

Communications and media



This chapter gathers together several activities linked to communication and media activities, however, within this group a distinction has to be made between traditional activities (for example, postal services) for which growth is rather stable and other newer activities (such as mobile telephony and electronic publishing), for which growth developments are more marked.

The uptake of digital (radio and television) transmission as well as delivery over the Internet is intertwined with the development of digital content, allowing content to be more easily shared across devices, facilitating more tailored products, and a greater possibility of on-demand services. Nevertheless, digital technologies also make content easier to share not just between devices but between consumers, which may play an important role in terms of its impact on intellectual property rights, an issue which has been widely debated with respect to downloading and sharing of music files. The management of digital rights is an issue faced by many of the activities covered in this chapter, and in April 2006 the European Commission adopted a revised proposal ⁽¹⁾ for a directive of the European Parliament and of the Council to combat intellectual property offences.

⁽¹⁾ COM(2006) 168.

STRUCTURAL PROFILE

Communications and media (NACE Divisions 22 and 64) consisted of 270 000 enterprises which together generated EUR 340.0 billion of value added in the EU-27 in 2004 and employed 4.9 million persons. Value added per person employed (apparent labour productivity) was high in these activities as they accounted for 6.7 % of value added in the non-financial business economy (NACE Sections C to I and K), but just 3.9 % of employment.

With EUR 187.2 billion value added, telecommunications (NACE Group 64.2) was the largest subsector in 2004, accounting for over half (55.1 %) of the communications and media total, while the second largest subsector was publishing, printing, and the reproduction of recorded media (NACE Division 22), with more than one quarter (27.4 %) of value added; while the smallest subsector was post and courier activities (NACE Group 64.1) which generated less than one fifth (17.5 %) of sectoral value added. However, telecommunications accounted for the smallest share of the sectoral workforce, with less than one quarter (24.3 %) of the persons employed, while post and courier activities had the largest workforce of the three subsectors covered, with 38.1 % of the communications and media total, somewhat above the share recorded for publishing, printing, and the reproduction of recorded media (36.7 %).

This chapter focuses on activities whose principal characteristic is to provide services related to the exchange of information. It includes postal, courier and telecommunication services (NACE Division 64) and the activities of publishing, printing, and the reproduction of recorded media (NACE Division 22). Note that compared to the previous edition of this publication, the subchapter on audio-visual activities (NACE Groups 92.1 and 92.2) has been removed from this publication. As in the previous issue, statistics on information and communication technologies (ICT) are split between this chapter and Subchapter 22.1 on computer services.

NACE

- 22: publishing, printing and reproduction of recorded media;
- 22.1: publishing;
- 22.2: printing and service activities related to printing;
- 22.3: reproduction of recorded media;
- 64: post and telecommunications;
- 64.1: post and courier activities;
- 64.2: telecommunications.

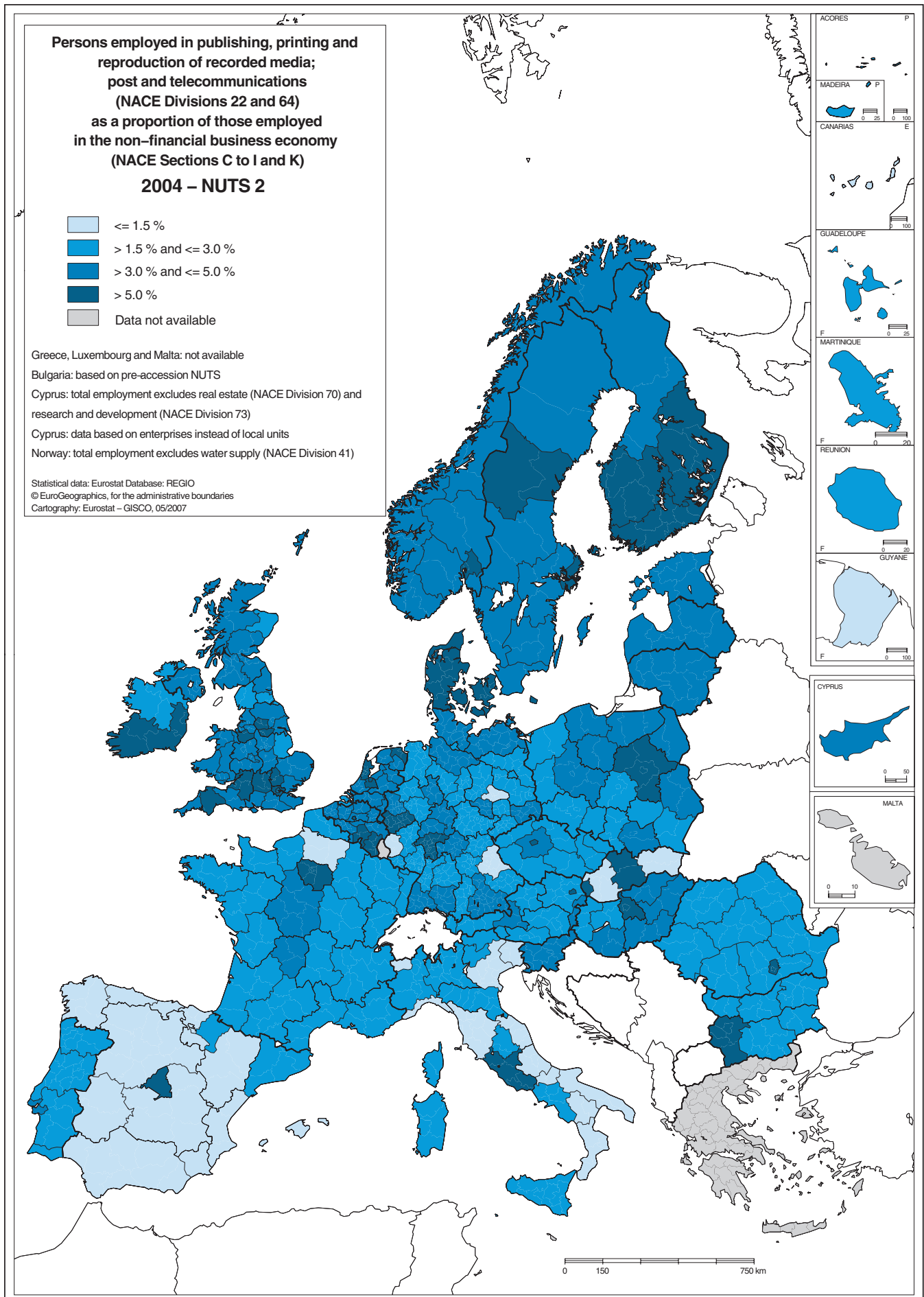


Table 21.1

Publishing, printing, reproduction of recorded media; post and telecommunications (NACE Divisions 22 and 64)
Structural profile, EU-27, 2004 (1)

	No. of enterprises		Turnover		Value added		Employment	
	(thousands)	(% of total)	(EUR million)	(% of total)	(EUR million)	(% of total)	(thousands)	(% of total)
Communications, publishing and printing	269.6	100.0	743 000	100.0	340 000	100.0	4 900.0	100.0
Post and courier activities	40.0	14.8	98 199	13.2	59 574	17.5	1 868.6	38.1
Telecommunications	24.0	8.9	398 612	53.6	187 228	55.1	1 189.8	24.3
Publishing, printing, reproduction of recorded media	206.5	76.6	246 000	33.1	93 000	27.4	1 800.0	36.7

(1) Rounded estimates based on non-confidential data.
 Source: Eurostat (SBS)

Among the Member States with available data, Germany and the United Kingdom were the largest Member States in this sector in 2004, each of these countries accounting for around one fifth of the EU-27's value added within the communications and media sector. Looking at the contribution of this sector within the non-financial business economy, the most specialised Member States ⁽²⁾ in value added terms, were Bulgaria, Latvia, Romania and Hungary, in which communications and media activities contributed to at least 8.0 % of non-financial business economy value added. Nevertheless, the sector was quite important in all Member States, as even in the least specialised countries it accounted for more than 5 % of non-financial business economy value added.

The regional specialisation of these activities is shown in the map on page 354 which is based on the non-financial business economy employment share of this sector. Countries with many regions specialised in these activities include United Kingdom, Germany, the Netherlands, Belgium, the Nordic countries and Slovakia. These activities were often particularly centred in or around the capital, with the capital region in 17 of the 24 Member States with data available being among the most specialised regions (5 % or more of the workforce in this activity). Some regions were

⁽²⁾ Ireland, Greece, Cyprus, Luxembourg and Malta, not available.

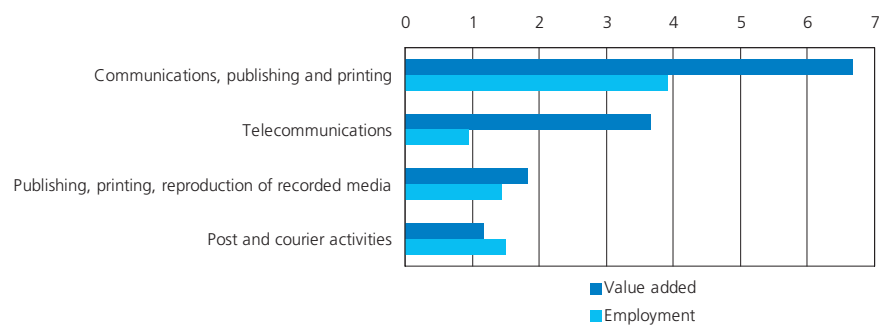
particularly specialised in communications and media and this is notably the case in Köln (Germany), Lazio (Italy), Île de France (France) and Bruxelles-Capitale/Brussels Hoofdstedelijk (Belgium), where this sector accounted for over one fifth of total employment in the non-financial business economy.

Annualised short-term statistics are available for the EU-27 starting in 1998 (employment) and 2000 (turnover) for the services activity of post and telecommunications (NACE Division 64), while a longer series is available for the industrial activity of publishing, printing, and the reproduction of recorded media (NACE

Division 22), starting from 1996 - see Figure 21.2. Looking first at turnover, postal and courier activities (NACE Group 64.1) and telecommunications (NACE Group 64.2) both developed strongly in the last five years, between 2001 and 2006, averaging growth of 3.8 % per annum for postal and courier activities and 4.5 % per annum for telecommunications in the EU-27. In contrast, the turnover index for publishing, printing, and the reproduction of recorded media grew on average by 1.6 % per year over the same period in the EU-27, resulting from a period of stability between 2000 and 2003, with year on year growth rates below 1 %, followed by

Figure 21.1

Publishing, printing, reproduction of recorded media; post and telecommunications (NACE Divisions 22 and 64)
Share of non-financial business economy, EU-27, 2004 (%) (1)



(1) Rounded estimates based on non-confidential data.
 Source: Eurostat (SBS)

Table 21.2

Publishing, printing, reproduction of recorded media; post and telecommunications (NACE Divisions 22 and 64)
Structural profile: ranking of top five Member States, 2004

Rank	Share of non-financial business economy					
	Value added (EUR million) (1)	Employment (thousands) (1)	No. of enterprises (2)	Turnover (3)	Value added (3)	Employment (3)
1	Germany (69 797)	Germany (978.8)	United Kingdom (2.8 %)	United Kingdom (4.7 %)	Bulgaria (12.2 %)	Finland (6.0 %)
2	United Kingdom (68 175)	United Kingdom (856.4)	Slovenia (2.4 %)	Finland (4.2 %)	Latvia (9.0 %)	Denmark (5.5 %)
3	France (47 910)	France (645.2)	Lithuania (2.2 %)	Germany (3.8 %)	Romania (8.3 %)	Belgium (4.9 %)
4	Italy (38 549)	Italy (428.3)	Belgium (2.2 %)	Latvia (3.8 %)	Hungary (8.0 %)	Sweden (4.8 %)
5	Spain (25 212)	Spain (318.4)	Netherlands (2.1 %)	Portugal (3.8 %)	Portugal (7.4 %)	United Kingdom (4.8 %)

(1) Greece, Luxembourg and Malta, not available.

(2) Ireland, Greece, Cyprus and Malta, not available; Luxembourg, 2003.

(3) Ireland, Greece, Cyprus, Luxembourg and Malta, not available.

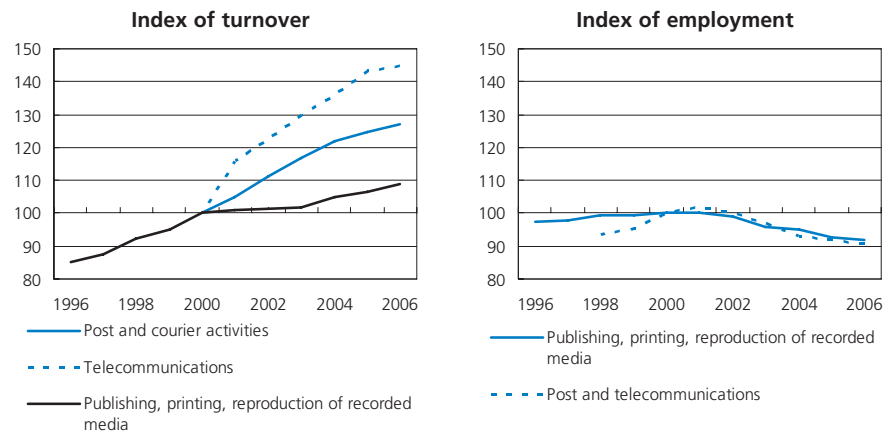
Source: Eurostat (SBS)

more rapid annual growth of at least 1.8 % in the three years that followed. In employment terms, two similar phases of development could be observed for communications (postal and courier activities, and telecommunications) and publishing, printing, and the reproduction of recorded media, both activities showing a period of growth until 2001, followed by a reduction in employment levels. Between 2001 and 2006, annual contractions of the employment index for publishing, printing, and the reproduction of recorded media were ranged between -0.7 % (2004) and -3.2 % (2003), while they were slightly more pronounced for post and telecommunications (between -1.1 % in 2006 and -4.0 % in 2004).

Large enterprises (with 250 and more persons employed) were predominant in the EU-27 as they contributed for more than three quarters (78.0 %) of total value added generated in the communications and media sector in 2004. Hence, the contribution of large enterprises was notably higher (35 percentage points difference) than for the non-financial business economy as a whole - see Figure 21.3. Post and telecommunications (NACE Division 64) was dominated by large enterprises, as these accounted for 92.3 % of value added in the EU-27. This was the second highest proportion of value added accounted for by large enterprises across all non-financial business economy NACE divisions ⁽³⁾ in 2004, just after mining of metal ores (NACE Division 13). In contrast, the value added share of large enterprises in publishing, printing and the reproduction of recorded media (NACE Division 22) was 40.2 %, marginally below the non-financial business economy average. Moreover, given that the share of value added generated by micro enterprises (with less than 10 persons employed) in publishing, printing and the reproduction of recorded media (13.3 %) was below the non-financial business economy average (20.2 %), small enterprises (with between 10 and 49 persons employed), and particularly medium-sized enterprises (with between 50 and 249 persons employed) made a relatively high contribution within this subsector.

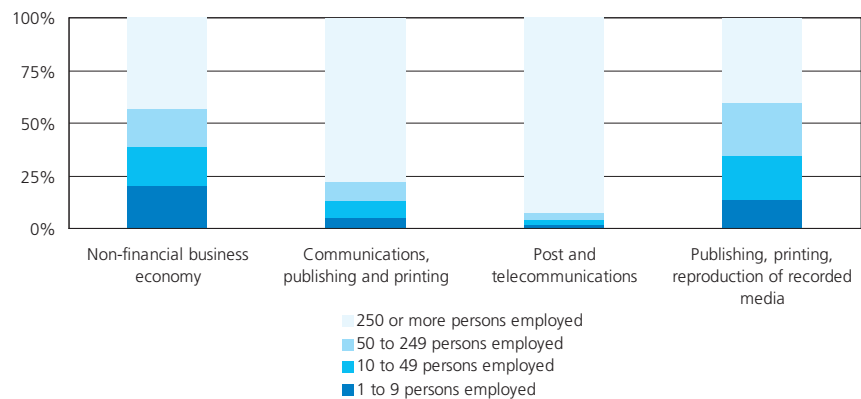
⁽³⁾ NACE Divisions 12 and 62, not available.

Figure 21.2
Publishing, printing, reproduction of recorded media; post and telecommunications (NACE Divisions 22 and 64)
Evolution of main indicators, EU-27 (2000=100)



Source: Eurostat (STS)

Figure 21.3
Publishing, printing, reproduction of recorded media; post and telecommunications (NACE Divisions 22 and 64)
Share of value added by enterprise size class, EU-27, 2004



Source: Eurostat (SBS)

EMPLOYMENT CHARACTERISTICS

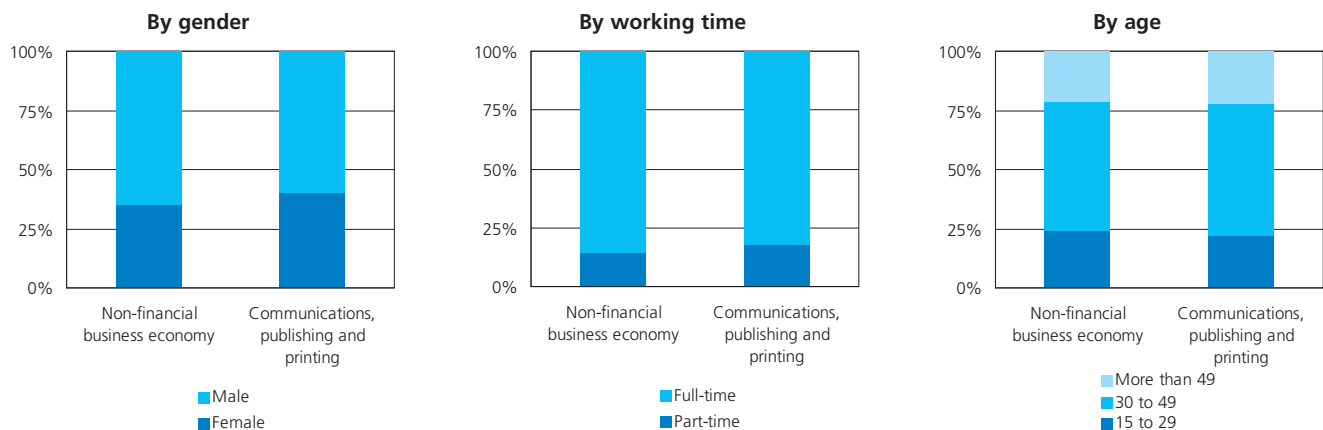
Labour force statistics show that the characteristics of the workforce in the EU-27's communications and media sector (NACE Divisions 22 and 64) did not diverge greatly from those for the non-financial business economy as a whole. Indeed, about three fifths (59.9 %) of the sectoral workforce were men, a proportion slightly lower than that for the non-financial business economy as a whole (65.0 %) – see Figure 21.4.

The proportion of part-time employment in the sector (17.7 %) in 2006 was also rather similar to that for the non-financial business economy average (14.4 %). However, the activity of publishing, printing, and the reproduction of recorded media (NACE Division 22) engaged more than one fifth (20.7 %) of its workforce on a part-time basis, the fifth largest proportion recorded among the NACE divisions of the non-financial business economy. However, among the Member States with available data ⁽⁴⁾, about one third of the countries had a lower proportion of part-time employment in their publishing, printing, and reproduction of recorded media activities than in their national non-financial business economy as a whole.

⁽⁴⁾ Estonia, Lithuania, Luxembourg and Malta, 2005; Ireland, not available.

Figure 21.4

Publishing, printing, reproduction of recorded media; post and telecommunications (NACE Divisions 22 and 64)
Labour force characteristics, EU-27, 2006



Source: Eurostat (LFS)

Table 21.3

Publishing, printing, reproduction of recorded media; post and telecommunications (NACE Divisions 22 and 64)
Total expenditure, EU-27, 2004

	Value (EUR million)				Share (% of total expenditure)		
	Total expenditure	Purchases of goods and services	Personnel costs	Investment in tangible goods	Purchases of goods and services	Personnel costs	Investment in tangible goods
Communications, publishing and printing (1)	627 600	410 000	165 000	52 600	65.3	26.3	8.4
Post and courier activities	91 387	39 133	48 931	3 323	42.8	53.5	3.6
Telecommunications	320 882	222 352	57 432	41 099	69.3	17.9	12.8
Publishing, printing, reproduction of recorded media (1)	219 210	153 000	58 000	8 210	69.8	26.5	3.7

(1) Rounded estimates based on non-confidential data.

Source: Eurostat (SBS)

A breakdown by age of the workforce for the EU-27's communications and media sector shows that slightly more than one fifth (21.9 %) of those employed in 2006 were aged between 15 and 29, some 56.0 % between 30 and 49, while the remainder were persons aged 50 or more; these proportions were rather similar to respective non-financial business economy averages. Only in Ireland and to a lesser extent in France and Austria did persons employed aged between 15 and 29 account for a significantly lower proportion of the sectoral workforce than the national non-financial business economy average, a low share that was generally accompanied by a larger share for persons aged between 30 and 49. The reverse situation was observed in Portugal, where the youngest age-class of persons employed in the communications and media sector accounted for a remarkably higher proportion in the workforce than the Portuguese non-financial business economy average (10.2 percentage points above).

According to structural business statistics paid employees accounted for 95.4 % of the persons employed in the EU-27's communications and media sector in 2004, a working status that was dominant when compared with the equivalent share for the non-financial business economy average (86.2 %).

COSTS, PRODUCTIVITY AND PROFITABILITY

In 2004 the communications and media sector recorded a share of gross tangible investment in total expenditure (personnel costs plus purchases of goods and services plus intangible investment) of 8.4 % in the EU-27, with a 3.6 % share for post and courier activities, a 3.7 % share for publishing, printing and reproduction of media, and a 12.8 % share for telecommunications; for comparison, the average ratio for the non-financial business economy was 4.9 %. The share of personnel costs was also considerably higher for

communications and media (26.3 %) than for the non-financial business economy as a whole (16.4 %). This was the case in all the three subsectors that make up the communications and media sector, where the share of total expenditure dedicated to personnel costs was lowest at 17.9 % in telecommunications and reached as high as 53.5 % for post and courier activities. As a result of higher shares dedicated to gross investment in tangible goods and personnel costs in the communications and media sector, the share of purchases of goods and services was notably lower for the sector (65.3 %), compared with the non-financial business economy average (78.7 %). The EU-27 pattern was valid among all the Member States with data available ⁽⁵⁾.

⁽⁵⁾ Ireland, Greece, Cyprus, Luxembourg and Malta, not available.

Table 21.4

Publishing, printing, reproduction of recorded media; post and telecommunications (NACE Divisions 22 and 64)
Productivity and profitability, EU-27, 2004

	Apparent labour productivity (EUR thousand)	Average personnel costs (EUR thousand)	Wage adjusted labour productivity (%)	Gross operating rate (%)
Communications, publishing and printing (1)	69.4	35.3	197.0	23.6
Post and courier activities	31.9	26.9	118.4	10.8
Telecommunications	157.4	49.0	321.0	32.6
Publishing, printing, reproduction of recorded media (1)	51.0	34.7	146.0	14.1

(1) Rounded estimates based on non-confidential data.

Source: Eurostat (SBS)

Apparent labour productivity in the EU-27's communications and media sector was EUR 69 400 per person employed in 2004 (see Table 21.4), which was around 70 % higher than the non-financial business economy average. Average personnel costs were EUR 35 300 per employee, which was 28 % higher than the non-financial business economy average. As a result, the wage adjusted labour productivity ratio within the EU-27's communications and media sector was 197.0 % in 2004, some 49.0 percentage points above the average for the non-financial business economy. This high ratio for the sector resulted mainly from a high value registered by the telecommunications subsector (321.0 %),

as for the other two subsectors the ratio was below the non-financial business economy average. Among the Member States several recorded an above average wage adjusted labour productivity ratio in the communications and media sector, notably in some of the Southern Member States. In Bulgaria, Italy, Spain and Portugal this ratio was more than two thirds higher in communications and media than the national non-financial business economy average.

In a similar manner, the gross operating rate for the EU-27's communications and media sector stood at 23.6 % in 2004, which was more than twice the non-financial business economy

average (11.0 %). Note that the gross operating rate was particularly high in telecommunications (32.6 %), and in fact in post and courier activities the gross operating rate was below the non-financial business economy average in 2004. Bulgaria, Romania and Portugal recorded the highest gross operating rate in the communications and media sector relative to the non-financial business economy average. However, all the other Member States for which data is available ⁽⁶⁾ recorded a gross operating rate in communications and media above their non-financial business economy average.

⁽⁶⁾ Ireland, Greece, Cyprus, Luxembourg and Malta, not available.

21.1: POSTAL AND COURIER SERVICES

This subchapter covers NACE Group 64.1, which includes both national post activities (NACE Class 64.11) and other courier activities (NACE Class 64.12). National post activities include the pick-up, transport and delivery (domestic or international) of mail and parcels, and other services such as P.O. boxes or poste restante. Courier activities other than national post activities include mainly express courier services, where enterprises have widened their initial focus on business documents towards the transfer of packages and freight, blurring the distinction between courier and transport enterprises.

In most Member States, Universal service providers (USPs) ⁽⁷⁾ still operate as a monopoly and have exclusive rights, balanced by the fact that they have a universal service obligation. Private operators dominate the express services market, providing letter and parcel services, specifically to the business-to-business, direct mail and business-to-private segments of the market. However, since the middle of the 1990's there have been gradual developments towards market liberalisation for the postal and courier services, with parcels and express services markets now fully open to competing operators. In October 2006, the European Commission presented plans to abolish

remaining restrictions on mail deliveries under 50 grams (known as the 'reserved area' for national operators) and open up Europe's postal sector to full competition, while liberalisation has already begun or been finalised in few Member States, including the United Kingdom, Sweden, the Netherlands and Germany. At the time of drafting for this publication, the Parliament rejected the Commission's proposal of 2009 as the deadline for removing the remaining 'reserved area' and opted for market opening by 31 December 2010, with an exemption for the new Member States and Member States with a 'difficult topography' who can liberalise their markets by 31 December 2012.

⁽⁷⁾ The term USP takes account of the possibility that operators are no longer public organisations.

Table 21.5
Postal services in the EU-25

	2001	2002	2003	2004	2005
Total number of permanent post offices (units)	103 535	102 708	101 602	99 690	98 971
of which, staffed by people from outside the administration (%)	34.4	35.1	35.3	35.6	36.0
Number of letter-post items, domestic service (millions)	112 283	113 223	114 209	118 343	116 936
Number of letter-post items, international service-dispatch (millions)	3 284	2 984	2 916	2 713	2 687
Ordinary parcels, domestic services (millions)	1 098	1 080	1 052	1 077	1 018
Ordinary parcels, international service-dispatch (millions)	14	14	14	14	14

Source: UPU, <http://www.upu.int>, Postal statistics database

Table 21.6
Selected indicators for Universal Service Providers (USPs), European postal market, 2005

	of which (%):			Price for standard letter (EUR)	On-time delivery (D+1) (%)
	Letter-post services (thousands) (1)	Ordinary letters and postcards	Reserved area (2)		
BE	:	:	:	0.50	91.4
BG (3)	80 798	64.0	83.6	0.23	88.0
CZ	887 363	62.9	60.3	0.25	96.0
DK (3)	1 454 053	81.5	68.9	0.60	95.2
DE	15 760 000	54.7	80.5	0.55	>80.0
EE	76 004	76.4	:	0.28	95.3
IE	655 000	90.1	87.9	0.48	73.0
EL	633 793	76.0	81.0	0.50	70.8
ES	5 150 875	73.2	59.3	0.30	88.4
FR	18 199 000	62.6	81.6	0.53	79.1
IT	6 080 648	55.0	:	0.60	88.3
CY	52 805	98.3	:	0.34	64.0
LV	74 285	93.9	91.0	0.23	62.0
LT	52 706	:	75.3	0.29	72.8
LU	133 300	69.3	60.0	0.50	97.8
HU	789 611	73.1	86.9	0.36	99.5
MT	c	c	c	0.16	92.0
NL (4)	5 300 000	56.0	:	0.39	96.6
AT	:	:	:	0.55	95.9
PL	3 158 775	47.1	48.1	0.50	93.3
PT	1 301 058	c	82.5	0.45	95.6
RO	282 391	62.5	50.6	0.14	:
SI	392 800	75.0	72.3	0.20	88.1
SK	374 433	38.7	55.4	0.37	94.3
FI	2 166 000	40.8	:	0.70	94.8
SE	2 754 287	96.4	:	0.60	95.2
UK	c	c	:	0.44	94.1
HR	278 414	70.7	67.1	0.31	98.0
IS	62 462	94.6	85.6	0.64	87.5
NO	1 510 774	c	66.9	0.75	99.0

(1) Letter-post services: the indicator covers items of correspondence (ordinary letters and postcards, direct mail, registered mail, insured mail) and other letter-post items (books, catalogues, newspapers and periodicals); reserved area: mail deliveries under 50 grams for national operators; the price for standard letter: payable for the handling of a standard (first class) letter weighting less than 20 g (universal service) for domestic service, prices of letters vary significantly between EU Member States according to various criteria; On-time delivery: the indicator refers to the share of priority letters delivered on-time according to national performance indicators, the standard measured is D+1, except for Spain, Croatia and Norway, where it is D+3 and for Hungary, where it is D+15, the figure for Germany is to be read as >80.0 % and shows that the requirements according to the German Postal Universal Service Ordinance are fulfilled (D+1 > 80.0 %).

(2) Reserved area: refers to the standard letter-post service, where USPs enjoy exclusive rights to provide services. The reserved area is delineated at country level within weight/price limits given by the EC postal directives (97/67/EC and 2002/39/EC). Country definitions for the reserved area vary, so direct comparisons between countries should be made with prudence. In this publication it is expressed in terms of the percentage of the total letter post services.

(3) 2004.

(4) Share of ordinary letters and postcards in letter-post services, 2004.

Source: Eurostat, Inquiry on Postal Services 2006

FOCUS ON POSTAL INFRASTRUCTURE AND TRANSPORT OF POSTAL ITEMS

According to data collected by the UPU ⁽⁸⁾ from its postal administration members, there were about 99 000 permanent post offices in the EU-25 in 2005 - see Table 21.5, therefore 4.4 % less when compared with the number in 2001. The number of letter-items for both domestic and international dispatch reached 119.6 billion letters in the EU-25 in 2005, an increase of 3.5 % when compared with 2001. Ordinary parcels for both domestic and international dispatch amounted to 1.0 billion items in 2005, of which 98.6 % were handled within the domestic market. The number of parcels dispatched fell consecutively in 2002 and 2003, but increased in 2004 by 2.4 %, before falling again in 2005 by 5.3 %. According to Eurostat's Inquiry on Postal Services, among the Member States for which data is available, mail deliveries over 50 grams (the 'reserved area') represented around half or more of the letter-post services for national operators in 2005 - see Table 21.6.

⁽⁸⁾ UPU (Universal Post Union), more information at: <http://www.upu.int>.

STRUCTURAL PROFILE

Post and courier activities (NACE Group 64.1) consisted of 40 000 enterprises which generated EUR 59.6 billion of value added in the EU-27 in 2004, which equated to 17.5 % of the communications and media sector (NACE Divisions 22 and 64) total. Nevertheless, with 1.9 million persons employed, these activities represented 38.1 % of the communications and media sectoral workforce, more than twice the value added contribution. National post activities (NACE Class 64.11) was the largest of the two subsectors within the post and courier activities sector, accounting for slightly less than two thirds both of sectoral value added and employment, the remainder being accounted for by courier activities other than national post activities (NACE Class 64.12) – see Table 21.7.

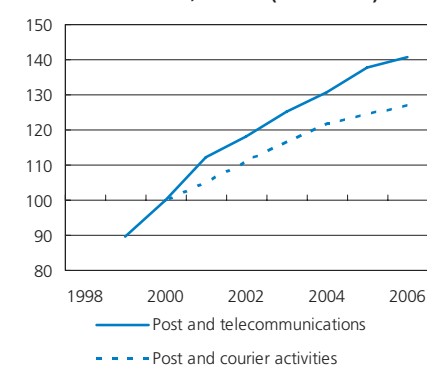
The five largest EU economies were also the five largest contributors to the post and couriers sector in 2004, whether measured in value added or employment terms - see Table 21.8. However, looking at the relative contribution of post and courier activities to the national non-financial business economy value added, these activities were most important in Luxembourg (2003) and France. Indeed, in these two countries post and courier activities generated at least 1.6 % of non-financial business economy value added, a share that was well above the 1.2 % average for the EU-27.

Table 21.7**Post and courier activities (NACE Group 64.1)
Structural profile, EU-27, 2004 (1)**

	No. of enterprises (thousands)	Turnover (EUR million)	Value added (EUR million)	Employment (thousands)
Post and courier activities	40.0	98 199	59 574	1 868.6
National post activities	:	56 000	39 000	1 200.0
Courier activities other than national post activities	37.0	42 000	20 300	630.0

(1) Rounded estimates based on non-confidential data.
Source: Eurostat (SBS)

Annual short-term statistics for post and courier activities in the EU-27 provide a picture of the development of the turnover index over the period 2000 to 2006 - see Figure 21.5. There was continuous growth for this index, although at a somewhat slower rhythm than for telecommunications (NACE Group 64.2). Indeed, turnover rose on average by 4.1 % per annum in post and courier activities during the period observed, compared with an average growth rate of 6.4 % per annum for telecommunications. Year on year growth rates for the index of turnover in post and courier activities were in excess of 5 % in the years 2001 to 2003, after which growth slowed to 4.4 % in 2004, 2.2 % in 2005 and 1.9 % in 2006.

Figure 21.5**Post and courier activities (NACE Group 64.1)
Index of turnover, EU-27 (2000=100)**

Source: Eurostat (STS)

Table 21.8**Post and courier activities (NACE Group 64.1)
Structural profile: ranking of top five Member States, 2004**

Rank	Share of EU-27 value added (%) (1)	Share of EU-27 employment (%) (2)	Value added specialisation ratio (EU-27=100) (3)	Employment specialisation ratio (EU-27=100) (4)
1	Germany (21.6)	Germany (21.5)	Luxembourg (190.4)	Belgium (140.9)
2	France (19.8)	United Kingdom (16.1)	France (140.9)	France (134.7)
3	United Kingdom (18.8)	France (15.4)	Belgium (115.2)	Slovakia (134.5)
4	Italy (11.4)	Italy (8.5)	Germany (102.9)	Finland (133.3)
5	Spain (4.2)	Spain (5.6)	Italy (102.3)	Germany (129.6)

(1) Denmark, Ireland, Greece, Malta, Netherlands, Poland and Slovenia, not available; Luxembourg and Portugal, 2003.

(2) Denmark, Ireland, Greece, Malta, Netherlands, Poland and Slovenia, not available; Czech Republic, Luxembourg and Portugal, 2003.

(3) Denmark, Ireland, Greece, Cyprus, Malta, Netherlands, Poland and Slovenia, not available; Luxembourg and Portugal, 2003.

(4) Denmark, Ireland, Greece, Cyprus, Malta, Netherlands, Poland and Slovenia, not available; Czech Republic, Luxembourg and Portugal, 2003.

Source: Eurostat (SBS)

Table 21.9**Post and courier activities (NACE Group 64.1)
Total expenditure, EU-27, 2004**

	Value (EUR million)				Share (% of total expenditure)		
	Total expenditure	Purchases of goods and services	Personnel costs	Investment in tangible goods	Purchases of goods and services	Personnel costs	Investment in tangible goods
Post and courier activities	91 387	39 133	48 931	3 323	42.8	53.5	3.6
National post activities (1)	52 500	16 400	34 000	2 100	31.2	64.8	4.0
Courier activities other than national post activities (1)	38 520	22 600	14 700	1 220	58.7	38.2	3.2

(1) Rounded estimate based on non-confidential data.

Source: Eurostat (SBS)

Table 21.10

Post and courier activities (NACE Group 64.1)
Productivity and profitability, EU-27, 2004

	Apparent labour productivity (EUR thousand)	Average personnel costs (EUR thousand)	Wage adjusted labour productivity (%)	Gross operating rate (%)
Post and courier activities	31.9	26.9	118.4	10.8
National post activities (1)	32.5	28.3	114.0	8.9
Courier activities other than national post activities (1)	32.0	25.0	129.0	13.4

(1) Rounded estimate based on non-confidential data.

Source: Eurostat (SBS)

COSTS, PRODUCTIVITY AND PROFITABILITY

In the EU-27's post and courier activities, more than half (53.5 %) of total expenditure was accounted for by personnel costs – see Table 21.9; this was the fourth largest share of personnel costs recorded among all NACE groups in the non-financial business economy, mainly influenced by the high share recorded in national post activities (NACE Class 64.11) where personnel costs took up more than two thirds (64.8 %) of total expenditure. However, in other courier activities (NACE Class 64.12), purchases of goods and services accounted for the largest proportion (58.7 %) of total expenditure, while personnel costs still represented more than two thirds (38.2 %).

With EUR 31 900 of value added generated per person employed in 2004, the EU-27's post and courier services recorded a relatively low level of apparent productivity compared with most other activities, as the non-financial business economy average was EUR 9 000 above this value. Average personnel costs were EUR 26 900 per employee in the EU-27, only slightly below the non-financial business economy (EUR 700 below) in 2004. As a consequence, the wage adjusted labour productivity ratio for post and courier services was 118.4 % in the EU-27, significantly below the non-financial business economy average of 148.0 %, and a long way below the communication and media average of 197.0 %. The ratio of operating surplus (value

added less personnel costs) to turnover is the gross operating rate, and this was 10.8 % for the EU-27's post and courier activities in 2004, only slightly below the non-financial business economy average (11.0 %), although considerably below the average for communications and media (23.6 %). This rate reached 13.4 % for other courier activities while it was 8.9 % for national post activities.

21.2: TELECOMMUNICATION SERVICES

Telecommunications services (NACE Group 64.2) embrace the distribution of sound, images, data and other information via cables, broadcasting, relay or satellite. These services include both the management and maintenance of networks and the provision of services using these networks, including the provision of radio and television services, but not the production of radio and television programmes.

Growing access to broadband Internet among consumers and the increased use of mobile devices for receiving electronic content are important aspects in the development of on-demand services, as is effective management of the radio spectrum. Two recent European Commission decisions concern the distribution of information by radio waves, one on the harmonisation of the radio spectrum for use by short-range devices⁽⁹⁾ and another one on the harmonisation of the radio spectrum for radio frequency identification (RFID) devices operating in the ultra high frequency (UHF) band⁽¹⁰⁾.

⁽⁹⁾ 2006/771/EC of 09.11.2006.

⁽¹⁰⁾ 2006/804/EC of 23.11.2006.

The regulatory framework for electronic communications in the EU started in 2001 with the adoption by the Council of a new regulatory package. This package was reviewed by the European Commission in 2006 for the first time and a public consultation on the review of the EU regulatory framework ended on 31 January 2006. Negotiation in and between the European Parliament and the Council then started in the first quarter of 2007 and it is expected that the revised framework will be effective around 2010.

This subchapter covers for a large part the activities of the so-called information society, a society whose wealth is based on its ability to process, store, retrieve and communicate information in whatever form - oral, written or visual. However, note that enterprises acting in computer and related activities, such as hardware, software or data processing, are covered in Subchapter 22.1.

FOCUS ON MOBILE AND FIXED LINE TELEPHONY

Information on the market shares of operators in fixed and mobile telecommunications in the Member States ⁽¹¹⁾ is presented in Table 21.11. Unsurprisingly, incumbents (those enterprises that were active before the liberalisation of the market, generally formerly state-owned telecom operators) still dominate, and across the EU as a whole they occupy more than half of the market in 2005, whether for local, long-distance or international calls (in terms of minutes of connection or turnover). An average for the EU-25 shows that incumbent operators accounted for 72 % of local calls (note that local calls also include dial-up Internet connections) some 66 % of long-distance calls, and 56 % of international calls. However, in some countries the dominance of the incumbent operator is less marked, for example in Finland the incumbent accounted for less than half of the market for both long-distance calls (45 %) and international calls (41 %), while in Germany, Italy, the Netherlands and Austria international calls tended to be less dominated by incumbent operators (with market shares ranged from 39 % to just 50 %). In some Member States, the same operators for the fixed network offer local and long distance national and international telecommunications, while in other markets some operators specialise in particular services. Most recent data for leading operators in mobile telecommunications are for 2006 – again, see Table 21.11. Based on the number of subscriptions, leading operators in mobile telecommunications generally accounted for significantly lower market shares compared with the incumbent fixed telecommunication operators, and in a large majority of the Member States they provided less than half of the subscriptions in 2006. Slovenia and Cyprus stood out from the rest of the countries as their leading operators in mobile telecommunications accounted for 71 % and 90 % respectively of the mobile phone subscriptions.

Table 21.12 provides information on the cost of three types of fixed line calls for August 2006. The difference in the cost between Member States is considerable. Cyprus recorded the lowest costs for national calls (EUR 0.22 for a 10 minute call on a weekday, including VAT) and the second lowest cost for local calls (EUR 0.22) and for calls to the United States (EUR 0.66). On the basis of a comparison between the highest and lowest prices, local calls were 3.2 times as high in Slovakia as they were in France, national calls were 5.9 times as high in Slovakia as they were in Cyprus, and international calls to the United States were 12.9 times as high in Latvia as they were in Germany.

⁽¹¹⁾ Bulgaria and Romania, not available.

Table 21.11 Market shares of operators in telecommunication (NACE Group 64.2) (%) (1)

	Incumbent operator in fixed telecommunications, 2005			Leading operator in mobile telecommunications, 2006
	Local calls (incl. To the Internet) (2)	Long-distance calls (3)	International calls (4)	
EU-25	72	66	56	39
BE	68	68	58	45
BG	:	:	:	:
CZ	76	63	65	41
DK	:	:	:	32
DE	56	57	39	37
EE	:	:	:	46
IE	83	63	62	47
GR	78	73	74	41
ES	78	75	62	46
FR	80	68	67	46
IT	71	73	47	41
CY	100	100	86	90
LV	97	98	72	35
LT	97	88	76	36
LU	:	:	:	51
HU	92	90	87	45
MT	99	99	98	52
NL	75	75	45	48
AT	53	59	50	39
PL	85	70	71	34
PT	:	78	80	46
RO	:	:	:	:
SI	100	100	83	71
SK	99	100	88	56
FI	95	45	41	45
SE	:	:	40	43
UK	60	52	53	26

(1) The incumbent is defined as the enterprise active on the market just before liberalisation; local call: calls within local networks; long distance: calls from one local network to another; estimate of leading operators' market share, minutes of connection or retail revenues, for the fixed market; shares of the Mobile market, based on the number of mobile subscriptions.

(2) Austria and Finland, 2004; Cyprus, 2003; Estonia, Luxembourg and Sweden, confidential data.

(3) Finland, 2004; Cyprus, 2003; Estonia, Luxembourg and Sweden, confidential data.

(4) Finland and Sweden, 2004; Estonia and Luxembourg, confidential data.

Source: Eurostat (Information society statistics)

Concerning mobile phone charges, the regulation of the European Parliament and of the Council of 27 June 2007 on roaming on public mobile telephone networks within the Community ⁽¹²⁾ aims to reduce the cost of using mobile phones abroad (roaming charges), with the goal of capping charges by the middle of 2007. Providers of international roaming services will then have two months to implement provisions related to wholesale roaming tariffs and three months to implement provisions related to the transparency obligations at retail level. The regulation sets an EU-wide maximum average price per minute for wholesale charge, not exceeding EUR 0.30. This charge will decrease to EUR 0.28 and

EUR 0.26 after one and two years respectively. The regulation also introduces a Eurotariff ⁽¹³⁾ at retail level (excluding VAT) not exceeding EUR 0.49 per minute for any call made and EUR 0.24 per minute for any call received for the first year of the regulation. Then, in the second and third years, the price ceiling for calls made will be reduced to EUR 0.46 and EUR 0.43, and for calls received to EUR 0.22 and EUR 0.19, respectively.

⁽¹³⁾ For more details, see: http://www.consilium.europa.eu/ueDocs/cms_Data/docs/pressData/en/misc/94533.pdf.

⁽¹²⁾ Regulation (EC) no 717/2007, amending Directive 2002/21/EC, of 27 June 2007.

Table 21.12

Cost including VAT of a 10 minute call at 11 a.m. on a weekday, August 2006 (EUR)

	Local calls	National calls	International calls to USA
EU-25	0.36	0.74	1.79
BE	0.57	0.57	1.98
BG	:	:	:
CZ	0.56	0.56	2.02
DK	0.37	0.37	2.38
DE	0.39	0.49	0.46
EE	0.23	0.23	2.13
EL	0.49	0.82	1.91
ES	0.31	0.74	3.49
FR	0.19	0.85	1.53
IE	0.36	0.89	2.32
IT	0.22	1.15	2.12
CY	0.22	0.22	0.66
LV	0.36	1.03	5.94
LT	0.39	0.79	4.07
LU	0.31	:	1.37
HU	0.40	1.04	2.88
MT	0.25	:	1.64
NL	0.33	0.49	0.85
AT	0.49	0.59	1.90
PL	0.50	1.00	1.23
PT	0.37	0.65	3.11
RO	:	:	:
SI	0.26	0.26	1.40
SK	0.60	1.29	1.23
FI	0.24	0.94	4.90
SE	0.29	0.29	1.18
UK	0.44	0.44	2.23

Source: Eurostat (Information society statistics, Structural indicators - original source Teligen Ltd.)

FOCUS ON THE ICT AND THE DIGITAL ECONOMY

As part of the initiatives to support the development of the information society, the European Commission launched the i2010 strategy, the digitally-led strategy for growth and jobs and the EU's policy strategy to boost the digital economy by combining research, regulatory tools and public-private partnerships, a strategy adopted by the European Commission in June 2005. Progress towards the objectives of that strategy among the Member States are followed in annual reports issued by the European Commission and provides a benchmark on the effectiveness of the European Commission's policy to build sustainable economic growth in information and communication technology (ICT). Hence, the 2007 report ⁽¹⁴⁾ shows that EU enterprises are investing both in new and more mature ICT solutions and households broadband connections increased in the year to October 2006. However, further effort is still needed for the EU to reach its 3 % target of GDP for research spending. At a national level, the report shows that Italy leads in 3G mobile phone and fibre development while the most households with digital TV are found in the United Kingdom. Six countries, namely Denmark, the Netherlands, Finland, Sweden, the United Kingdom and Belgium, all have higher broadband penetration rates than the United States and Japan, while ICT deployment in Danish schools is the highest in the EU, and the British and Swedish workforce are the most skilled in ICT, according to this report. Finland has the EU's highest use of public access points and invests the most in ICT research (64.3 % of its R&D enterprise expenditure), while Sweden and Finland also dedicated respectively 3.9 % and 3.5 % of their GDP on research, both shares being above the EU's 3 % target set by the i2010 initiative.

⁽¹⁴⁾ For more details, see: http://ec.europa.eu/information_society/eeurope/i2010/annual_report/index_en.htm.

STRUCTURAL PROFILE

The EU-27's telecommunication services sector (NACE Group 64.2) was made up of 24 000 enterprises which generated EUR 398.6 billion turnover and 187.2 billion of value added in the EU-27 in 2004, accounting for more than half of both indicators in the communications and media sector (NACE Divisions 22 and 64), making it the third largest non-financial business economy (NACE Sections C to I and K) activity at the NACE group level (based on available data) in terms of value added and the seventh in terms of turnover. Some 1.2 million persons were employed in telecommunication services, equivalent to just below one quarter (24.3 %) of the communications and media workforce, a share that was considerably lower than that for value added, indicating high apparent labour productivity (value added per person employed).

The five largest EU economies also had the largest telecommunications sectors in 2004, both in terms of value added and turnover. The United Kingdom and Germany ranked first, contributing at least 17.6 % of the EU-27's total for both of these indicators. For these two largest contributors, as well as for Italy and Spain, their share of the EU-27's value added in the telecommunication services sector was higher than their equivalent share in the total workforce, which was not the case in France, where both shares were similar – see Table 21.13. However, among the Member States ⁽¹⁵⁾, the contribution of telecommunication services to the non-financial business economy value added was highest in Bulgaria (10.5 %), in Romania and Latvia (6.7 % for both countries), and to a lesser extent in Luxembourg (5.5 %, 2003) and in Hungary (5.4 %).

⁽¹⁵⁾ Luxembourg and Portugal, 2003; Denmark, Ireland, Greece, Cyprus, Malta, Netherlands, Poland and Slovenia, not available.

Table 21.13

Telecommunications (NACE Group 64.2)
Structural profile: ranking of top five Member States, 2004

Rank	Share of EU-27 value added (%) (1)	Share of EU-27 employment (%) (2)	Value added specialisation ratio (EU-27=100) (3)	Employment specialisation ratio (EU-27=100) (4)
1	Germany (20.5)	Germany (17.6)	Bulgaria (286.5)	Bulgaria (210.2)
2	United Kingdom (17.9)	United Kingdom (17.6)	Romania (183.1)	Finland (166.9)
3	France (13.3)	France (13.3)	Latvia (182.0)	Belgium (144.1)
4	Italy (12.2)	Italy (8.5)	Luxembourg (151.5)	Slovakia (125.7)
5	Spain (8.6)	Spain (5.5)	Hungary (147.2)	Romania (124.8)

(1) Denmark, Ireland, Greece, Malta, Netherlands, Poland and Slovenia, not available; Luxembourg and Portugal, 2003.

(2) Denmark, Ireland, Greece, Malta, Netherlands, Poland and Slovenia, not available; Czech Republic, Luxembourg and Portugal, 2003.

(3) Denmark, Ireland, Greece, Cyprus, Malta, Netherlands, Poland and Slovenia, not available; Luxembourg and Portugal, 2003.

(4) Denmark, Ireland, Greece, Cyprus, Malta, Netherlands, Poland and Slovenia, not available; Czech Republic, Luxembourg and Portugal, 2003.

Source: Eurostat (SBS)

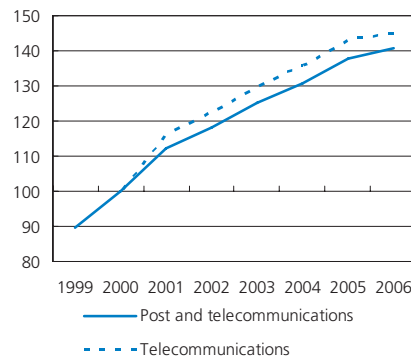
Annual short-term statistics are available for the index of turnover for telecommunication services for the years 2000 to 2006 - see Figure 21.6. The EU-27's turnover growth was uninterrupted during this period; with annual average growth over the five most recent years (between 2001 and 2006) at 4.5 %, some way above the 3.8 % average for post and courier activities (NACE Group 64.1). Growth was particularly strong in 2001 (16.1 %) since when it ranged between 4.7 % and 6.0 % each year through to 2005, with the pace of growth slowing substantially in 2006 (1.1 %).

COSTS, PRODUCTIVITY AND PROFITABILITY

A breakdown of total expenditure for the EU-27's telecommunications services sector in 2004 shows that more than two thirds of the total was dedicated to the purchase of goods and services (69.3 %), while the next largest item of expenditure was accounted for by personnel costs (17.9 %), the remaining being used for investment in tangible goods (12.8 %). This was a very different cost structure to postal and courier services (see previous subchapter) where personnel costs were more than half of total expenditure and gross investment in tangible goods below 4 %.

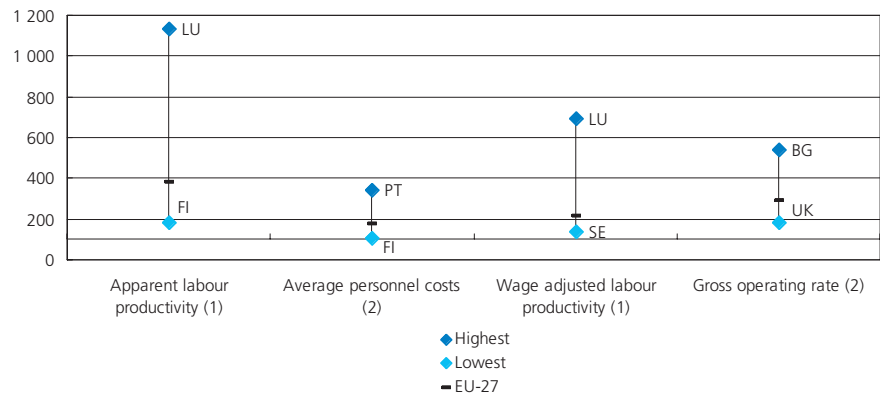
Apparent labour productivity, wage adjusted labour productivity and the gross operating rate were particularly high in the EU-27's telecommunications subsector in 2004, both relative to other activities within the communications and media sector, but also relative to the non-financial business economy as a whole. Value added per person employed in the EU-27 was EUR 157 400, the wage adjusted labour productivity ratio was 321.0 % (indicating that apparent labour productivity was over three times as high as average personnel costs), the fourth largest level of the non-financial business economy NACE groups for which data are available. The gross operating rate was 32.6 % in telecommunications services, the third highest level for this indicator among the non-financial business economy NACE groups in 2004. However, the telecommunications services sector had relatively high average personnel costs, at EUR 49 000 per employee, compared with EUR 27 600 per employee in the non-financial business economy. Among all the Member States with available data, all of these four indicators had higher values for telecommunication services compared with national non-financial business economy averages.

Figure 21.6
Telecommunications (NACE Group 64.2)
Index of turnover, EU-27 (2000=100)



Source: Eurostat (STS)

Figure 21.7
Telecommunications (NACE Group 64.2)
Productivity and profitability characteristics relative to national averages, 2004
(non-financial business economy=100)



(1) Denmark, Ireland, Greece, Cyprus, Malta, Netherlands, Poland and Slovenia, not available; Czech Republic, Luxembourg and Portugal, 2003.

(2) Denmark, Ireland, Greece, Cyprus, Malta, Netherlands, Poland and Slovenia, not available; Luxembourg and Portugal, 2003.

Source: Eurostat (SBS)

21.3: PUBLISHING, PRINTING AND REPRODUCTION OF RECORDED MEDIA

Publishing can be defined as the act of producing and issuing informative material. Printing involves placing the material on paper or other supports. These activities are covered by NACE Group 22.1 (for publishing) and NACE Group 22.2 (for printing and service activities related to printing). Note that publishing activities include not only the publishing of printed matter, but also the publishing of music.

As well as printing and publishing, this subchapter also includes the reproduction of recorded media (NACE Group 22.3), including reproduction services for sound and video recording (NACE Classes 22.31 and 22.32) and reproduction services for software (NACE Class 22.33).

In terms of coverage, the publishing, printing and reproduction of recorded media sector diverges from the previous two subchapters in that it is classified as a manufacturing sector, according to the NACE classification (NACE Division 22 is part of Section D, which covers manufacturing).

Information technologies (IT) have revolutionised publishing and printing activities in the past couple of decades. These activities comprise all the stages necessary to transform a piece of creative writing, music or information into a product available for distribution to the public and in this area IT has created a number of electronic alternatives to traditional printing and enabled smaller and more flexible print-runs. The Internet was initially seen by many as a direct competitor to printed matter, but enterprises that traditionally published printed and other off-line media (such as CDs and DVDs) have often diversified into online media too, creating new products for new markets. For instance, newspapers, magazines, books or reference material are increasingly consulted online or through some other type of electronic medium. In terms of market size, printed matter continues to dominate. For example, according to PRODCOM (statistics by product), the production value of electronic books, brochures, leaflets and the like (excluding dictionaries, atlases and similar products; PRODCOM 22112170 and 22112180) was EUR 518 million in the EU-27 in 2006, with the production value for printed books, brochures, leaflets and the like (PRODCOM 22112200) around EUR 24.7 billion, suggesting that electronic versions accounted for a 2.1 % share of the total market for these products. However, there is increased competition between printed and online media for readers and hence for advertising revenue.

Digital rights management is a major issue for this sector, particularly for sound and video recordings, whether online or offline. Indeed, Digital Rights Management Systems (DRMs) are technologies that describe and identify digital content protected by intellectual property rights, and enforce usage rules set by right-holders or prescribed by law for digital content.

STRUCTURAL PROFILE

Value added generated by the 206 500 enterprises that make up the EU-27's publishing, printing and reproduction of recorded media sector (NACE Division 22) equated to EUR 93 billion value added in 2004, some 27.4 % of the communications and media (NACE Divisions 22 and 64) total. There were 1.8 million persons employed in these activities in the EU-27, which represented a notably higher share of the workforce (36.7 %). Among the three NACE groups that make up the publishing, printing and reproduction of recorded media sector, publishing (NACE Group 22.1) accounted for more than half of the sectoral total value added, while printing and service activities related to printing (NACE Group 22.2, hereafter referred to as printing) gathered more than half of the sectoral workforce – see Table 21.14. In contrast, reproduction of recorded media (NACE Group 22.3) accounted for less than 6 % of the sectoral value added and just 2.0 % of sectoral employment.

Table 21.14
Publishing, printing and reproduction of recorded media (NACE Division 22)
Structural profile, EU-27, 2004 (1)

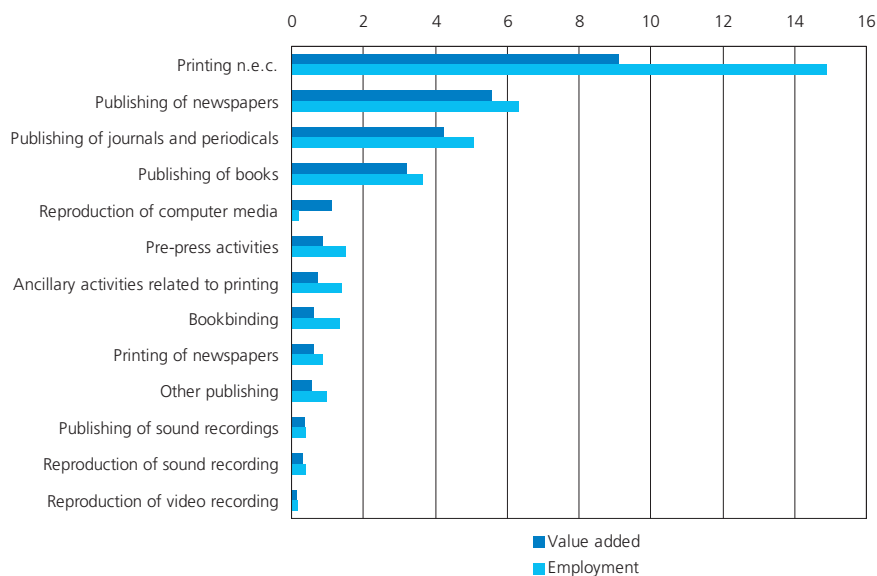
	No. of enterprises (thousands)	Turnover (EUR million)	Value added (EUR million)	Employment (thousands)
Publishing, printing and reproduction of recorded media	206.5	246 000	93 000	1 800.0
Publishing	73.5	127 108	46 868	810.2
Publishing of books	27.9	32 000	11 000	180.0
Publishing of newspapers	7.8	45 000	19 000	310.0
Publishing of journals and periodicals	16.9	40 200	14 400	249.0
Publishing of sound recordings	9.3	4 360	1 170	19.0
Other publishing	11.6	4 950	1 910	47.7
Printing and service activities related to printing	127.0	101 000	41 000	1 000.0
Printing of newspapers	2.7	5 000	2 100	42.0
Printing n.e.c.	79.0	80 000	31 000	730.0
Bookbinding	7.4	4 160	2 110	66.1
Pre-press activities	16.5	6 000	2 930	74.1
Ancillary activities related to printing	21.2	6 160	2 460	68.4
Reproduction of recorded media	5.8	18 000	5 399	37.8
Reproduction of sound recording	3.7	3 010	1 110	19.0
Reproduction of video recording	1.2	:	433	8.2
Reproduction of computer media	0.9	13 600	3 850	10.3

(1) Rounded estimate based on non-confidential data, except for publishing.
Source: Eurostat (SBS)

Within the publishing subsector the largest contribution to value added in the EU-27 in 2004 was from the publishing of newspapers (NACE Class 22.12) with EUR 19.0 billion of value added, followed by the publishing of journals and periodicals (NACE Class 22.13) with EUR 14.4 billion and the publishing of books (NACE Class 22.11) with EUR 11.0 billion. The printing and service activities related to printing subsector was dominated by printing not elsewhere classified (NACE Class 22.22, hereafter referred to as miscellaneous printing) with EUR 31.0 billion of added value, while none of the remaining four NACE classes covered generated in excess of EUR 3 billion of value added. Finally, within the reproduction of recorded media, the highest level of value added was registered for the reproduction of computer media (NACE Class 22.33) at EUR 3.85 billion in 2004. Within the publishing and printing subsectors those NACE classes that recorded the highest levels of value added also employed the most persons; the largest workforce (at the level of NACE classes) was that of miscellaneous printing, where there were 730 000 persons employed in 2004. The reproduction of sound recording (NACE Class 22.31) was the largest employer within the reproduction of recorded media subsector with 19 000 persons, compared with 10 300 for those employed within the reproduction of computer media (which had the highest level of value added).

Figure 21.8

Publishing, printing and reproduction of recorded media (NACE Division 22) Relative weight within communications, publishing and printing, EU-27, 2004 (%) (1)



(1) Rounded estimate based on non-confidential data.

Source: Eurostat (SBS)

Slightly more than one quarter of the EU-27's value added in the publishing, printing and reproduction of recorded media sector in 2004 was concentrated in the United Kingdom (25.1 % of the EU-27 total) while one fifth came from Germany (20.0 %) – see Table 21.15. However, Germany was the largest employer in the sector, accounting for slightly more than one fifth (20.5 %) of the EU-27's sectoral workforce, followed by the United Kingdom with slightly less than one fifth (19.3 %). Unsurprisingly, the United Kingdom ranked as the most specialised Member State in publishing, printing and reproduction of recorded media in value added terms, as these activities generated 2.4 % of its non-financial business economy value added. Among the Member States with available data ⁽¹⁶⁾, Finland (2.3 %) was the next most specialised, followed by the Netherlands (2.0 %), Slovenia (1.9 %) and Latvia (1.8 %).

⁽¹⁶⁾ Ireland, Greece, Cyprus, Luxembourg and Malta, not available.

There was no clear pattern as to the importance of one or other of the subsectors (as defined as NACE groups) among the Member States. In 2004, publishing accounted for more than half of sectoral value added in 12 of the 24 Member States for which data is available ⁽¹⁷⁾, reaching a high of 64.2 % of the value added for publishing, printing and reproduction of recorded media in both Finland and Latvia. Printing generated more than half of sectoral value added in the 11 remaining Member States and was dominant in Cyprus, Romania and Belgium, where it generated more than 60 % of the sector's value added. Only in Ireland was the reproduction of recorded media the most important subsector, where its contribution to Irish sectoral value added was 81.9 %.

⁽¹⁷⁾ Slovenia, incomplete data; Greece, Luxembourg and Malta, not available.

Table 21.15

Publishing, printing and reproduction of recorded media (NACE Division 22) Structural profile: ranking of top five Member States, 2004

Rank	Share of EU-27 value added (%) (1)	Share of EU-27 employment (%) (1)	Value added specialisation ratio (EU-27=100) (2)	Employment specialisation ratio (EU-27=100) (2)
1	United Kingdom (25.1)	Germany (20.5)	United Kingdom (132.7)	Finland (166.0)
2	Germany (20.0)	United Kingdom (19.3)	Finland (128.6)	Denmark (156.6)
3	France (12.0)	France (11.1)	Netherlands (110.3)	Sweden (135.4)
4	Italy (9.7)	Italy (9.3)	Slovenia (101.6)	United Kingdom (133.8)
5	Spain (7.0)	Spain (8.3)	Latvia (97.4)	Latvia (133.7)

(1) Greece, Luxembourg and Malta, not available.

(2) Ireland, Greece, Cyprus, Luxembourg and Malta, not available.

Source: Eurostat (SBS)

Table 21.16

Production of selected printer matter and recorded media products (CPA Division 22), EU-27, 2006 (1)

	Prodcom code	Production value (EUR million)	Volume of production (thousands)	Unit of volume
Printing of books, brochures, children's picture or colouring books and music printed or in manuscript	22.22.31.00	7 611	-	
Commercial catalogues	22.22.12.30	5 181	-	
Printing of newspapers; journals and periodicals; appearing at least four times a week	22.21.10.00	3 957	-	
Compact discs, with sound recordings	22.14.11.50	2 222	833 210	units
New stamps; stamp-impressed paper; cheque forms; banknotes, etc	22.22.11.00	1 912	-	
Binding and finishing of brochures, magazines, catalogues, samples and advertising literature including folding, assembling, stitching, gluing, cutting cover laying	22.23.10.30	1 737	-	
Printing components	22.24.20.00	1 675	-	
Reproduction of sound on compact discs	22.31.10.70	1 625	-	
Continuous multi-part business forms, including interleaved carbon sets, carbonless paper and books	22.22.20.75	718	315 263	kg

(1) Estimated.

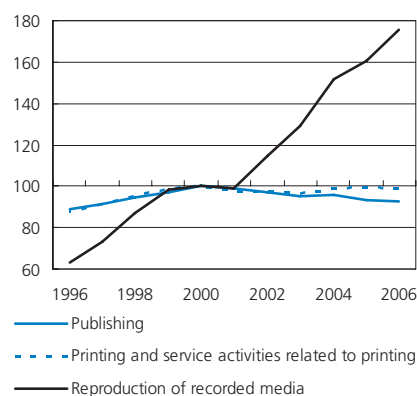
Source: Eurostat (PRODCOM)

Annual short-term statistics show that the EU-27's production index for publishing, printing and reproduction of recorded media developed positively from 1996 to 2000, during this period it grew at an average rate of 3.5 % per annum - see Figure 21.9. This upward trend was reflected in each of the three NACE groups, with the strongest year on year growth over this period recorded within the reproduction of recorded media. In 2001 all three NACE groups recorded a fall in production, and whereas the reproduction of recorded media returned to growth the next year, it was not until 2004 that publishing and printing recorded growth. This period of output growth was short-lived for the publishing activity, as the production index contracted by 2.5 % in 2005 and 0.8 % in 2006, while for printing the period of expansion was only slightly longer, the 2.6 % growth in 2004 and 0.4 % growth in 2005 followed by a contraction of 0.9 % in 2006. In contrast the reproduction of recorded media posted growth of 9.3 % in 2006, its fifth successive year on year increase, an average increase of 12.2 % per annum during the five years to 2006.

COSTS, PRODUCTIVITY AND PROFITABILITY

The breakdown of total expenditure between purchases of goods and services, personnel costs and gross investment in tangible goods was rather similar for the publishing (NACE Group 22.1) and printing (NACE Group 22.2) subsectors, while the reproduction of recorded media subsector diverged from these two subsectors - see Table 21.17. Indeed, purchases of goods and services accounted for 89.0 % of total expenditure for the reproduction of recorded media, a share that was 17.7 percentage points above the highest share of the two other subsectors. As a counter part,

Figure 21.9
Publishing, printing and reproduction of recorded media (NACE Division 22)
Index of production, EU-27 (2000=100)



Source: Eurostat (STS)

personnel costs accounted for 8.7 % of total expenditure in reproduction of recorded media activities, well below that for the other two subsectors.

Apparent labour productivity for the EU-27's publishing subsector was EUR 57 800 per person employed and EUR 41 200 for printing, while the ratio reached EUR 143 000 for the reproduction of recorded media in 2004. Among the three subsectors, personnel costs ranged between EUR 30 700 (printing) and EUR 39 200 (publishing) per employee. These figures lead to wage adjusted labour productivity ratios below 150 % for the publishing and printing subsectors, while the reproduction of recorded media had a wage adjusted labour productivity of 394 %, meaning that the value added per person employed in this subsector covered average personnel costs nearly four times over. This was

the third highest wage adjusted labour productivity ratio recorded among the NACE groups of the non-financial business economy. For comparison, the average wage adjusted labour productivity was 148.0 % for the non-financial business economy, and within communications and media it was 197.0 %.

In a similar manner, the gross operating rate for the reproduction of recorded media subsector (23.5 %) was also high in 2004, close to the average for communications and media (23.6 %), while for the other two subsectors it was just above 13 %, nevertheless above the non-financial business economy average of 11.0 %.

EXTERNAL TRADE

The EU-27 ran a significant trade surplus with non-member countries for printed matter and printing services (CPA Groups 22.1 and 22.2) which was valued at EUR 2.7 billion in 2006, resulting from EUR 6.4 billion exports and EUR 3.7 billion imports from non-member countries. This level of trade surplus was relatively stable in the five years through to 2006. Among the two categories of products that make up printed matter and printing services (at the level of CPA groups), about three quarters (74.7 %) of exports were accounted for by books, newspapers and other printed matter and recorded media (CPA Group 22.1), while the remaining share was accounted for by printing services and services related to printing (CPA Group 22.2) - see Table 21.18.

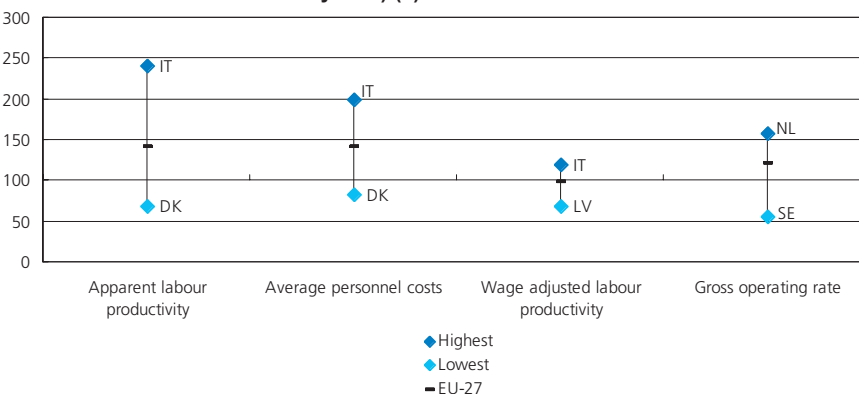
Table 21.17
Publishing, printing and reproduction of recorded media (NACE Division 22)
Total expenditure, EU-27, 2004 (1)

	Value (EUR million)				Share (% of total expenditure)		
	Total expenditure	Purchases of goods and services	Personnel costs	Investment in tangible goods	Purchases of goods and services	Personnel costs	Investment in tangible goods
Publishing, printing & reproduction of recorded media	219 210	153 000	58 000	8 210	69.8	26.5	3.7
Publishing	113 197	80 707	29 980	2 510	71.3	26.5	2.2
Publishing of books	28 527	22 000	6 100	427	77.1	21.4	1.5
Publishing of newspapers	41 000	26 700	13 000	1 300	65.1	31.7	3.2
Publishing of journals and periodicals	35 368	25 800	9 030	538	72.9	25.5	1.5
Publishing of sound recordings	4 235	3 500	630	105	82.6	14.9	2.5
Other publishing	4 340	3 080	1 120	140	71.0	25.8	3.2
Printing and service activities related to printing	92 400	60 000	27 000	5 400	64.9	29.2	5.8
Printing of newspapers	4 467	2 700	1 400	367	60.4	31.3	8.2
Printing n.e.c.	74 210	50 000	20 000	4 210	67.4	27.0	5.7
Bookbinding	3 835	2 050	1 570	215	53.5	40.9	5.6
Pre-press activities	5 313	3 020	2 020	273	56.8	38.0	5.1
Ancillary activities related to printing	5 490	3 720	1 460	310	67.8	26.6	5.6
Reproduction of recorded media	13 932	12 400	1 212	320	89.0	8.7	2.3
Reproduction of sound recording	2 593	1 900	529	164	73.3	20.4	6.3
Reproduction of video recording	1 035	700	265	70	67.6	25.6	6.8
Reproduction of computer media	10 271	9 770	417	84	95.1	4.1	0.8

(1) Rounded estimate based on non-confidential data.
 Source: Eurostat (SBS)

Among the Member States, Germany was the largest exporter of printed matter and printing services, with exports valued at EUR 5.0 billion (intra and extra-EU trade combined) in 2006, followed by the United Kingdom (EUR 3.7 billion). However, the United Kingdom was the largest importer, with imports of printed matter and printing services valued at EUR 2.9 billion in 2006, followed by France (EUR 2.3 billion) and Germany (EUR 2.2 billion). Hence, Germany recorded the largest trade surplus for printed matter and printing services in 2006 (EUR 2.9 billion), followed by the United Kingdom (EUR 0.8 billion). At the other end of the spectrum, Austria (EUR 381.4 million) and France (EUR 378.4 million) registered the largest trade deficits for these products.

Figure 21.10
Publishing, printing and reproduction of recorded media (NACE Division 22)
Productivity and profitability characteristics relative to national averages, 2004
(non-financial business economy=100) (1)



(1) Ireland, Greece, Cyprus, Luxembourg and Malta, not available; Slovenia, 2003.
 Source: Eurostat (SBS)

Table 21.18
Printed matter and printing services (CPA Groups 22.1 and 22.2)
External trade, EU-27, 2006

	Extra-EU exports		Extra-EU imports		Trade balance (EUR million)	Cover ratio (%)
	(EUR million)	(% share of chapter)	(EUR million)	(% share of chapter)		
Printed matter and printing services	6 388	100.0	3 704	100.0	2 684	172.4
Books, newspapers and other printed matter and recorded media	4 770	74.7	2 699	72.9	2 071	176.8
Printing services and services related to printing	1 618	25.3	1 005	27.1	612	160.9

Source: Eurostat (Comext)

Table 21.19

Publishing, printing, reproduction of recorded media (NACE Division 22)
Main indicators, 2004

	EU-27 (1)	BE	BG	CZ	DK	DE	EE	IE	EL	ES	FR	IT	CY	LV	LT
No. of enterprises (thousands)	206.5	5.1	1.5	9.9	2.5	16.3	0.5	0.5	:	23.2	32.3	26.8	0.4	0.8	0.9
Turnover (EUR million)	246 000	6 475	305	2 017	4 244	48 332	233	14 257	:	17 209	34 290	27 409	145	248	275
Production (EUR million)	241 000	6 321	290	1 952	4 164	47 704	219	13 502	:	16 944	33 075	27 471	146	241	266
Value added (EUR million)	93 000	2 166	84	675	1 795	18 562	84	4 281	:	6 543	11 132	8 993	68	95	95
Gross operating surplus (EUR million)	35 000	780	43	341	503	5 049	26	3 575	:	2 530	2 122	4 093	22	42	41
Purchases of goods & services (EUR million)	153 000	4 300	228	1 397	2 535	29 304	150	9 953	:	11 072	23 316	18 551	81	153	179
Personnel costs (EUR million)	58 000	1 386	41	337	1 292	13 513	58	707	:	4 013	9 010	4 900	46	53	54
Investment in tangible goods (EUR million)	8 210	277	37	93	260	1 493	14	107	:	614	827	817	14	21	18
Employment (thousands)	1 800	34	15	42	37	368	6	16	:	149	199	168	2	11	11
Apparent labour prod. (EUR thousand)	51.0	62.8	5.4	16.1	48.0	50.4	13.9	261.7	:	44.0	55.9	53.7	28.6	8.3	8.8
Average personnel costs (EUR thousand)	34.7	46.6	2.9	10.2	35.5	37.9	9.8	43.7	:	29.9	46.3	38.1	20.1	4.7	5.2
Wage adjusted labour productivity (%)	146.0	134.9	185.7	157.8	135.0	132.8	141.8	598.8	:	147.4	120.7	141.0	142.5	174.9	171.2
Gross operating rate (%)	14.1	12.1	14.1	16.9	11.8	10.4	11.1	25.1	:	14.7	6.2	14.9	15.2	16.8	15.0
Investment / employment (EUR thousand)	4.5	8.0	2.4	2.2	6.9	4.1	2.3	6.5	:	4.1	4.2	4.9	6.1	1.8	1.7
	LU (2)	HU	MT	NL	AT	PL	PT	RO	SI	SK	FI	SE	UK	NO	
No. of enterprises (thousands)	0.2	8.0	:	6.7	2.0	17.6	4.5	4.0	1.6	0.6	2.7	9.3	28.3	3.3	
Turnover (EUR million)	:	2 028	:	12 349	4 534	4 267	2 714	790	712	526	4 076	7 188	49 620	4 300	
Production (EUR million)	:	1 580	:	12 234	4 408	4 131	2 708	742	663	494	4 074	7 126	48 859	4 326	
Value added (EUR million)	:	502	:	4 706	1 824	1 516	1 058	241	250	150	1 706	2 390	23 357	1 907	
Gross operating surplus (EUR million)	:	208	:	1 595	693	884	354	142	80	69	569	413	10 308	549	
Purchases of goods & services (EUR million)	:	1 462	:	7 636	2 742	2 740	1 714	571	462	376	2 493	4 893	25 714	2 507	
Personnel costs (EUR million)	:	294	:	3 111	1 131	632	705	99	171	81	1 137	1 977	13 049	1 358	
Investment in tangible goods (EUR million)	:	118	:	336	148	192	215	98	40	31	176	289	1 827	124	
Employment (thousands)	:	36	:	81	26	99	37	34	10	11	29	50	347	29	
Apparent labour prod. (EUR thousand)	:	13.8	:	58.4	69.9	15.3	28.7	7.1	26.1	13.8	58.8	47.5	67.4	64.7	
Average personnel costs (EUR thousand)	:	8.9	:	44.0	45.8	8.4	19.8	3.0	19.4	7.5	39.9	44.1	40.2	47.6	
Wage adjusted labour productivity (%)	:	155.2	:	132.8	152.8	182.4	144.5	237.4	134.9	183.7	147.3	107.6	167.5	136.0	
Gross operating rate (%)	:	10.2	:	12.9	15.3	20.7	13.0	17.9	11.2	13.0	14.0	5.7	20.8	12.8	
Investment / employment (EUR thousand)	:	3.2	:	4.2	5.7	1.9	5.8	2.9	4.2	2.8	6.1	5.7	5.3	4.2	

(1) Rounded estimates based on non-confidential data, except for number of enterprises. (2) 2003.

Source: Eurostat (SBS)

Table 21.20

Post and telecommunications (NACE Division 64)
Main indicators, 2004

	EU-27	BE	BG	CZ	DK	DE	EE	IE	EL	ES	FR	IT	CY	LV	LT
No. of enterprises (thousands)	63.1	3.5	1.1	0.9	1.2	8.1	0.1	1.5	:	6.9	4.9	3.4	0.1	0.2	0.3
Turnover (EUR million)	496 811	14 938	1 565	4 575	7 998	95 531	592	9 079	:	37 705	70 470	60 695	478	665	778
Production (EUR million)	462 606	15 091	1 497	4 450	7 598	85 722	589	7 032	:	29 799	71 159	60 951	477	624	705
Value added (EUR million)	246 803	7 657	925	2 463	3 816	51 235	277	4 899	:	18 670	36 778	29 556	380	385	347
Gross operating surplus (EUR million)	140 440	4 078	710	1 683	1 644	29 196	206	3 781	:	13 328	16 551	19 440	256	301	246
Purchases of goods & services (EUR million)	261 485	7 817	716	2 170	4 718	51 433	317	4 191	:	19 017	33 626	31 395	93	284	437
Personnel costs (EUR million)	106 362	3 579	215	780	2 173	22 039	71	1 118	:	5 342	20 228	10 116	123	84	101
Investment in tangible goods (EUR million)	44 422	765	325	438	1 089	6 886	46	605	:	3 492	4 979	5 057	150	85	86
Employment (thousands)	3 058	83	53	72	54	611	8	30	:	170	446	261	4	13	15
Apparent labour prod. (EUR thousand)	80.7	92.4	17.4	34.4	71.2	83.9	35.7	165.4	:	109.9	82.5	113.4	101.9	28.8	22.8
Average personnel costs (EUR thousand)	35.6	45.1	4.2	11.9	41.1	36.9	9.2	39.7	:	32.4	45.5	39.4	33.7	6.3	6.7
Wage adjusted labour productivity (%)	226.7	205.0	414.1	289.8	173.2	227.2	388.4	417.0	:	339.6	181.5	287.8	302.6	457.3	341.1
Gross operating rate (%)	28.3	27.3	45.3	36.8	20.6	30.6	34.8	41.6	:	35.3	23.5	32.0	53.6	45.3	31.6
Investment / employment (EUR thousand)	14.5	9.2	6.1	6.1	20.3	11.3	5.9	20.4	:	20.6	11.2	19.4	40.2	6.4	5.7
	LU (1)	HU	MT	NL	AT	PL	PT	RO	SI	SK	FI	SE	UK	NO	
No. of enterprises (thousands)	0.1	2.3	:	3.6	0.5	3.3	0.4	2.4	0.6	0.1	0.6	0.9	14.8	1.4	
Turnover (EUR million)	2 144	5 179	:	23 135	9 187	10 265	8 121	2 911	1 221	1 569	8 031	12 415	98 917	8 638	
Production (EUR million)	1 961	3 749	:	22 734	6 225	9 645	7 749	2 754	1 118	1 432	7 831	12 474	91 838	8 560	
Value added (EUR million)	882	2 381	:	11 353	4 269	5 962	3 743	1 560	586	787	2 905	5 135	44 819	3 573	
Gross operating surplus (EUR million)	659	1 470	:	7 199	2 195	4 200	2 606	1 053	325	529	1 476	1 907	22 141	1 857	
Purchases of goods & services (EUR million)	1 224	2 797	:	11 873	5 252	4 631	4 560	1 356	621	777	5 338	7 608	54 547	5 059	
Personnel costs (EUR million)	223	911	:	4 154	2 074	1 762	1 137	508	260	258	1 429	3 229	22 678	1 716	
Investment in tangible goods (EUR million)	124	669	:	1 710	889	1 118	821	724	223	308	518	1 675	10 923	652	
Employment (thousands)	4	64	:	120	51	167	34	83	11	29	43	74	510	37	
Apparent labour prod. (EUR thousand)	214.3	37.0	:	94.4	84.4	35.8	110.0	18.7	51.0	27.4	66.8	69.0	87.9	97.0	
Average personnel costs (EUR thousand)	54.5	14.5	:	35.1	41.3	11.1	33.5	6.2	23.6	9.0	33.0	47.7	45.5	47.5	
Wage adjusted labour productivity (%)	392.9	255.7	:	269.2	204.3	321.6	328.1	302.8	216.1	304.8	202.8	144.5	193.4	204.5	
Gross operating rate (%)	30.8	28.4	:	31.1	23.9	40.9	32.1	36.2	26.6	33.7	18.4	15.4	22.4	21.5	
Investment / employment (EUR thousand)	30.2	10.4	:	14.2	17.6	6.7	24.1	8.7	19.4	10.7	11.9	22.5	21.4	17.7	

(1) 2003.

Source: Eurostat (SBS)

