

Statistics in focus

INDUSTRY, TRADE AND SERVICES

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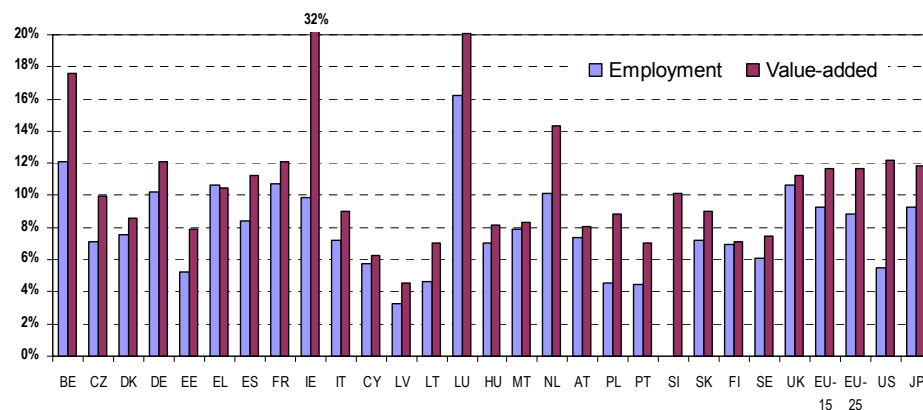
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The chemical industry in the European Union

The chemical industry included in this analysis can be divided into two groups: the manufacture of chemicals and chemical products (NACE Rev. 1, division 24) and the manufacture of rubber and plastic products (division 25). Within division 24, the following sectors are covered: Basic chemicals (NACE group 24.1), Pesticides and other agro-chemical products (24.2), Paints, varnishes, printing ink and mastics (24.3), Soap, detergents cleaning and polishing products (24.5), other chemical products (24.6) and man-made fibres (24.7). The manufacture of pharmaceuticals, medicinal chemicals and botanical products (24.4) are not considered here. Division 25 is composed of the manufacturing of rubber products (25.1) and of plastic products (25.2).

Graph 1: Employment and value-added in the chemical industry in Member States, 2001

as % of manufacturing (NACE Rev.1 section D)



Note: chemical industry covers NACE Rev.1 division 24 (excluding NACE group 24.4) and division 25;
EL: 2000 (enterprises with 20 persons or more employed); IE: data are exceptional (see page 3).
PL: 2000; SI: employment data not available.

Source: Eurostat (SBS); US Census Bureau; METI (Ministry of Economy, Trade and Industry).

Nearly 3 million people were employed in the chemical industry in the EU in 2001, according to Structural Business Statistics (SBS). This represents almost 9 % of the total number employed in manufacturing industry (section D), a larger proportion than in the US (5.5 %), but slightly smaller than in Japan (9.3 %). The chemical industry was responsible for a value-added of EUR 179 billion, a share of just under 12 % of total manufacturing industry (similar to the share in US and JP). The higher share of value-added in the EU than of employment reflects the relatively high level of productivity per person employed. Employment and value-added of the chemical industry declined slightly by 0.6 % and 0.8 % respectively from 2000 to 2001 in the EU.

As far as the importance of the different sub sectors is concerned, manufacturing of basic chemicals (24.1) and manufacturing of plastic products (25.2) both account for a share of roughly one third of the value-added of the chemical industries at the level of the European Union (Table 1). By contrast, the share of the manufacture of man-made fibres (24.7) and of pesticides and other agro-chemical products (24.2), are marginal in terms of value-added at EU level (with a share of around 2 % each).

Table 1: Importance of the chemical industry in the EU, 2001

	Employment at EU level (in 1000)	Employment at EU level (share in %)	Value-added at EU level (in billion EUR)	Value-added at EU level (share in %)	Main contributor to value-added	Member State where the sector is	
						Most important	Least important
Chemicals and chem. products (24 excl. 24.4)	1 342	45%	107.5	60%	DE	IE	MT
<i>of which:</i>							
Basic chemicals (24.1)	642	21%	59.7	33%	DE	IE	MT
Pesticides, other agro-chemical prod. (24.2)	23	1%	2.4	1%	FR	FR	IE
Paints, varnishes, printing ink & mastics (24.3)	177	6%	11.5	6%	DE	DE	LT
Soap, detergents, cleaning, polishing (24.5)	261	9%	16.9	9%	FR	PL	FI
Other chemical products (24.6)	188	6%	14.0	8%	DE	NL	LV
Man-made fibres (24.7)	52	2%	3.1	2%	DE	SK	MT
Rubber and plastic products (25)	1 647	55%	71.5	40%	DE	LU	IE
<i>of which:</i>							
Rubber products (25.1)	359	12%	16.2	9%	DE	LU	LT
Plastic products (25.2)	1 288	43%	55.3	31%	DE	LU	IE
Chemical industry (24 + 25; excl. 24.4)	2 990	100%	179.0	100%			
Manufacturing (section D)	34 249	---	1 536	---			
Share of chem. ind. in manufacturing (D)	8.7%	---	11.7%	---			

Notes: Most/least specialised Member State: see methodological notes for details (page 7) . IE: data are exceptional (for further information see page 3).
Source: Eurostat (SBS).

Value-added: Large differences between countries

Germany was the main contributor to the total value-added generated in the EU in 2001 and was also the Member State where the degree of specialisation in the chemical industry as a whole was the highest, whereas France was the main contributor to value-added for agrochemicals (24.2) and soaps, detergents and cleaning (24.5) (Table 1). In absolute terms, 28.4 % of the EU chemical industry's total value-added in 2001 was generated in Germany; this is double the values registered for the United Kingdom and France (14.5 % and 14.2 % respectively). Italy contributes

10.4 % to value-added and Spain 6.6 %.
At EU-level, the division 'chemicals and chemical products' (NACE 24, excl. 24.4) accounts for 60 % of the value-added of the whole chemical sector. However, the importance of this division is considerably higher in the Netherlands and Belgium, where the share in total chemical industries is 74 % and 70 % respectively. By contrast, 'rubber and plastic products' (NACE 25) dominates in Malta (84 %), Luxembourg (79 %) and Estonia (76 %).

Table 2 : Turnover, value-added, employment and apparent labour productivity in the chemical industry in the EU, 2001

Turnover - in million EUR	BE	CZ	DK	DE	EE	EL	ES	FR	IE***	IT	CY	LV	LT	LU	HU	MT
Chemical industry (*)	31 787	6 510	5 866	170 686	352	2 531	44 350	109 276	22 237	80 294	171	154	564	1 730	4 310	122
Share in total EU-25 chemical industries (%)	4.9	1.0	0.9	26.1	0.1	0.4	6.8	16.7	3.4	12.3	0.0	0.0	0.1	0.3	0.7	0.0
Chemicals and chem. products (24 excl. 24.4)	24 025	3 177	2 806	114 053	213**	1 638	27 801	72 443	21 003	46 908	95	89	281	640**	2 304	32
share in total chemical industry (%)	76	49	48	67	60	65	63	66	94	58	56	58	50	37	53	26
Rubber and plastic products (25)	7 763	3 333	3 060	56 632	140	893	16 549	36 833	1 234	33 386	75	65	283	1 090	2 006	90
share in total chemical industry (%)	24	51	52	33	40	35	37	34	6	42	44	42	50	63	47	74
Value-added at factor cost - in million EUR																
Chemical industry (*)	6 494	1 453	2 014	50 088	43	731	11 724	25 024	10 171	18 342	58	61	96	453	947	61
Share in total EU-25 chemical industries (%)	3.7	0.8	1.1	28.4	0.0	0.4	6.6	14.2	5.8	10.4	0.0	0.0	0.1	0.3	0.5	0.0
Chemicals and chem. products (24 excl. 24.4)	4 558	689	740	30 804	10	435	6 704	14 392	9 703	8 819	28	30	45	97	490	10
share in total chemical industry (%)	70	47	37	61	24	60	57	58	95	48	49	50	47	21	52	16
Rubber and plastic products (25)	1 936	764	1 275	19 285	33	296	5 021	10 631	468	9 524	30	30	51	356	457	51
share in total chemical industry (%)	30	53	63	39	76	40	43	42	5	52	51	50	53	79	48	84
Number of persons employed																
Chemical industry (*)	70 323	96 858	34 232	768 881	4 685	18 270	223 423	435 105	21 190	348 610	2 140	4 499	10 403	4 912	53 754	2 390
Share in total EU-25 chemical industries (%)	2.4	3.2	1.1	25.7	0.2	0.6	7.5	14.6	0.7	11.7	0.1	0.2	0.3	0.2	1.8	0.1
Chemicals and chem. products (24 excl. 24.4)	40 305	34 235	10 090	376 182	1 379	8 844	100 950	192 263	11 589	138 476	922	2 061	3 865	892	20 701	382
share in total chemical industry (%)	57	35	29	49	29	48	45	44	55	40	43	46	37	18	39	16
Rubber and plastic products (25)	30 018	62 623	24 142	392 699	3 306	9 426	122 473	242 842	9 601	210 134	1 218	2 438	6 538	4 020	33 053	2 008
share in total chemical industry (%)	43	65	71	51	71	52	55	56	45	60	57	54	63	82	61	84
Apparent labour productivity (value-added per person empl.) - in thousand EUR																
Chemical industry (*)	92.3	15.0	58.8	65.1	9.2	40.0	52.5	57.5	480.0	52.6	27.0	13.4	9.2	92.2	17.6	25.5
Chemicals and chem. products (24 excl. 24.4)	113.1	20.1	73.3	81.9	7.3	49.2	66.4	74.9	837.3	63.7	30.6	14.7	11.7	109.1	23.7	25.9
Rubber and plastic products (25)	64.5	12.2	52.8	49.1	9.9	31.4	41.0	43.8	48.7	45.3	24.3	12.4	7.7	88.5	13.8	25.4

Note: EL: 2000 . * Chemical industry covers NACE Rev.1 divisions 24 and 25, excluding NACE group 24.4. ** Manufacturing of chemicals and chemical products, including pharmaceuticals (24.4). *** IE: data are exceptional (see page 3).

Source: Eurostat (SBS).

The chemical industry's' contribution to the total value-added of all manufacturing industries at EU-level is almost 12 %.

Ireland's chemical industry is of considerable importance as it recorded a share of 32% (see graph 1). Data for Ireland are exceptional, but correctly reflect the situation as accounted for in enterprises. According to Foreign Affiliates Statistics (FATS), foreign firms in Ireland accounted for 86% of net output in the manufacturing sector in 2000 and there is a particularly large share of foreign affiliates in the chemical industry - in particular US controlled enterprises contributed more than 90% of value-added in the IE chemical industry in 2000. Issues linked to foreign ownership, outsourcing of activities, innovation and intellectual property, accounting practices of international enterprises, transfer pricing or understated value of services provided by foreign affiliates are among the reasons for the exceptionally high value-added in Ireland and the high productivity rates. The effect of these factors is more pronounced in Ireland because of its position as a small open economy with high foreign direct investment.

At Member State level, the picture is very mixed. The

Benelux countries (BE, NL, LU) stand out, with shares of 18 % (Belgium), 14 % (Netherlands) and 20 % (Luxembourg). In Cyprus, Latvia, Lithuania, Portugal, Finland and Sweden, the chemical industry is of lesser importance, with contributions to the total value-added of the manufacturing industries remaining at a lower level (between 5% and 7 %). France's agrochemical industry is of considerable importance and so is Luxembourg's manufacturing of rubber and plastic products.

Turnover of the chemical industry amounted to EUR 654 billion in 2001 at EU level. Germany alone accounted for more than a quarter (26.1 %, or EUR 171 billion) of the total turnover (see Table 2). France and the United Kingdom follow with contributions of 16.7 % and 13.2 % of EU turnover respectively.

The production value for manufacturing of chemicals and chemical products (NACE 24, excl. 24.4) decreased by 0.5 % between 2000 and 2001 at Community level; while, the production value of manufacturing of rubber and plastic products (division 25) increased by 2.6 % during the same period.

Employment: large enterprises particularly important in the chemical industry

At EU-level in 2001, almost three million persons were employed in the chemical industry. The majority (55 %) were working in the manufacture of rubber and plastic products (Table 2). As for turnover and value-added, the larger Member States obviously account for the highest employment in absolute terms. Table 2 shows that 26 % of all persons employed in the chemical industry branch at EU-level were in Germany, followed by France and

the United Kingdom with 14.6 % and 13.9 % respectively. Over 80 % of the persons employed in the chemical industries of Luxembourg and Malta were employed in the manufacturing of rubber and plastic products. However, in absolute terms, employment in this sector remains low (roughly 4 000 jobs in Luxembourg, 2 000 in Malta). In all other Member States, employment is more equally spread between the two NACE divisions 24 (excl. 24.4) and 25.

Table 2 : Turnover, value-added, employment and apparent labour productivity in the chemical industry in the EU, 2001 (continued)

Turnover - in million EUR	NL	AT	PL	PT	SI	SK	FI	SE	UK	EU-15	EU-25	NO	CH	BG	RO
Chemical industry (*)	37 916	9 618	11 867	4 904	1 881	1 796	6 866	10 596	86 288	624 941	653 691	5 428	32 065	843	2 173
Share in total EU-25 chemical industries (%)	5.8	1.5	1.8	0.8	0.3	0.3	1.1	1.6	13.2	95.6	100.0	---	---	---	---
Chemicals and chem. products (24 excl. 24.4)	31 795	5 002	6 828	2 755	905	1 020	4 458	7 076	54 285	416 685	432 122	4 482	27 504**	640	1 436
share in total chemical industry (%)	84	52	58	56	48	57	65	67	63	67	66	83	86	76	66
Rubber and plastic products (25)	6 121	4 616	5 039	2 148	976	776	2 408	3 520	32 003	208 256	221 569	946	4 561	203	736
share in total chemical industry (%)	16	48	42	44	52	43	35	33	37	33	34	17	14	24	34
Value-added at factor cost - in million EUR															
Chemical industry (*)	7 756	2 891	5 175	1 266	409	354	2 208	3 090	25 688	169 843	178 976	1 526	10 088	152	514
Share in total EU-25 chemical industries (%)	4.3	1.6	2.9	0.7	0.2	0.2	1.3	1.7	14.5	96.2	100.0	---	---	---	---
Chemicals and chem. products (24 excl. 24.4)	5 776	1 339	2 644	623	184	188	1 227	1 893	13 707	102 719	107 515	1 180	8 226**	107	341
share in total chemical industry (%)	74	46	51	49	45	53	56	61	53	60	60	77	82	70	66
Rubber and plastic products (25)	1 980	1 552	2 531	643	225	165	980	1 197	11 981	67 124	71 461	345	1 862	45	173
share in total chemical industry (%)	26	54	49	51	55	47	44	39	47	40	40	23	18	30	34
Number of persons employed															
Chemical industry (*)	94 089	46 196	185 830	40 543	:	30 451	30 260	48 768	414 371	2 618 523	2 990 183	17 985	87 013	36 457	98 805
Share in total EU-25 chemical industries (%)	3.1	1.5	6.2	1.4	:	1.0	1.0	1.6	13.9	87.6	100.0	---	---	---	---
Chemicals and chem. products (24 excl. 24.4)	56 770	16 483	78 082	15 625	:	15 657	12 713	22 575	181 706	1 204 813	1 342 747	11 909	62 580**	19 361	59 855
share in total chemical industry (%)	60	36	42	39	:	51	42	46	44	46	45	66	72	53	61
Rubber and plastic products (25)	37 319	29 713	107 748	24 918	:	14 794	17 547	26 193	232 665	1 413 710	1 647 436	6 076	24 433	17 096	38 950
share in total chemical industry (%)	40	64	58	61	:	49	58	54	56	54	55	34	28	47	39
Apparent labour productivity (value-added per person empl.) - in thousand EUR															
Chemical industry (*)	82.4	62.6	27.8	31.2	:	11.6	73.0	63.4	62.0	64.9	59.9	84.8	115.9	4.2	5.2
Chemicals and chem. products (24 excl. 24.4)	101.8	81.2	33.9	39.9	:	12.0	96.5	83.9	75.4	85.3	78.2	99.1	131.4**	5.5	5.7
Rubber and plastic products (25)	53.1	52.2	23.5	25.8	:	11.2	55.9	45.7	51.5	47.5	43.2	56.8	76.2	2.6	4.4

Note: PL: 2000. * Chemical industry covers NACE Rev.1 divisions 24 and 25, excluding NACE group 24.4. ** Manufacturing of chemicals and chemical products, including pharmaceuticals (24.4). Source: Eurostat (SBS).

Over 89 000 enterprises were registered in the chemical sector in the EU in 2001 (Table 3), 21% of all enterprises were to be found in Italy (corresponding to nearly 19 000 units).

The large majority of Italian enterprises (13 307) manufacture rubber and plastic products and are in the smaller size category, as only 63 enterprises (with a corresponding share of 0.5 %) employ more than 250 employees. By contrast, Italy registered 8 739 so-called micro-enterprises (1-9 employees), 66 % of all enterprises active in the manufacturing of rubber and plastic products.

The pattern that more enterprises were classified in manufacturing rubber and plastic products than in manufacturing chemicals and chemical products (69 % : 31 % at EU-level) was similar for the other Member States. The average size of these enterprises was only half as big: whereas enterprises manufacturing chemicals and chemical products had an average number of nearly 50 employees at EU-level, those manufacturing rubber and plastic products recorded 26 employees only.

The pattern at Member States' level can be highly individual though: France, Cyprus, Austria and Portugal record similar enterprise sizes in both categories, whereas Luxembourg, as an extreme, registers an average of 167 employees in the manufacturing of rubber and plastic products – more than 6 times the EU average value (a single major production enterprise in each of the domains in a small country can considerably influence the picture, as is the case in LU).

At EU-level, around 5% of all enterprises manufacturing chemicals and chemical products (division 24) belonged to the larger category (more than 250 employees) in 2001. The highest share of larger enterprises was recorded in Slovakia (12 %)

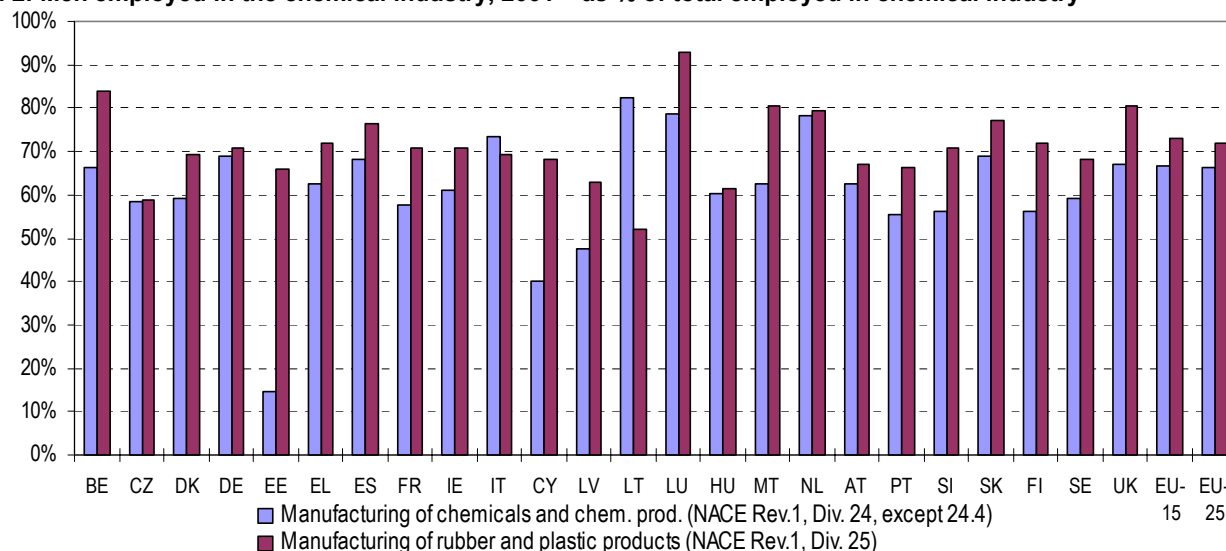
and Germany (10 %). A different pattern was evident in the Czech Republic, Italy and Portugal where only a few larger enterprises were registered (with a share of between 2 % and 2.5 % of the total number of enterprises in this sector).

Table 3: Number of enterprises and average number of employees in the chemical industry by Member State, 2001

	Number of enterprises			Average number of employees per enterprise		
	Chemical industry (*)	Chemicals and chemical products (24 excl. 24.4)	Rubber and plastic products (25)	Chemical industry (*)	Chemicals and chemical products (24 excl. 24.4)	Rubber and plastic products (25)
BE	1 481	675	806	54	76.0	36.4
CZ	3 861	1 236	2 625	25	28.4	22.8
DK	1 028	292	736	35	40.8	32.5
DE	9 268	2 576	6 692	82	145.5	58.1
EE	193	69 **	124	33	44.4 **	26.3
EL	355	137	218	56	76.0	42.7
ES	9 788	3 848	5 940	22	25.7	20.2
FR	8 530	3 321	5 209	51	57.8	46.5
IE	423	152	271	58	99.4	35.2
IT	18 915	5 608	13 307	17	23.3	14.3
CY	117	55	62	19	17.7	20.1
LV	191	79	112	26	33.2	21.7
LT	470	99	371	24	48.4	17.2
LU	43	19 **	24	130	82 **	167.4
HU	3 322	734	2 588	18	29.5	14.3
MT	112	65	47	22	6.5	42.5
NL	1 730	650	1 080	53	85.8	33.2
AT	915	339	576	50	48.1	51.2
PL	11 758	2 369	9 389	16	35.0	10.8
PT	1 861	727	1 134	21	21.2	21.7
SI	1 859	329	1 530	11	23.6	7.7
SK	437	130	307	70	120.3	48.1
FI	1 013	291	722	30	43.2	24.1
SE	2 252	713	1 539	21	31.6	16.7
UK	10 421	3 386	7 035	39	53.0	32.5
EU-15	68 022	22 733	45 289	38	52.3	30.4
EU-25	89 298	27 446	61 852	33	49.4	26.1

Notes: EL (>20 persons employed), CY, PL: 2000. IE : for IE data see page 3. * Chemical industry covers NACE Rev.1 divisions 24 and 25, excl. 24.4; **: Manufacture of chemicals and chemical products, including pharmaceuticals (24.4). Source: Eurostat (SBS).

Graph 2: Men employed in the chemical industry, 2001 – as % of total employed in chemical industry



Note : PL : n.a.

Source: Eurostat (LFS).

According to the EU Labour Force Survey (LFS), one third of all persons employed in the chemical industries were female in 2002. The proportion of men is slightly higher in the manufacturing of rubber and plastic products (72 %) than in the manufacturing of chemicals and chemical products (66%). The pattern is the same at Member States' level, except for Italy and Lithuania. Large differences between the

two NACE divisions can be observed in Estonia and Lithuania.

The only cases where women constitute a majority in employment is in chemicals and chemical products in Estonia (with a share of 85 %), Cyprus (60 %) and Latvia (52%).

Labour productivity: generally lower in the manufacturing of rubber and plastic products

The apparent labour productivity (value added per person employed) reached EUR 59 900 at EU-level in 2001 (Table 2). It was noticeably higher in the manufacturing of chemicals and chemical products (EUR 78 200) than in rubber and plastic products (EUR 43 200).

At country level, important differences appear. Globally, the new Member States (which joined on 1 May 2004) registered labour productivity levels that are substantially lower than those of the EU-15 countries (differences in price levels are not taken into account). But even among the latter countries, the apparent labour productivity varies substantially.

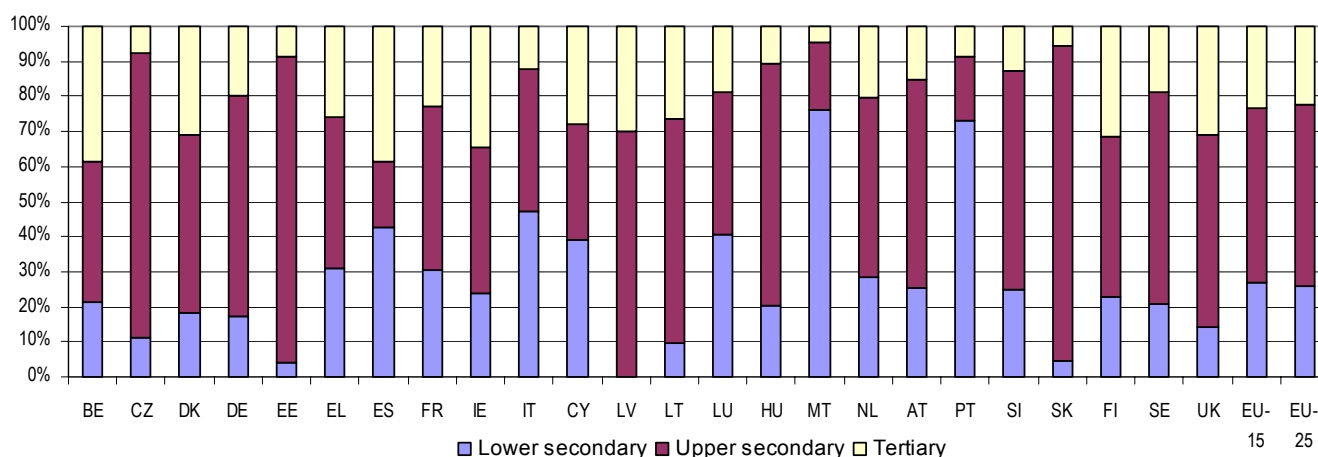
In Belgium and Luxembourg this indicator amounted to almost EUR 100 000 for the chemical industry as a whole, but exceeded this level for the manufacturing of chemicals and chemical products (division 24, excl. 24.4). The Netherlands reached a productivity value of close to EUR 102 000 in the chemical sector

too, but a lower value in rubber and plastic products (albeit clearly over the EU average) made this country's overall value drop (EUR 82 400 for the Dutch chemical industry as a whole).

Among the EU-15 group of Member States, Greece, Portugal and – to a lesser degree - Spain and Italy recorded apparent labour productivity levels below the EU average.

At EU-level, 22% of all persons employed in the chemical industry in 2001 had tertiary level education (Graph 3). Belgium, Spain, Ireland, Latvia, Finland and the United Kingdom recorded shares clearly over this average. Conversely, in the Czech Republic, Estonia, Malta, Portugal and Slovakia, the share of persons with a tertiary education does not exceed 10 %. In Malta and Portugal, close to three quarters of the workforce employed in the chemical industry had a lower secondary level of education.

Graph 3: Employment by educational attainment level in the chemical industry, 2001



Note: Educational attainment levels are based on the International Standard Classification of Education (ISCED). PL : n.a.

Source: Eurostat (LFS).

The general level of education is clearly higher in the manufacturing of chemicals and chemical products than in the obviously more labour intensive manufacturing of rubber and plastic products.

The higher level of education in the manufacture of chemicals and chemical products is confirmed when looking at the labour cost per employee (Unit labour cost). Whereas at EU-level in 2001 it amounted to EUR 45 600 for chemicals and chemical products, it was only EUR 29 800 for the manufacture of rubber and plastic products (division 25), a difference

of around 35 %. For EU-15, the corresponding figures were EUR 50 300 and EUR 33 600.

The Member States with the highest unit labour cost were Belgium and Germany for chemicals and chemical products (with EUR 62 500 and EUR 56 100 respectively). Luxembourg and again Belgium recorded the highest unit labour cost for rubber and plastic products with EUR 49 900 and EUR 44 300 respectively.

High levels of trade with big differences in trade performance

Chemical products are an important part of international trade. However, it is difficult to relate data on trade directly to SBS data, mainly because the enterprises responsible for exports and imports are not all included among the enterprises manufacturing chemical products. Nevertheless, an indication of the importance of this sector can be gained by relating exports and imports of chemical product to total trade flows.

The EU-25 trade surplus amounted to almost 20% of total value of trade in 2002. All but six Member States recorded a trade deficit. The balance was largely positive only for Belgium, Germany, Ireland and the Netherlands. The balance was only slightly positive for France and Luxembourg. On the other hand, the trade deficit was very high in Cyprus, Latvia and Greece, with 85 %, 72 % and 62 % of the total value of the trade performance.

A trade deficit was only recorded at the EU level for man-made fibres (38 % of the total value of the trade) and a sizeable surplus was generated for the products 'Paints and varnishes' and 'Soap and detergents'. Rubber products were in almost in balance.

The trade surplus of the manufacturing of rubber and plastic products combined was less than half of that of 'Total chemicals and chemical products'.

The main extra EU trading partners for products of the chemical industry (excl. NACE Rev.1 class 24.2) in 2002 were the USA, Switzerland and Japan, for both exports and imports. With regards to extra-EU exports, 26% of the entire value of traded products was exported to the USA, 8 % to Switzerland and 4 % to Japan. With regards to imports, the USA took a similar share with 27% of the total value of chemical industry products imported by the EU. The equivalent shares for Switzerland and Japan were 13 % and 10 % respectively.

Table 4: Trade performance in chemical products, 2002
Exports-Imports as % of exports+imports

	Chemicals and chemical products (24 excl 24.4)	Rubber and plastic products (25)	CHEMICAL PRODUCTS (24 + 25, excl.24.4)
BE	14.9	5.8	13.4
CZ	-27.0	-6.3	-18.4
DK	-15.9	4.2	-9.0
DE	12.8	22.7	15.7
EE	-51.6	-44.3	-48.7
EL	-67.2	-43.0	-61.7
ES	-18.2	-3.8	-14.4
FR	6.6	-2.9	4.3
IE	67.3	-30.1	60.3
IT	-24.6	28.2	-9.9
CY	-86.0	-81.4	-84.5
LV	-71.3	-74.3	-72.4
LT	-34.4	-49.5	-39.1
LU	-20.8	35.6	4.6
HU	-31.8	-22.7	-28.5
MT	-77.3	9.2	-38.6
NL	16.5	-1.6	13.0
AT	-23.4	-3.5	-15.7
PL	-45.0	-17.8	-35.4
PT	-49.2	-26.3	-41.4
SI	-41.0	10.6	-20.8
SK	-14.3	-3.1	-10.5
FI	-10.1	0.1	-7.5
SE	-9.3	-5.3	-8.0
UK	3.0	-16.3	-1.5
EU	21.2	9.2	18.7

Notes: EU aggregate: extra EU-25 trade only.

Source: Eurostat (Comext).

➤ ESSENTIAL INFORMATION – METHODOLOGICAL NOTES

ABBREVIATIONS

EU: European Union, including the 25 Member States (EU-25): Belgium (BE), the Czech Republic (CZ), Denmark (DK), Germany (DE), Estonia (EE), Greece (EL), Spain (ES), France (FR), Ireland (IE), Italy (IT), Cyprus (CY), Latvia (LV), Lithuania (LT), Luxembourg (LU), Hungary (HU), Malta (MT), the Netherlands (NL), Austria (AT), Poland (PL), Portugal (PT), Slovenia (SI), Slovakia (SK), Finland (FI), Sweden (SE) and the United Kingdom (UK).

EU-15: European Union, including 15 Member States (BE, DK, DE, EL, ES, FR, IE, IT, LU, NL, AT, PT, FI, SE, UK).

SYMBOLS

“.” non available (n.a.) or confidential.

DEFINITIONS

Division of employment and value-added by sector of activity

Employment and value-added in the Structural Business Statistics (SBS) are divided into sectors of activity according to the NACE Rev. 1 system of classification. This categories activity by section (1-letter codes), subsection (2-letter codes), division (2-digit codes), groups (3-digit codes) and classes (4-digit codes). All activities of the chemical industries are included under Section D. The chemical industries analysed in this publication include the following divisions and groups:

24: Manufacturing of chemicals and chemical products

- 24.1: Basic chemicals
- 24.2: Pesticides and other agro-chemical products
- 24.3: Paints, varnishes printing ink and mastics
- 24.5: Soap, detergents, cleaning and polishing
- 24.6: Other chemical products
- 24.7: Man-made fibres

25: Manufacturing of rubber and plastic products

- 25.1 Rubber products
- 25.2 Plastic products

The NACE group 24.4 'Pharmaceuticals, medicinal chemicals and botanical products' is not considered in this publication.

Number of persons employed: defined as the total number of persons who work in the observation unit (inclusive of working proprietors and partners working regularly in the unit and unpaid family workers), as well as persons who work outside the unit who belong to it and are paid by it (e.g. sales representatives, delivery personnel, repair and maintenance teams). It includes part-time workers, seasonal workers, apprentices and home workers who are on the pay roll. The observation unit for aggregating data is the enterprise, which is defined as *'the smallest combination of legal units that is an organisational unit producing goods or services, which benefits from a certain degree of autonomy in decision-making, especially for the allocation of its current resources'*.

Turnover: Turnover comprises the totals invoiced by the observation unit during the reference period, and this corresponds to market sales of goods or services supplied to third parties.

Value-added: Value-added measured at factor cost, which is the gross income from operating activities after adjusting for operating subsidies and indirect taxes (including value-added tax).

Degree of specialisation: The most specialised Member State is the country for which the share of manufacturing value-added (section D) accounted for by the chemical industry is highest in relation to the average share in the EU. The least specialised Member State is the country where this ratio is the lowest.

Data for IE: are exceptional, for further details see page 3.

Apparent labour productivity: Value-added at factor cost/number of persons employed (expressed in thousand EUR per person employed).

Educational attainment levels: Educational attainment levels are based on the International Standard Classification of Education (ISCED), as revised in 1997. This divides education into 7 main levels, grouped into three levels in the analysis:

- lower secondary, defined as ISCED levels 0 to 2, pre-primary, primary and lower secondary education;
- upper secondary, defined as ISCED levels 3 and 4, upper secondary and post-secondary, non-tertiary education;
- tertiary, defined as ISCED levels 5 and 6, first stage of tertiary education and second stage of tertiary education.

The level upper secondary includes GCSE levels for UK.

The data are taken from the EU LFS, which classifies those employed to NACE 2-digit industries.

Labour cost: Personnel cost/number of employees in 1000 EUR.

Personnel cost: The total remuneration, in cash or in kind, payable by an employer to an employee (regular and temporary employees as well as home workers) in return from work done by the latter during the reference period.

DATA SOURCES

Structural Business Statistics (SBS): collected within the framework of Council regulation on structural business statistics (EC, EURATOM) No. 58/97 of December 1996. The SBS Regulation governs the transmission of data to Eurostat from the reference year 1995 onwards and, in principle, covers all market activities in sections C to K and M to O of NACE Rev. 1, but, in practice, the data available are confined to NACE Rev. 1 sections C to K, excluding section J, financial services. For further information, visit: http://forum.europa.eu.int/Public/irc/dsis/bmethods/info/data/new/main_en.html

EU Labour Force Survey (LFS): a survey of private households which provides data on the population living in these by nationality and by work status as well as by sex and age. The main focus is on employment, unemployment and inactivity and the various aspects of these, including the sector of activity in which people are employed and the highest level of educational attainment reached.

COMEXT is Eurostat's reference database on external trade statistics. Data for Member States on exports and imports include both - intra-EU trade and extra-EU trade - and are broken down by detailed product group, which in the analysis have been aggregated to correspond as closely as possible with chemicals.

The source of all figures presented in this publication is Eurostat and reflects the **state of data availability** in Eurostat's reference database NewCronos as of May 2004.

Further information:

➤ **Databases**

[EUROSTAT Website/Industry, trade and services/Industry, trade and services - horizontal view/Structural Business Statistics \(Industry, Construction, Trade and Services\)](http://ec.europa.eu/eurostat/industry_trade_services/industry_trade_services_horizontal_view/structural_business_statistics_industry_construction_trade_services)

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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.

The complete details concerning this support network can be found on our Internet site: www.europa.eu.int/comm/eurostat/

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