

# Accidents at work in the EU 1998-1999

Didier Dupré

## Statistics in focus

### POPULATION AND SOCIAL CONDITIONS

THEME 3 – 16/2001

#### WORK

## Contents

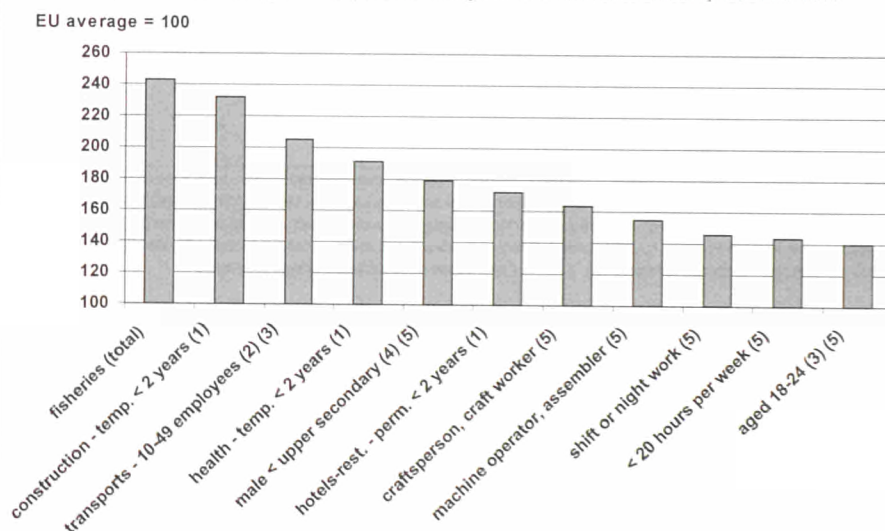
Slight drop in accidents at work between 1996 and 1998 – slight increase in 1999.....4

One-third of accidents result in fewer than 4 days' absence from work, 4% more than 3 months' ....5

High-risk branches and types of job or person .....6

In 1998, the number of accidents at work resulting in more than three days' absence from work per 100 000 persons in employment (incidence) in the EU fell slightly, by 0.4%, to 4 089 (corresponding to 4.7 million accidents in the EU as a whole). In 1999 however, according to initial estimates, the incidence seems likely to have been close to the 1996 level of 4 229 per 100 000 (4 539 in 1994). The total number of accidents, including those not resulting in absence from work or resulting in 1 to 3 days' absence, was 7.4 million in 1998 (6 380 per 100 000). As a result of these accidents, 5% of the victims had to change to a different type of work or another job, or to reduce their working hours. 0.2% had to give up work entirely. Finally, there were 5 476 fatal accidents at work in 1998 (5 per 100 000), reaching a total of 8 600 deaths by including fatal accidents on the way to and from work. On average, 59% of all these fatal accidents were road traffic accidents or involved some form of transport.

Figure 1 : Activities, jobs and persons at high risk of accidents at work, 1998 and 1999



Sources : ESAW 1998 and LFS 1999 (see page 7) - the 11 economic activity, employment, gender and age groups studied with the highest relative incidence rates of accidents at work (with or without absence from work) compared with the EU-15 average for all branches, jobs and persons = 100.

(1) Less than two years in the job (temporary / permanent). (2) Employed in a local unit with 10-49 employees. (3) Absence from work > 3 days. (4) Level of education attained: primary or lower secondary. (5) All jobs/branches.

The accident rate is particularly high in the fishing industry (where the risk of an accident is 2.4 times greater than the average for all branches in the EU), in agriculture, construction and health and social work (1.3 to 1.4), and in local units of the manufacturing, construction and transport industries employing between 10 and 49 persons (1.2 to 1.4 times the average for these branches). Young persons aged between 18 and 24, persons who have been working for less than 2 years in a business, shift workers, night workers or persons working fewer than 20 hours per week are also 20% to 50% more likely than average to have an accident.

An estimated 148 million or so working days per year were lost in the EU in 1998 and 1999 as a result of accidents at work.



Table 1 : Accidents at work in the EU by sex, age and type of activity

NACE Rev.1 (economic activity) Section (branch) Subsection or division (sector)	Persons in employment 1998 (1 000)	Accidents at work with more than 3 days' absence from work													
		Estimated number *			Incidence rate (number per 100 000 persons in employment)										
		1998	1999	1994	1995	1996	1997	1998	1999 *	Trend %					
									94-98	96-98	98-99*				
Total - all branches of activity	Total	136 150	4 678 686	4 860 120 *											
A and D to K - total 9 common branches	Total	96 543	3 947 552	4 130 567 *	4 539	4 266	4 229	4 106	4 089	4 206 *	-9,9%	-3,3%	2,9% *		
of which <sup>(1)</sup> : men		60 578	3 191 385		5 960	5 534	5 458	5 291	5 268		-11,6%	-3,5%			
women		31 858	602 190		1 936	1 864	1 924	1 865	1 890		-2,4%	-1,8%			
18-24 years		11 711	673 149				5 751	5 613	5 726				-0,5%		
25-34 years		28 324	1 206 660				4 390	4 210	4 179				-4,8%		
35-44 years		25 062	901 507				3 766	3 696	3 678				-2,3%		
45-54 years		20 084	717 266				3 558	3 548	3 543				-0,4%		
55-64 years		8 755	309 533				4 063	3 671	3 602				-11,4%		
A Agriculture, hunting and forestry		5 092	346 766	373 340 *	6 496	6 123	6 771	6 647	6 790	7 510 *	4,5%	0,3%	10,6% *		
D Manufacturing		30 156	1 354 762	1 369 376 *	5 071	4 962	4 660	4 607	4 492	4 546 *	-11,4%	-3,6%	1,2% *		
of which <sup>(2)</sup> : da	Manufacture of food products, beverages and tobacco	3 410	274 698		7 360	6 920	6 557	6 550	6 323		-14,1%	-3,6%			
db	Manufacture of textiles and textile products	2 400	56 089			2 765	2 639	2 589	2 653				0,5%		
dc	Manufacture of leather and leather products	553	10 862			2 505	2 394	2 308	2 292				-4,3%		
dd	Manufacture of wood and wood products	900	89 471			10 238	10 793	12 020	10 677				-1,1%		
de	Manufacture of pulp, paper and paper products, publishing and printing	2 524	64 352			2 795	2 686	2 606	2 596				-3,4%		
df	Manufacture of coke, refined petroleum products and nuclear fuel	178	1 522			1 158	1 094	962	875				-20,0%		
dg	Manufacture of chemicals, chemical products and man-made fibres	2 022	43 372			2 431	2 400	2 195	2 177				-9,3%		
dh	Manufacture of rubber and plastic products	1 337	50 472			4 233	3 897	3 843	3 827				-1,8%		
di	Manufacture of other non-metallic mineral products <sup>(3)</sup>	1 172	69 083		6 518	6 915	6 533	6 543	6 269				-3,8%	-4,0%	
dj	Manufacture of basic metals and fabricated metal products	4 402	347 368		8 650	9 022	8 546	8 331	8 076				-6,6%	-5,5%	
dk	Manufacture of machinery and equipment n.e.c.	3 224	115 422			3 708	3 308	3 523	3 615				9,3%		
dl	Manufacture of electrical and optical equipment	3 382	87 886			2 858	2 684	2 638	2 631				-2,0%		
dln	Manufacture of transport equipment	2 896	82 024			2 936	2 734	2 756	2 883				5,5%		
dn	Manufacturing n.e.c.	1 757	62 141			4 292	3 929	3 628	3 670				-6,6%		
E Electricity, gas and water supply		1 201	19 505	19 875 *	1 545	1 619	1 662	1 625	1 723 *				0,4%	6,0% *	
of which <sup>(2)</sup> : e40	Electricity, gas, steam and hot water supply	955	13 789		1 368	1 383	1 461	1 410					2,0%		
e41	Collection, purification and distribution of water	246	5 716		2 133	2 426	2 429	2 382					-1,8%		
F Construction		10 375	830 873	883 045 *	9 014	9 080	8 023	7 963	8 008	8 261 *	-11,2%	-0,2%	3,2% *		
G Wholesale and retail trade; repair of motor vehicles, motorcycles and personal and household goods		20 360	498 926	521 011 *	2 552	2 523	2 431	2 394	2 451	2 510 *	-4,0%	0,8%	2,4% *		
H Hotels and restaurants <sup>(4)</sup>		5 232	187 850	196 165 *	4 121	3 645	3 532	3 365	3 590	3 677 *	-12,9%	1,6%	2,4% *		
I Transport, storage and communication		7 509	440 143	461 309 *	6 139	5 790	6 018	5 937	5 862	5 999 *	-4,5%	-2,6%	2,3% *		
of which <sup>(2)</sup> : i60	Land transport, transport via pipelines	3 139	191 363		5 732	5 139	6 000	6 006	5 987				4,5%	-0,2%	
i61	Water transport	95	4 708		4 933	4 658	4 886	5 132	5 290				7,2%	8,3%	
i62	Air transport	331	13 857		5 470	4 397	4 121	4 184	4 317				-21,1%	4,8%	
i63	Supporting and auxiliary transport activities; activities of travel agencies	1 884	180 866		11 580	11 829	10 526	10 415	9 755				-15,8%	-7,3%	
J+K Financial intermediation; real estate, renting and business activities		16 619	269 727	306 446 *	1 638	1 627	1 582	1 602	1 623	1 746 *	-0,9%	2,6%	7,6% *		

Source : ESAW; Denmark and Ireland 1998 = 1997; France 1997 = 1998; Netherlands 1995-1998 : from 1994 data; Portugal 1996 = 1995, 1998 = from 1999 data.

\* 1998 : see estimates by Member State, Table 2; 1999 : provisional estimates based on 1998 ESAW data and 1998-1999 trends in non-harmonised national data.

<sup>(1)</sup> Gender or age are not always specified (particularly for the Netherlands); workers aged under 18 or over 64 are included in the total; incidence rates by age after age class correction for Portugal.

<sup>(2)</sup> Incidence rates exclude Portugal; NACE Section I, "Transport, storage and communication", includes Division i64, "Post and telecommunications".

<sup>(3)</sup> Glass, ceramic goods, construction products <sup>(4)</sup> Incidence rates exclude Portugal before 1996.

Table 1 (continued) : Accidents at work in the EU by sex, age and type of activity

NACE Rev.1 (economic activity) Section (branch) Subsection or division (sector)	Persons in employment	Fatal accidents at work								
		Number 1998	Incidence rate (number per 100 000 persons in employment)					Trend %		
			1994	1995	1996	1997	1998	94-98	96-98	
Total - all branches of activity	Total	136 150	5 476							
A and D to K - total 9 common branches	Total	96 543	4 854	6,09	5,90	5,18	5,22	5,03	-17,5%	-3,0%
of which <sup>(1)</sup> : men		60 578	4 485	:	:	7,70	7,70	7,40	.	-3,8%
women		31 858	269	:	:	0,76	0,82	0,84	.	11,6%
18-24 years		11 711	423	:	:	3,88	3,71	3,60	.	-7,3%
25-34 years		28 324	1 112	:	:	4,10	3,94	3,85	.	-6,2%
35-44 years		25 062	1 127	:	:	4,58	4,87	4,60	.	0,5%
45-54 years		20 084	1 239	:	:	6,28	6,00	6,12	.	-2,5%
55-64 years		8 755	693	:	:	8,31	8,94	8,06	.	-3,0%
A Agriculture, hunting and forestry		5 092	631	14,0	13,8	12,9	12,6	12,4	-11,4%	-3,9%
D Manufacturing		30 156	1 101	4,6	4,2	3,9	4,0	3,7	-19,6%	-5,1%
of which <sup>(2)</sup> : da Manufacture of food products, beverages and tobacco		3 410	188	9,2	5,2	4,7	4,8	4,4	-52,2%	-6,4%
db Manufacture of textiles and textile products		2 400	39	:	2,1	1,4	1,5	1,8	.	28,6%
dc Manufacture of leather and leather products		553	9	:	2,1	1,7	1,7	1,9	.	.
dd Manufacture of wood and wood products		900	75	:	9,5	8,5	9,1	8,9	.	4,7%
de Manufacture of pulp, paper and paper products, publishing and printing		2 524	46	:	2,7	1,7	1,7	1,9	.	11,8%
df Manufacture of coke, refined petroleum products and nuclear fuel		178	5	:	1,1	0,6	4,0	2,9	.	.
dg Manufacture of chemicals, chemical products and man-made fibres		2 022	73	:	3,1	3,8	3,3	3,7	.	-2,6%
dh Manufacture of rubber and plastic products		1 337	26	:	2,5	2,5	2,9	2,0	.	-20,0%
di Manufacture of other non-metallic mineral products <sup>(3)</sup>		1 172	90	9,1	7,3	8,1	10,4	8,2	-9,9%	1,2%
dj Manufacture of basic metals and fabricated metal products		4 402	310	6,2	7,7	7,7	8,1	7,2	16,1%	-6,5%
dk Manufacture of machinery and equipment n.e.c.		3 224	73	:	2,5	2,5	2,5	2,3	.	-8,0%
dl Manufacture of electrical and optical equipment		3 382	86	:	3,6	3,2	2,9	2,6	.	-18,8%
dm Manufacture of transport equipment		2 896	43	:	2,6	2,0	2,0	1,5	.	-25,0%
dn Manufacturing n.e.c.		1 757	38	:	2,6	2,7	2,6	2,2	.	-18,5%
E Electricity, gas and water supply		1 201	39	:	4,4	5,7	3,6	3,2	.	-43,9%
of which <sup>(2)</sup> : e40 Electricity, gas, steam and hot water supply		955	35	:	4,3	5,8	4,4	3,6	.	-37,9%
e41 Collection, purification and distribution of water		246	4	:	4,1	1,3	0,8	1,7	.	.
F Construction		10 375	1 330	14,7	14,8	13,3	13,1	12,8	-12,9%	-3,8%
G Wholesale and retail trade; repair of motor vehicles, motorcycles and personal and household goods		20 360	515	2,8	2,9	2,5	2,4	2,5	-10,7%	0,0%
H Hotels and restaurants <sup>(4)</sup>		5 232	66	1,9	1,8	1,1	1,2	1,3	-31,6%	18,2%
I Transport, storage and communication		7 509	883	13,7	13,7	12,0	12,1	11,8	-13,9%	-1,7%
of which <sup>(2)</sup> : i60 Land transport, transport via pipelines		3 139	643	21,7	22,8	20,4	20,8	20,3	-6,5%	-0,5%
i61 Water transport		95	14	38,4	30,8	26,4	20,7	15,7	.	.
i62 Air transport		331	17	7,9	6,0	5,7	4,3	5,3	.	.
i63 Supporting and auxiliary transport activities; activities of travel agencies		1 884	190	10,3	13,8	10,0	11,3	10,2	-1,0%	2,0%
J+K Financial intermediation; real estate, renting and business activities		16 619	289	2,2	1,8	1,6	1,8	1,7	-22,7%	6,3%

Source : ESAW; including road traffic accidents and accidents on any means of transport during work, except in Ireland, the United Kingdom and, in part, the Netherlands; incidence rates exclude the Netherlands before 1996 (for all years by gender); Denmark and Ireland 1998 = 1997; France 1997 = 1998; Portugal 1996 = 1995, 1998 = from 1999 data.

<sup>(1)</sup> Gender or age are not always specified; workers aged under 18 or over 64 are included in the total; incidence rates by age after age class correction for Portugal; total incidence rates and rates by age recalculated for 1996 with Netherlands data to establish the 1996-1998 trend.

<sup>(2)</sup> Incidence rates exclude Portugal; NACE Section I, "Transport, storage and communication", includes Division i64, "Post and telecommunications".

<sup>(3)</sup> Glass, ceramic goods, construction products <sup>(4)</sup> Incidence rates exclude Portugal before 1996.

## Slight drop in accidents at work between 1996 and 1998 – slight increase in 1999

Table 2: Accidents at work and commuting accidents in Europe by Member State, 1998

	Persons in employment (1 000)	Non-fatal accidents at work with more than 3 days' absence <sup>(1)</sup>						All <sup>(2)</sup>		Commuting accidents (not included in accidents at work) <sup>(3)</sup>		
		Declared cases		Accidents			Estimated number	Standardised incidence rate	Estimated number	Standardised incidence rate	Estimated number	Incidence rate
		Number	Average declaration rate (%)	Estimated number	Standardised incidence rate	% of all non-fatal accidents						
							1994	1998	e <sup>(2)</sup>	f <sup>(2)</sup>		
a	b	c	d = b / c%	e <sup>(2)</sup>	f <sup>(2)</sup>	g = d / f%	h <sup>(2)</sup>					
<b>All branches</b>												
EU-15	136 150	4 130 802	88	4 678 586		63	7 411 101			580 000		
EUR-12 <sup>(4)</sup>	102 973	3 905 428	93	4 193 392		73	5 714 330					
<b>9 common branches<sup>(5)</sup></b>												
EU-15	96 543	3 497 213	89	3 947 552	4 539	4 089	64	6 159 764	6 380	400 000		
EUR-12	73 991	3 342 297	93	3 595 143	4 801	73	4 920 331	6 570		410		
<b>National data from the insurance system covering accidents at work<sup>(6)</sup></b>												
B	1 887	91 339	100	91 339	4 415	5 112						
D	23 784	1 208 938	100	1 208 938	5 583	4 958	85					
EL	1 313	15 419	39	39 537	3 702	2 936						
E	8 450	583 677	100	583 677	6 166	7 073	71					
F	12 390	571 078	100	571 078	5 515	4 920						
I	14 484	561 534	(8)	624 259	4 641	4 105	62					
L	200	8 613	100	8 613	4 508	4 719	59					
A <sup>(7)</sup>	2 653	75 957	(8)	95 445		3 321						
P <sup>(7)</sup>	(7)	147 115	(8)	158 604	7 361	5 505	74					
FIN	1 463	48 914	100	48 914	3 914	3 435	44					
<b>National data from declarations made to another competent authority<sup>(8)</sup></b>												
DK <sup>(7)</sup>	1 724	24 976	46	54 084	2 653	3 203	43					
IRL <sup>(7)</sup>	852	4 210	38	11 126	1 494	1 433	51					
NL <sup>(7)</sup>	4 108	25 503	(8)	153 613	4 287	3 909						
S	2 478	16 778	52	32 497	1 123	1 329	23					
UK	18 350	113 162	43	265 828	1 915	1 512	33					
NO <sup>(8)</sup>	1 224	21 828	(8)					54 571	4 866			

Sources: (1) ESAW, accidents with more than 3 days' absence from work; commuting accidents: estimates based on available data for 9 Member States (EU-9, see p. 7); (2) Ad hoc module in 1999 Labour Force Survey (LFS), including accidents without absence from work or with absence of less than 4 days; column 'f' by Member States: all branches.

(3) Number per 100 000 persons in employment: e = (d/a) x 100 000, h = (g/a) x 100 000, then standardisation (see p. 7).

(4) Euro zone (EUR-12) = Belgium, Germany, Greece, Spain, France, Ireland, Italy, Luxembourg, Netherlands, Austria, Portugal and Finland.

(5) Public insurance (e.g. social security) or private insurance, according to the Member State. (6) Usually Labour Inspectorate.

(7) Portugal: 1998 data based on 1999 data, including 1999 correction effect for persons covered; Denmark and Ireland: 1998 data = 1997, Ireland: 1994 rate = 1996, Netherlands: based on 1994 data.

(8) Italy: 100% excluding self-employed craftspeople; 65%. Austria: 100% excluding agriculture and public administration.

Portugal: almost 100%; Netherlands: <30% or 30-70%, depending on the branch; Norway: between 25% and 100%, with data including accidents with 1-3 days' absence from work.

After dropping substantially by 6.8% between 1994 and 1996, the incidence of accidents at work resulting in more than three days' absence from work in the EU dropped by 3.3% between 1996 and 1998: there were 4 089 accidents per 100 000 employed persons in 1998 compared with 4 229 in 1996. This reduction, however, took place mainly in 1997, when there were only 4 106 accidents per 100 000 persons. Finally, according to the developments observed in the non-harmonised national data of a number of Member States, estimates suggest that the incidence will be up in 1999, i.e. around 4 200, or a rise of between +2.0% and +3.0%. The drop in the accident rate between 1996 and 1998 mainly concerned men (5 268 in 1998, or -3.5%), persons aged between 25 and 34 (4 179, or -4.8%) and between 35 and 44 (3 678, or -2.3%), manufacturing industry (4 592, or -3.6%) and transport (5 862 or -2.6%). By contrast, activities employing a large proportion of women saw an increased, though still small, risk of accidents: the textiles and clothing industry (+0.5%), commerce and repairs (+0.8%), hotels and restaurants (+1.6%), and financial intermediation, real estate, renting and business activities (+2.6%). (Table 1)

The trend was similar in the case of fatal accidents at work: 5 476 deaths in 1998 compared with 5 549 in 1996, or a drop of 3.0% (5.03 in 1998). Here too, the exceptions were women (0.84 or +11.6%) and the branches that employ them most, and the 35-44 age group (4.60 or +0.5%) (Table 1). 1 970 (36%) of these deaths resulted from road traffic accidents or other accidents involving transport during work. In addition, there were 3 100 deaths from "commuting accidents" (on the way to or from work) in the EU in 1998. Thus, of a total of almost 8 600 fatal accidents connected with work, almost 5 100, or 59%, were road traffic accidents or accidents on means of transport. (Table 2)

	Persons in employment (1 000)	Fatal accidents at work <sup>(1)</sup>						Fatal commuting accidents <sup>(1)</sup> (not included in accidents at work)	
		Total excluding road traffic and transport accidents (RTTA) <sup>(2)</sup>		Fatal RTTA at work <sup>(2)</sup>		Total including RTTA at work <sup>(2)</sup>		Estimated number	Incidence rate
		Number	Standardised incidence rate	Number	% of total deaths (including RTTA)	Number	Standardised incidence rate		
								1994	1998
a	j	k <sup>(2)</sup>	l	m = l / n	n = j + l	p <sup>(2)</sup>	q	r <sup>(2)</sup>	
<b>All branches</b>									
EU-15	136 150	3 506		1 970	36	5 476		3 100	
EUR-12 <sup>(4)</sup>	102 973	3 186		1 908	37	5 094			
<b>9 common branches<sup>(5)</sup></b>									
EU-15	96 543	3 034	3,9	3,4	1 820	37	4 854	5,0	2 500
EUR-12	73 991	2 745	4,6	4,0	1 761	39	4 506	6,0	2,6
B	1 887	50	6,0	3,1	53	51	103		
DK	1 724	49	2,8	3,1	19	28	68		
D	23 784	666	3,7	3,0	332	33	998		
EL	1 313	46	4,3	3,7	21	31	67		
E	8 450	420	7,0	5,5	301	42	721		
F	12 390	415	4,3	4,0	398	49	813		
IRL <sup>(2)</sup>	852	33	3,9	5,9					
I	14 484	686	5,3	5,0	490	42	1 176		
L	200	7			6	46	13		
NL <sup>(2)</sup>	4 108	88			12		100		
A	2 653	134	3,4	4,8	72	35	206		
P <sup>(2)</sup>	(2)	166	8,4	7,7	51	24	217		
FIN	1 463	34	3,6	2,4	19	36	53		
S	2 478	28	2,1	1,3	19	40	47		
UK <sup>(2)</sup>	18 350	212	1,7	1,6					
NO <sup>(2)</sup>	1 224						36	4,3	

Source: (1) ESAW, commuting accidents: estimates based on available data for 9 Member States (EU-9, see p. 7).

(2) "Road traffic and transport accidents" at work ("RTTA") = accidents in the transport branch and traffic accidents or accidents on all means of transport at work in all other branches of economic activity; Ireland and the United Kingdom: RTTA data not available (except accidents in the transport branch excluding traffic and means of transport, included in EU-15 total and in EU-12 for Ireland; Netherlands: partial data; Norway: RTTA included, but not separated from other accidents; for data excluding RTTA, 8 "common" branches are covered (excluding transport branch).

(3) k = (j/a - transport branch) x 100 000, p = (n/a) x 100 000, r = (q/a) x 100 000, then standardisation (see p. 7).

(4) Euro zone (EUR-12) = Belgium, Germany, Greece, Spain, France, Ireland, Italy, Luxembourg, Netherlands, Austria, Portugal and Finland.

(5) Portugal: including correction effect after 1999 for persons covered.



## One-third of accidents result in fewer than 4 days' absence from work, 4% more than 3 months'

In addition to the annual data on accidents at work resulting in the loss of more than 3 days' work (administrative source), an *ad hoc* module was included in the 1999 labour force survey (see methodological notes). Around 37% of accidents at work in the EU result in fewer than 4 days' loss of work (i.e., up to 3 days), or a total for all branches of activity of 7.4 million accidents at work with or without loss of work in 1998 (incidence: 6 380). However, the distribution by time lost is not the same in the 11 Member States covered by the module. In the Member States with a specific insurance system for accidents at work (Eurozone excluding Ireland and the Netherlands), 59% to 85% of accidents involve more than 3 days' loss of work - except in Finland, with 44% - while in the other Member States the figures are between 23% and 51%. Differences in the seriousness of accidents according to the countries and their economic structures go some way towards explaining these disparities. However, given their scale, they would appear to result mainly from the differences between the national social security systems, with the specific insurance systems facilitating the stoppage of work in order to recover after an accident. (Table 2)

Table 3: Medical and economic consequences of accidents at work in the EU and Norway, 1998

	Total ( <sup>1</sup> ) ( <sup>2</sup> )	Less than 4 days' absence from work ( <sup>1</sup> )	More than 3 days' absence from work ( <sup>2</sup> ) - by:				Part of body injured/ type of injury	Death ( <sup>2</sup> )
			Duration of absence from work					
			Less than 2 weeks	2 weeks to less than 3 months	3 months or more or permanent incapacity	Total		
<b>Part of body injured (%)</b>								
Head			64,9	30,8	4,3	100,0	9,2	28,2
Neck (including vertebrae)			36,6	57,8	5,6	100,0	2,1	2,0
Back (including spine)			50,1	43,7	6,2	100,0	7,7	3,2
Torso (including organs)			46,9	48,7	4,4	100,0	5,2	10,7
Upper limbs (including hands)			48,0	46,5	5,4	100,0	41,2	1,6
Lower limbs (including feet)			42,0	51,2	6,8	100,0	26,5	2,2
Whole body ( <sup>3</sup> )			39,7	47,2	13,1	100,0	2,7	31,2
Other ( <sup>3</sup> ) and unspecified			46,9	41,8	11,3	100,0	5,4	20,8
<b>Type of injury (%) (<sup>4</sup>)</b>								
Wounds and superficial injuries			56,5	40,0	3,5	100,0	37,6	.
Bone fractures			10,8	70,7	18,5	100,0	10,8	19,7
Dislocations, sprains, strains			45,6	49,5	4,7	100,0	24,4	.
Traumatic amputations			6,6	64,1	29,3	100,0	0,5	1,2
Concussions and internal injuries ( <sup>4</sup> )			50,0	42,8	7,2	100,0	11,3	6,5
Burns and frostbite			54,8	42,5	2,8	100,0	1,6	1,3
Poisoning, infections ( <sup>4</sup> )			60,8	35,9	3,3	100,0	1,0	0,7
Drowning, asphyxiation			60,4	36,2	3,5	100,0	0,2	1,9
Noise, vibration, pressure effects ( <sup>4</sup> )			57,7	40,3	2,0	100,0	0,0	0,1
Temperature, light, radiation effects ( <sup>4</sup> )			66,5	28,4	4,8	100,0	0,1	0,6
Shocks ( <sup>4</sup> )			36,7	51,9	11,4	100,0	0,0	0,5
Multiple injuries ( <sup>4</sup> )			30,9	57,2	11,9	100,0	0,2	10,0
Other and unspecified			45,6	44,3	10,2	100,0	12,3	57,6
<b>Total (%)</b>			<b>47,3</b>	<b>46,7</b>	<b>6,0</b>	<b>100,0</b>	<b>100,0</b>	<b>100,0</b>
<b>Severity (%) (excluding Norway)</b>	<b>100,0</b>	<b>36,8</b>	<b>29,8</b>	<b>29,5</b>	<b>3,8</b>	<b>63,1</b>		<b>0,1</b>
<b>Number of days lost (excluding Norway)</b>								
Total - estimate - (1 000 000)	<b>148,4</b>	<b>1,8</b>	<b>18,2</b>	<b>82,6</b>	<b>45,8</b>	<b>146,5</b>		
Per 100 000 persons in employment	<b>108 798</b>	<b>1 164</b>	<b>13 334</b>	<b>60 676</b>	<b>33 624</b>	<b>107 634</b>		
Average per accident	<b>20</b>	<b>1</b>	<b>8</b>	<b>38</b>	<b>162</b>	<b>31</b>		
<b>Persons suffering more than one accident per year (%) (<sup>1</sup>) (except Norway)</b>		<b>13,8</b>						

Sources (<sup>1</sup>) Ad hoc module in LFS 1999, accidents over 12 months 1998-1999, including non-absence and absence < 4 days.

(<sup>2</sup>) ESAW 1998.

(<sup>3</sup>) Whole body, including multiple sites; other, including deaths at work of strictly medical origin in France.

(<sup>4</sup>) Most severe injury; "multiple injuries": injuries of the same severity; concussions, internal injuries: haemorrhages, fractures of internal organs, etc.; poisoning, infections, noise, vibration, pressure effects, extremes of temperature (including sunburn, hypothermia), light and radiation: acute effects; shocks: electric shock and shock following attack by a person, animal, etc..

Table 4: Employment status after last accident at work, Europe, 1998-1999

	% of total	% excluding persons not yet recovered
Not yet recovered from injury (absent from work)	5,6	
Recovered from injury		
Resumption of work activities:		
same work	88,1	93,3
different work as a result of injury	4,4	4,7
Of which: change of job or workplace	2,7	2,9
part-time or reduced hours working (same job)	1,7	1,8
Not yet returned to work ( <sup>1</sup> )	1,7	1,8
Will never again be able to work (for pay) ( <sup>2</sup> )	0,2	0,2
<b>Total</b>	<b>100,0</b>	<b>100,0</b>

Source: Ad hoc module, LFS 1999, EU-15 and HU excluding B, F, NL and A, including accidents without and with absence from work < 4 days, employment status at date of interview, excluding non-responses.

(<sup>1</sup>) Not yet returned to work: through injury (redundant as a result of effects) or otherwise (end of temporary contract, training, leave, retirement, etc.). (<sup>2</sup>) Will never again be able to work: victim is or expects to be inactive because of injury (permanent total incapacity for work).

A total of 148 million days' work were lost in 1998, corresponding to an average of 20 days per accident (31 per accident resulting in more than 3 days' absence from work). 93.3% of people return to the same job after an accident, but 2.9% have to change to a different activity or job, and 1.8% have to reduce the number of hours they work as result of effects of the injury. 1.8% were no longer working at the time of the interview, but not necessarily because of the accident, and 0.2% thought they would never be able to work again. Finally, almost 14% of victims had suffered more than one accident at work over the previous 12 months. (Tables 3 and 4)

## High-risk branches and types of job or person

The 1999 labour force survey showed that, besides agriculture, construction and transport, fishing (total incidence 2.4 times higher than the EU average) and health and social work (34% higher than the average) were activities involving a major risk of accidents at work. The administrative data for 1998 (accidents resulting in more than 3 days' absence from work) also confirm the high risk in local units employing 10 to 49 persons (+26%) and those employing 1 to 9 persons in manufacturing industry (+28%: relative incidence of 141 compared with the average of 110 for the branch), and in transport (+22%). (Table 5)

The survey also identified particularly high-risk group of persons: men who had not received higher secondary education (+79%) or were aged between 15 and 24 (+35%), craftsmen (+64%), installation and assembly workers and machine operators (+55%), and non-skilled workers (+34%). Moreover, only having worked in an establishment for a short time is a major risk factor: among persons who have a permanent job but have held it for less than two years, the incidence is 26% higher than average. In the case of temporary workers who have been employed for less than 2 years, the risk is particularly great in construction (+65%: relative incidence of 232 compared with the average of 141 for the branch) and health and social work (+43%). Other factors that aggravate the risk include part-time working or reduced working hours (fewer than 20 hours usually worked per week: +44%) and difficult working conditions (shift work or night work: +46%) (Table 5, all accidents). These results should in future be supplemented by an analysis of the causes of the accidents.

Table 5: Activities, persons and jobs at high risk of accident at work, Europe, 1998-1999

	Relative incidence rate of accident at work <sup>(1)</sup>		
	All non-fatal (with or without absence from work) <sup>(2)</sup>	With absence from work <sup>(2)</sup>	
		More than 3 days	2 weeks or more
<b>Total = average for Europe<sup>(1)</sup></b>	<b>100</b>	<b>100</b>	<b>100</b>
<b>Branch of activity</b>			
Agriculture, hunting, forestry	132	166 <sup>(5)</sup>	144
Fisheries, aquaculture	243	:	:
Mining and quarrying	112	:	139
Manufacturing	112	110 <sup>(5)</sup>	127
Construction	141	196 <sup>(5)</sup>	170
Hotels et restaurants	117	88 <sup>(5)</sup>	63
Transport and communications	114	143 <sup>(5)</sup>	109
Health and social work	134	:	116
<b>Men</b>	<b>113</b>	<b>129<sup>(5)</sup></b>	<b>120</b>
of whom: aged 15-24	135 <sup>(4)</sup>	:	:
Primary and lower secondary education <sup>(3)</sup>	179 <sup>(4)</sup>	:	:
<b>aged 15-24 (more than 3 days' absence: 18-24)</b>	<b>109<sup>(4)</sup></b>	<b>140<sup>(5)</sup></b>	:
<b>Occupation</b>			
Service workers, salespeople	113 <sup>(4)</sup>	:	:
Farmers / skilled agricultural and fishery workers	112 <sup>(4)</sup>	:	:
Craftspeople / workers in craft occupations	164 <sup>(4)</sup>	:	:
Plant and machine operators, assemblers	155 <sup>(4)</sup>	:	:
Elementary occupations, unskilled workers	134 <sup>(4)</sup>	:	:
Armed forces	108 <sup>(4)</sup>	:	:
<b>Local unit with 1-9 employees</b>	:	<b>100<sup>(5)</sup></b>	:
of which: Manufacturing	:	141 <sup>(3)</sup>	:
Construction	:	224 <sup>(3)</sup>	:
Transport and communications	:	174 <sup>(3)</sup>	:
<b>Local unit with 10-49 employees</b>	:	<b>126<sup>(5)</sup></b>	:
of which: Manufacturing	:	132 <sup>(3)</sup>	:
Construction	:	230 <sup>(3)</sup>	:
Transport and communications	:	205 <sup>(3)</sup>	:
<b>Permanent job, less than 2 years' seniority<sup>(6)</sup></b>	<b>126</b>	<b>106</b>	<b>90</b>
of which: Manufacturing	138	:	121
Construction	171	:	140
Hotels and restaurants	172	:	59
Transport and communications	157	:	66
Health and social work	157	:	109
<b>Temporary job</b>	<b>115</b>	<b>101</b>	<b>104</b>
of which: Less than 2 years' seniority <sup>(6)</sup>	121	106	104
of which: Construction	232	:	:
Wholesale and retail trade, repairs	131	:	:
Hotels and restaurants	137	:	:
Health and social work	191	:	:
<b>Less than 20 hours of work per week</b>	<b>144</b>	<b>101</b>	<b>106</b>
<b>Shift work (often or sometimes)<sup>(4)</sup></b>	<b>146</b>	<b>137</b>	<b>134</b>
<b>Night work (often or sometimes)<sup>(4)</sup></b>	<b>146</b>	<b>134</b>	<b>127</b>

Source: ad hoc module, LFS 1999 (except<sup>(5)</sup>). <sup>(1)</sup> Base 100 = average total incidence in Europe of each of three accident severity levels (all, > 3 days, >= 2 weeks); example, agriculture, relative incidence 144 for accidents >= 2 weeks: incidence of such accidents in this branch 1.44 times higher than average.

<sup>(2)</sup> Accidents during past 6 months, employees responding directly (responses by another member of household excluded), in job which is still the main job at date of survey except<sup>(4)</sup> and<sup>(5)</sup>.

<sup>(3)</sup> Level of education attained: except IRL, I, P, UK; shift and night work: except D, E, IRL, L, FIN (shift work), UK.

<sup>(4)</sup> Accidents in past 12 months in job which is still the main job (employees or self-employed, direct or indirect responses).

<sup>(5)</sup> ESAW data 1998. <sup>(6)</sup> Seniority in firm or as self-employed person.

## ➤ ESSENTIAL INFORMATION – METHODOLOGICAL NOTES

An **accident at work** is "a discrete occurrence in the course of work which leads to physical or mental harm. This includes accidents in the course of work outside the premises of his business, even if caused by a third party (on clients' premises, on another company's premises, in a public place or during transport, including road traffic accidents) and cases of acute poisoning. It does not include occurrences having only a medical origin (such as a heart attack at work) or occupational illnesses. A **commuting accident** is an accident that occurs in the normal course of travelling between home, the workplace and the place where meals are usually taken, including activities normally carried out in the course of such travel (such as collecting children from school). Nine Member States provide data on commuting accidents: Belgium, Germany, Spain, France, Italy, Luxembourg, Austria, Finland and Sweden.

The European Statistics on Accidents at Work (**ESAW**) are drawn up on the basis of *Council Directive No 89/391/EEC of 12 June 1989 on the introduction of measures to encourage improvements in the safety and health of workers at work*, in accordance with definitions and classifications that have been harmonised in conformity with the recommendations of the International Labour Office. They relate to **accidents at work resulting in more than 3 days' absence from work** (return to work not before the fifth day after the day of the accident, or at least 4 days absence from work) and **fatal accidents at work**. Nine "common" branches of activity are covered by the data of all the Member States, and these are used to calculate the incidences (coverage of accidents is not, however, complete in certain Member States for a number of sectors – particularly the public sector, the fishing industry and the extractive industries – and/or for self-employed persons, employers and family workers).

Because accidents must be reported in order to qualify for treatment under the social security or insurance scheme, nine Member States are aware of almost all the accidents that occur. In Denmark, Greece, Ireland, the Netherlands, Sweden, the United Kingdom and Norway, however, (as well as Italy, Austria and Portugal to some extent), recording is less than exhaustive and Eurostat estimates the number of accidents resulting in more than 3 days' absence from work by adjusting the number of cases reported on the basis of the reporting rate.

In the 1999 European Union labour force survey (LFS, households survey on employment and the labour market), an **ad hoc module** concerned **accidents at work and occupational illnesses**. It was defined by Commission Regulation (EC) No 1571/98 of 20 July 1998 and comprised six variables on

**accidental injury that had occurred during the last twelve months, at work or in the course of work** (including accidents that did not lead to absence from work or resulted in few than four days' absence from work): number of injuries, and if there is one or more, for the most recent, date and type, work status and date when the person was able to start work again after the accident, and job being done when the accident occurred. It also contained five variables on **illnesses, disability(ies) or other physical or psychological health problems, apart from accidental injuries, caused or made worse by the work** (see specific publication on work-related health problems). The other information normally collected under the labour force survey is defined in the relevant methodology (European Union Labour Force Survey – Methods and definitions – 1998 Edition – Catalogue number CA-19-98-536-EN-C).

The module was conducted by 11 Member States (the exceptions being Belgium, France and Austria; the Netherlands had to conduct it at a later date) and Hungary, as part of the survey for the second quarter of 1999 (except Sweden, which conducted it partly during the first quarter, and Italy and the United Kingdom, in the third quarter). All in all, 544 000 persons were interviewed in the survey about the occurrence and, if so, about the characteristics of accidental injuries at work.

Germany collected information of the module only on the numbers and the durations of work stoppages for accidents and health problems. "Person has not yet returned to work": the number of days lost as a result of the accident are not specified in the United Kingdom unless the reason was injury; in Portugal, other cases are included under this heading. Estimates for EU-15 and EUR-12 have been drawn up on the basis of the data available for the Member States covered by the module.

The indicator showing the risk of an accident at work is the **incidence rate** = (number of accidents at work that occurred during the year / number of persons in employment in the reference population) X 100 000. Since the activity structure of a country influences the value of its total frequency, the "**standardised incidence rate**" is calculated by giving each of the branches the same weight at national level as at EU level. Finally, the **relative incidence rate** = (incidence in the group studied / total incidence in EU-15) x 100 was calculated to facilitate comparison between the most exposed groups of activity, persons and jobs.

The **local unit** is a business or part of a business situated at a geographically identified place where the economic activity is carried out or can be said to be based.

# Further information:

## ➤ Reference publications

Title European statistics on accidents at work (ESAW) -  
Methodology - 2001 edition (DG Employment & social affairs)  
Catalogue No KE-36-019-60-EN-C Price EUR 7

## ➤ Databases

New Cronos, Theme 3, Domain Health and  
safety, Collection Health and safety at work

To obtain information or to order publications, databases and special sets of data, please contact the **Data Shop** network:

BELGIQUE/BELGIË	DANMARK	DEUTSCHLAND	ESPAÑA	FRANCE	ITALIA – Roma
<b>Eurostat Data Shop</b> Bruxelles/Brussel Planistat Belgique Rue du Commerce 124 Handelsstraat 124 B-1000 BRUXELLES / BRUSSEL Tel. (32-2) 234 67 50 Fax (32-2) 234 67 51 E-mail: datashop@planistat.be	<b>DANMARKS STATISTIK</b> Bibliotek og Information Eurostat Data Shop Sejrogade 11 DK-2100 KØBENHAVN Ø Tlf. (45) 39 17 30 30 Fax (45) 39 17 30 03 E-mail: bib@dst.dk	<b>STATISTISCHES BUNDESAMT</b> Eurostat Data Shop Berlin Otto-Braun-Straße 70-72 (Eingang: Karl-Marx-Allee) D-10178 BERLIN Tel. (49) 1888 644 94 27/28 Fax (49) 1888-644 94 30 E-Mail: datashop@statistik-bund.de	<b>INE Eurostat Data Shop</b> Paseo de la Castellana, 183 Oficina 009 Entrada por Estébanez Calderón E-28046 MADRID Tel. (34) 91 583 91 67 Fax (34) 91 579 71 20 E-mail: datashop.eurostat@ine.es	<b>INSEE Info Service</b> Eurostat Data Shop 195, rue de Bercy Tour Gamma A F-75582 PARIS CEDEX 12 Tél. (33) 1 53 17 88 44 Fax (33) 1 53 17 88 22 E-mail: datashop@insee.fr	<b>ISTAT</b> Centro di Informazione Statistica Sede di Roma, Eurostat Data Shop Via Cesare Balbo, 11a I-00184 ROMA Tel. (39) 06 46 73 31 02/06 Fax (39) 06 46 73 31 01/07 E-mail: dipdiff@istat.it
ITALIA – Milano	LUXEMBOURG	NEDERLAND	NORGE	PORTUGAL	SCHWEIZ/SUISSE/SVIZZERA
<b>ISTAT</b> Ufficio Regionale per la Lombardia Eurostat Data Shop Via Fieno 3 I-20123 MILANO Tel. (39) 02 80 61 32 460 Fax (39) 02 80 61 32 304 E-mail: milero@tin.it	<b>Eurostat Data Shop Luxembourg</b> BP 453 L-2014 LUXEMBOURG 4, rue Alphonse Weicker L-2721 LUXEMBOURG Tel. (352) 43 35-2251 Fax (352) 43 35-22221 E-mail: dslux@eurostat.datashop.lu	<b>STATISTICS NETHERLANDS</b> Eurostat Data Shop-Voorburg Postbus 4000 2270 JM VOORBURG Nederland Tel. (31-70) 337 49 00 Tel. (31-70) 337 59 84 E-mail: datashop@cbs.nl	<b>Statistics Norway</b> Library and Information Centre Eurostat Data Shop Kongens gate 6 Boks 8131 Dep. N-0033 OSLO Tel. (47) 21 09 46 42/43 Fax (47) 21 09 45 04 E-mail: Datashop@ssb.no	<b>Eurostat Data Shop Lisboa</b> INE/Serviço de Difusão Av. António José de Almeida, 2 P-1000-043 LISBOA Tel. (351) 21 842 61 00 Fax (351) 21 842 63 64 E-mail: data.shop@ine.pt	<b>Statistisches Amt des Kantons</b> Zürich, Eurostat Data Shop Bleichenweg 5 CH-8090 Zürich Tel. (41-1) 225 12 12 Fax (41-1) 225 12 99 E-mail: datashop@statistik.zh.ch Internet: http://www.zh.ch/statistik
SUOMI/FINLAND	SVERIGE	UNITED KINGDOM	UNITED KINGDOM	UNITED STATES OF AMERICA	
<b>STATISTICS FINLAND</b> Eurostat Data Shop Helsinki Tilastokirjasto PL 2B FIN-00022 Tilastokeskus Työpajakatu 13 B, 2 Kerros, Helsinki P. (358-9) 17 34 22 21 F. (358-9) 17 34 22 79 Sähköposti: datashop.tilastokeskus@tilastokeskus.fi Internet: http://www.tilastokeskus.fi/tv/ku/datashop.html	<b>STATISTICS SWEDEN</b> Information service Eurostat Data Shop Karlavägen 100 - Box 24 300 S-104 51 STOCKHOLM Tfn (46-8) 50 69 48 01 Fax (46-8) 50 69 48 99 E-post: info.service@scb.se Internet: http://www.scb.se/info/datashop/ pl/eurodatashop.asp	<b>Eurostat Data Shop</b> Enquiries & advice and publications Office for National Statistics Customers & Electronic Services Unit 1 Drummond Gate - B1/05 LONDON SW1V 2QQ United Kingdom Tel. (44-20) 75 33 56 76 Fax (44-1633) 81 27 62 E-mail: eurostat.datashop@ons.gov.uk	<b>Eurostat Data Shop</b> Electronic Data Extractions, Enquiries & advice - R.CADE 1L Mountjoy Research Centre University of Durham DURHAM DH1 3SW United Kingdom Tel. (44-191) 374 73 50 Fax: (44-191) 384 49 71 E-mail: r.cade@dur.ac.uk Internet: http://www.rcade.dur.ac.uk	<b>HAVER ANALYTICS</b> Eurostat Data Shop 60 East 42nd Street Suite 3310 NEW YORK, NY 10165 USA Tel. (1-212) 986 93 00 Fax (1-212) 986 69 81 E-mail: eurodata@haver.com	

### Media Support Eurostat (for professional journalists only):

Bech Building Office A3/48 • L-2920 Luxembourg • Tel. (352) 4301 33408 • Fax (352) 4301 32649 • e-mail: eurostat-mediasupport@cec.eu.int

## For information on methodology

**Didier Dupré**, Eurostat/E3, L-2920 Luxembourg, Tel. (352) 4301 35034, Fax (352) 4301 35399, E-mail: didier.dupre@cec.eu.int  
**Contributions** : **Nassima Hamzaoui**, Eurostat/E3, E-mail: nassima.hamzaoui@cec.eu.int, and **Annamaria Sarosi**, Hungarian Central Statistical Office, annamaria.sarosi@office.ksh.hu  
**ORIGINAL: French**

Please visit our web site at [www.europa.eu.int/comm/eurostat/](http://www.europa.eu.int/comm/eurostat/) for further information!

A list of worldwide sales outlets is available at the **Office for Official Publications of the European Communities**.

2 rue Mercier – L-2985 Luxembourg  
Tel. (352) 2929 42118 Fax (352) 2929 42709  
Internet Address <http://eur-op.eu.int/fr/general/s-ad.htm>  
e-mail: info-info-opoce@cec.eu.int

BELGIQUE/BELGIË – DANMARK – DEUTSCHLAND – GREECE/ELLADA – ESPAÑA – FRANCE – IRELAND – ITALIA – LUXEMBOURG – NEDERLAND – ÖSTERREICH  
 PORTUGAL – SUOMI/FINLAND – SVERIGE – UNITED KINGDOM – ISLAND – NORGE – SCHWEIZ/SUISSE/SVIZZERA – BALGARIJA – ČESKÁ REPUBLIKA – CYPRUS  
 EESTI – HRVATSKA – MAGYARORSZÁG – MALTA – POLSKA – ROMÂNIA – RUSSIA – SLOVAKIA – SLOVENIA – TÜRKIYE – AUSTRALIA – CANADA – EGYPT – INDIA  
 ISRAEL – JAPAN – MALAYSIA – PHILIPPINES – SOUTH KOREA – THAILAND – UNITED STATES OF AMERICA

## Order form

I would like to subscribe to Statistics in focus (from 1.1.2001 to 31.12.2001):

(for the Data Shop and sales office addresses see above)

**Formula 1:** All 9 themes (approximately 140 issues)

Paper: EUR 360

Language required:  DE  EN  FR

**Formula 2:** One or more of the following seven themes:

Theme 1 'General statistics'

Paper: EUR 42

Theme 2 'Economy and finance'

Theme 3 'Population and social conditions'

Theme 4 'Industry, trade and services'

Theme 5 'Agriculture and fisheries'

Theme 6 'External trade'

Theme 8 'Environment and energy'

Paper: EUR 84

Language required:  DE  EN  FR

Statistics in focus can be downloaded (pdf file) free of charge from the Eurostat web site. You only need to register. For other solutions, contact your Data Shop.

Please send me a free copy of 'Eurostat mini-guide' (catalogue containing a selection of Eurostat products and services)  
 Language required:  DE  EN  FR

I would like a free subscription to 'Statistical References', the information letter on Eurostat products and services  
 Language required:  DE  EN  FR

Mr  Mrs  Ms

(Please use block capitals)

Surname: \_\_\_\_\_ Forename: \_\_\_\_\_

Company: \_\_\_\_\_ Department: \_\_\_\_\_

Function: \_\_\_\_\_

Address: \_\_\_\_\_

Post code: \_\_\_\_\_ Town: \_\_\_\_\_

Country: \_\_\_\_\_

Tel.: \_\_\_\_\_ Fax: \_\_\_\_\_

E-mail: \_\_\_\_\_

### Payment on receipt of invoice, preferably by:

Bank transfer

Visa  Eurocard

Card No: \_\_\_\_\_ Expires on: \_\_\_\_/\_\_\_\_/\_\_\_\_

### Please confirm your intra-Community VAT number:

If no number is entered, VAT will be automatically applied. Subsequent reimbursement will not be possible.