living (household)	Place of living (household)	Place of the enterprise (employed may be inhabitants of the same territory or not
Individual participation: age cohorts covered	All groups (for EU LLL-indicators 25-64)	25 to 64 (in some countries also for 18-24 and 65-70)	End of compulsory schooling to statutory retirement age
Individuals: current labour market status	All statuses, classified by ILOSTAT	All statuses classified by MAINSTAT, i.e. main current labour market status (this is different from ILOSTAT in many ways)	Employed only (+ apprentices with regular employment contract)
Covered economic sectors	All sectors	Aall sectors	Important sectors such as health, education, public administration are excluded
Sector break-downs available	Output disseminated reliably in 21 sectoral categories	Output could be disseminated in six broad categories, not yet implemented by Eurostat	Output is reliably disseminated in 20 sectoral categories
Covered size classes of enterprises	All size classes covered (break variables for five size classes ([a]), but referring to the local unit rather to the enterprise	All size classes (break variables), but referring to the local unit rather than to the enterprise	Only enterprises with 10 and more employed; three (small countries) or six (large countries) size classes
Size break downs available	Eurostat disseminates results for 1-10 versus larger enterprises	Eurostat does not disseminate results by size	Output reliably disseminated in three (in large countries six) size categories
Reference period for participation (duration; timing)	Four weeks prior to the survey	12 months prior to the survey	One calendar year, the same for all countries
Frequency and timing of measurement	Four times a year; one third of the sample is interviewed every month; quarter averages and yearly averages are calculated	One time; time of implementation differ (therefore the reference period of 12 month) between the countries	One time; reference period is the year 2010 irrespective to the time of implementation of the survey

Item	LFS	AES-2011	CVTS4
Statistical units	**Households**	**Households OR individuals**	**Enterprises**
Concepts of learning and types of learning represented	• formal education (however, differently defined than in AES); • non-formal education (however differently defined than in AES and mainly excluding guided on-the-job training); different approaches across countries); • informal learning is excluded	• formal education; • non-formal education (courses, guided on the-job-training, workshops/ seminars/conferences, private lessons); • informal learning; • distinct definitions from LFS and CVTS.	• participation in courses (no distinction between formal/non-formal); • participation in selected non-formal and informal learning activities ('other forms of training') including 'guided on-the-job training', 'workshops/seminars/conferences', 'learning/quality circles', 'job-rotation/secondments/exchanges' self learning.
Regional coverage/sample frame	Representative on NUTS3 level	Representative on NUTS 1 level	Representative in many countries only on NUTS 0 (partly on NUTS 1)
Ways in which duration of courses is perceived and reported	No information on duration of courses collected (not available in the European data set)	Separate statements on hours in courses and hours for work assignments; number of hours with the reference period	Paid working hours in course work or related activities (independent of the duration of a course)
Purpose of learning (job-related or not)	Collected with heavy limitations: • not collected for formal learning • collected for non-formal learning but only for the most recent activity	Collected with some limitations: • collected for formal learning (but only for the most recent activity) • collected for non-formal learning (in relation to at least one learning activity among a set of maximum of ten, being job-related or not) ([b]) • collected for informal learning (but only for the two most recent activities)	• not explicitly collected, but CVT is likely to be job-related, • comparison between job-related component and its complement are not possible.
Employer provided learning (paid by the employer and/or during paid working time)	Collected with heavy limitations: • not collected for formal learning; • collected only for the most recent non formal activity and only looking at training during paid working time (employer financing is not considered).	Collected with some limitations: • collected for formal learning (but only for the most recent activity); • collected for non-formal learning (in relation to at least one learning activity among a set of maximum of ten, being job-related or not)([b]); • not collected for informal learning	• collected by definition; • comparisons with its complement (not employer-sponsored learning) are not possible.

Item	LFS	AES-2011	CVTS4
Statistical units	**Households**	**Households OR individuals**	**Enterprises**
Funding sources	No information	Indication of sources of funding, e.g. individual household, employer, public employment services, other public co-funding	• by definition employer-sponsored; • additional info is collected on receipts for CVT of collective funds and similar (amount); information on sources of co-funding usually explored.
Costs	No information	• costs data collected on households level; • cost data collected on FED and NFE learning (various types, courses and other forms); • costs data collected on randomly selected learning activities (not necessarily corresponding to all activities undertaken by sampled individuals); • types of costs collected: households' payments for tuition fees; costs of study material (yet, no travel costs ([c]) and infrastructure as working rooms) – no estimate for opportunity cost, yet, information on leisure time (hours) spent on learning	• cost data collected on enterprise level; • cost data collected only on training courses (regardless of being formal or not); • costs data collected for all training courses, but not for other type of training; • types of cost collected: company-paid costs for tuition fees, travel and subsistence, training/HRD personnel and infrastructure (direct costs), rough estimate for personnel absence costs (PAC), based on number of training hours multiplied by average labour costs per working hour of all employees ([d])
		financial indicators in EUR (national currencies converted into EUR at fixed exchange rates)	Financial indicators in purchasing power parities (not in EUR)
Hours of training		• hours data collected on FED and NFE learning (various types, courses and other forms); • hours data collected on randomly selected learning activities (not necessarily corresponding to all activities undertaken by sampled individuals).	• hours data collected only on training courses (regardless of being formal or not); • hours data collected for all training courses (no random selection), but not for other types of training.

NB: ([a]) 1-10, 11-19, 20-49, 50-499, 500 and more.
([b]) Also collected in relation to two randomly selected non formal learning activities
([c]) For AES-2007, travel time has been recorded (NFE16y), yet, the item has been deleted for AES-2011.
([d]) For a discussion of the limitations of the concept for PAC, see CEDEFOP 2010, 88ff.
Source: Own description.

ANNEX 3.

Indicators for key dimensions of lifelong learning: participation, intensity and costs

Lifelong learning (LLL) encompass a broad range of different learning activities, speaking of aims, content, duration and workload as well as costs, pursued by sub groups of the population with diverse profiles. Beyond individuals, respectively the households, employers play a significant role in the provision of job-related learning. For monitoring and comparing participation in LLL across countries and over time, various studies and reporting systems have developed indicators, which allow grasping overall development in LLL for various units of analyses as national states, regions, economic sectors and so forth. Indicators address in particular:

(a) participation rates of adults in learning activities; for enterprises, an additional indicator expresses whether or not enterprises provide training for their employees;
(b) average time devoted to participation in learning activities, divided by the population, the participants or the number of learning activities;
(c) average costs of participation, again related either to the population, the participants (or the active enterprises) or the learning activities.

While single indicators have strengthens and limitations, neither of them is able to deliver a meaningful picture of LLL of social entities or period of times in isolation. Participation, time devoted (intensity) and resources spent (costs) are interrelated and could not be compared without making cross-reference. In particular, indicators on time and resources devoted are sensible to changing participation rates. Therefore, researchers propose frequently to use various techniques of combining various indicators in order to receive a more consistent picture needed for in cross-period or cross-county comparison (Behringer et al., 2008b; Badescu and Saisana, 2008; Rosenbladt, 2010).

Compared to the more frequently used statistics on individual participation in LLL, statistics on training behaviour of organisation know their own particularities, adding to the complexities involved in crafting and interpreting related indicators. Firms differ strongly with regard to the number of employees, turn-over, capital invested as well as in their training policies. Indicators reporting averages for heterogeneous classes of firms are therefore difficult to interpret. Large firms, moreover, may strongly influence reported indicators, making up a considerable

share of a sector (or even countries) training activity (Hefler and Markowitsch, 2008a).

A3.1. Participation and enterprises providing training (incidence)

Participation rates express the proportion of a population under study taking up learning activities at least once within the observation period. The numerator expresses the number of persons or enterprises reporting at least one activity of the addressed type or types of learning (e.g. non-formal education), the denominator the number of adults/employers in the universe under study.

Based on the AES, participation rates are usually calculated for:

(a) different types of learning activities (formal, non-formal, informal);
(b) learning activities devoted to a particular purpose (job-related versus personal (non-job-related);
(c) learning activities provided or (partly) financed by types of actors (individuals/households; employers; public organisation such as public employment agencies).

For enterprise, based on CVTS, two types of indicators are calculated, expressing different dimensions, namely, the indicator on training incidence on the one hand, and a set of indicators on participation of the employed of the firms under study, on the other hand.

The question, whether or not enterprises participate, respectively, provide training is answered by the indicator called training incidence (Cedefop, 2010, p. 17). It measures the proportion on enterprises, which provide further education (courses or other forms of training) at least once within the observation period and express it as a share of all enterprises of the universe. As a concept, the incidence indicator for organisations equals to the participation rate of individuals. Training incidence is expressed for various types of training (courses; other forms of training beyond courses; any form). While the incidence indicator divides employers in active/non-active enterprises, any training activity (e.g. one hour of training for a single employee among, e.g., 100 employed) would be sufficient for classifying a firma as training active. The defining criteria for the nominator is therefore a considerably week indication for activity in LLL, clearly weaker than the participation rate in LLL for individuals. Consequently, it has been frequently discussed to use a more qualified threshold (e.g. a minimum percentage of employees active) for building up the indicator (Hefler and Markowitsch, 2008b).

For enterprise, one could also express the proportion of workers of the enterprises studied who are participating in training as a percentage of all employed by the same universe of enterprises. The so-called participation rate (Cedefop, 2010) calculated based on the CVTS survey could be interpreted twofold:

(a) the participation rate of employed in enterprises with training activity (trng_cvts46) expresses the share of employed involved in training and could be interpreted as one dimension of enterprises' training performance: on average higher participation rates express higher activity levels of corporate training for the aggregate of enterprises studied. Participation rates for training active enterprises require, however, a joint analysis of training incidence to be fully understood, as, for example, in one country a small number of training active enterprises might have a high participation rate, however, the participation rate in employer-provided training is considerably low;

(b) the participation rate of employed in enterprises for all (with and without training) enterprises (trng_cvts42) jointly express the proportion of enterprises providing training (incidence) and the share of employed included in training (participation rate). Moreover, the participation rate of employed in all enterprises could be compared on a conceptual level with the participation rates of individuals in employer-provided training, when correcting for the particular universe studied by CVTS (enterprises with 10 and with agriculture, health, education and public administration excluded) and AES (e.g. adults 25 and older) However, as enterprises and individuals views differ with regard to activities which do or do not represent training, the two participation rates should be seen more as complementary than as two expression of the same underlying social phenomenon (for a discussion on a joint analysis of AES and CVTS see Behringer et al., 2008a).

The reliability of participation rates may be strongly affected by the ways nominator and denominator are measured, in particular, by the observation period applied. In both, AES and CVTS, the denominator on training participation is measured for a 12-month period, that is, all training events within the period should be observed for identifying participants. However, the nominator is in both cases measured only for one moment in time (adults between 25 and 64 at one reference date; number of employed by end of the calendar year). Moreover, various characteristics changing over time (e.g. employment status) are measured only at one point of time. For AES, this discrepancy should be hold in mind mainly when studying particular sub populations (e.g. participation of unemployed). For CVTS, all indicators using the number of employed as a

nominator systematically overestimate participation rates, as training activities for all employed active for a company over a 12-month period are compared to the number of employed by the last day of the year. Depending on rates of job turnover and effects of seasonality (e.g. in construction work in Member States with cold winters), the overestimation could be substantial (e.g. 10% and more), with marked differences across countries, such as reflecting diverging job rates of job turn over, which was in 2005, for example, four times higher in the UK than in Greece (Danish technological Institute, 2008).

A3.2. Time devoted to learning activities

Indicators on time devoted to LLL try to express the extent or intensity of learning, measured for learning events, participants, or adults without taking participation into account. Time devoted to learning is also used to express one important dimension of training performance of enterprises.

Measuring time for LLL requires a definition of what should be counted as learning or participation time and what should not be covered under the heading. Definitions are by nature a matter of conventions and they know their pros and cons. AES and CVTS differ in the concepts used for measuring time devoted to learning. In AES, participation time in courses, workshop and seminars, on-the-job training and private tutoring is measured. Time for, for example, homework or for commuting to and from educational facilities is excluded. There is no reference made to the work load of the educational activity attended (e.g. expressed in European credit transfer and accumulation system points or comparable units). A particular issue might be on-the-job training, as the border between learning and productive work is difficult to identify ([7]).

Equally important are the denominators used for calculating indicators on time use based on AES. Three indicators are frequently provided:

(a) time used per activity: an indicator could be made for the average time used per activity reported. In AES-2011, most countries measure time devoted to one FED and two or three non-formal education and training (NFE) activities, yet, ask for the total number of NFE activities within the observation period.

([7]) E.g., when introductory on-the-job training is provided to new employees, e.g. for a four-week period, employees may provide already substantial contributions in the third week with requiring support only occasionally. There is no rule fixed for delineating participation time in the case described, which could be either the whole period of planned training (e.g. 160 hours) or only a fraction of the time, according to the perception of the interviewee (e.g. 40 hours for the same case).

Time used for all activities (corrected for activities where no time is report) is divided by the number of activities reported. As training activities including only a short time (in the AES-2007, 39% of all reported NFE activities last up to 10 hours; Rosenbladt, 2010, p. 477), the indicator is strongly determined by these shorter training activities;

(b) time used per participant: the duration of all training activities for a participant are estimated (using the information available and estimating the duration of learning activities where no duration is reported). The total of the time used is divided by the number of participants. As adults may combine more activities and more extended activities with short activities, average number of training per participant is significantly higher than the number of training hours per activity. The indicator also measures the concentration of learning activities on a varying proportion of participants;

(c) time use per adult: the total of time devoted to learning activities could be related to the total adult population, achieving a combined indicator out of participation rate and extend of participation (e.g., Rosenbladt, 2010, p. 479). While this quite informative indicator is seldom used for describing individual participation, its counterpart based on CVTS for enterprises is frequently used and available in Eurostat dissemination database (trng_cvts72).

Time used on training is measured differently in CVTS than for AES. For CVTS, only time devoted to taught courses is reported, yet not time spent on workshop and seminars, guided on-the-job training, job rotation, self-study or self-directed learning ([8]). This implies a considerably more narrow definition of learning time. However, any paid working time devoted to course work is included, that means, beyond instruction time, also paid working time for preparation and homework and commuting to/from the learning facility. Time devoted to course work or course related activities outside paid hours (e.g., when travelling time has been defined by collective agreements as non-working time) is not included in the calculation.

Indicators calculated based on CVTS include:

(a) hours of training per participant – the total of hours reported is divided by the total number of participants. The indicator represents a further dimension of enterprises' training performance, marking differences in the amount of training provided by participant. However, the indicator should not be studied

([8]) Self-directed learning is classified as informal learning within the AES; therefore, time for self-directed learning is also not reported in the AES among the category time for NFE.

in isolation without acknowledging differences in participation rates in training active enterprises;

(b) hours of training per employee in training active enterprise – the total of training hours is divided by the total of workers employed by enterprises providing training courses. The indicator informs about the relative intensity across firms providing courses. The indicators should be used to the backdrop of the percentage of employees working in firms which provide courses. In countries with high proportion of firms providing training – in particular among medium and large firms – often more than 90% of the workforce is employed by enterprises providing courses;

(c) hours of training per employee of all enterprises – the total of training hours is divided by the total workforce of the enterprises studied. This indicator could be interpreted as a combination out of training incidence, participation rate and level of activity, representing these dimensions in one figure. It is therefore often used in comparative frameworks for expressing the overall training activity of firms across countries. With various restrictions stemming from differences in measurement and perception between employers and employees on what constitute training courses, the indicator could be compared with the average number of hours in course work ([9]) of employer-provided formal and NFE derived from the AES survey;

(d) hours of training per 1 000 hours worked: the number of courses in paid working time could be expressed as the number of hours in training per 1 000 hours worked. The indicator expresses thereby the share of available (time) resources devoted to training activities (10 hours per 1 000 hours equals 1% of the working time). This often-used indicator avoids the drawback of relating a nominator and a denominator with different observation periods, as both are coving all training, respectively, working hours for a twelve month period ([10]).

Indicators on time spent on training should be seen as proxies affected by considerable measurement errors. For individuals, it is often difficult to report the number of hours of the learning activity, in particular, when the activity has

([9]) Hours in any NFE activity funded by employers, however, could not be compared, as AES reports hours for on-the-job training and workshops and seminars, which are not covered in CVTS.

([10]) For cross-country comparison, the indicator avoids also ambiguities related to considerable differences across countries in the proportion of part time workers. However, the sources for the number of working hours may be of different quality across countries, a potential inconsistency, which is a clear drawback of the indicator.

started prior to the observation period or will continue after the end of the observation period (for a discussion, see Kuwan and Larsson, 2008). For enterprises, in particular with 50 an more employees, estimates on working time devoted to training are typically derived from time accounting systems or from particular reporting systems (e.g. on training days), however, approaches how to report time on courses differ across enterprises within and across countries. Changes in accounting practices (e.g. due to new regulations as in the case of Portugal starting with 2009) are likely to have hefty impact on the numbers of training hours reported.

A3.3. Monetary expenditure on LLL

Contrary to mainly state-funded initial general and vocational education, further education strongly depends on private funding provided by the households and the employers. Private funds are – with large variations across societies – only supplemented by public means, which are often strongly targeted to particular groups or activities (e.g. training for long-term unemployed). In absence of alternative sources, information on households' and enterprises' spending on LLL derived from the AES and CVTS survey are therefore of particular importance.

However, measuring expenditure on learning activities is subjected to various limitations, so that only rough estimates could be expected. Indicators on financial expenditure should therefore be used with special care. Challenges differ between the measurement of individual expenditure and the measurement of enterprise expenditure and are therefore discussed separately for the two surveys.

In AES-2011, information on households' expenditure for one formal and two to three non-formal activities is collected. Beyond tuition fees, information on fees for exams, books and other study material is collected. Costs for commuting to and from the learning facility are not part of the expenditure collected, nor are any shadow prices for private facilities as e.g. the rent for the room used for studying at home. Payments within the 12 month observation period should be reported, regardless whether or not the learning activity falls fully into the observation period ([11]).

Private expenditures required for learning activities vary widely depending on the type and duration of programmes and the funding formula of educational

([11]) Money spent for learning activities outside the observation period will be balanced by spending for learning activities within the observations period paid outside the observation period.

provisions, which could be anything from purely market based to fully subsidised by public means (Hefler, 2013). For many learning activities, third parties, in particular the employers and public institutions as the public employment services, cover all expenditures. A considerably low number of learning activities with high financial contributions by the households are balanced by many activities with minor or no financial contributions, a fact, which should be hold in mind when interpreting related indicators.

Contrary to CVTS, figures on household expenditure based on AES are not expressed in purchasing power parties (PPP), but in EUR (which implies recalculation of local currencies for non-Euro countries). When comparing results across countries, differences in real purchasing power should be considered.

Foregone income for participating in further education is typically not considered within the framework of AES – again, in opposition to CVTS. While it is difficult to provide any estimates, declines in wage income in periods of further education are known to represent a barrier to participation, in particular, for low-wage earners, so the topic is not only of academic interest.

Moreover, for individuals, only direct expenditure, subtracted by any co-funding by third parties (such as public funds) are collected. Households' mandatory contributions to training funds or unemployment insurance schemes are not considered as expenditure for LLL.

Indicators on households' expenditures for formal or non-formal education based on AES include:

(a) household expenditure per participant; expenditures for all activities reported are estimated and divided by the number of participants (separately for formal and non-formal education). The indicator should be used to the backdrop of participation rates as the denominator (number of participants) may strongly influence the figures presented. Beyond of providing the mean value, the percentage of individuals with expenditure within a certain range of values (e.g. between EUR 100 and EUR 250 could be expressed; Statistik Austria, 2013, p. 81);
(b) household expenditure per adult; estimates for total expenditure could be related to all adults, achieving an indicator to the relative contributions of all households to the costs of further education.

Firms' expenditure on training is measured by an extended approach described in more detail in Chapter 6 of this study. Beyond tuition fees and fees for external trainers, personnel costs for internal trainers and administrators, travel costs and daily allowances for participants, as well as costs for teaching materials and costs for used infrastructure are collected under the heading of 'direct costs'.

Beyond direct costs, contributions to and receipts from collective funding schemes, respectively national or European funds, are collected. Countries differ widely in the relative importance of the collective funding mechanisms and whether or not enterprises' contributions are simply redistributed between companies or are used for other purposes (e.g. for the training of the unemployed) ([12]). In some countries, receipts from public funds grossly exceed payments and significantly reduce monetary expenditure of firms for training.

Within the framework of CVTS, it has been established to provide estimates for foregone productive work are provided by multiplying the number of training hours (courses only) by the average hourly wage of all employees. However, the so-called indirect costs or labour costs of participants represent a weak proxy at best, as it depends on various issues whether these 'shadow costs' actually apply or not (e.g. whether or not enterprises have to employ substitutes for the duration of course work) (Eurostat, 2003). Indirect costs have therefore been rated as of low information value by various assessments and are of clearly less quality than the estimates provided for direct costs. As a rule, direct and indirect costs should not be added unconditionally. Combining information on direct costs with information on training hours per participant would allow a less problematic assessment of firms' overall investment in training.

Costs are expressed in PPS for improving comparability across countries. However, for cross-period comparison, considerably strong changes (+10%) in the relative purchasing power may dilute the information available as changes in the relative value of currencies might not be valid for the field of training (for an overview on the used PPP rates used to produce PPS for CVTS3 and CVTS4, see in Table A27).

Direct costs corrected for contributions to and receipts from collective funding mechanisms represent the total monetary expenditure (TME). TME and

([12]) Taking the theoretical viewpoint of the economics of education, only contributions to collective funds used for training by any other employer should be collected under the heading. Contributions to funds (levies) not earmarked for in-company training, but e.g. to the training of unemployed or any other state-led activity, would represent a kind of tax, which has to be paid regardless of a company's training activity. They should therefore not be included among training costs. However, in reality, CVTS collects information on contributions to collective training funds regardless whether or not the means are earmarked for in-company training or 'train or pay' regulations are in place. Moreover, countries differ in their institutional set up, so that quite similar contributions are reported in some countries and not in others. E.g., enterprises' contributions to the unemployment insurance may be partly reimbursed to enterprises for in-company training (such as in Austria), yet, may not be reported under the heading contributions to funds in CVTS.

direct costs are considered a valid basis for the construction of indicators, yet, not figures including the estimate for forgone working time.

Indicators on expenditure, based on CVTS, expenditure include:

(a) TME/direct costs as a share of labour costs: TME or direct costs are expressed as a share of the total labour costs. The frequently used indicators have the advantage of using a nominator and denominator with the same reference period (12 month). As the impact of public co-funding differs widely across countries and rates of co-funding may change between survey waves, these payments/receipts should be observed carefully;

(b) TME or direct costs per participant: TME or direct costs could be expressed as a value per participant. This frequently used indicator should, however, not be used without taking considerably different participant rates into consideration, which differ across periods and across countries;

(c) TME or direct cost per employee/all enterprises: TME or direct costs are frequently expressed as an amount per employee in all enterprises, representing the average spending of the universe of firms for the universe of their employed. For comparing countries, the indicator has the advantage to include at once training incidence and participation rate in employer-provided training;

(d) TME or direct costs per hour of training: training costs could be also related to the total number of hours of training. Training costs per hour depend on a multitude of factors and do not simply represent costs for training on local training markets. In particular, costs per hour could be also seen as a measure of efficiency, as fixed costs for training (e.g., for infrastructure or internal personnel, making up the lion share of direct costs in many countries) could be spread among more or less training activities with more or less participations, resulting in different costs per training hours. Larger enterprises and enterprises with more training activities could profit from economics of scale, so higher hours in training per employee is often associated with lower direct costs per hour of training (Hefler and Markowitsch, 2008b).

ANNEX 4.

Methods of AES, CVTS and methodological changes and limitations in cross-period and cross-country data comparability

This section provides a short introduction to the methodological fundamentals of the two surveys. Special attention is given to changes in methods applied between the two survey waves and across countries.

A4.1. The first (2007) and second (2011) wave of the adult education survey (AES)

Adult education survey

The AES targets individuals between 25 and 64, however, countries are encouraged to cover younger people (18-24) and older (65 and older) as well (Table A43). Stratified random sampling is applied, using the best sources available. Sampling is done either for households or for individuals, typically based on household or population registers. As a rule, results should be corrected for unit non-response bias (weighting) and missing values should be imputed, however, these guidelines has not been followed for all participating countries (for an overview on deviations of methods stated in the manual see Eurostat 2014). Sample size is around 5 000 in most countries, however, some countries have considerably larger samples (Eurostat, 2014, p. 10).

As AES-2007 had been a pilot study, methodological changes between AES-2007 and AES-2011 as well as changes in the questionnaire have been quite numerous. Beyond new questions and derived indicators, the most important changes include a more narrow definition of formal adult education and a new approach in measuring informal learning, not comparable with the approach used in AES. A detailed overview will be given below.

Table A43. **Overview of additional age groups covered in AES-2011**

Additional age range covered	Countries
below 25 years	DE, ES, AT, EL, SK, BG, EE, FR, IT, LT, CZ, PL, PT, RO, SI, FI, NO
above 64 years	CZ, IT, LT, PL, PT, RO, SI, FI, NO

Source: National quality reports.

Table A44. **Important conceptual and methodological changes between AES-2007 and AES-2011 according to the manuals**

AES	2005/2005-08	2010/2011	Comments
Dispersion of timing of the survey (across countries	The dispersion is more than four calendar years	The dispersion is considerable less, however, still considerable	When comparing results of the two waves, the considerable different time spans between the values for the two years have to be considered
Changing definition of Formal adult education (FED) (and, consequently, NFE)	Any course activity within the qualification framework/the system of schools	Only activities with the NQF/the system of schools representing a work load of half a year of ([a]) full-time education	Workload threshold applied in accordance to the UOE manual for making results on formal adult education more comparable; while limiting cross-period comparability in principle, the size of its effect is likely to vary between countries; little information on the implementation of the new rule available in the quality reports
Change of strategy for measuring FED	Up to three formal activities	Only the most recent activity	Loss of the opportunity to study progression from one level to another ([b]), Significant break in time series for characteristics of FED, in particular when modularisation is common, Strong effects on average duration of formal adult education expected Loss of precision in determining employer-sponsored or job – related FED
Additional information on FED		New items on orientation and mode of delivery, sources of funding	
Changes in definition non-formal adult education (NFE)	Short courses (workload of half a year of full-time education) within the systems of schools are counted as formal	Short courses in within the formal system are labelled as non-formal	Better cross-country comparability expected; Increasing participation in non-formal education, however, impact on participation rates is likely to be small; increasing average duration in NFE is expected, however, impact will differ between countries and little information on effective implementation is available
Change of measuring of NFE	Courses and private lessons are covered by one item	Courses and private lessons are separated ([c])	Minor changes expected except for non-job-related private education (e.g. in the important field of music lessons provided by individual tutors) ([d])
Number of NFE for detailed exploration	Three NFE activities randomly selected	Only two randomly selected activities are mandatory ([e])	A loss in accuracy for indicators based on selected activities is possible. Depending on the ways of calculating indicators, comparability across waves may also be reduced, however, no detailed information is available
Information on duration of NFE activities	Information on time for homework and self-study has been collected (NFE15y); Information on time for travelling has been collected ([f]) (NFE16x)	Variables are excluded from the survey, with info only related to instruction time	No restriction of comparability, as information on the two variables has not been included in the total of course hours

AES	2005/2005-08	2010/2011	Comments
Including more information on orientation/provision by the employer	Only for three randomly selected NFE events information on orientation and provision by the employer (time, payment) is collected	New variables ask for orientation and employer support for at least one out of 10 events (Nfepurp10, NFEworktime10, NFEPaidby10) ([g])	Higher rates for job-related and employer-provided NFE (break in time series)
Fundamental change of strategies in reporting informal learning	Question focussed on carriers of learning used for one or more activities; next, fields of learning are explored	Question focussed on having intentionally learned something; next, asking for the field and the carriers used for one or two informal learning activities	More emphasis on intentional learning (instead of accidental learning as a by product e.g. of watching television) – much lower rates expected
Extension of socio-economic background variables		New variables of household income, marital status; new optional variables- as multiple qualifications (in other fields), recognition of acquired skills)	
Change of breakdown for size of employing organisation (local units)	1-10, 11-19, 20-49, 50 and more	New breakdown: 1-10; 11-19; 20-49, 50-249; 250 and more	Better observation of differences between SMEs and larger enterprises
New Questions on the perceived outcomes and the opportunities for using learning outcomes			

NB: A detailed overview on changes, reviewing each single variable, is given in the Annex to the European manual (Eurostat, 2012a, p. 130-144).

([a]) The explanation on the workload of half-a-year of full time education is stated in Eurostat, 2012a, p. 13.

([b]) In the final year of formal programmes, e.g., in second chance education, participants may frequently enter a further programme, e.g. in higher education. In AES-2011, only the new programme and the duration of the new programme within the observation period are measured.

([c]) In AES-2007 NFE1a (*a. Private lessons or courses (classroom instruction, lecture or a theoretical and practical course*) versus in AES-2011: NFECOURSE and NFELESSONs

([d]) For a reflection on other challenges involved in measuring NFE see Section 2.2 of the report.

([e]) Most countries, however, have decided to collect information for three activities, see Table A47.

([f]) However, only a part of countries include the questions, namely AT, BE, BG, CY, CZ, DE, EE, ES, FI, FR, EL, HR, HU, IT, LT, LV, NL, NO, PL, PT, SE, SI, SK, UK.

([g]) An analysis of the AES-2011 micro data has shown, however, that the implementation of the new NFE_10 varaibles has been not satisfactory and that data are not fully comparable across countries.

Source: Own description.

Table A45. **Dispersion of reference periods (*) AES-2007 and AES-2011**

	Time span between AES-2007 and AES-2011				
	AES-2007		AES-2011		Time span between starting times/months
	Start	End	Start	End	
BE	01 February 2007	30 June 2008	01 October 2010	31 March 2012	44
BG	01 November 2006	31 December 2007	01 November 2010	31 January 2012	48
CZ	01 January 2007	30 March 2008	01 August 2010	30 September 2011	43
DK			01 March 2011	30 June 2012	
DE	01 March 2006	31 July 2007	01 March 2011	30 June 2012	60
EE	01 September 2006	31 December 2007	01 October 2010	31 January 2012	49
IE	did not participate	did not participate			
EL	01 October 2006	31 December 2007	01 June 2011	30 September 2012	56
ES	01 February 2006	30 April 2007	01 October 2010	31 March 2012	56
FR	01 January 2005	31 January 2007	01 April 2011	30 June 2012	75

	Time span between AES-2007 and AES-2011				
	AES-2007		AES-2011		Time span between starting times/months
	Start	End	Start	End	
HR	01 December 2006	31 December 2007	did not participate	did not participate	
IT	01 May 2005	31 August 2006	01 September 2011	30 December 2012	76
CY	01 September 2005	31 December 2006	01 April 2011	31 May 2012	67
LV	01 May 2006	30 June 2007	01 September 2010	30 November 2011	52
LT	01 March 2005	30 April 2006	01 January 2011	31 March 2012	70
LU	did not participate	did not participate	01 February 2011	30 June 2012	
HU	01 July 2005	30 September 2006	01 January 2011	31 March 2012	66
MT			01 January 2011	31 July 2012	
NL	01 February 2007	30 April 2008	01 January 2011	31 March 2012	47
AT	01 April 2006	30 November 2007	01 October 2010	30 May 2012	54
PL	01 October 2005	31 December 2006	01 February 2011	28 February 2012	64
PT			01 October 2010	28 February 2012	
RO			01 August 2010	31 August 2011	
SI	01 September 2006	31 December 2007	01 September 2010	30 November 2011	48
SK	01 August 2006	30 September 2007	01 October 2010	30 November 2011	50
FI	01 March 2005	31 August 2006			
SE	01 October 2004	31 March 2006	01 March 2011	30 November 2012	77
UK	01 October 2004	28 February 2006			
NO	01 May 2006	31 August 2007	01 March 2011	30 June 2012	58

NB: (*) end columns are defined considering the end of the field work; start columns are defined considering the start of the field work and deducting 12 months. The period between the start and the end defines the calendar period in which the activities measured in the survey may have occurred.

Source: Information on AES-2007: Eurostat (2010);
Information on AES-2011: quality reports

4.1.1.1. *Assessment of cross-country and cross-period comparability of AES-2011 and AES-2007*

Given the status of AES-2007 as a pilot survey, expectations for cross-period comparability should be not far-reaching and taken for granted. Gauged on the available information, for the AES-2007 pilot, deviations from common standards have been more numerous and severe than for AES-2011. Consequently, on country level, changes in values between the surveys must be studied to the backdrop of methodological changes on the country level. Table A46 summarises the assessment for AES-2007 and AES-2011.

Table A46. **Assessment of cross-country and cross-period comparability of AES-2011 and AES-2010**

	AES-2007	AES-2011
No or minor issues identified, possibly affecting comparability	BG, CZ, DK, EE, ES, CY, LV, LT, MT, PT, RO, SK, SE, NO	BG, DK, DE([a])EE, ES, FR, LT, NL, PL, SI, SK, SE
Some issues identified, possibly affecting comparability at least in some aspects	BE, EL, LU, PL, SI, AT, DE	CY, ES, LU, MT, AT, PT, NO, CZ, EL, HU, IT, RO, BE
Major issues identified possibly affecting comparability	HU ([b]); FR, NL, IT([c]); UK([d])	BE, IE([c])

NB: the actual reference period for AES-2007- and AES-2011 is more scattered across countries and not necessarily corresponds to the calendar years of 2007 or 2011

([a]) According to the update of the German quality report, response rate for Germany is above 50%.

([b]) Integrated in LFS, question in Hungarian not effectively in line with European concepts very low emphasis on various types of learning. In the Hungarian quality report, it is stated (category: overall assessment): 'Hungarian AES 2012 was the first stand-alone survey on participation of adults in education and training. The pilot AES in 2006 was an ad-hoc module of LFS in the third quarter. The main strengths of the survey are: production of comparative indicators at EU level which is not available from any other sources; coherence of results with external data sources; thorough tests of main questions: some main questions on formal and non-formal learning activities were tested both in 2009 and 2011, and these tests contributed to the success of the survey; the fieldwork of AES followed the fieldwork of population census: census increased the reputation of HCSO, which had a positive effect on the response rate of AES' – Beyond the change from an add-on to a stand-alone survey, changes in questions seem to be most likely on reason for the increased level of activity, which is more in line with expectations given by other surveys. More information on that issue would be desirable.

([c]) Not as stand-alone survey.

([d]) Different approach for sampling.

Source: National quality reports.

The national statistical institutes of several countries reiterate difficulties in separating formal education (FED) and non-formal education and training (NFE) for both AES-2007 and AES-2011 already at conceptual level, but in particular for the respondents. In addition, the operationalisation of formal education was changed for AES-2011, shifting educational programmes with a theoretical duration of less than six months to NFE.

Only few countries indicate a change of concepts or a deviation from concepts as stipulated by the AES manual:

(a) for AES-2011, the UK reported a deviation from the definition of NFE; probably resulting in underestimation of the participation rate (see Chapter 1 for more details). Further, according to information in the technical report of AES-2011 the survey in 2010 was only implemented in England (not in Great Britain as for the pilot AES; see BIS, 2012, p. 6). For AES-2007, results published in the national report compare regional participation rates. Even though some variation between regions is obvious it is maintainable to compare UK results of AES-2011 with previous results;

(b) Spain mentions improvements implemented in AES-2011 to help interviewees regarding the distinction between FED and NFE. But still this

distinction is regarded as the most important weakness of the survey. Regarding comparability over time, including more examples in the questions is likely to have an impact on the participation rate and thus restricts comparability over time.

To assess possible restrictions in the cross-country and cross-period comparability, the following approach has been taken for discriminating three groups of countries:

(a) countries with currently no or minor issues identified possibly affecting comparability for AES-2011: data set for these countries fulfil the following criteria:
   (i) stand-alone survey;
   (ii) no proxy answers allowed (or less than 3% proxy answers given);
   (iii) three NFE activities sampled for detailed description;
   (iv) at least 50% response rate;

   So far, data for Bulgaria, Denmark, Germany, Estonia, Spain, France, Lithuania, the Netherlands, Poland, Slovenia, Slovakia and Sweden meet these criteria ([13]);

(b) Countries with some issues identified possibly affecting AES-2011 results: most data sets diverge from the described standard in at least one point. Data sets for Bulgaria, Germany, Estonia, Spain, Cyprus, Luxembourg, Malta, the Netherlands, Austria, Poland, Portugal, Slovenia, Slovakia and Norway have lower response rates, less than three NFE activities and/or no random selection of the NFE activities. Both may limit comparability, in particular, for indicators on volume of training hours and distributions of types of NFE.

   Czech Republic, Greece, Hungary, Italy and Romania have allowed proxy answers to a considerable extent. Proxy interviews may lead to an underestimation of learning activities;

(c) countries in AES-2011 with major issues affecting comparability: two countries – Ireland and Belgium – have implemented AES-2011 as a part of the labour force study. As integration of a survey on adult learning in a

([13]) A further criteria to be reflected is random selection (computer based or by the interviewer) of the NFE activities. While this criterion of less importance for participation rates, it is expected to influence figures on average hours in learning activities, in formal adult education. Hours in training might become somewhat overestimated, when no random selection is implemented, as interviewees may tend to better recall or privilege reporting on longer courses. Among the group of countries with little limitations to cross-country comparability, Bulgaria, Estonia, the Netherlands, Poland, Slovenia and Slovakia have no random selection implemented.

carrier survey usually implies a strong underestimation of learning activities, results for the two countries are not strictly comparable.

For AES-2007, not all desired information is available for the assessment. However, based on the information of *Synthesis quality report* (Eurostat, 2010), one should consider the following:

(a) countries with no or minor issues identified possibly affecting AES-2007 results: countries with a response rate above 50%, a stand-alone survey and no proxy answers include Bulgaria, Czech Republic, Denmark, Germany, Estonia, Spain, Cyprus, Latvia, Lithuania, Malta, Austria, Portugal, Romania, Slovakia, Sweden and Norway;

(b) countries with some issues identified affecting for AES-2007: some countries have comparatively low response rates, including Belgium, Germany, Luxembourg and Austria (each with a response rate below 50%). Various countries have accepted for AES-2007 proxy answers. (Belgium, Greece, Poland and Slovenia). Greece reported a very high share of proxy interviews (> 40 %) in AES-2011. According to specific analyses provided by the Greek National Statistical Institute 'the use of proxies probably led to an underestimation of participation in educational activities' (Hellenic Statistical Authority, 2013; Table VII). Greece used also proxy interviews in AES-2007, but their share was much lower. This feeds the assumption of an increase of underestimation of the participation rate in AES-2011 as compared to AES-2007 in Greece;

(c) countries with strong issues affecting comparability for AES-2007: France, Italy and the Netherlands have integrated the survey in another survey, limiting comparability across countries and waves. The UK has used a different sampling approach. Particularly strong effects have been observed for Hungary. Hungarian data for AES-2007 are not comparable with the results of the other countries and the results for AES-2011 for Hungary.

Table A47. **Overview of assessment criteria for AES**

	Random selection of NFE	Three NFE	Response rate higher than 50% (y/n)		No proxy (or less than 3%)	
	AES-2011	AES-2011	AES-2011	AES-2007	AES-2007	AES-2007
BE	n	y	n	n	y	y
BG	n	y	y	y	y	y
CZ	y	y	y	y	n	y
DK	y	y	y	y	y	y
DE	y	y	y (**)	y	y	y
EE	n	y	y	y	y	y
IE				np		np

	Random selection of NFE	Three NFE	Response rate higher than 50% (y/n)		No proxy (or less than 3%)	
	AES-2011	AES-2011	AES-2011	AES-2007	AES-2007	AES-2007
EL	y	n	y	y	n	n
ES	y	n	y	y	y	y
FR	y	y	y	y	y	y
IT	y	n	y	y	n	n
CY	y	n	y	y	y	y
LV	y	n	y	y	y	y
LT	y	y	y	y	y	y
LU	y	n	n	np	y	np
HU	y	y	y	y	n	y
MT	n	n	y	y	y	y
NL	n	y	y	y	y	n
AT	y	y	n	y	y	y
PL	n	y	y	y	y	n
PT	y	n	y	y	y	y
RO	y	Y (*)	y	y	n	y
SI	n	y	y	y	y	n
SK	n	y	y	y	y	y
FI						
SE	y	y	y	y	y	y
UK				n		
NO	y	n	y	y	y	y
HR	np		np			

NB: HR did not participate in AES-2011.
(*) '2 or 3' reported in Romanian AES-2011 questionnaire.
(**) According to an updated version of the German quality report, response rate is above 50%.
'y' = yes; 'n' = no 'np' = did not participate or AES-2007 quality reports typically do not contain information on the random selection of NFE activities.

Source: National quality reports.

A4.2. The third (2005) and fourth (2010) wave of the continuing vocational training survey (CVTS)

CVTS targets enterprises with 10 and more employed in all economic sectors with the important exceptions of agriculture, education, health and public administration. Stratified random sampling is applied. Depending on the country size and voluntary decisions by national statistical institutes, six to 20 economic sectors and three to six size classes are used for stratification (Table A48). As a rule, results should be corrected for unit non-response. Beyond a set of key variables, for which no imputation is allowed, item non-response should be corrected by imputing plausible values.

As the framework of CVTS had matured already in course of the earlier waves, changes in methods (including the questionnaire) between CVTS3 and

CVTS4 have been considerable small and restricted mainly to the collected background information. Table A48 provides a detailed overview on changes.

Table A48. **Methodological changes between CVTS3 and CVTS4 (according to the manuals)**

	2005	2010	Comments
Size classes for sampling	Three size classes (10-49, 50-249, 250+)	Six size classes for countries with more than 50 million inhabitants (as with CVTS2)	Following the recommendation of Cedefop (2010), for reducing non-response bias
Economic sectors (NACE)	NACE1	NACE2	Due to changes (e.g. for the IT sector), data for NACEs are only partly comparable
Changes in the European standard questionnaire			
Age groups of employees/participants	Present (A3) (C2)	Deleted	No information on age groups
Questions on organisational policies	To training enterprises only	To all enterprises	Co-occurrence/impact of formal policies on training performance could be analysed; cross-period comparison possible only for training active enterprises
Plans for training provision in next year (CVTS3 B3/4)	Mandatory	Optional	
Collective/state funding schemes: receipts and payments (CVTS4 B5)	To all enterprises, however, integrated in part C of the questionnaire – non-training enterprises might have ignored this point	To all enterprises in part B of the questionnaire	Strong impact on figures expected, as enterprises may contribute to and receive money irrespective of a present years' training activity
Obstacles to training/reasons for having not provided more training	Only the three most important reasons should be ticked	Number of reasons ticked is not restricted	Cross-period comparability is limited
Assessment of Skills and Training needs on level of enterprise (CVTS3 D4 – CVTS4 A9) and review of them on the level of individuals (CVTS3 D5 – CVTS4 A11)	Questions wording is strict (with reference to formal procedure in D4 and structured interviews in D5) Answer scales measure frequency in four categories (always, often, occasionally, never)	Questions wording is broader Answer scales also changed:, they have different wording, they do not necessarily target frequency, they are structured in three categories	Results could be compared only with serious restrictions
Future skill needs (CVTS4 A12)	-	New questions on future skill needs (of relevance; most important)	
Role of social partners in CVT (CVTS3 D12, D13 – CVTS4 A15, A16a,b);	Substantial change in wording of questions across waves: question on the existence of a work council (CVTS3 D13) removed in CVTS4	Substantial change in wording of questions with emphasis on the enterprise level; question on the existence of a work council with a say in CVT (A16a)	Changes hamper/make impossible to compare results across waves

	2005	2010	Comments
Fields of training /skills covered by CVT courses (CVTS3 C5 – CVTS4 C5)	Question concern fields of training covered by courses and looks at volume estimates (hours) for a list of fields of training (CVT specific classification)	Question concern skills covered by courses and does not look at volume estimates (all fields covered should be reported with indication of the most frequent field too). Change of wording/concepts and of answer categories.	Less information (with the goal to reduce response burden) – not comparable across waves (changing wording/categories)
Mandatory training in health and safety	A category is provided for within the list of fields of training (CVTS3_CVT80_EF85_862) The category is not specific, also including environment protection	New questions for estimating the proportion of hours specifically related to this field	Not comparable; quality issues to be discussed; different implementation across countries
Training providers (C6)	Question relates to quantitative information on providers (hours of training provided by type of provider	Only ticking providers used and the most relevant provider. Question is different.	Less information (with the goal to reduce response burden) – not comparable across waves
Questions on courses for specific target groups (CVTS3 C9/C10)	Present	Deleted	Less information (with the goal to reduce response burden)
Information and Advice (CVTS3 D3 – CVTS4 A17)	Frequency of making use of external advisory service (D3)	Usual sources of information	New approach on information sources, no comparison possible across waves
Quality assurance policies	Four questions, answering scales in four categories of frequency (CVTS3 D8-11)	A new question asking for assessment of quality policies (D1), one questions on frequency of measurement of outcomes, and one question on methods used	New approach to quality assurance policies in CVTS4; results only poorly comparable with CVTS3.
Effects of public policies	D14 a-e	Deleted	No questions on the impact of policies; only questions on sources used for cofounding; loss of information in CVTS4 ([a])
Obstacles for (more) training (D15, E1 – D3 – E1)	Slight change of wording, new order of items	Slight change of wording, new order of items	To be carefully compared as changes might influence responses
Questions on IVT		Questions on costs deleted, no information on gender; a new question on reasons for apprentices (F2); only formal programmes on ISCED 2-4	CVTS results have been questionable (low cross-country comparability, low match with national sources in many countries), situation for CVTS4 is not expected to be much better; new approach with a focus on ISCED 2-4, not comparable across waves

([a]) However, in its CVTS3 version, the question is also hampered in various ways (Cedefop, 2010, 57 et seq.).

Source: National quality reports.

Table A49. **Overview of sample stratifications applied by countries in CVTS4**

Country	NACE	Size categories	Comments
BE	20	3	Additional stratification by region (EXTRA1)
BG	20	3	
CZ	20	3	
DK	-		
DE	20	6	
EE	20	6	Different structuring of size classes: 10-49; 50-99; 100-249; 250-499; 500-999; 1000+
IE	-		
EL	-		
ES	21	4	The strata by defined economic activity differ from those established by Eurostat. 10-49, 50-249, 250-499, 500- (in the national survey, a 5-9 workers stratum was also included)
FR	20	7	Size 6 split into two categories (separating enterprises with more than 2,000 employees).
IT	20		
CY	20	3	
LV	20	3	
LT	20	3	
LU	20	3	
HU	20	5	5 size categories: >149, 100-149, 50-99, 20-49 and 10-19
MT	20	3	
NL	20	3	
AT	20	3	
PL	20	3	
PT	20	3	Additional stratification by region (NUTS level 1 – Mainland, Autonomous Regions of Madeira and of Açores)
RO		3	Stratification based on NACE Rev. 2 (classification of activities in the national economy)
SI	20	3	
SK	20	3	
FI	20	3	
SE	20	3	
UK	-		
NO	-		
HR	-		

NB: The analysis does not include data from Denmark, Irland, Greece, Italy, Croatia, the UK and Norway.
Source: National quality reports

4.2.1.1. *Assessment of cross-country and cross-period comparability of CVTS4 and CVTS3*

CVTS3 and CVTS4 have been based on well-defined methodologies, developed in the two previous rounds of the survey, so that comparability of data across countries and time is considerably good. Portugal for CVTS4 marks the only exception. The strong increase of training activity in Portugal reflects not only a

change in institutional framework (new legal obligations for firms to provide training, see below) but the use of register based data on training instead of enterprises' responses.

On the level of data sets for individual countries, the comparison of results of CVTS3 and CVTS4 is restricted, when either the 2005 or the 2010 data set is affected by significant deviations from the standard methodology. Moreover, cross-country comparison of CVTS4 results may be affected by deviations identified among the participating countries of CVTS4.

Several countries (e.g. Belgium, Spain, Luxembourg, Hungary, Malta and Sweden) report that obtaining quantitative information is difficult. Besides, some enterprises record information on participation according to participation events, not according to individual employees (the difference being that an employee with multiple participation cases in CVT courses in the reference period constitutes several training events, but is just one participant).

The participation of employees in employer-financed CVT is collected for a reference period (the manual stipulates the calendar year), while the number of employees (the denominator of the participation rate) is recorded for the end of the same calendar year. Again (as in AES) there is the problem of collecting information on participation in CVT for a period, but relating it to a denominator at a given point in time. Frequent job changing or strong seasonal patterns have a diminishing effect on the adequacy of the denominator.

For the analysis of CVTS3 data, reference is made to the work presented in the report *Employer-provided vocational training in Europe* (Cedefop 2010, pp. 105-137). Comparability has been assessed based on two considerations, namely:

(a) whether or not significant deviations from the commonly agreed methodological framework have been identified. Two data sets have been recommended to be excluded from comparison due to deviations, namely Norway, surveying 'local units' instead of enterprises ([14]), and the UK,

([14]) Using local units instead of enterprise leads to an underestimation of training incidence and all indicators, using the number of enterprises as an denominator, see e.g. the slump of Norway's training incidence (courses) by 26 percentage points between CVTS2 (81% of enterprises) and CVTS3 (55 % of enterprises). While indicators using denominators beyond the enterprise might be much less affected, large enterprises with strong training performance might be less frequently sampled by this approach, contributing to declining figures for the other indicators, e.g. the average number of training hours per employee (all enterprise) from 16 (CVTS2) to 9 (CVTS3).

violating the criteria of probabilistic sampling (combined with an extraordinary low unit response rate) ([15]);

(b) whether or not high unit response rates have been achieved and, as an additional criterion, whether or not training incidence varies strongly (range of values) between size classes, compounding the effects of low unit response rates. Finally, the applications of procedures for non-response correction are considered.

Table A56 summarises the results of the assessment.

Table A50 Assessment of cross-country and cross-period comparability of CVTS4 and CVTS3

	2006-08	2011
No or minor issues identified, possibly affecting comparability	BG, EE, ES, LV, HU, MT, NL, PL, RO, SL, SK	BG, EE, ES, LV, LT, HU, MT, NL, PL, RO, SL, SK, LU, MT, CZ, CY
Some issues identified, possibly affecting comparability at least in some aspects	DE, LU, BE, DK, IT, AT, PT, FI, SE	DE, BE, AT, SE
Major issues identified possibly affecting comparability	UK, NO	PT
Countries not included due to lack of information at the time of the analysis	CZ, IR, EL, CY	UK, NO, DK, IT, FI

Source: National quality reports.

Currently, the framework applied for CVTS3 could not be reduplicated as no size breakdowns for the training incidence by six size classes have been published by Eurostat so far. Based on the available information, the following could be stated:

(a) Portugal has obtained the information on training (incidence, hours of training, costs) from a newly established register, recording information enterprises are obliged to provide on their training activities. This new approach is likely to be more accurate, but it can be seen as a deviation from the standard practice: it leads most likely to an overestimation of the magnitude of trends rise of training activity between CVTS3 and CVTS4 (beyond the effects of the new regulations on training regulations). Moreover, it reduces cross-country comparability of the CVTS4 results;

(b) compared to CVTS3, the situation have somewhat improved as more country re-weight to correct for unit-non-response (countries applying weights in CVTS4 yet not in CVTS3, BE, BG, ES, FR, CY, LT, PT). Moreover, the mandatory sampling for six size classes in large Member

([15]) Data for CVTS3 in the UK are expected to overestimate training activities.

States should improve the quality of data for the corresponding countries. Overall, unit response rates are on similar levels than for CVTS3 in most countries, with the exceptions of Luxembourg and Malta with strongly increasing response rates. In Poland, response rate has strongly decreased, yet, remaining on a fairly high level (from 89% down to 70%). Unit response rate for Finland has improved a lot, however remains considerably low (in particular for larger enterprises). However, in absence of more information, it is assumed that – with the exception Luxembourg and Malta – the same precautions should be taken when interpreting the data of countries in the (b) Segment for 2010;

(c) at the time of writing the report, indicators on training costs for Romania has been under revision as they are unreliably low. As regulations on training obligations (via binding collective agreements on sectoral level) come fully into practice between the two surveys, stating that employees might benefit either from training OR from additional time-off, data for Romania – while so far qualified as comparable and of little deviations – need particular attention;

(d) Sweden has experienced a further strong decline in response rates, in particular for larger (250+) enterprises, leading to a negative assessment of unit response rate by the statistical office. According to Vollmer (2013) Germany has still a very low unit response rate (29% for CVTS4 compared to 27% for CVTS3);

(e) changes in the figures for the Czech Republic between CVTS3 and CVTS4 might be the results of an overestimation for the CVTS3 indicators. More information on the likely backgrounds of the changes between CVTS3 and CVTS4 would be desirable yet is not available at the time of the writing of the report.

Data for Portugal has been identified as the most deviant so far and should be included in analysis only with particular precautions. Comparison between CVTS3 and CVTS4 data might be restricted for the UK ([16]), however, there is lack of information on the new wave for deciding on this question. Data for Norway are not available when writing the report and therefore not considered.

([16]) For the UK, the sampling method for CVTS3 was mainly similar to a quota method; hence, comparability was evaluated as problematic (see CEDEFOP, 2010).

4.2.1.2. *Information on other forms of training within CVTS*

Overall, the distinction between courses and other forms of CVT apparently does not frequently raise problems (problems mentioned by Lithuania, Hungary and Sweden in the national quality reports). As for CVTS3 (Cedefop, 2010, p. 63 et seq.), it is concluded that incidence of courses and of other forms of CVT is measured adequately. The number of participants in any of the single other forms of CVT is probably less reliable than the number of course participants, not least due to their less formal characteristics. Finally, the differentiation into the single forms of other forms of CVT is partly problematic.

Changes in the questionnaire between CVTS3 and CVTS4 require special attention:

(a) planned training on-the-job in CVTS4 explicitly mentions 'guided' on-the job-training;
(b) self-directed learning in CVTS4 explicitly includes e-learning;
(c) attendance at conferences, workshops, trade fairs and lectures in CVTS3 and CVTS4 not only requires participants' primary intention of training/learning in these activities, but in CVTS4 in addition received instruction is explicated.

If this change of wording of items would have an impact on the selection of learning activities and, as a consequence, on participation rates in these activities, it would be in the direction of increase for 'self-directed learning' and of decrease for the other two. However, to assess possible effects on CVTS results would require analyses of the national questionnaires in the respective languages, which is out of the scope of this project. Further, the sequencing of the categories was changed in the European standard questionnaire, with 'attendance at conferences, workshops, trade fairs and lectures' moved up (from position 5 to position 3).

The changes of wording and sequencing expose the data to the risk of becoming less comparable across time and across countries, partly depending on the implementation at national level. It is difficult to assess the extent to which a decrease in comparability has actually occurred. It is however possible to state that:

(a) data for incidence and participation rate for on-the job-training, job-rotation and 'any other form' (aggregated) could be compared;
(b) data for conferences, learning or quality circles, and self-directed learning should be interpreted with caution as changes in wording/sequencing may have blurred even further the boundaries between the various forms.

4.2.1.3. *Indicators for obstacles for any or more training*

Reasons for non-provision indicated by non-training enterprises [trng_cvts08]: The research methodology and the procedure how training enterprises were asked differs substantially in the questioning and how the question should be answered (response format) between CVTS3 and CVTS4. There is also a slight change of wording, but the number and the order of items in 2010 is identical. Although the number of items remained stable, the response format was here changed. In 2005 it was also asked for the three most important reasons why the enterprise did not provide CVT courses (a priority selection had to be done). However, in 2010 it is asked 'What were the reasons not to provide CVT', referring to a yes or no constellation, in which every answer had to be answered by a 'yes' or a 'no'. This is why results in 2005 and 2010 are again of limited comparability.

Obstacles for training enterprises [trng_cvts38]: the research methodology and the procedure how training enterprises were asked differs substantially in the questioning and how the question should be answered (response format) between CVTS3 and CVTS4. In 2005 the question D15 was asked 'Did any of the following reasons have an effect upon the scope of the enterprise's CVT activities'. The choice given was limited to eight answers and respondents were asked to tick the three most important reasons. Therefore, the respondent within the enterprise was asked for a selection based on priorities. However, in 2010 a different question and procedure was evidently applied. The question here (in D3) was 'Did any of the following factors limit the provision of CVT courses or other forms of CVT in your enterprise in 2010'. Thus the choices were increased to nine options (new: 'The preferred strategy of the enterprise was to recruit individuals with the required qualifications, skills and competences') and all of them are obligated to answers with 'yes' or 'no'. This means in assessment of the data, it is not possible to filter the most important reasons from other factors, which have a rather arbitrary relevance. In addition, there are a slight changes in of wording, one more answer option and a new order of items, which will most likely have had altogether an influence on responses.

Due to the stated reasons the degree of cross-period comparability is limited between CVTS3 and CVTS4 [trng_cvts38] in relation to the indicated obstacles is not existing.

List of abbreviations

AES	adult education survey
AES-2007	Adult education survey carried out between 2005 and 2008 (depending on the country)
AES-2011	Adult education survey carried out between July 2011 and June 2012 (in Finland until December 2012).
CVET	continuing vocational education and training
CVT	continuing vocational training
CVTS	continuing vocational training survey
CVTS2	Continuing vocational training survey with calendar year 1999 as reference period; it covers the same countries as CVTS4 except for Croatia, Cyprus, Malta and Slovakia. For Poland, only the Pomorskie region was covered
CVTS3	Continuing vocational training survey with calendar year 2005 as reference period; it covers EU-27 Member States and Norway
CVTS4	Continuing vocational training survey with calendar year 2010 as reference period; it covers EU-27 Member States as well as Croatia and Norway
EU-28	The European Union from 1 July 2013 until today with its 28 Member States
FED	formal education and training (adult)
GDP	gross domestic product
GOJT	guided on-the-job training
ISCED	International standard classification of education
ISCED-97	International standard classification of education, approved in 1997
ISCO	International standard classification of occupations
ISCO-08	International standard classification of occupation: third version adopted in 1987
IT	Information and technology
IVET	initial vocational education and training
IVT	initial vocational training
LFS	Labour force survey
LLL	Lifelong learning
NACE	Statistical classification of economic activities in the European Community [Nomenclature statistique des activités économiques dans la Communauté européenne]
NFE	non-formal education and training (adult)
NUTS	Nomenclature of territorial units for statistics
NUTS1	Nomenclature of territorial units for statistics: major socio-economic regions
NUTS2	Nomenclature of territorial units for statistics: basic regions of the application of regional policies
NUTS3	Nomenclature of territorial units for statistics: small regions for specific diagnoses
PPP	Purchasing power parity
PPS	Purchasing power standard
SME	Small and medium-sized enterprise
TME	Total monetary expenditure
UOE	Unesco, OECD and Eurostat: the joint, register-based data basis on participation in formal education
VET	vocational education and training

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List of variables

Table A51. **List of variables for CVTS4**

Variable	Name
COUNTRY	Country code
REGION	Region identification NUTS — level 1
REFYEAR	Reference year
RESPID	Enterprise ID
RESPWEIGHT	Weighting factor Two decimal positions — use '.' as decimal separator
RESPEXTRA1	Extra variable 1
RESPEXTRA2	Extra variable 2
RESPEXTRA3	Extra variable 3
SP_NACE	Sampling plan economic activity category
SP_SIZE	Sampling plan size group
SP_NSTRA	Sampling plan – Number of enterprises in the stratum defined by NACE_SP and SIZE_SP
SP_N	Sampling plan — Number of sampled enterprises from the sample-frame in the stratum defined by NACE_SP and SIZE_SP
SP_SUB	Sub-sample indicator, shows if enterprise belongs to sub-sample
N_RESPST	Number of responding enterprises in the stratum defined by NACE_SP and SIZE_SP
N_EMPREG	Number of persons employed according to the register
INTRESP	Response indicator (sampling unit type)
INTMETHOD	Data collection mode
INTLANG	Language of data collection
A1	Actual NACE CODE
A2tot	Total number of persons employed on 31 December of the reference year
A2m	Total number of males employed on 31 December of the reference year
A2f	Total number of females employed on 31 December of the reference yea
A3	Total number of persons employed on 31 December of the previous year
A4	Total number of hours worked in the reference year by persons employed
A5	Total labour costs (direct + indirect) of all persons employed in the reference year
A6	Introduction of any new or significantly new improved products or services or methods of
A7	Own or shared training centre
A8	Person or unit within the enterprise with responsibility for the organisation of CVT
A9	Assessment of future skill needs of the enterprise
A10	Reaction to future needs through
A11a	Reviews of future skill and training needs of individual employees
A11b	The reviews of future skill and training needs of individual employees focus on:
A12	Skills and competences important in the next few years
A13	Planning of CVT in the enterprise lead to a written training plan or programme
A14	Annual training budget, which includes provision for CVT
A15	National, sector or other agreements between the social partners, which cover the provision of CVT

Variable	Name
A16a	Staff representatives/committees involved in the management process of continuing vocational
A16b	Aspects covered by staff representatives/committees
A17	Sources of information about CVT
B1a	Provision of internal CVT courses in the reference year
B1b	Provision of external CVT courses in the reference year
B2a	Provision of guided on-the-job training in the reference year
B2b	Provision of job rotation in the reference year
B2c	Attendance at conferences/workshops in the reference year
B2d	Participation in learning and quality circles in the reference year
B2e	Planned training by self-directed learning/e-learning in the reference year
B3	Provision of CVT courses in the year before the reference year
B4	Provision of other forms of CVT in the year before the reference year
B5a	Existence of CVT contributions in the reference year
B5b	Existence of CVT receipts in the reference year
B6	Measures the enterprise benefits from
C1tot	Total number of CVT course participants
C2m	Number of CVT course participants — males
C2f	Number of CVT course participants — females
C3tot	Paid working time (in hours) spent on all CVT courses
C3i	Paid working time (in hours) for internal CVT courses
C3e	Paid working time (in hours) for external CVT courses
C4	Share of training hours spent on obligatory courses for health and safety at work
C5	Subjects covered
C5Main	Main subject (with respect to volume of training hours)
C6	Providers (external courses)
C6Main	Main provider (with respect to volume of training hours)
C7a	Existence of fees
C7b	Existence of travel costs
C7c	Existence of labour costs of internal trainers
C7d	Existence of costs of training centre and teaching materials, etc.
C7sub	Existence of 'Sub-total only' (no sub-categories)
PAC	Personal absence cost — to be calculated (PAC=C3tot*A5/A4 in euros)
C7tot	Total cost CVT — to be calculated (C7sub + B5a – B5b (in euros)
D1	Aspects considered to ensure the quality of CVT
D2a	Assessment of the outcomes of CVT activities
D2b	Methods of assessment
D3	Factors limiting CVT provision in the reference year
E1	Reasons for not providing CVT in the reference year
F1tot	Total number of IVT participants in the enterprise during the reference year
F2	Reasons for providing IVT (if F1Tot > 0)
Optional variables	
A1bis	Principal economic activity of the enterprise according to NACE Rev 1.1
A2bis	Average number of persons employed
A2ter	Total number of persons employed by main occupational group
A6bis	In the year 2010, did your enterprise introduce organisational or marketing innovations?

Variable	Name
A11abis	If Yes, mainly by way of structured interviews and other methods to A11a.
A11ater	If Yes, mainly by way of structured interviews to A11a, do these interviews concern…
B3b	Does the enterprise expect to provide / has started to provide CVT Courses for its persons employed during the year 2011?
B4b	Does the enterprise expect to provide / has started to provide Other Forms of CVT for its persons employed during the year 2011?
C2bis	How many persons employed by the enterprise participated in 1 or more CVT course(s) (either internal or external) by occupational group?
C3bis	In 2010, did certain employees have to spend a significant number of hours outside paid working time on CVT courses paid fully or partially by the enterprise?
C5bisflag	Please tick the three main subjects covered by CVT courses for each occupational group in the table below
C6bisflag	In 2010, what was the number of paid training hours spent on external CVT courses for the following groups of providers. If the enterprise has no detailed records on this issue, please provide estimates.
F0Flag	Did the enterprise have apprentices in ISCED 2-4 programmes during 2010?
F1bis	What was the average number of apprentices in the enterprise during 2010?
F3	What were the costs incurred by the enterprise in relation to apprentices, broken down by the cost categories indicated below?
F4	In this question, we would like to know whether the enterprise contributed to collective or other funds, or received payments from such funds or other sources of grants/subsidies, in the context of apprentices working in the enterprise in 2010?

Source: Eurostat (2012b).

Table A52. **List of variables for AES-2011**

Variable	Name
COUNTRY	COUNTRY OF RESIDENCE
REGION	REGION OF RESIDENCE
DEG_URB	DEGREE OF URBANISATION OF THE AREA THE HOUSEHOLD LIVES IN
REFYEAR	REFERENCE YEAR OF THE SURVEY
REFMONTH	IDENTIFICATION OF THE RESPONDENT
RESPWEIGHT	WEIGHTING FACTOR FOR INDIVIDUALS
NFEACTWEIGHT	WEIGHTING FACTOR FOR NON-FORMAL ACTIVITIES
INTMETHOD	DATA COLLECTION METHOD USED
INTLANG	LANGUAGE USED FOR THE INTERVIEW
HHNBPERS_0_4	PERSONS 0-4 YEARS OLD LIVING IN THE HOUSEHOLD
HHNBPERS_5_13	PERSONS 5-13 YEARS OLD LIVING IN THE HOUSEHOLD
HHNBPERS_14_15	PERSONS 14-15 YEARS OLD LIVING IN THE HOUSEHOLD
HHNBPERS_16_24	PERSONS16-24 YEARS OLD LIVING IN THE HOUSEHOLD
HHNBPERS_25_64	PERSONS 26-64 YEARS OLD LIVING IN THE HOUSEHOLD
HHNBPERS_65PLUS	PERSONS 65 YEARS AND OLDER LIVING IN THE HOUSEHOLD
HHTYPE	HOUSEHOLD TYPE
HHLABOUR_EMP	PERSONS AGED 16-64 IN THE HOUSEHOLD WHO ARE AT WORK

Variable	Name
HHLABOUR_NEMP	PERSONS AGED 16-64 IN THE HOUSEHOLD WHO ARE UNEMPLOYED OR INACTIVE
HHINCOME	NET MONTHLY INCOME OF THE HOUSEHOLD
SEX	SEX
BIRTHYEAR	YEAR OF BIRTH
BIRTHMONTH	MONTH OF BIRTH
CITIZEN	CITIZENSHIP
BIRTHPLACE	COUNTRY OF BIRTH
RESTIME	YEARS OF RESIDENCE IN THIS COUNTRY
MARSTALEGAL	LEGAL MARITAL STATUS
MARSTADEFACTO	DE FACTO MARITAL STATUS (consensual union)
HATLEVEL	HIGHEST LEVEL OF EDUCATION OR TRAINING SUCCESSFULLY COMPLETED
HATFIELD	FIELD OF THE HIGHEST LEVEL OF EDUCATION OR TRAINING SUCCESSFULLY COMPLETED
HATYEAR	YEAR WHEN HIGHEST LEVEL OF EDUCATON OR TRAINING WAS SUCCESSFULLY COMPLETED
HATVOC (optional)	ORIENTATION OF THE HIGHEST LEVEL OF EDUCATION OR TRAINING SUCCESSFULLY COMPLETED
HATOTHER (optional)	OTHER FORMAL EDUCATION OR TRAINING SUCCESSFULLY COMPLETED IN ANOTHER FIELD THAN ‘HATLEVEL’
HATOTHER_LEVEL (optional)	LEVEL OF THE FORMAL EDUCATION PROGRAMME
HATOTHER_VOC (optional)	ORIENTATION OF THE FORMAL EDUCATION PROGRAMME
HATOTHER_FIELD (optional)	FIELD OF THE FORMAL EDUCATION PROGRAMME
HATCOMP (optional)	PROCEDURE OF RECOGNITION OF SKILLS AND COMPETENCES UNDERTAKEN
HATCOMPHIGH (optional)	RECOGNITION OF SKILLS AND COMPETENCES ALLOWS ACCESS TO A HIGHER FORMAL EDUCATION PROGRAMME THAN THE LEVEL MENTIONED IN ‘HATLEVEL’
DROPHIGH	FORMAL EDUCATION ABANDONED HIGHER THAN THE LEVEL MENTIONED IN ‘HATLEVEL’ BUT NOT COMPLETED
DROPLEVEL	LEVEL OF THE FORMAL EDUCATION NOT COMPLETED
DROPVOC (optional)	ORIENTATION OF THE FORMAL EDUCATION NOT COMPLETED
MAINSTAT	MAIN CURRENT LABOUR STATUS
JOBSTAT	PROFESSIONAL STATUS
JOBISCO	OCCUPATION
LOCNACE	ECONOMIC ACTIVITY OF THE LOCAL UNIT
LOCSIZEFIRM	NUMBER OF PERSONS WORKING AT THE LOCAL UNIT
JOBTIME	YEAR IN WHICH PERSON STARTED WORKING IN HIS/HER CURRENT MAIN JOB
HATFATHER	FATHER (MALE GUARDIAN)
HATMOTHER	MOTHER (FEMALE GUARDIAN)
ISCOFATHER (optional)	MAIN OCCUPATION OF FATHER
ISCOMOTHER (optional)	MAIN OCCUPATION OF MOTHER
SEEKINFO	LOOKED FOR ANY INFORMATION CONCERNING LEARNING POSSIBILITIES IN THE LAST 12 MONTHS
SEEKFOUND	INFORMATION FOUND
SEEKSOURCE	SOURCE TO ACCESS INFORMATION

Variable	Name
FED	PARTICIPATION IN FORMAL EDUCATION DURING THE LAST 12 MONTHS
FEDNUM	NUMBER OF FORMAL EDUCATION ACTIVITIES PARTICIPATED IN DURING THE LAST 12 MONTHS
FEDLEVEL	LEVEL OF THE MOST RECENT FORMAL EDUCATION ACTIVITY
FEDFIELD	FIELD OF THE MOST RECENT FORMAL EDUCATION ACTIVITY
FEDVOC	ORIENTATION OF THE MOST RECENT EDUCATION OR TRAINING
FEDTHEODUR (optional)	THERORETICAL FULL-TIME DURATION OF THE FORMAL ACTIVITY
FEDMETHOD	MAIN METHOD OF LEARNING USED IN THE MOST RECENT FORMAL EDUCATION ACTIVITY
FEDREASON	REASONS FOR PARTICIPATING IN THE MOST RECENT FORMAL EDUCATION ACTIVITY
FEDWORKTIME	MOST RECENT FORMAL EDUCATION ACTIVITY DURING PAID WORKING HOURS (INCLUDING PAID LEAVE OR RECUPERATION)
FEDNBHOURS	TOTAL NUMBER OF INSTRUCTION HOURS
FEDNBWEEKS (optional)	NUMBER OF WEEKS
FEDDURPERWEEK (optional	AVERAGE NUMBER OF INSTRUCTION HOURS PER WEEK
FEDPAIDBY	PARTIAL OR FULL PAYMENT FOR THE TUITION, REGISTRATION, EXAM FEES, EXPENSES FOR BOOKS OR TECHNICAL STUDY MEANS FOR THE MOST RECENT FORMAL EDUCATION ACTIVITY BY:
FEDPAIDFULL (optional)	FULL PAYMENT FOR THE TUITION, REGISTRATION, EXAM FEES, EXPENSES FOR BOOKS OR TECHNICAL STUDY MEANS FOR THE MOST RECENT FORMAL EDUCATION ACTIVITY BY THOSE IDENTIFIED IN 'FEDPAIDBY'
FEDPAIDVAL	COSTS PAID PERSONALLY OR BY ANY HOUSEHOLD MEMBER OR RELATIVE FOR TUITION, REGISTRATION, EXAM FEES, BOOKS AND/OR TECHNICAL STUDY MEANS REGARDING STUDIES IN THE MOST RECENT FORMAL EDUCATION ACTIVITY
FEDUSE	USE OF THE SKILLS OR KNOWLEDGE ACQUIRED FROM THE MOST RECENT FORMAL EDUCATION ACTIVITY
FEDSAT (optional)	SATISFACTION WITH THE MOST RECENT FORMAL EDUCATION ACTIVITY
FEDUNSATREASON (optional)	REASONS FOR NOT BEING SATISFIED WITH THE MOST RECENT FORMAL EDUCATION ACTIVITY
FEDOUTCOME	OUTCOMES OF THE NEW SKILLS/KNOWLEDGE ACQUIRED THROUGH THE MOST RECENT FORMAL EDUCATION ACTIVITY
NFECOURSE	COURSES
NFEWORKSHOP	WORKSHOPS AND SEMINARS
NFEGUIDEDJT	GUIDED ON-THE-JOB TRAINING
NFELESSON	PRIVATE LESSONS

Variable	Name
NFENUM	NUMBER OF NON-FORMAL EDUCATION AND TRAINING ACTIVITIES DURING THE LAST 12 MONTHS
NFEACT01_TYPE	TYPE OF THE 1ST ACTIVITY
NFEACT02_TYPE	TYPE OF THE 2ND ACTIVIT
NFEACT03_TYPE	TYPE OF THE 3RD ACTIVITY
NFEACT04_TYPE	TYPE OF THE 4TH ACTIVITY
NFEACT05_TYPE	TYPE OF THE 5TH ACTIVITY
NFEACT06_TYPE	TYPE OF THE 6TH ACTIVITY
NFEACT07_TYPE	TYPE OF THE 7TH ACTIVITY
NFEACT08_TYPE	TYPE OF THE 8TH ACTIVITY
NFEACT09_TYPE	TYPE OF THE 9TH ACTIVITY
NFEACT10_TYPE	TYPE OF THE 10TH ACTIVITY
NFEPURP10	AT LEAST ONE JOB-RELATED ACTIVITY AMONG ACTIVITIES 1 TO 10
NFEWORKTIME10	AT LEAST ONE ACTIVITY DURING PAID WORKING HOURS (INCLUDING PAID LEAVE AND RECUPERATION) AMONG ACTIVITIES 1 TO 10
NFEPAIDBY10	AT LEAST ONE ACTIVITY PARTIALLY OR FULLY PAID BY THE EMPLOYER AMONG ACTIVITIES 1 TO 10
NFERAND1	CODE OF THE 1ST RANDOMLY SELECTED ACTIVITY
NFERAND1_TYPE	TYPE OF THE 1ST ACTIVITY
NFEPURP1	PURPOSE OF THE 1ST ACTIVITY
NFEFIELD1	FIELD OF THE 1ST ACTIVITY
NFEMETHOD1	MAIN METHOD OF LEARNING USED FOR THE 1ST ACTIVITY
NFEREASON1	REASONS FOR PARTICIPATING IN THE 1ST ACTIVITY
NFEWORKTIME1	1ST ACTIVITY DURING PAID WORKING HOURS (INCLUDING PAID LEAVE AND RECUPERATION)
NFENBHOURS1	TOTAL NUMBER OF INSTRUCTION HOURS
NFENBWEEKS1 (optional)	NUMBER OF WEEKS
NFEDURPERWEEK1 (optional)	AVERAGE NUMBER OF INSTRUCTION HOURS PER WEE
NFEPROVIDER1	PROVIDER OF THE 1ST ACTIVITY
NFECERT1	CERTIFICATE OBTAINED AFTER THE 1ST ACTIVITY
NFEPAIDBY1	PARTIAL OR FULL PAYMENT FOR THE TUITION, REGISTRATION, EXAM FEES, EXPENSES FOR BOOKS OR TECHNICAL STUDY MEANS FOR THE 1ST ACTIVITY
NFEPAIDFULL1 (optional)	FULL PAYMENT FOR THE TUITION, REGISTRATION, EXAM FEES, EXPENSES FOR BOOKS OR TECHNICAL STUDY MEANS BY THOSE IDENTIFIED IN 'NFEPAIDBY' FOR THE 1ST ACTIVITY
NFEPAIDVAL1	COSTS PAID PERSONALLY OR BY ANY HOUSEHOLD MEMBER OR RELATIVE FOR TUITION, REGISTRATION, EXAM FEES, BOOKS AND/OR TECHNICAL STUDY MEANS REGARDING THE 1ST ACTIVITY
NFEUSE1	USE OF THE SKILLS OR KNOWLEDGE ACQUIRED FROM THE 1ST ACTIVITY
NFESAT1(optional)	SATISFACTION WITH THE 1ST ACTIVITY

Variable	Name
NFEUNSATREASON1 (optional)	REASONS FOR NOT BEING SATISFIED WITH THE 1ST ACTIVITY
NFEOUTCOME1	OUTCOMES OF THE NEW SKILLS/KNOWLEDGE ACQUIRED THROUGH THE 1ST ACTIVITY
NFERAND2	CODE OF THE 2ND RANDOMLY SELECTED ACTIVITY
NFERAND2_TYPE	TYPE OF THE 2ND ACTIVITY
NFEPURP2	PURPOSE OF THE 2ND ACTIVITY
NFEFIELD2	FIELD OF THE 2ND ACTIVITY
NFEMETHOD2	MAIN METHOD OF LEARNING USED FOR THE 2ND ACTIVITY
NFEREASON2	REASONS FOR PARTICIPATING IN THE 2ND ACTIVITY
NFEWORKTIME2	2ND ACTIVITY DURING PAID WORKING HOURS (INCLUDING PAID LEAVE AND RECUPERATION)
NFENBHOURS2	TOTAL NUMBER OF INSTRUCTIONHOURS
NFENBWEEKS2 (optional)	NUMBER OF WEEKS
NFEDURPERWEEK2(optional)	AVERAGE NUMBER OF INSTRUCTION HOURS PER WEEK
NFEPROVID ER2	PROVIDER OF THE 2ND ACTIVITY
NFECERT2	CERTIFICATE OBTAINED AFTER THE 2ND ACTIVITY
NFEPAIDBY2	PARTIAL OR FULL PAYMENT FOR THE TUITION, REGISTRATION, EXAM FEES, EXPENSES FOR BOOKS OR TECHNICAL STUDY MEANS FOR THE 2ND ACTIVITY
NFEPAIDFU LL2 (optional)	FULL PAYMENT FOR THE TUITION, REGISTRATION, EXAM FEES, EXPENSES FOR BOOKS OR TECHNICAL STUDY MEANS BY THOSE IDENTIFIED IN 'NFEPAIDBY' FOR THE 2ND ACTIVITY
NFEPAIDVAL2	COSTS PAID PERSONALLY OR BY ANY HOUSEHOLD MEMBER OR RELATIVE FOR TUITION, REGISTRATION, EXAM FEES, BOOKS AND/OR TECHNICAL STUDY MEANS REGARDING THE 2ND ACTIVITY
NFEUSE2	USE OF THE SKILLS OR KNOWLEDGE ACQUIRED FROM THE 2ND ACTIVITY
NFESAT2 (optional)	SATISFACTION WITH THE 2ND ACTIVITY
NFEUNSATREASON2 (optional)	REASONS FOR NOT BEING SATISFIED WITH THE 2ND ACTIVITY
NFEOUTCOME2	OUTCOMES OF THE NEW SKILLS/KNOWLEDGE ACQUIRED THROUGH THE 2ND ACTIVITY
NFERAND3 (optional)	CODE OF THE 3RD RANDOMLY SELECTED ACTIVITY
NFERAND3_TYPE (optional)	TYPE OF THE 3RD ACTIVITY
NFEPURP3 (optional)	PURPOSE OF THE 3RD ACTIVITY NFERAND3
NFEFIELD3 (optional)	FIELD OF THE 3RD ACTIVITY
NFEMETHO D3 (optional)	MAIN METHOD OF LEARNING USED FOR THE 3RD ACTIVITY
NFEREASON 3 (optional)	REASONS FOR PARTICIPATING IN THE 3RD ACTIVITY
NFEWORKTI ME3 (optional)	3RD ACTIVITY DURING PAID WORKING HOURS (INCLUDING PAID LEAVE AND RECUPERATION)
NFENBHOUR S3 (optional)	TOTAL NUMBER OF INSTRUCTION HOURS
NFENBWEE KS3 (optional)	NUMBER OF WEEKS
NFEDURPERWEEK3 (optional)	AVERAGE NUMBER OF INSTRUCTION HOURS PER WEEK
NFEPROVIDER3 (optional)	PROVIDER OF THE 3RD ACTIVITY

Variable	Name
NFECERT3 (optional)	CERTIFICATE OBTAINED AFTER THE 3RD ACTIVITY
NFEPAIDBY3 (optional)	PARTIAL OR FULL PAYMENT FOR THE TUITION, REGISTRATION, EXAM FEES, EXPENSES FOR BOOKS OR TECHNICAL STUDY MEANS FOR THE 3RD ACTIVITY
NFEPAIDFU LL3 (optional)	FULL PAYMENT FOR THE TUITION, REGISTRATION, EXAM FEES, EXPENSES FOR BOOKS OR TECHNICAL STUDY MEANS BY THOSE IDENTIFIED IN 'NFEPAIDBY' FOR THE 3RD ACTIVITY
NFEPAIDVAL3 (optional)	COSTS PAID PERSONALLY OR BY ANY HOUSEHOLD MEMBER OR RELATIVE FOR TUITION, REGISTRATION, EXAM FEES, BOOKS AND/OR TECHNICAL STUDY MEANS REGARDING THE 3RD ACTIVITY
NFEUSE3 (optional)	USE OF THE SKILLS OR KNOWLEDGE ACQUIRED FROM THE 3RD ACTIVITY
NFESAT3 (optional)	SATISFACTION WITH THE 3RD ACTIVITY
NFEUNSATREASON3 (optional)	REASONS FOR NOT BEING SATISFIED WITH THE 3RD ACTIVITY
NFEOUTCOME3 (optional)	OUTCOMES OF THE NEW SKILLS/KNOWLEDGE ACQUIRED THROUGH THE 3RD ACTIVITY
DIFFICULTY	DIFFICULTIES RELATED TO PARTICIPATION (OR MORE PARTICIPATION) IN EDUCATION AND TRAINING DURING THE LAST 12 MONTHS
DIFFTYPE	TYPE OF DIFFICULTIES
DIFFMAIN	MOST IMPORTANT DIFFICULTY
INF	PARTICIPATION IN OTHER ACTIVITIES IN THE LAST 12 MONTHS (DELIBERATE SELF-TEACHING TO IMPROVE KNOWLEDGE OR SKILLS)
INFFIELD1	FIELD OF 1ST ACTIVITY
INFPURP1	PURPOSE OF 1ST ACTIVITY
INFMETHOD1	INFORMAL LEARNING METHOD USED FOR 1ST ACTIVITY
INFFIELD2	FIELD OF 2ND ACTIVITY
INFPURP2	PURPOSE OF 2ND ACTIVITY
INFMETHOD2	INFORMAL LEARNING METHOD USED FOR 2ND ACTIVITY
ICTCOMPUTER	COMPUTER RELATED ACTIVITIES ALREADY CARRIED OUT
ICTINTERNET (optional)	INTERNET RELATED ACTIVITIES HAVE ALREADY CARRIED OUT
LANGMOTHER1	1ST MOTHER TONGUE
LANGMOTHER2	2ND MOTHER TONGUE
LANGUSED	OTHER LANGUAGES EXCEPT MOTHER TONGUE(S)
LANGBEST1	FIRST BEST KNOWN LANGUAGE (EXCLUDING MOTHER TONGUE)
LANGLEVEL1	FIRST BEST LANGUAGE KNOWLEDGE (EXCLUDING MOTHER TONGUE)
LANGBEST2	SECOND BEST KNOWN LANGUAGE (EXCLUDING MOTHER TONGUE)
LANGLEVEL2	SECOND BEST LANGUAGE KNOWLEDGE (EXCLUDING MOTHER TONGUE)
OTHERLANG (optional)	BEST KNOWN OTHER LANGUAGE USED ONLY AT THE NATIONAL LEVEL (EXCLUDING MOTHER TONGUE)

Variable	Name
OTHERLANGLEVEL (optional)	KNOWLEDGE ABOUT OTHER KNOWN LANGUAGE USED ONLY AT THE NATIONAL LEVEL MENTIONED
CULTPAR1 (optional)	NUMBER OF TIMES GOING TO LIVE PERFORMANCES IN THE LAST 12 MONTHS
CULTPAR2 (optional)	NUMBER OF TIMES GOING TO THE CINEMA IN THE LAST 12 MONTHS
CULTPAR3 (optional)	NUMBER OF VISITS TO CULTURAL SITES IN THE LAST 12 MONTHS
CULTPAR4 (optional)	NUMBER OF TIMES ATTENDING LIVE SPORT EVENTS IN THE LAST 12 MONTHS
CULTNEWS (optional)	READING NEWSPAPERS (PAPER OR INTERNET) IN THE LAST 12 MONTHS
CULTBOOK (optional)	READ A BOOK IN THE LAST 12 MONTHS
CULTBOOKNUM (optional)	APPROXIMATE NUMBER OF BOOKS READ IN THE LAST 12 MONTHS
SOCIALPAR (optional)	PARTICIPATION IN ANY OF THE FOLLOWING ACTIVITIES IN THE LAST 12 MONTHS
FEDTHEODUR (optional)	THERORETICAL FULL-TIME DURATION OF THE FORMAL ACTIVITY

Source: Eurostat (2012a).