

Environmental protection expenditure accounted for 1.8% of EU25 GDP in 2006

Environmental Protection Expenditure and Revenues in the EU, EFTA and candidate countries 2001-2006

The data on environmental protection expenditure (EPE) show the efforts being made to prevent, reduce and eliminate pollution resulting from the production or consumption of goods and services.

EPE is the sum of total investments and total current expenditure for industry and the

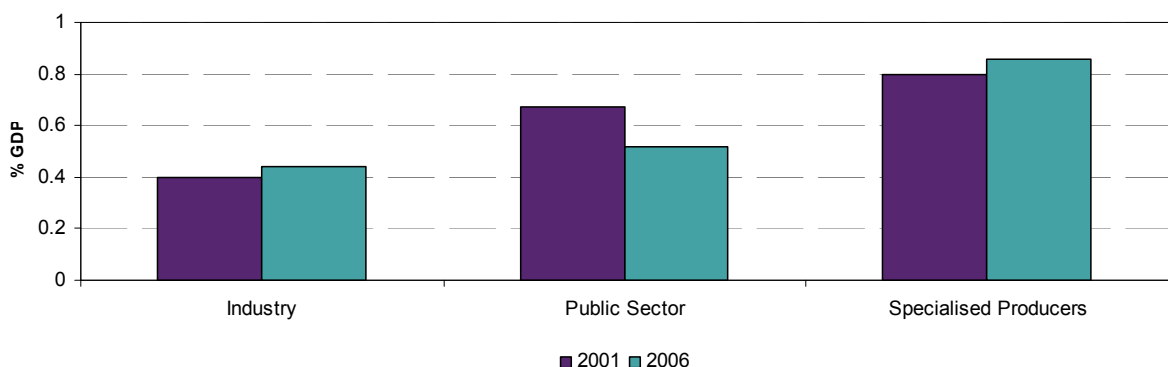
specialised producers sector; for the public sector subsidies/transfers are also to be added. The methodological notes at the end of this publication provide definitions and more details on economic sectors and economic variables.

Total EPE in EU

In 2006, industry in EU25 spent around 50 billion euro, slightly above 0.4% of GDP, on protecting against and reducing environmental pressures (Figure 1). The public sector's spending in EU25 in 2006 was estimated at about 0.5% of GDP, while expenditure by EU25 specialised producers on environmental protection amounted to almost 0.9% of GDP. This reflects some slight movement

between these last two sectors since 2001, when the percentages were 0.7% and 0.8% respectively. This phenomenon is probably due to privatisation in some countries, which has led to an increase in services for waste collection and wastewater treatment in the specialised producers sector, with corresponding decreases in the public sector.

Figure 1: Environmental Protection Expenditure by Sectors in EU25 in 2001 and 2006, as % of GDP



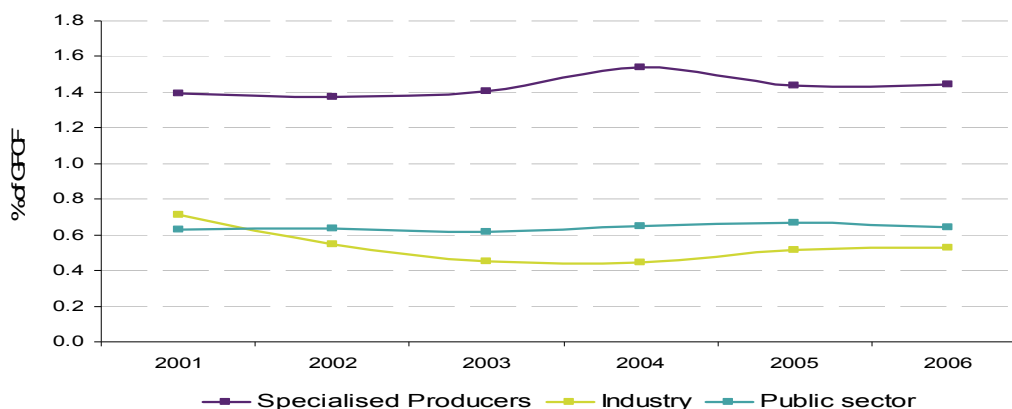
Source: Eurostat ([env_ac_exp2](#)) and Eurostat estimate

Investments for Environmental Protection in EU

Investments on environmental protection in EU27, when compared to gross fixed capital formation (GFCF), remained fairly constant over the period 2001-2006 for specialised producers (around 1.4% of GFCF) with an exception in 2004 when a pick was observed, as well as the public sector (around 0.6% of GFCF). In industry,

on the other hand, investments decreased from a level of approximately 0.7% to approximately 0.5% of GFCF; this decrease was especially relevant in the first half of this period reaching a trough slightly above 0.4% of GFCF, (Figure 2).

Figure 2: EU27's Investments for environmental Protection by Sectors for 2001-2006, as % of GFCF



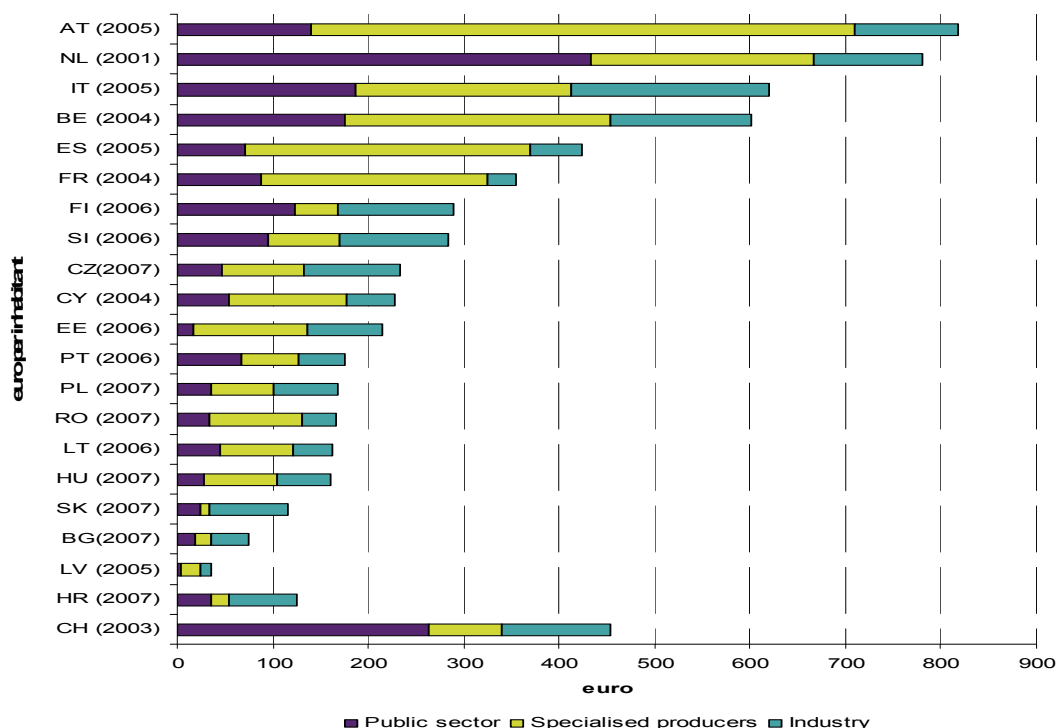
Source: Eurostat ([env_ac_exp1](#), [nama_pi6_c](#)) and Eurostat estimate

Total EPE per inhabitant

Looking at the per capita figures (figure 3), Austria (2005 data) and Netherland (2001 data) devoted around 800 euro (per year, per person) to protecting the environment, followed by Italy at a bit above 600 euro. The EU countries spending least in per capita terms were Latvia (2005 data) with only 36 euro and Bulgaria (2007

data) with 74 euro. As regards the EFTA countries, spending per inhabitant was more than 400 euro in Switzerland (2003 data). In Croatia on the other hand it was 125 euro (2007 data).

Figure 3: EPE per inhabitant in EU, EFTA and candidate countries, latest available years (in brackets)



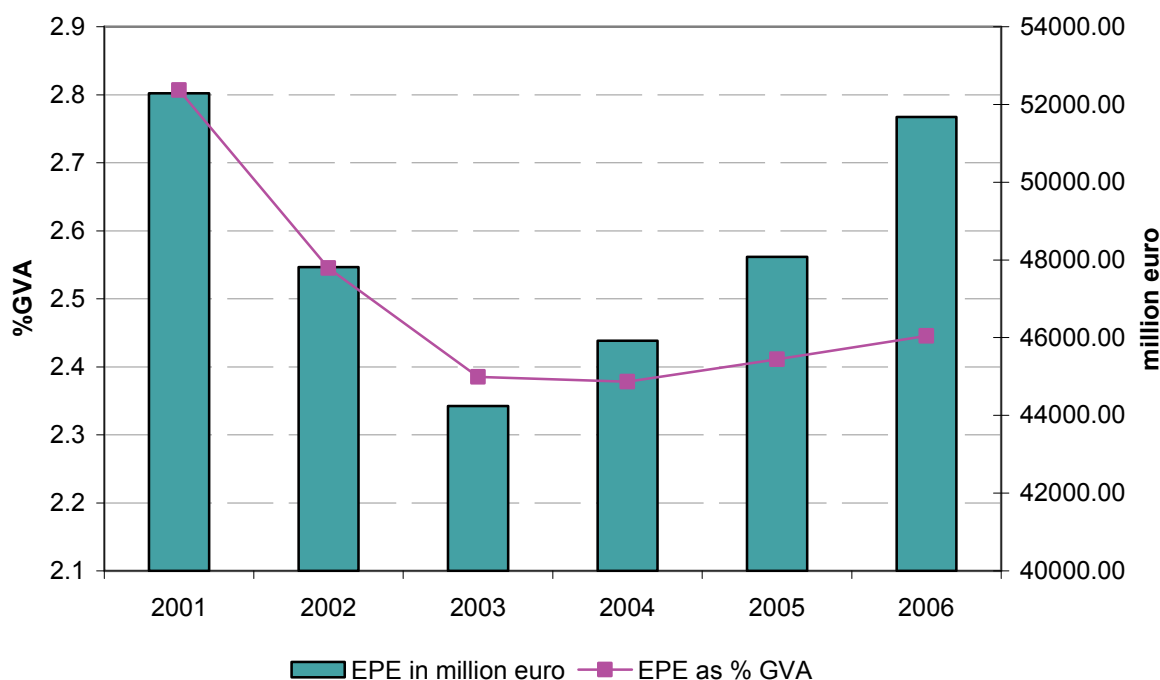
Source: Eurostat ([env_ac_exp2](#)); Figure 4 presents only countries that provided data for all three economic sectors

Total EPE in the industrial sector

In EU27, EPE in the industry sector was more or less at the same level, at around 52 billion euro, in 2006 compared to 2001, with a trough of 8 billion euro in between. This trough in the middle part of the period reached the lowest level in 2003 and was mostly due to decreased investments rather than to

current expenditure. While industry's EPE almost stabilised in absolute terms in EU27 during the period from 2001 to 2006, it fell from more than 2.8% to less than 2.5% as a percentage of industry's GVA (figure 4).

Figure 4: Industry's EPE in the EU27 for the period 2001-2006, million of euro and % of GVA



Source: Eurostat ([env_ac_exp1](#), [nama_nace06_c](#))

Investments and Current Expenditure for Environmental Protection in the industrial sector

For the period 2001-2006, investments in environmental protection in EU25 accounted for 22% of the total industrial EPE on average, while current environmental protection expenditure represented around 78% (table 4). As shown in figure 5, EU25 investment in environmental protection decreased with 36% between 2001 and 2004, and increased in 2005 and 2006 but without reaching the same level as in 2001. EU25 investment in environmental protection was mostly devoted to investments in machinery and equipment to deal with the pollution already generated (pollution treatment investment). Its share of total environmental protection investment slipped from 65% in 2001 to 58% in 2006.

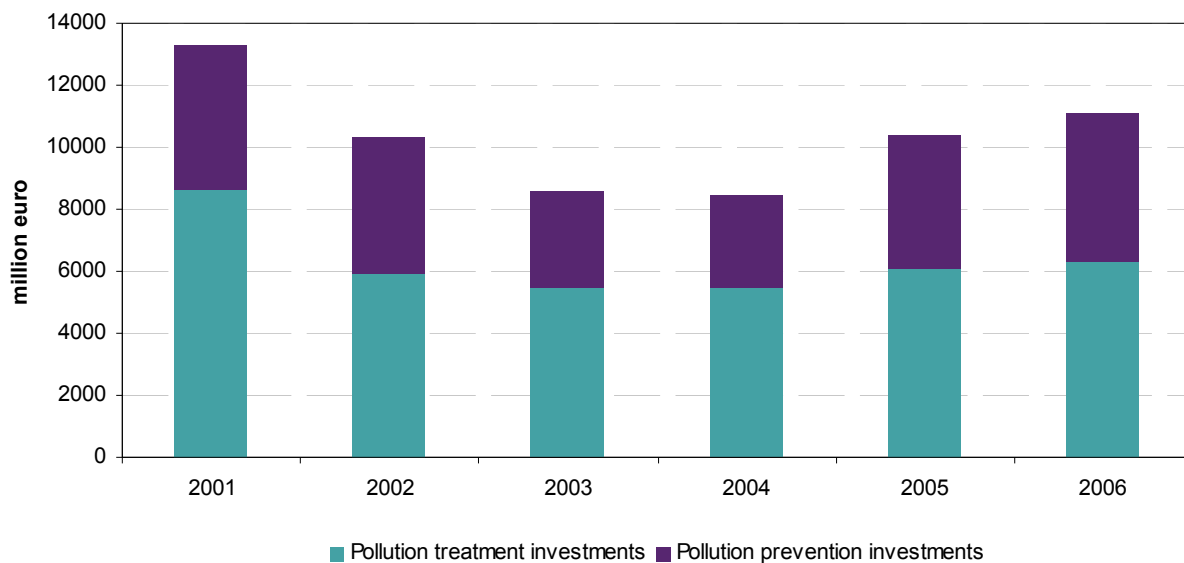
On the other hand, investment in integrated technologies (pollution prevention investment) did

not change significantly in 2005 as compared to 2001 (slight increase of around 2% in absolute terms, but its share of total investment rose from 35% (in 2001) to 43% (in 2006)).

Industry's current expenditures in EU27 (figure 6) remained fairly stable over the years, and stood at approximately 40 billion euro in 2006.

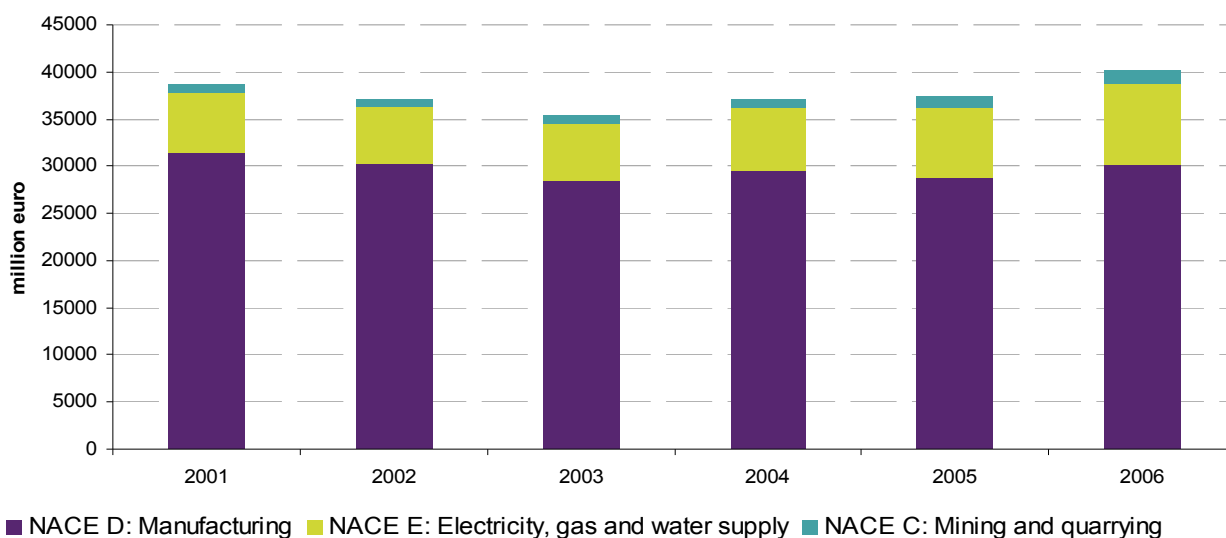
During the period 2001-2006, the manufacturing sector had the largest share of current expenditure for environmental protection in the EU27's industrial sector (around 79% on average), while the average for the electricity and mining and quarrying sectors was only 18% and 3% respectively.

Figure 5: Industry's pollution prevention and pollution treatment investments in EU25 for the period 2001-2006, share of environmental protection investments



Source: Eurostat ([env_ac_exp1](#))

Figure 6: Industry's EP Current expenditure in EU27 for the period 2001-2006, broken down by industrial sectors



Source: Eurostat ([env_ac_exp1](#))

In the manufacturing sector, the environmental domain which attracted most of the expenditure in 2006 was wastewater management, which accounted for 30% of total expenditure. Waste

management accounted for 28%, air protection measures for 24%, and non core domains for 18% of total EPE (table 1).

Table 1: EPE of the manufacturing sector in EU27 for the period 2001-2006, distribution by environmental domains million euro

Env. Domain	2001	2002	2003	2004	2005	2006
Air	7469	9543	8413	9306	8387	9036
Wastewater	12136	11456	11323	10958	10554	10909
Waste	12941	10544	9721	9947	9927	10226
Non-core domains	8214	5707	5314	5746	6265	6419

Source: Eurostat ([env_ac_exp1](#))

EPE and climate change

In the context of the efforts being made to combat climate change, it might be interesting to compare CO₂ and SO_x emissions with the expenditures allocated to air protection. As shown in table 2, emissions of CO₂ in manufacturing (excluding the recycling sector) showed a slight increase of approximately 0.7% between 2001 and 2006 in EU27, while the overall trend during that period was somewhat mixed. For the same years, the emissions of SO_x in EU27 manufacturing

(excluding the recycling sector) fell by almost 14.9%. On the other hand, EU27 investments in air protection in the manufacturing sector, excluding recycling fluctuated during the period 2001-2006: after a decline between 2001-2003 investments picked up again between 2003-2006, although they still fell short of the 2007 level. Current expenditure increased between 2001 and 2002 by 2.5 billion euro and between 2002-2006 no clear trend up or downwards can be pointed out.

Table 2: Investments in environmental protection and current expenditure for air protection and emissions of CO₂ and SO₂ in the manufacturing (excluding recycling) sector; in EU27 and EFTA countries, 2001-2006

		2001	2002	2003	2004	2005	2006
Emission of CO ₂ - millions of tonnes	EU27	1035.00	1016.80	1037.42	1046.05	1036.49	1042.26
	EFTA countries (NO, CH)	22.13	20.95	21.49	21.94	21.66	21.72
Emission of SO _x - millions of tonnes SO ₂ equivalents	EU27	2492.37	2333.50	2175.92	2163.67	2136.88	2122.25
	EFTA countries (NO, CH)	24.88	22.77	21.87	24.44	23.69	20.96
Investments for air protection - million euro	EU27	3084.78(e)	2653.78(e)	2480.39(e)	2643.52(e)	2900.13(e)	2916.85(e)
	EFTA countries (NO)	:	60.90	35.64	25.50	44.17	74.22
	Candidate countries (HR)	3.05	7.73	1.45	11.47	10.55	25.07
Total current expenditure for air protection - million euro	EU27	4384.37(e)	6888.91(e)	5932.54(e)	6662.76(e)	5486.56(e)	6119.18(e)
	EFTA countries (NO)	:	38.77	43.37	40.78	52.61	52.40
	Candidate countries (HR)	0.17	0.15	0.16	2.39	2.03	6.06

Source: Eurostat ([env_ac_exp1](#)); Eurostat Air Emissions Accounts: data set gap-filled by Eurostat based on the survey 2008

: not available; (e) estimated

EPE and waste disposal

Analysing waste generated by economic activities in conjunction with investments and current expenditure for waste management is also important. Waste generation in the manufacturing sector includes all waste generated by this economic activity, as well as all residues from

waste treatment and consumption residues from waste treatment facilities (secondary wastes).

Table 3 shows that, in 2006, the manufacturing sector (excluding recycling) in EU27 generated approximately 4% less waste than in 2004. In terms of expenditure on waste management in the

same sector, the efforts of the 27 Member States in the areas of collection, transport, treatment and disposal of waste, as well as prevention of pollution through in-process modifications, measurement and control activities, increased by about 3% in 2006 compared with 2004. Current expenditure on waste management (intermediate consumption, compensation of employees, payments for

environmental services), makes up more than 90% of the EPE for waste management. However, while current expenditure increased by around 2%, investments for waste management increased by 11%.

Table 3: Waste generation and investments, current expenditure for waste management in EU, EFTA and candidate countries, manufacturing sector (excluding recycling), 2004 and 2006

	Waste generation - thousands of tons		Investments for waste management - thousands of euro		Current expenditure for waste management - thousands of euro	
	2004	2006	2004	2006	2004	2006
EU 27	380020	364204	714479(s)	792971(s)	9232224(s)	9433054(s)
EU 25	363253	350704	676084(s)	760293(s)	9123468(s)	9374197(s)
EU 15	272376	262240	599054(s)	674383(s)	8480564(s)	8653616(s)
BE	18177(e)	15308(e)	26987	:	499886	:
BG	5611	4316	3181	7237	5294	8940
CZ	8618	5932	12245	13310	123555	151060
DK	1553	1643	:	:	:	:
DE	30163	31705	170000	:	2460000	:
EE	6288	3981	1003	2275	7363	31023
IE	5356(s)	4067(e)	:	:	:	:
EL	4554	5285	:	:	:	:
ES	28377	22427	124810	117831	675900	744184
FR	21434	22973	76800	89000	160600	:
IT	39472	39997	51601	:	:	:
CY	557	412	797	606	5245	7421
LV	349	570	1438	:	2192	:
LT	2632	2948	964	6696	7162	17327
LU	725	604	:	:	:	:
HU	5071(e)	5528(e)	12012	8985	171326	131727
MT	10(s)	50	:	:	:	:
NL	16086	15562	:	:	:	:
AT	15073	11470	24889	:	154714	:
PL	61514	61131	35787	45227	248895	298886
PT	10123(e)	14699(e)	8272	13741	76586	70240
RO	11156	9184	35214	25441	103462	49918
SI	1960	2385	6884	7508	38893	46263
SK	3878	5527	5429	3604	27552	42339
FI	18613	17976	15125	12700	114816	133400
SE	27614	30363	28070	34039	186327	168816
UK	35056	28161	40079	62488	1224030	1289220
HR	3695	:	6670	7809	16234	25764
TR	16325	:	:	:	:	:
IS	61	:	:	:	:	:
NO	2956	3519	14218	8065	111784	151519

Source: Eurostat ([env_ac_exp1](#), [env_wasgen](#))

Total EPE in the public sector

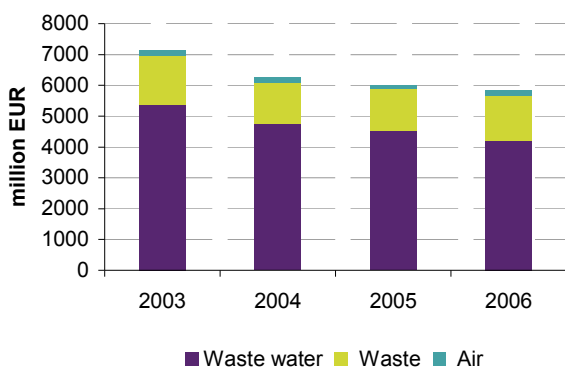
Expenditure on environmental protection by the public sector includes investments, current expenditure and subsidies/transfers. Generally, the level of current expenditure is roughly four times

higher than the level of investments in the public sector. It is also interesting to point out that in the case of investments for environmental protection the environmental domain with the biggest share in

total core domains was wastewater treatment, while in the case of current expenditure for environmental protection was the domain of waste management.

In every year from 2003 to 2006, public sector investment in EU27 for the core environmental domains decreased in absolute terms (figure 7),

Figure 7: Public Sector's investments for environmental protection in EU27 for the period 2003-2006 by the core domains

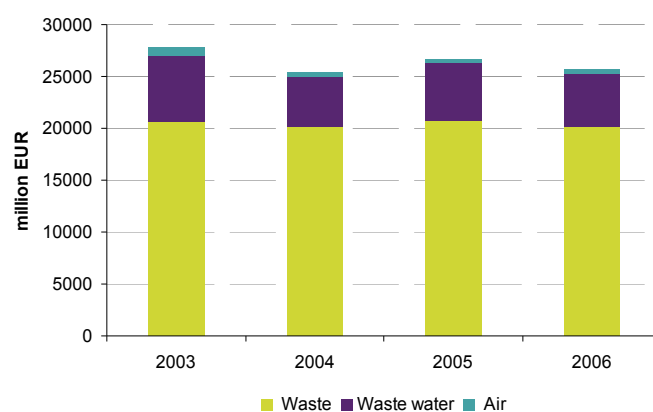


Source: Eurostat ([env_ac_exp1](#))

while current expenditure remained more or less stable at around 26 billion euro (figure 8).

Investments and current expenditure by this sector in EU27 were directed largely towards ensuring a good provision of wastewater treatment and waste management services (around 97% of total core domains).

Figure 8: Public Sector's current expenditure for environmental protection in EU27 for the period 2003-2006 by the core domains



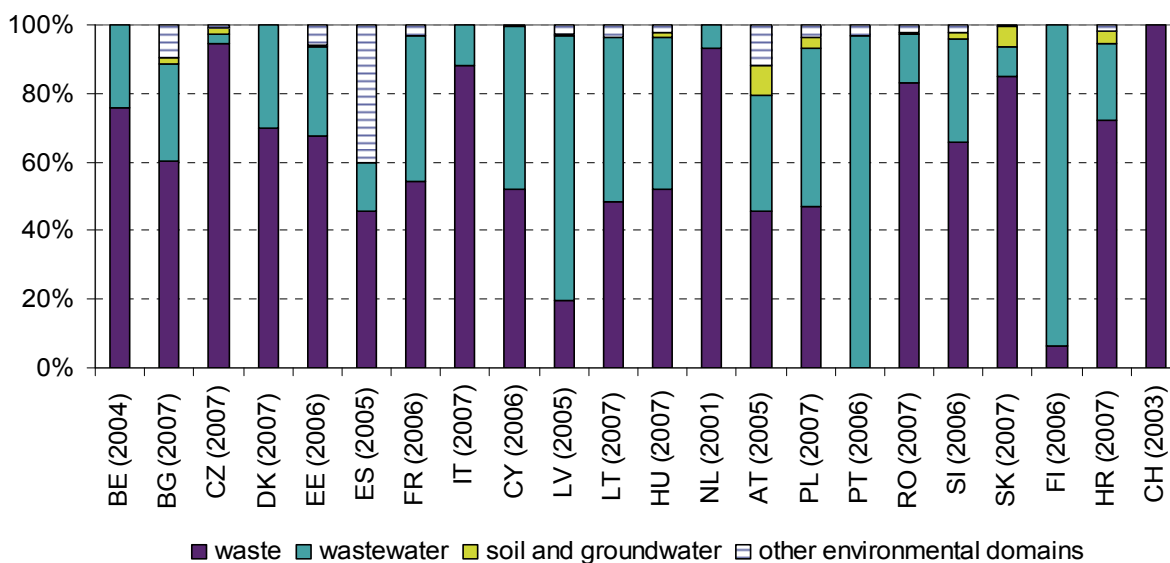
Total EPE in the specialised producers sector

Specialised producers are enterprises (both privately and publicly owned) or separately identified departments of large municipalities that have the production of environmental protection services as their main activity. These are mainly activities within NACE 90 such as: collection and treatment of solid waste, collection and treatment of sewage, sanitation, remediation and similar activities. Specialised producers could also include environmental management activities provided by environmental consultants (e.g. volunteer environmental organisations) or secondary environmental activities (e.g. NACE 37 Recycling) if such information is available.

On average, over 60% of environmental protection expenditures by specialised producers in the EU, EFTA and candidate countries (for which information is available) were directed at waste

management. Expenditures on wastewater treatment come next in percentage terms. However, in countries like Latvia, Portugal and Finland, this sector accounts for most of the expenditure on environmental protection or as in the case of Lithuania, for an equal share. Concerning secondary environmental activities, only in a few countries there were expenditures devoted to other environmental domains beside wastewater treatment and waste management. Spain is a particular case, as around 40 % of the EPE of specialised producers' was devoted to other environmental protection domains in 2006. These other environmental protection domains refer to: general environmental administration, regulation and the like, environmental management, education, training and information or activities not elsewhere classified.

Figure 9: Specialised producers environmental protection expenditure in European countries by environmental domain, latest year available (in brackets)



Source: Eurostat ([env_ac_exp1](#))

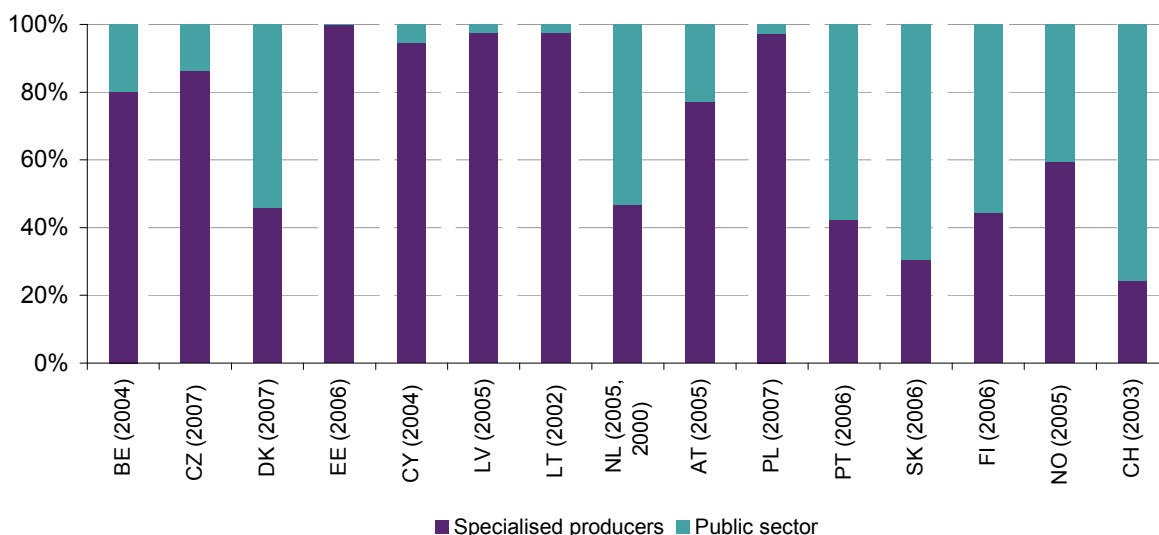
Revenues from environmental protection services

The public sector and specialised producers receive payments for providing environmental protection services. These services include waste and wastewater collection and treatment, as well as payments for fees, permits, and environmental consultancy, management or education services.

In most of the countries, the specialised producers receive the biggest share from the services sold. In

countries such as Denmark, Netherland, Portugal, Slovakia, Finland or Switzerland, on the other hand, over half of the revenues from environmental protection services sold went to the public sector. Figure 9 presents only those countries where data for both public sector and specialised producers' revenues are available.

Figure 10: Revenues from sales of environmental protection services in European countries by the receiving sector, latest year available (in brackets)



Source: Eurostat ([env_ac_exp1](#)); EE – Public Sector is not visible in the graph because it covers only local government and therefore the data are very small compared to Specialised producers; NL- 2005 is reference year for public sector and 2000 is for specialised producers

Table 4: Total investments and total current expenditure of Total Industry and Specialised Producers, 2001-2006, million euro

	Total investments						Total current expenditure						
	2001	2002	2003	2004	2005	2006	2001	2002	2003	2004	2005	2006	
TOTAL INDUSTRY (excl. recycling)	EU27	13565(s)	10613(s)	8856(s)	8766(s)	10690(s)	11606(s)	38725(s)	37199(s)	35388(s)	37155(s)	37385(s)	40076(s)
	EU25	13258(s)	10296(s)	8577(s)	8427(s)	10400(s)	11081(s)	38442(s)	36756(s)	35106(s)	36709(s)	37029(s)	39611(s)
	EU15	11997(s)	9187(s)	7333(s)	7250(s)	9056(s)	9360(s)	35887(s)	34154(s)	32776(s)	34220(s)	34306(s)	36900(s)
	BE	:	257	244	268	:	:	1022	1219	1138	1253	:	:
	BG	130	80	91	98	87	219	98	90	104	102	83	113
	CZ	175	191	244	251	267	365	:	:	415	539	601	617
	DK	:	:	:	:	:	:	:	:	:	:	:	:
	DE	1570	1640	1430	1590	1410	:	9330	9180	8650	8900	5080	:
	EE	22	27	13	13	12	54	31	39	18	23	26	52
	IE	:	:	:	:	:	:	:	:	:	:	:	:
	EL	:	:	:	:	:	:	:	:	:	:	:	:
	ES	715	890	810	947	1034	1210	737	1001	1153	1276	1327	1408
	FR	1116	1030	998	930	1080	1007	:	:	:	982	:	:
	IT	3808	2058	1312	829	1904	:	11706	10465	8896	10364	10226	11187
	CY	5	15	7	20	13	11	14	18	19	17	18	19
	LV	2	8	9	13	12	:	13	15	13	12	13	:
	LT	19	19	40	22	29	79	46	50	55	48	58	65
	LU	:	:	:	:	:	:	:	:	:	:	:	:
	HU	121	126	232	171	153	132	191	225	258	350	412	322
	MT	:	:	:	:	:	:	:	:	:	:	:	:
	NL	418	426	295	:	338	:	1396	1493	1429	:	1388	:
	AT	:	319	373	265	244	:	562	551	562	541	644	:
	PL	729	523	480	455	582	762	1577	1493	1282	1084	1232	1294
	PT	407	346	348	472	435	348	312	297	333	336	242	177
	RO	176	238	188	241	203	306	185	354	179	344	274	351
	SI	105	84	132	80	93	111	92	100	100	111	116	117
	SK	76	107	77	150	188	208	199	219	224	224	242	245
	FI	208	210	134	157	149	142	406	392	382	442	444	496
	SE	422	399	502	394	457	346	730	629	605	664	662	676
	UK	1790	787	768	911	1327	1777	4205	3410	4208	3878	3616	4426
	HR	34	36	39	123	130	166	14	34	36	89	97	122
	TR	:	:	:	:	:	:	:	:	:	:	:	:
	IL	:	:	:	:	:	:	:	:	:	:	:	:
	NO	:	:	:	:	:	:	:	:	:	:	:	:
	CH	:	:	290	:	:	:	:	:	545	:	:	:
SPECIALISED PRODUCERS	BE	624	455	536	555	:	:	1987	2193	2264	2336	:	:
	BG	0	0	0	0	27	32	4	4	5	9	31	44
	CZ	17	15	39	48	56	65	560(e)	677(e)	234	457	441	521
	DK	153(r)	158(r)	175(r)	219(r)	237(r)	191(r)	739(r)	800(r)	821(r)	890(r)	938(r)	1007(r)
	DE	4470	4470	4340	5300	4760	:	:	:	:	:	:	:
	EE	16	15	28	22	27	46	38	40	34	60	77	116
	IE	:	:	:	:	:	:	:	:	:	:	:	:
	EL	:	:	:	:	:	:	:	:	:	:	:	:
	ES	1462	1580	1677	1398	1421	:	8811	9693	10666	11010	11420	:
	FR	4229	4644	4791	5059	5675	6019	8321	8885	9440	9645	9964	10580
	IT	1597	1668	1657	2343	1908	2235	8455	9216	9906	10908	11299	12272
	CY	:	:	32	32	22	49	:	:	53	58	75	94
	LV	7	17	17	18	17	:	22	29	27	33	33	:
	LT	19	18	11	23	25	66	51	72	60	59	65	191
	LU	:	:	:	:	:	:	:	:	:	:	:	:
	HU	70	34	57	100	150	98	281	362	378	460	483	572
	MT	:	:	:	:	:	:	:	:	:	:	:	:
	NL	319	:	:	:	:	:	3414	:	:	:	:	:
	AT	1327	940	1183	1015	1003	:	3962	3416	3535	3653	3673	:
	PL	51	63	31	37	73	75	:	811	1021	1373	1650	2120
	PT	:	:	:	:	:	407	:	:	:	:	:	221
	RO	44	35	41	70	122	225	90	296	416	678	891	1277
	SI	29	48	54	46	44	47	40	51	66	72	82	103
	SK	5	51	13	7	8	9	2	10	16	11	16	29
	FI	74	88	99	86	93	98	94	117	129	121	134	140
	SE	:	:	:	:	:	:	:	:	:	:	:	:
	UK	:	:	:	:	:	:	:	:	:	:	:	:
	HR	25	20	28	32	20	25	9	11	9	79	90	56
	TR	:	:	:	:	:	:	:	:	:	:	:	:
	IL	:	:	:	:	:	:	:	:	:	:	:	:
	NO	:	:	:	142	171	:	:	:	:	:	:	:
	CH	:	:	75	:	:	:	:	:	490	:	:	:

(e) estimated;(s) eurostat estimate;(r) revised data; : not available

Source: Eurostat ([env_ac_exp1](#))

Table 5: Total investments, total current expenditure and subsidies/transfers given by the Public Sector, 2001-2006, million euro

	Total investments						Total current expenditure						Subsidies/transfers					
	2001	2002	2003	2004	2005	2006	2001	2002	2003	2004	2005	2006	2001	2002	2003	2004	2005	2006
BE	528	518	482	531	420	553	1109	1111	1298	1301	:	:	26	8	-139	-124	:	:
BG	24	32	26	33	44	51	46	27	28	34	38	39	:	:	:	:	:	:
CZ	354	231	252	315	268	326	:	:	:	:	:	274	:	:	:	:	:	:
DK	527	523	519	558	540	505	1598	1686	1697	1705	1763	1912	533	533	426	429	413	406
DE	2630	2390	2290	2600	2110	:	:	:	:	:	:	:	:	:	:	:	:	:
EE	6	10	9	7	14	12	6	12	6	13	13	10	:	:	:	:	:	:
IE	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
EL	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
ES	742	926	973	861	1015	:	809	888	1030	1757	2026	:	:	:	:	:	:	:
FR	1301	1312	1374	1532	1915	1804	3686	3957	3992	3953	3980	4291	1934	2023	2039	2134	2106	2216
IT	2270	2341	2332	2563	2600	2504	7744	8030	7906	8073	8301	8121	1068	1053	994	962	959	1028
CY	:	:	:	6	:	:	:	:	:	34	:	:	:	:	:	2	:	:
LV	11	9	2	2	2	:	4	7	5	5	5	:	0	2	0	:	:	:
LT	10	9	:	24	60	98	3	5	:	34	41	57	:	:	:	:	:	:
LU	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
HU	284	393	282	299	413	432	54	63	86	130	152	112	:	46	80	144	128	76
MT	:	:	:	:	:	:	7	7	:	:	:	:	:	:	:	:	:	:
NL	:	:	1156	:	1349	:	:	:	5741	:	5717	:	:	:	423	:	554	:
AT	53	130	134	83	40	:	396	843	959	1045	1106	:	1111	722	534	660	457	:
PL	807	651	608	626	780	869	738	287	232	233	279	437	:	-165	-244	-248	-199	-20
PT	297	267	239	220	219	128	444	477	471	491	533	580	:	:	:	:	:	:
RO	13	14	18	71	82	128	45	81	51	63	104	400	:	:	:	:	:	:
SI	119	134	155	154	141	134	28(r)	42(r)	50(r)	54(r)	55(r)	56(r)	51	84	77	50	41	30
SK	18	34	28	13	15	22	5	15	7	82	84	96	:	:	:	:	:	:
FI	73	99	107	110	16	128	443	439	460	481	501	518	282	284	290	297	304	312
SE	43	40	62	68	131	124	530	610	607	681	806	842	171	194	205	230	236	283
UK	329	563	859	1455	:	:	6850	7041	6620	6980	:	:	1719	602	330	312	:	:
HR	7	12	19	4	24	20	8	22	:	:	0	11	:	:	:	:	:	:
TR	25	142	348	357	480	544	147	114	670	889	1065	1178	:	:	:	:	:	:
IL	7	6	:	:	:	:	23	21	:	:	:	:	6	7	:	:	:	:
NO	280	282	264	289	291	303	668	719	755	916	965	993	121	141	140	132	203	229
CH	:	:	628	:	:	:	:	:	1295	:	:	:	:	:	522	:	:	:

Source: Eurostat

(e) estimated;(s) eurostat estimate;(r) revised data; : not available

When public sector both receives and gives subsidies/transfers, then the net amount should be recorded. This is the reason why some numbers for subsidies/transfers are negative.

Source: Eurostat ([env_ac_exp1](#))

METHODOLOGICAL NOTES

Environmental protection expenditure (EPE) is defined as the money spent on all purposeful activities directly aimed at the prevention, reduction and elimination of pollution or nuisances resulting from the production processes (or consumption of goods and services). Data on environmental expenditure are collected from the European countries through the Joint OECD/Eurostat Questionnaire on Environmental Protection Expenditure and Revenues.

For the purpose of this publication, the data analysed covers three economic sectors (public sector, industry sector, specialised producers) and six economic variables (EPE, investments for environmental protection, pollution treatment investments, pollution prevention investments, current expenditure for environmental protection and subsidies/transfers given for environmental protection activities). Some data on specialised producers and public sector's revenues for sold environmental protection services are also presented.

Environmental Domains

The scope of Environmental Protection is defined according to the Classification of Environmental Protection Activities (CEPA), which distinguishes nine different environmental domains: protection of ambient air and climate, wastewater management, waste management (all three form core domains), protection and remediation of soil, groundwater and surface water, noise and vibration abatement, protection of biodiversity and landscapes, protection against radiation, research and development and other environmental protection activities (all six form non-core domains).

Economic Sectors

The questionnaire consists of four tables for the main sectors of the economy: public sector, business sector, specialised producers and households. Total business sector includes all activities in NACE 01-99, excluding public sector (mainly NACE 75) and the activities of specialised producers (mainly in NACE 90 and NACE 37). Specialised producers are enterprises (both privately and publicly owned) or separately identified departments of large municipalities that have the production of environmental protection services as their main activity (NACE 90). They could also include environmental management activities provided by environmental consultants (e.g. volunteer environmental organisations) or secondary environmental activities (in e.g. NACE 37).

Economic Variables

Environmental protection expenditure (EPE): includes total investments and total current expenditure (for industry and specialised producers sectors), and the sum of total investments, total current expenditure and subsidies/transfers given (for public sector).

Investment expenditure: includes all outlays in a given year (purchases and own-account production) for machinery, equipment and land used for Environmental Protection purposes. EP Total investment is the sum of two categories:

End-of-pipe (pollution treatment) investments. These investments do not affect the production process itself, and the amount of pollution generated, instead they serve to treat pollution already generated.

Investments in integrated technologies (pollution prevention investments). These are investments which lead to a modified or adapted production process. They serve to reduce the amount of pollution generated.

Total current expenditure: is the sum of internal current expenditure and fees/purchases

Subsidies/Transfers (given or received): include all types of transfers financing Environmental Protection activities in other sectors, including transfers to or from other countries. These constitute expenditure for the paying sector (public sector), and revenue for the receiving sector (business/ industry sector and specialised producers sector)

Revenues from environmental protection services: payments for bought environmental protection services that public sector and Specialised producers receive. These services refer to waste and wastewater collection and treatment, as well as payments for fees, permits, and environmental consultancy, management or education services.

Other economic variables not included in this SIF are: internal current expenditure, fees/purchases, receipts from by-products, revenues.

Data on environmental protection expenditure (EPE) in Europe are available in current prices by country, year and NACE sector.

In terms of by country data are published for the European Union as well as for each Member State separately (if available). In addition, data for Croatia, Turkey and for the EFTA countries (Iceland, Norway and Switzerland) are provided. Eurostat provides also estimates for aggregates such as EU25, EU27 and EU15 for some of the economic variables, sectors or environmental domains. Whenever possible, EU27 was used as reference in the graphs. The country symbols used in graphs and tables are the following:

be	Belgium	fr	France	sk	Slovakia
bg	Bulgaria	it	Italy	fi	Finland
cz	Czech Rep.	mt	Malta	se	Sweden
dk	Denmark	nl	Netherlands	uk	United Kingdom
de	Germany	at	Austria	cy	Cyprus
ee	Estonia	pl	Poland	lv	Latvia
ie	Ireland	pt	Portugal	lt	Lithuania
EL	Greece	ro	Romania	lu	Luxembourg
es	Spain	si	Slovenia	hu	Hungary
no	Norway	CH	Switzerland	HR	Croatia
TR	Turkey	IS	Iceland		

As per year data are available in NewCronos for the period 1990-2007

As per NACE divisions: (the numbers refer to NACE rev. 1.1 classification). Total industry (excluding recycling, 37) includes: 10 - 14 Mining and quarrying; 15 - 36 Manufacturing; 15 - 16 Man. of food products; beverages and tobacco; 17 - 19 Man. of textiles, of leather and leather products; 20 Man. of wood and wood products; 21 - 22 Man. of pulp, paper; publishing and printing; 23 Man. of coke, refined petroleum products and nuclear fuel; 24 - 25 Man. of chemicals, rubber and plastic products; 26 Man. of other non-metallic mineral products; 27 Man. of basic metals; 28 - 36 Other manufacturing (DJ28, DK, DL, DM and DN36); 40 - 41 Electricity, gas and water supply

GFCF (gross fixed capital formation): total value of a producer's acquisitions, less disposals, of fixed assets during the accounting period plus certain specific expenditure on services that adds to the value of non-produced assets.

All data presented were taken from the Eurostat database if not elsewhere specified. Additionally, some extra estimation has been made in order to produce figures 1, 2 and 3. The data are collected based on a Gentlemen's Agreement. In some cases there is not enough data available to attempt a rigorous analysis or complete calculation of EU aggregates. Eurostat's Statistics in Focus 93/2008 analysed the trends and the level of Industry's EPE in the European Union between 1997 - 2004.

This SIF was prepared in cooperation with ICEDD asbl (Institut de Conseil et d'Etudes en Développement Durable), Namur, Belgium. Valuable comments and help provided by Julie Hass, Marco Orsini and Stephan Moll.

Further information

Eurostat Website: <http://ec.europa.eu/eurostat>

Data on "Environment statistics"

<http://epp.eurostat.ec.europa.eu/portal/page/portal/environment/data/database>

Select "Environmental accounts" and "Waste statistics"

More information about "Environment statistics"

<http://epp.eurostat.ec.europa.eu/portal/page/portal/environment/introduction>

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