# Statistics in focus

## POPULATION AND SOCIAL CONDITIONS

119/2007

## Author Heidi SEYBERT

#### Contents

Men use computers more often
than women2
Men also use the internet more than women4
More men than women have basic computer skills5
Relatively many more men than
women are employed in
computing jobs 6



Manuscript completed on: 23.10.2007 Data extracted on: 04.04.2007 ISSN 1977-0316 Catalogue number: KS-SF-07-119-EN-N

© European Communities, 2007

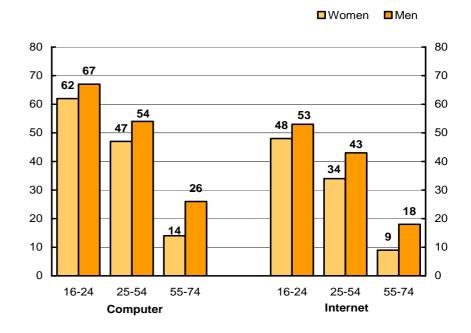
## Gender differences in the use of computers and the Internet

The use of Information and Communication Technologies (ICT) has become an essential feature of both economic and social activity across Europe. In nearly all European countries and in all age groups, however, men are more regular users of both computers and the internet than women and many more men than women are employed in computing jobs throughout the EU. The concern here is to examine the differences in the regular use of ICT among women and men in different Member States.

#### Main findings:

- The difference between the proportion of young women (62%) and young men (67%) in the EU-25 using computers daily in 2006 was relatively small. Differences in computer usage were greater between women and men in the age groups 25–54 and 55–74.
- Slightly more young men (53%) than young women (48%) used the Internet daily. A much smaller proportion of older people used the Internet and there were larger differences between women and men. Only 9% of women aged 55–74 used the Internet daily compared to 18% of men.
- In all age groups, the proportion of women with medium or high levels of basic computer skills was smaller than that of men.
- The proportion of women employed as computing professionals is very small (0.7%) and remained unchanged between 2001 and 2006, whereas the proportion of men increased slightly from 2.3% to 2.6%.

Figure 1: Women and men having used a computer or Internet on average once every day or almost every day in the last 3 months in the EU-25, 2006 (% of women/men in each age group)

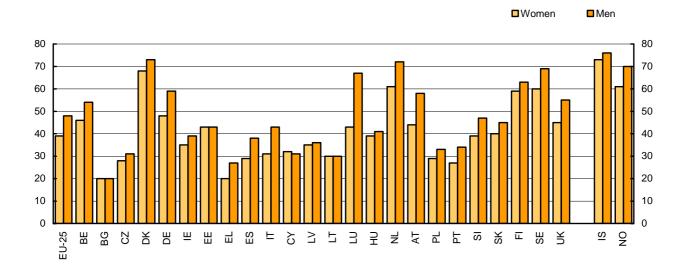


Source: Eurostat, Community survey on ICT usage in households and by individuals

#### Men use computers more often than women

A larger proportion of men than women use computers on a regular basis. In the European Union as a whole, some 48% of men aged 16–74 surveyed in 2006 reported using a computer at least once a day during the preceding three months as opposed to 39% of women (Fig. 2).

Figure 2: Women and men having used a computer on average every day or almost every day in the last 3 months, 2006 (% of women/men 16-74 years)



Source: Eurostat, Community survey on ICT usage in households and by individuals Note: FR, MT, RO: no data available

Only in Cyprus was the proportion of women using a computer on a daily basis marginally larger than for men; in three countries — Bulgaria, Estonia and Lithuania — the proportion was the same. In the other Member States, the gap in frequency of use between men and women varies considerably. In Luxembourg, the proportion of men using a computer daily was 24 percentage points higher than for women and in Germany, Italy, the Netherlands, Austria and the United Kingdom, 10-14 percentage points higher. In all the new Member States, except Malta and Romania, for which data are not available, and with the partial exception of Slovenia (where the gap was 8 percentage points), there was only a small difference in the daily use of computers between women and men — smaller than in all EU-15 countries apart from Ireland, Denmark and Finland.

Across countries, the proportions of women and men using computers daily varied from around 60% or more in Denmark, the Netherlands and Sweden, as well as in Iceland and Norway (and Luxembourg and Finland for

men only) to 20% in Bulgaria and, for women only, in Greece.

The gap in usage between men and women across the EU-25 does not change much if those using a computer at less frequent intervals are also included. At EU-25 level, an additional 12% of women and men used a computer at least once a week, while a further 4–5% of both women and men did so at least once a month.

## Differences in computer usage between men and women are more significant in older age groups

The gap between men and women in the use of computers is repeated for each broad age group, though it is more significant in older age groups where the overall scale of use declines. For **young people** aged 16–24 some 62% of women in the EU-25 use a computer daily as opposed to 67% of men, but the gap narrows to only 2 percentage points if those using one at least once a week are included as well (Table 1).



Table 1: Proportion of women and men who used a computer on average once a day and at least once a week in the last three months by age, 2006

			-24			25-			55-74			
	on average daily or on av		on average	at least	on average	e daily or	on average	e at least	on average	e daily or	on average	e at least
	almost		once a week		almost		once a week		almost		once a week	
	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men
EU-25	62	67	81	83	47	54	60	66	14	26	21	35
BE	68	71	86	84	56	62	70	75	15	30	24	39
BG	38	38	59	57	25	22	33	29	4	5	5	7
CZ	44	51	75	77	36	33	50	50	7	13	12	21
DK	76	85	91	100	79	80	89	91	45	54	60	67
DE	68	76	91	93	57	66	77	81	22	36	33	49
IE	43	42	72	65	41	46	57	59	11	14	22	23
EE	75	74	92	90	50	44	69	63	13	13	18	21
EL	43	43	65	69	24	33	33	43	2	8	3	11
ES	52	56	76	78	35	43	49	58	5	14	9	19
FR	:	:	:	:	:	:	:	:	:	:	:	:
IT	64	67	67	69	39	51	40	52	6	19	6	19
CY	62	37	82	66	35	38	41	45	6	12	7	15
LV	66	66	83	89	41	37	57	51	9	8	13	14
LT	59	62	83	84	34	28	48	43	5	6	8	9
LU	67	77	92	95	49	72	68	86	15	51	26	61
HU	61	66	84	87	47	45	60	57	14	16	17	22
MT	:	:	:	:	:	:	:	:	:	:	:	:
NL	81	89	96	97	70	78	86	90	30	48	43	62
AT	72	72	89	87	52	66	68	78	14	31	21	39
PL	56	64	82	83	32	31	45	44	5	9	8	13
PT	60	64	78	79	31	37	40	46	4	10	:	13
RO	:	_:	:	:	:	_ :	:	:	:	:	:	:
SI	68	72	87	87	48	52	60	62	6	20	8	24
SK	50	69	80	87	50	48	64	63	9	13	15	19
FI	78	81	93	93	69	70	86	83	29	37	40	50
SE	77	80	95	95	68	78	88	92	36	47	55	64
UK	61	63	77	77	54	65	70	80	20	33	33	49
ıs	85	89	96	96	81	77	93	90	41	60	55	72
NO	78	86	96	98	68	76	87	90	38	50	51	60
	, ,			55	00	, ,	0,	00	00		01	00

Source: Eurostat, Community survey on ICT usage in households and by individuals

There are marked variations in the scale of daily use across the Member States, with the proportion being around 75% or more for both young women and young men in Denmark, Estonia, the Netherlands, Finland and Sweden, as well as in Iceland and Norway, but below 40% in Bulgaria.

The scale of daily computer use among **25–54 year olds** varies more widely between countries than among the younger group. The proportion ranged from nearly 70% or more for both men and women in Denmark, the Netherlands, Finland and Sweden, as well as Iceland and Norway, to under 35% in Bulgaria, Greece, Lithuania and Poland. The average in the EU as a whole was 47% for women and 54% for men.

For those aged 25–54, the difference in daily use between men and women is wider than for the 16–24 age group (some 7 percentage points against 5 percentage points). Conversely, in 8 Member States (all of them new ones) and Iceland, the proportion of

women using a computer at least once a day was higher than for men. This contrasts with the situation in Luxembourg, Austria, Sweden and the UK, where the proportion of women in this age group using computers daily was markedly below that of men (10 percentage points or more), though this was still above the EU-25 average.

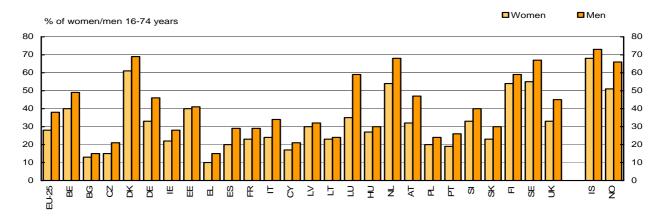
The scale of use among those **aged 55–74** is substantially lower than among the younger groups, with average daily use at only 26% for men and just 14% for women in the EU-25. Denmark, the Netherlands, Finland and Sweden (together with Iceland and Norway) stand out with 29% or more of women and 37% or more of men using computers in this age group. There are no countries, except Latvia to a very small extent, where the proportion of women using a computer was larger than for men, though it was the same or virtually the same as for men in Estonia, Bulgaria and Lithuania.

#### Men also use the internet more than women

The frequency of internet use among women and men is similar to that of computers, with once again a significant gap between the proportion of men and women using it on a daily basis in the EU-25 as a whole. The proportion of men averaged 38% as against 28% of women (Fig. 3). In all EU Member States more

men than women use the internet on average at least once a day. However, the difference between the shares of men and women using the internet was only 7 percentage points or less in all the new Member States, Ireland, Greece, France, Portugal and Finland as well as Iceland.

Figure 3: Women and men having used the Internet on average every day or almost every day in the last 3 months, 2006 (% of women/men 16-74 years)



Source: Eurostat, Community survey on ICT usage in households and by individuals

Note: MT, RO: no data available

Table 2: Proportion of women and men who used the Internet on average once a day and at least once a week in the last three months by age, 2006

			5-24		25-54				55-74			
	on average daily		on average	at least	on averag	ge daily	on average	e at least	on avera		on average	e at least
	or almost		once a	week	or almost		once a week		or almost		once a week	
	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men
EU-25	48	53	73	73	34	43	50	58	9	18	15	26
BE	66	67	83	81	47	55	64	70	13	26	20	34
BG	27	31	45	48	16	17	25	24	2	3	3	5
CZ	28	38	64	66	18	22	38	41	3	7	8	16
DK	71	82	92	95	72	77	85	88	36	49	51	60
DE	53	65	82	85	40	53	65	73	11	24	22	37
IE	33	32	61	57	25	34	46	51	7	10	16	18
EE	74	72	91	89	46	41	67	61	11	12	17	19
EL	22	19	44	49	13	20	21	32	1	4	1	7
ES	41	44	68	71	23	33	40	49	3	10	6	15
FR	41	42	73	69	30	36	45	50	6	11	10	16
IT	49	54	54	57	30	41	31	43	4	13	4	14
CY	34	22	63	47	18	27	27	36	2	6	4	10
LV	61	59	85	88	35	33	52	47	7	8	11	12
LT	46	48	75	78	27	22	42	36	3	5	7	7
LU	58	68	87	91	39	63	61	81	12	43	20	55
HU	45	46	74	74	33	33	47	46	9	13	12	17
MT	:	:	: :	:	:	:	:	:	:	:	:	:
NL	76	88	94	98	63	75	82	89	23	43	36	58
AT	58	61	80	80	36	53	57	68	9	24	16	33
PL	40	47	69	72	22	23	34	35	3	7	6	10
PT	47	50	68	69	21	27	31	38	:	7	:	:
RO	:	:	:	:	:	:	:	:	:	:	:	:
SI	65	68	79	83	39	43	52	56	4	16	6	19
SK	33	47	65	78	28	32	44	49	4	7	7	12
FI	78	80	94	93	64	68	84	80	23	30	34	43
SE	77	77	94	94	63	74	86	91	29	47	48	65
UK	50	50	72	71	40	54	59	74	13	26	25	41
IS	84	86	95	97	76	76	91	88	34	57	48	70
NO	69	81	96	99	57	72	81	87	30	44	43	53

Source: Eurostat, Community survey on ICT usage in households and by individuals



In most of the new Member States, the scale of use was lower than the EU-25 average. This contrasts with usage in the Nordic Member States (Denmark, Finland and Sweden), the Netherlands as well as Iceland and Norway, where over 50% of women used the Internet, the highest shares in the EU.

As with the use of computers, use of the internet declines in older age groups, though the gap between men and women does not widen as much. In 2006, an average of 48% of women aged 16–24 used the internet daily as opposed to 53% of men (Table 2). The figure for women ranged from over 70% in Denmark, Estonia,

the Netherlands, Finland and Sweden, along with Iceland, to under 30% in Bulgaria, the Czech Republic and Greece.

Among 25–54 year-olds, daily use of the internet falls to 34% of women and 43% of men, with the proportion of users among women exceeding that of men in only three countries, Estonia, Latvia and Lithuania.

Among those aged 55–74, the proportion of daily internet users declines even further to 18% of men and only 9% of women. For this age group, moreover, the relative number of women users was lower than that of men in all countries.

#### More men than women have basic computer skills

The gap between men and women is even wider for basic computer skills than in the take-up and use of ICT. In 2006, almost half of young men aged 16–24 surveyed in the EU-25 were considered to have high skills as opposed to only 30% of women (Table 3).

While there were 7 Member States where 60% or more of men in this age group had high computer skills and another 6 where the figure was over 50%, only in Austria and Slovenia were more than 50% of young women considered to have such skills.

Table 3: Proportion of women and men by age and level of basic computer skills, 2006

		16	5-24			25	5-54		55-74			
	High		At least r	nedium	Hig	h	At least r	nedium	Hig	h	At least r	nedium
	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men
EU-25	30	48	73	78	18	34	47	57	3	12	13	25
BE	28	44	68	70	17	32	46	57	3	12	11	27
BG	10	17	41	39	5	8	22	21	1	1	3	5
CZ	25	40	66	70	10	19	38	38	2	7	11	18
DK	41	75	88	95	28	57	72	82	11	32	39	55
DE	29	59	82	88	21	42	61	72	4	16	23	38
IE	24	24	41	34	18	26	31	34	3	6	8	10
EE	42	60	76	75	21	30	47	45	0	8	9	13
EL	33	40	65	62	15	21	32	36	1	3	3	8
ES	35	48	78	79	20	33	45	53	2	7	7	16
FR	27	44	76	82	19	35	50	60	3	10	10	19
IT	25	39	62	65	13	28	34	47	1	7	5	15
CY	41	35	78	61	15	24	38	40	2	6	5	11
LV	23	36	66	72	8	14	33	31	1	2	7	7
LT	32	51	76	77	11	17	38	32	1	2	7	6
LU	48	73	85	95	22	56	54	80	3	27	15	49
HU	47	58	83	80	23	31	53	50	5	10	15	19
MT	:	:	:	:	:	:	:	:	:	:	:	:
NL	30	66	82	93	23	54	57	81	4	20	18	46
AT	51	64	82	87	20	48	53	71	3	17	14	34
PL	20	34	63	68	7	14	27	31	1	2	5	7
PT	46	53	74	75	17	26	34	39	0	6	4	12
RO	:	:	:	:	:	:	:	:	:	:	:	:
SI	56	73	89	93	21	37	50	56	2	9	7	20
SK	15	47	74	81	10	26	48	52	1	4	10	15
FI	28	58	76	90	25	44	65	70	6	16	20	31
SE	30	60	77	87	20	50	61	79	6	19	36	45
UK	35	51	74	81	22	40	54	69	6	18	21	36
IS	27	58	89	90	34	49	76	77	6	26	32	54
NO	38	69	84	98	30	53	63	77	12	18	32	39

Source: Eurostat, Community survey on ICT usage in households and by individuals



Computer skills for women and men aged 25–54 tend to be lower than for the younger age group. In the EU as a whole, around a third of men but only 18% of women were recorded as having high skills and in all countries, more men than women have these skills. The difference between men and women amounted to 20 percentage points or more in Denmark, Germany, Luxembourg, the Netherlands, Austria and Sweden as well as in Norway.

For the 55–74 age group, only 3% of women in the EU-25 had high computer skills compared with 12% of men. In most countries, the proportion of women with high computer skills was under 10%, except in Denmark and Norway, while for men, the proportion with high skills was 10% or more in 11 Member States and in Iceland and Norway. The gap between men and women was also particularly wide (12 percentage points or more) in the same Member States as for the 25–54 age group as well as in the United Kingdom.

#### Relatively many more men than women are employed in computing jobs

Many more men than women are employed in computing jobs across the EU-25. In 2006, some 2.6% of men in employment in the EU worked as computing professionals or as "computer associate professionals" (ISCO categories 213 and 312). This is almost four times the proportion of women (0.7%). While the scale of the difference varies across countries, the proportion of men in employment working in these occupations exceeded the proportion of women in all Member States for which data are available (Table 4). In Bulgaria, the Netherlands, Austria and Portugal, this difference was more than 5 to 1 and only in Latvia and Romania was it less than 2 to 1 (though in Bulgaria, Austria and Latvia the numbers are relatively uncertain).

## No change in the share of women employed in computing jobs in 2001–2006

The gap between men and women employed in computing jobs has tended to widen rather than narrow over time. In the five years 2001–2006, the proportion of men working in computing jobs in the EU increased by 0.3 of a percentage point, whereas the proportion of women remained at 0.7%.

Table 4: Employment in computing activities by sex, 2001 and 2006 (% of women/men in all occupations)

	20	01	20	06	•	change
	Women	Men	Women	Men	200 <sup>-</sup> Women	1-06 Men
EU-25	0.7	2.3	0.7	2.6	0.0	0.3
BE	0.5	2.6	0.6	2.8	0.1	0.1
BG	(0.9)	(4.9)	(0.8)	4.8	(0.0)	-(0.1)
CZ	0.9	2.3	0.6	2.8	-0.3	0.5
DK	0.9	3.2	1.1	3.8	0.2	0.6
DE	0.7	2.5	0.7	2.9	0.0	0.4
EE	0.7	2.0	0.7	(2.6)	0.0	0.4
IE	0.9	1.6	0.6	1.6	-0.3	0.1
EL	0.3	0.4	0.3	0.7	0.0	0.1
ES	0.6	1.4	0.6	2.0	0.0	0.5
FR	0.7	2.8	0.7	2.6	0.0	-0.1
IT	0.6	1.4	0.6	1.9	0.0	0.5
CY	(0.5)	1.2	(0.5)	1.0	0.0	-0.2
LV	(0.0)	1.2	(1.4)	1.8	•	0.2
LT	•	0.7	(1.4)	1.0	•	•
LU	(1.0)	2.7		3.2	•	0.4
HU	0.6	1.6	0.5	2.4	0.0	0.8
MT			0.0	(1.6)		
NL	0.9	4.9	0.8	4.8	0.0	-0.1
AT	0.6	2.6	(0.4)	2.7	-(0.2)	0.2
PL	0.5	1.2	0.5	1.7	0.0	0.5
PT	(0.5)	1.2	0.3	1.8		0.6
RO	:	:	0.5	0.6	:	:
SI	(0.4)	(1.5)	(0.7)	3.3	(0.3)	(1.8)
SK	0.6	`1.6 <sup>′</sup>	0.9	2.6	0.3	0.9
FI	1.2	3.0	1.3	4.0	0.1	1.0
SE	1.4	5.2	1.5	4.9	0.0	-0.3
UK	1.0	3.4	8.0	3.3	-0.2	-0.1
HR	:	•		(1.1)	:	:
IS		3.3		3.7		0.4
NO	0.8	3.9	1.0	4.0	0.2	0.1
СН	0.8	4.7	0.7	5.0	0.0	0.3

Note: LU, CH and IS 2005. Figures in brackets: uncertain reliability Source: Eurostat, Labour Force Survey, 2nd quarter, 2006



## The difference is especially wide among younger people

There is no sign of a longer term tendency for the gap in employment to narrow. The difference between the proportion of men in employment working in computing jobs and the proportion of women is wider among young people than among the older generation. In 2006, some 3.5% of men aged below 40 and in work in the EU were employed in computing occupations as compared with only 0.8% of women (Table 5). As for those in employment as a whole, there is no Member State where the proportion of younger women in computing exceeds that of young men. Moreover, in only three countries — Slovakia, Finland and Sweden — was the proportion of women in this age group working in computing jobs equal to or greater than 1.5% (but under 2% in each case).

For those aged over 40, the proportion of both women and men employed in computing jobs in the EU was smaller and the gap between the two was narrower at 1.3 percentage points. Only in the three Nordic countries were more than 1% of women in work employed in computing jobs, and then only slightly more, while there were six Member States among those for which reliable data is available — the three Nordic countries plus Germany, the Netherlands and the UK — where the proportion of men was over 2%.

Table 5: Employment in computing activities by sex and age, 2006 (% of women/men in all occupations)

	-40 va	ear old	>40 ve	ear old
	Women	Men	Women	Men
EU-25	0.8	3.5	0.5	1.8
BE	(0.4)	3.7	0.8	1.9
BG		1.7		
CZ	0.7	4.0	0.6	1.7
DK	(1.0)	4.2	1.2	3.4
DE	0.8	3.6	0.6	2.3
EE		(4.9)		
IE	(0.9)	2.4		(0.7)
EL	(0.4)	1.1		0.3
ES	8.0	2.8	0.4	1.0
FR	1.0	3.5	0.5	1.8
ΙΤ	0.9	2.7	0.3	1.2
CY	(0.9)	1.7		
LV		3.2	(1.5)	
LT				
LU		4.2		(2.2)
HU	(0.5)	3.5	0.5	1.1
МТ		-		
NL	0.9	5.7	8.0	4.0
AT	(0.5)	3.8	•	1.6
PL	0.7	2.6	(0.2)	0.8
PT		2.6		1.0
RO	0.6	0.9	(0.4)	
SI	(0.9)	4.8	(0.5)	(1.9)
SK	1.5	3.5		1.5
FI	1.5	5.7	1.2	2.6
SE	1.7	6.4	1.3	3.8
UK	0.9	4.4	0.6	2.4
HR		(1.5)		(8.0)
IS	0.7	5.4	0.3	2.1
NO	1.2	5.2		3.0
СН	0.9	6.3	0.5	3.9

Note: LU, IS and CH 2005. Figures in brackets: uncertain reliability Source: Eurostat, Labour Force Survey, 2nd quarter, 2006

#### **ESSENTIAL INFORMATION – METHODOLOGICAL NOTES**

#### Symbols

":" unavailable "." figures too small to be published

() uncertain reliability

#### Aggregation of results

An EU-25 aggregate is calculated only if the available countries represent at least 55% of the number of Member States and at least 60% of the EU population.

The totals for the EU-25 referred to in the text and included in the figures and tables exclude Bulgaria and Romania since the data relate to the period before they joined the Union.

#### Community survey on ICT usage in households and by individuals

The analysis of the use of computers and the Internet is based on the results of the *Community survey on ICT usage in households and by individuals*, which covers individuals aged 16 to 74.

The reference period is 2006 except where otherwise specified.

Level of basic computer skills

The respondent's ICT competencies are measured using a self-assessment approach, i.e. the respondent simply indicates whether he/she is able to carry out specific tasks related to computer use, without these skills being assessed, tested or actually observed. Six computer-related items were used to group the respondents into levels of skills: persons who ticked 1 or 2 of the 6 computer-related items were coded as having a 'low level of basic computer skills', persons who ticked 3 or 4 items were coded as having a 'medium level' while those who ticked 5 or all activities were labelled as having a 'high level of basic computer skills'.

The six computer-related items are the following: Copy or move a file or folder; use copy and paste tools to duplicate or move information within a document; use basic arithmetic formula (add, subtract, multiply, divide) in a spreadsheet; compress files; connect and install new devices, e.g. a printer or a modem; write a computer program using a specialised programming language.

### Further information:

Data: EUROSTAT Website/Home page/Population and social conditions/Data

#### Population and social conditions

□ Information society statistics

Policy indicators

• Information society: Structural Indicators

**Telecommunication** services

© Computers and the Internet in households and enterprises

E-Commerce by individuals and enterprises

E-skills of individuals

#### or see Eurostat's dedicated website:

http://epp.eurostat.ec.europa.eu/portal/page?\_pageid=2973,64549069,2973\_64553608&\_dad=portal&\_schema=PORTAL

#### Journalists can contact the media support service:

Bech Building Office A4/125 L - 2920 Luxembourg

Tel. (352) 4301 33408 Fax (352) 4301 35349

E-mail: eurostat-mediasupport@ec.europa.eu

#### **European Statistical Data Support:**

Eurostat set up with the members of the 'European statistical system' a network of support centres, which will exist in nearly all Member States as well as in some EFTA countries.

Their mission is to provide help and guidance to Internet users of European statistical data.

Contact details for this support network can be found on our Internet site: <a href="http://ec.europa.eu/eurostat/">http://ec.europa.eu/eurostat/</a>

#### A list of worldwide sales outlets is available at the:

## Office for Official Publications of the European Communities.

2, rue Mercier L - 2985 Luxembourg

URL: <a href="http://publications.europa.eu">http://publications.europa.eu</a> E-mail: info@publications.europa.eu

#### For further information and methodology

Heidi Seybert Eurostat / L-2920 Luxembourg Tel: (+ 352) 4301 37416

E-mail: Heidi.Seybert@ec.europa.eu

Manuscript prepared in cooperation with Fadila Sanoussi and Terry Ward.