

Transport equipment

12

The manufacture of transport equipment is split into two NACE divisions, the first of which covers the manufacture of motor vehicles (NACE Division 34), while the other covers the manufacture of other types of transport equipment, namely, shipbuilding, railway rolling stock, aerospace equipment, motorcycles and bicycles, and a residual category of other transport equipment (all included under NACE Division 35).

The transport equipment manufacturing sector is central to economic development, as it provides the means for transporting both individuals and goods. Demand for transport equipment has risen as the volume of goods transported and the distance travelled by passengers have expanded greatly – see Chapter 21 which provides information on transport flows.

The issue of sustainable development is likely to play an important role in future product developments, as transport equipment manufacturers try to meet demands for more environmentally friendly transport solutions, for example, engines with lower fuel consumption or emissions.

Most transport equipment manufacturing activities are structured on the basis of complex pyramidal relationships between major manufacturers and several tiers of component suppliers, ranging from systems suppliers down to very small, specialised manufacturers that may provide a single component for a vehicle. It is common to find clusters of enterprises concentrated in regions around the leading producers.

Structural profile

The EU-27's transport equipment manufacturing sector (NACE Subsection DM) consisted of 45.7 thousand enterprises which employed 3.2 million persons in 2006. Paid employees dominated this workforce, accounting for 98.6 % of all persons employed: this proportion was above the non-financial business economy average (86.5 %) as well as the industrial average (94.2 %) and in most of the subsectors the proportion reached 99.0 % or higher.

In terms of output, the EU-27's transport equipment manufacturing sector was substantial, generating EUR 195.0 billion of value added in 2006, the fifth largest amount among the industrial sectors presented in Chapters 2 to 15 of this publication. The transport equipment manufacturing sector accounted for 3.5 % of the value added created within the EU-27's non-financial business economy (NACE Sections C to I and K) and employed 2.4 % of the non-financial business economy workforce.

The transport equipment manufacturing sector is dominated by the manufacture of motor vehicles, trailers and semi-trailers (NACE Division 34), as this activity represented 73.9 % of sectoral value added in 2006. Among the EU-27's other transport equipment manufacturing (NACE Division 35) activities, the manufacture of aerospace equipment (NACE Group 35.3; Subchapter 12.4) was by far the largest activity in 2006, with a 15.4 % share of value added for the whole of

Table 12.1: Manufacture of transport equipment (NACE Subsection DM)
Structural profile, EU-27, 2006

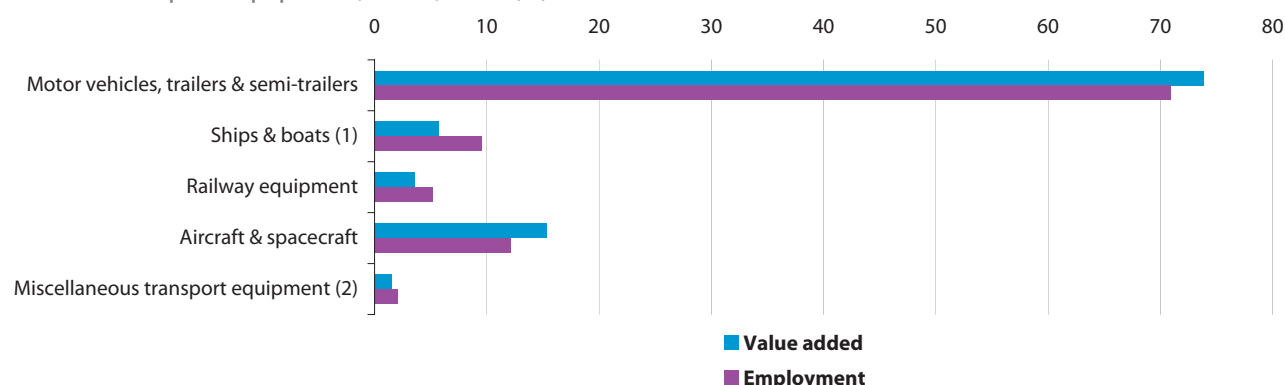
	Enterprises		Turnover		Value added		Persons employed	
	(thousand)	(% of total)	(EUR million)	(% of total)	(EUR million)	(% of total)	(thousand)	(% of total)
Transport equipment	45.7	100.0	945 417	100.0	194 970	100.0	3 151.8	100.0
Motor vehicles, trailers & semi-trailers	18.4	40.3	780 001	82.5	143 992	73.9	2 234.8	70.9
Ships & boats (1)	20.8	45.5	41 737	4.4	11 226	5.8	300.0	9.5
Railway equipment (1)	1.1	2.5	22 249	2.4	7 052	3.6	164.8	5.2
Aircraft & spacecraft	2.3	5.1	89 067	9.4	29 964	15.4	384.0	12.2
Miscellaneous transport equipment (2)	3.0	6.6	11 519	1.3	2 727	1.5	64.5	2.0

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

(2) Rounded estimates based on non-confidential data; turnover and value added, 2005.

Source: Eurostat (SBS)

Figure 12.1: Manufacture of transport equipment (NACE Subsection DM)
Share of transport equipment, EU-27, 2006 (%)



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

(2) Rounded estimates based on non-confidential data; value added, 2005.

Source: Eurostat (SBS)

Table 12.2: Manufacture of transport equipment (NACE Subsection DM)
Structural profile: ranking of top five Member States, 2006

	Highest value added (1)		Largest number of persons employed (1)		Most specialised: share in the non-financial business economy (%)	
	Country	(EUR million) (% of EU-27)	Country	(thousand) (% of EU-27)	Value added (2)	Persons employed (3)
1	Germany	78 672 40.4	Germany	979.8 31.1	Germany (6.8)	Germany (4.6)
2	France	26 959 13.8	France	416.1 13.2	Czech Republic (5.9)	Sweden (4.0)
3	United Kingdom	25 309 13.0	United Kingdom	325.7 10.3	Hungary (5.6)	Czech Republic (3.8)
4	Italy	15 391 7.9	Italy	274.5 8.7	Slovakia (4.6)	Slovakia (3.8)
5	Spain	12 407 6.4	Spain	216.2 6.9	Sweden (4.3)	Romania (3.0)

(1) Malta, not available; the Netherlands and Poland, 2005.

(2) Malta and the Netherlands, not available; Bulgaria, Cyprus, Poland and Romania, 2005.

(3) Malta, not available; Bulgaria, Cyprus, the Netherlands, Poland and Romania, 2005.

Source: Eurostat (SBS)

the transport equipment manufacturing sector. These two larger subsectors (motor vehicles and aerospace) both accounted for smaller shares of the sector's workforce than of the sector's value added, whereas the three smallest subsectors, namely the building and repairing of ships and boats (NACE Group 35.1), the manufacture of railway and tramway locomotives and rolling stock (NACE Group 35.2), and the manufacture of miscellaneous transport equipment (NACE Groups 35.4 and 35.5) had larger employment than value added shares.

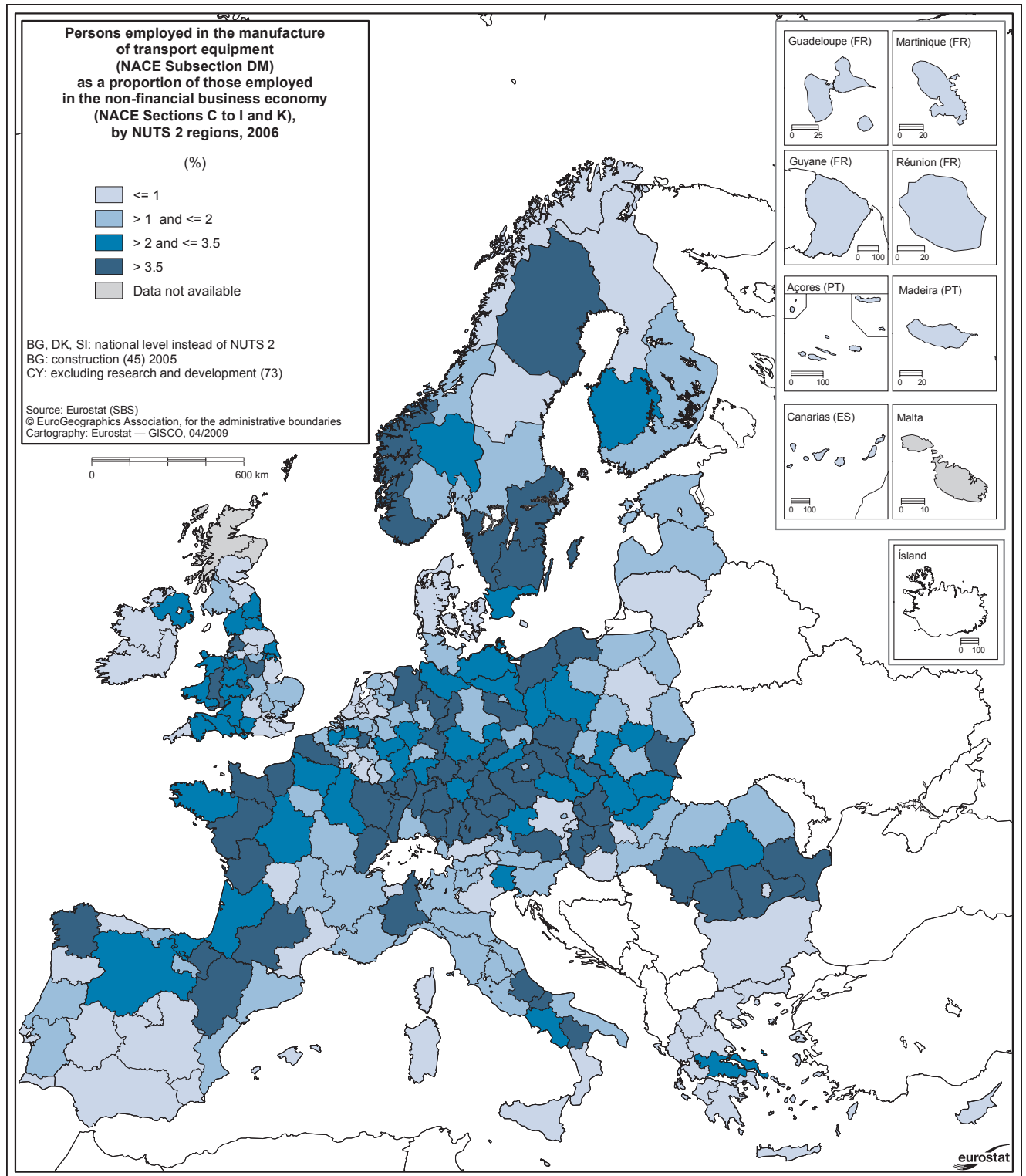
Germany dominated the EU-27's transport equipment manufacturing sector: Germany's EUR 78.7 billion of value added in this sector was just over two fifths of the EU-27 total in 2006, and its workforce of close to 1 million persons was just over three tenths of the EU-27 total. It was not just in absolute size that Germany dominated this sector, as it was also the most specialised

Member State, in that this sector contributed more to non-financial business economy value added (6.8 %) and non-financial business economy employment (4.6 %) in Germany than in any other Member State, and it was in this sector that Germany recorded its highest contribution to EU-27 value added of any of the industrial NACE subsections.

The manufacture of transport equipment was particularly concentrated within the larger Member States, as Germany, France (13.8 % of EU-27 value added) and the United Kingdom (13.0 %) had a cumulative share of EU-27 value added equal to 67.2 % in 2006, compared with their 53.5 % share of non-financial business economy value added. This high level of concentration meant that relatively few of the Member States were specialised in the manufacture of transport equipment in value added terms, with only the top five (as listed in Table 12.2) reporting that their respective

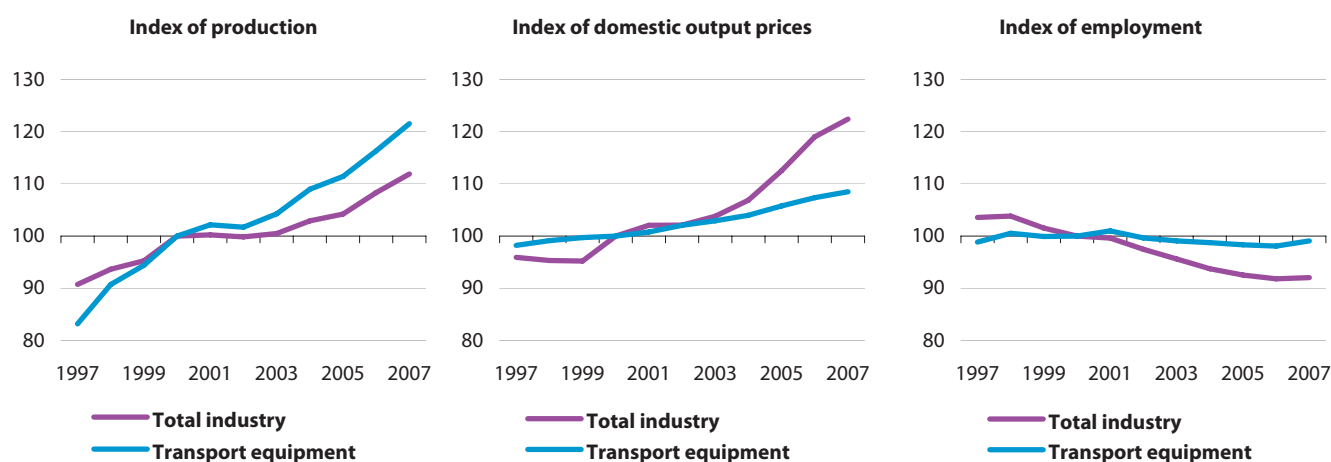
Map 12.1: Manufacture of transport equipment (NACE Subsection DM)

Persons employed in the manufacture of transport equipment as a proportion of those employed in the non-financial business economy (NACE Sections C to I and K)



Source: Eurostat (SBS)

Figure 12.2: Manufacture of transport equipment (NACE Subsection DM)
Evolution of main indicators, EU-27 (2000=100)



Source: Eurostat (STS)

transport equipment manufacturing sectors contributed more to national non-financial business economy value added than the EU-27 average in 2006. Several Member States were specialised in particular subsectors, notably Bulgaria, Greece, Lithuania and Finland in the building and repairing of ships and boats, and Italy in the manufacture of miscellaneous transport equipment (in particular motorcycles and bicycles).

The regional specialisation of transport equipment manufacturing in employment terms is shown in the map. The top two most specialised regions (at the level of detail shown in the map) were both in Germany, and German regions occupied seven of the top ten places. Among the Member States that joined the EU in 2004 or 2007 several regions in the Czech Republic, Hungary, Poland, Romania and Slovakia were relatively specialised in this sector.

Changes in the EU-27 index of production for the manufacture of transport equipment generally took place at a more rapid pace than the industrial average during the ten years to 2007. On average, output rose by 3.9 % per annum compared with 2.1 % for the industrial economy as a whole. Year on year growth rates recorded for transport equipment manufacturing exceeded those for the industrial economy in each year from 1997 to 2007, except in 2002 when production fell by 0.4 % for the industrial economy as a whole and by 0.5 % for transport equipment manufacturing. Transport equipment manufacturing output growth exceeded 4 % in three of the last four years in the EU-27: several Member States in central and eastern Europe recorded high annual growth

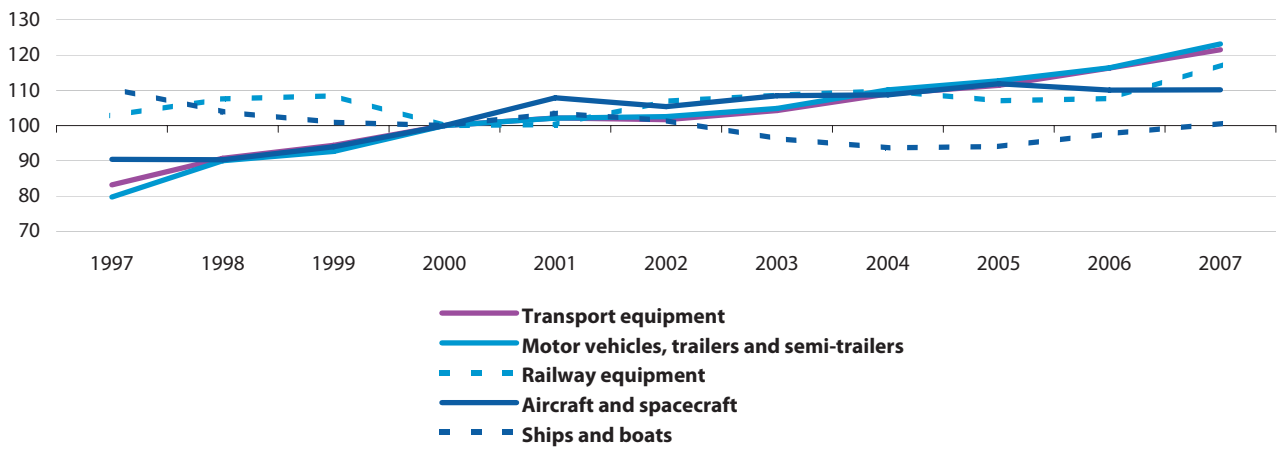
in the five years to 2007, ranging from a high of 22.7 % in Lithuania to growth in excess of 9 % per annum over this period in Poland, Slovakia, Bulgaria, Romania the Czech Republic, Hungary and Estonia.

The growth in output for the EU-27 as a whole was largely driven by the manufacture of motor vehicles, trailers and semi-trailers, where the index of production rose on average by 4.4 % per annum in the ten years to 2007, while for other transport equipment manufacturing growth averaged 2.1 % per annum during the same period. A more detailed analysis of the development of the production index focusing on the largest activities shows that over the ten years to 2007 aircraft and spacecraft manufacturing recorded fairly sustained output growth in the EU-27, with one notable fall in 2002 and a smaller one in 2006. The building and repairing of ships and boats showed a decline in output until 2004, after which three years of output growth were recorded, particularly strong in 2006 and 2007. Railway equipment manufacturing output fell sharply in 2000, since when growth has been recorded more often than not.

Transport equipment manufacturing employment within the EU-27 peaked most recently in 2001, after which the employment index declined gently for five consecutive years. In 2007 this downward trend was reversed, with employment growth around 1.0 %.

Transport equipment output prices in the EU-27 grew steadily over the ten years to 2007, with lower rates of change than for industry as a whole, most

Figure 12.3: Manufacture of transport equipment (NACE Subsection DM)
Index of production, EU-27 (2000=100)



Source: Eurostat (STS)

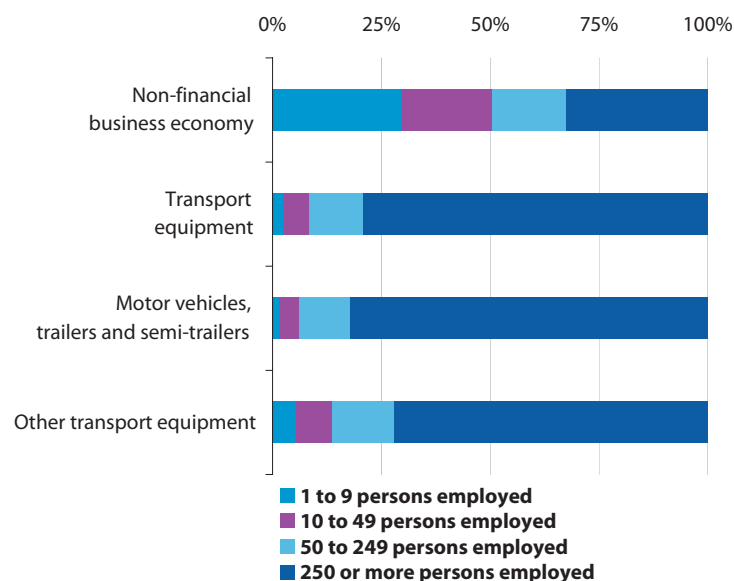
Table 12.3: Manufacture of transport equipment (NACE Subsection DM)
Share of value added and persons employed by enterprise size class, EU-27, 2006 (%)

	Value added		Persons employed	
	Non-financial business economy (1)	Transport equipment	Non-financial business economy	Transport equipment
1 to 9 persons employed	21.0	1.4	29.7	2.7
10 to 49 persons employed	18.9	3.5	20.7	5.8
50 to 249 persons employed	17.8	8.8	17.0	12.4
250 or more persons employed	42.1	86.2	32.6	79.2

(1) 1 to 9 persons employed and 50 to 249 persons employed, 2005.

Source: Eurostat (SBS)

Figure 12.4: Manufacture of transport equipment (NACE Subsection DM)
Share of employment by enterprise size class, EU-27, 2006



Source: Eurostat (SBS)

notably since 2002. During the five years from 2002 to 2007 output prices for transport equipment manufacturing increased by 1.2 % per annum on average, compared to an industrial average of 3.7 %.

The manufacture of transport equipment was concentrated within relatively large enterprises, as SMEs (employing less than 250 persons) generated just 13.8 % of the EU-27's value added in 2006, compared with a non-financial business economy average of 57.9 %. This was by far the lowest value added contribution of SMEs recorded for any of the chapters in the present publication. The dominance of large enterprises (with 250 or more persons employed) was particularly prevalent within the manufacture of motor vehicles, trailers and semi-trailers (NACE Division 34) where they accounted for 88.0 % of value added and 82.1 % of employment. Furthermore, the importance of large enterprises was particularly marked in Germany where they accounted for 93.8 % of value added in transport equipment manufacturing in 2006, and this share was also ⁽¹⁾ over 90 % in Hungary, the Czech Republic and France.

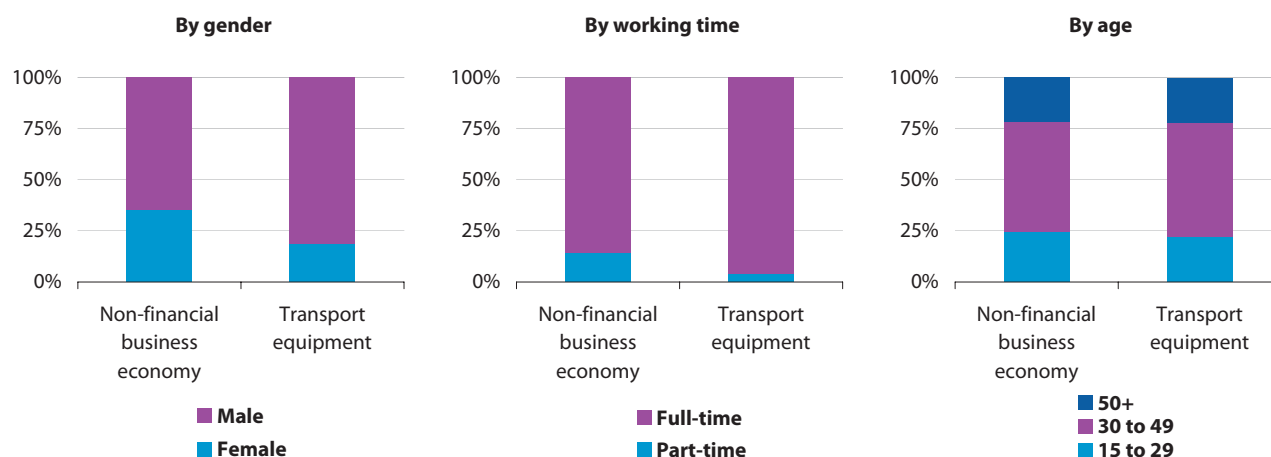
(1) The Netherlands and Poland, 2005; Estonia and Malta, incomplete or not available.

Employment characteristics

The most notable characteristics of the transport equipment manufacturing workforce are the high proportions of men in the workforce and the very high propensity to employ on a full-time basis. Men accounted for 81.5 % of the EU-27's transport equipment manufacturing workforce in 2007, compared with a non-financial business economy average of 64.9 %. The proportion of the workforce that was male was above the non-financial business economy average for both the manufacture of motor vehicles, trailers and semi-trailers (79.4 %) and in particular the manufacture of other transport equipment (86.4 %). As many as 96.3 % of the EU-27's transport equipment manufacturing workforce worked on a full-time basis in 2007.

In terms of the age profile of the EU-27's transport equipment manufacturing workforce there was little difference compared with the non-financial business economy average when analysed according to the three age classes presented. Comparing the age structure of the two NACE divisions in this sector, the most notable difference was the proportion of the workforce that was aged 50 or over, which was 20.4 % in the manufacture of motor vehicles, trailers and semi-trailers, compared with 25.9 % for the manufacture of other transport equipment. Among the Member States the age profile of the transport equipment manufacturing workforces in Poland and Slovakia stood out, with more than one third of the workers aged less than 30.

Figure 12.5: Manufacture of transport equipment (NACE Subsection DM) Employment characteristics, 2007



Source: Eurostat (LFS)

Expenditure, productivity and profitability

In 2006, the transport equipment manufacturing sector recorded a level of gross tangible investment of EUR 31.6 billion, some 3.0 % of the total within the EU-27's non-financial business economy. Investment in this sector was equivalent to 16.2 % of value added, 2.2 percentage points below the average investment rate for the EU-27's non-financial business economy, and fractionally below the industrial average (16.6 %). The investment rate was slightly higher for the manufacture of motor vehicles, trailers and semi-trailers subsector, and lower in all of the other subsectors. Slovakia and Slovenia recorded the highest investment rates in this sector in 2006, 93.5 % and 70.3 % respectively. In several Member States tangible investment in transport equipment manufacturing reached 5 % of all tangible investment in the non-financial business economy, most notably in Slovakia, the Czech Republic, Hungary and Germany.

An analysis of operating expenditure shows that the transport equipment manufacturing sector in the EU-27 did not differ greatly from the non-financial business economy average: 15.9 % of operating expenditure was devoted to personnel costs in this sector, compared with a non-financial business economy average of 16.1 %. However, this share was lower in the largest subsector, the manufacture of motor vehicles, trailers and semi-trailers, where the share was 14.2 %, while it was notably higher for the manufacture of aerospace equipment (26.3 %) and the manufacture of railway and tramway locomotives and rolling stock (24.2 %).

In terms of average personnel costs, productivity and profitability the EU-27's transport equipment sector diverged significantly from the industrial and non-financial business economy averages. Average personnel costs were EUR 46.4 thousand per employee, some EUR 17.6 thousand per employee higher than the non-financial business

Table 12.4: Manufacture of transport equipment (NACE Subsection DM)
Expenditure, productivity and profitability, EU-27, 2006

	(EUR million)			(EUR thousand per person)		(%)	
	Personnel costs	Purchases of goods & services	Investment in tangible goods	Apparent labour productivity	Average personnel costs	Wage adjusted labour productivity	Gross operating rate
Transport equipment	144 181	760 190	31 589	61.9	46.4	133.3	5.4
Motor vehicles, trailers & semi-trailers	105 316	638 400	25 715	64.4	47.6	135.3	5.0
Ships & boats (1)	9 049	32 214	1 100	37.4	30.2	124.1	5.2
Railway equipment	5 194	16 264	462	42.8	31.8	134.4	8.4
Aircraft & spacecraft (2)	22 692	63 649	3 748	78.0	59.4	131.4	8.2
Miscellaneous transport equipment (3)	1 930	9 600	309	41.4	31.4	137.7	7.2

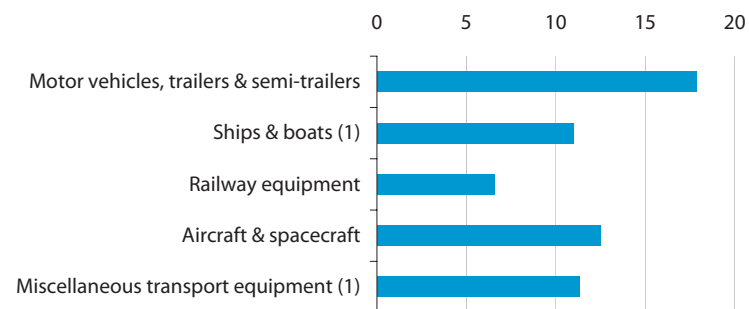
(1) Investment in tangible goods, 2005.

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

(3) Investment in tangible goods, apparent labour productivity, wage adjusted labour productivity and gross operating rate, 2005.

Source: Eurostat (SBS)

Figure 12.6: Manufacture of transport equipment
(NACE Subsection DM)
Investment rate, EU-27, 2006



(1) 2005.

Source: Eurostat (SBS)

economy average. Most of the subsectors, however, recorded much lower average personnel costs, just over EUR 30.0 thousand per employee, and therefore below the industrial average; the high transport equipment manufacturing average resulted from higher average personnel costs in the two largest subsectors, notably the manufacture of aerospace equipment. A similar pattern could be observed for apparent labour productivity, with the smaller subsectors recording averages below the industrial average, and the two larger subsectors, led by the manufacture of aerospace equipment, recording higher averages. As a result, the transport equipment manufacturing sector recorded apparent labour productivity above the industrial average, reaching EUR 61.9 thousand per person employed.

The relatively high apparent labour productivity combined with the particularly high average personnel costs, resulted in a wage adjusted labour productivity ratio of 133.3 % for the EU-27's transport equipment manufacturing sector in 2006, well below the 151.1 % average ratio recorded for the non-financial business economy. None of the transport equipment subsectors recorded high wage adjusted labour productivity ratios, the highest being 137.7 % for the manufacture of miscellaneous transport equipment, while the lowest was 124.1 % for the building and repairing of ships and boats. Among the Member States, the only Member State to record a wage adjusted labour productivity ratio below parity (100 %) was Ireland, which in fact recorded a negative ratio due to negative value added in this sector. Hungary and Poland (2005) recorded by far the highest wage adjusted labour productivity ratios in this sector, and in both cases these were well above the average ratios for their non-financial business economies, as was also the case in the Czech Republic, Slovenia and Austria.

The gross operating rate for the EU-27's transport equipment manufacturing sector was also low (5.4 %), half the non-financial business economy average (10.8 %), as high average personnel costs kept the gross operating surplus low. This was the lowest gross operating rate of any industrial NACE subsection. In none of the EU-27's transport equipment manufacturing subsectors did the gross operating rate exceed the non-financial business economy average in 2006, the highest being 8.4 % for the manufacture of railway and tramway locomotives and rolling stock.

Table 12.5: Transport equipment (CPA Subsection DM)
External trade, EU-27, 2007

	Value (EUR million)			Share of industrial exports (%)	Share of industrial imports (%)
	Extra-EU exports	Extra-EU imports	Trade balance		
Transport equipment	191 379	110 212	81 167	16.4	8.3
Motor vehicles, trailers & semi-trailers	129 804	59 733	70 071	11.2	4.5
Ships & boats	14 991	12 778	2 213	1.3	1.0
Railway equipment	3 158	983	2 175	0.3	0.1
Aircraft & spacecraft	41 450	30 267	11 183	3.6	2.3
Miscellaneous transport equipment	1 976	6 452	-4 476	0.2	0.5

Source: Eurostat (Comext)

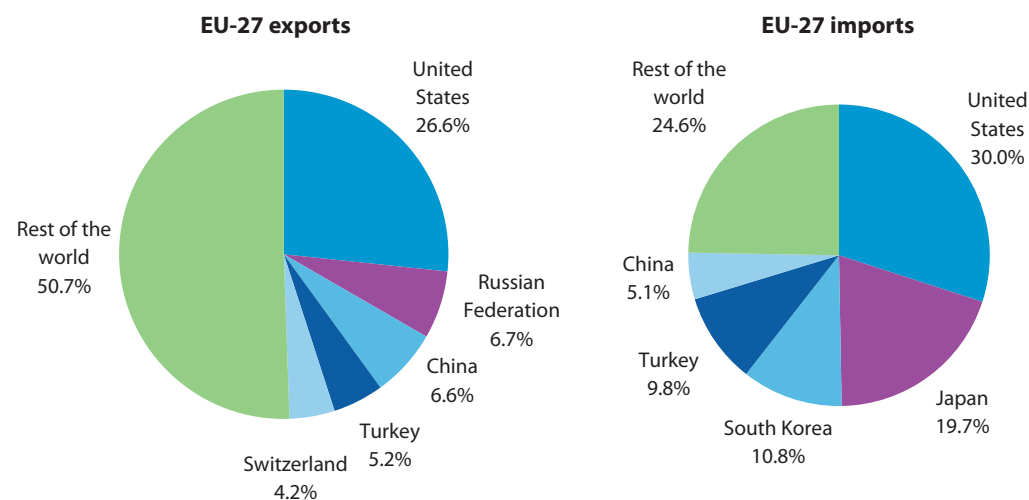
External trade

Just over two thirds (68.5 %) of exports of transport equipment (CPA Subsection DM) by the EU-27 Member States were destined for other Member States, in other words intra-EU trade. This share was slightly higher than the average for all industrial products (CPA Sections C to E). Germany was by far the largest EU exporter of transport equipment in 2007, with exports to the rest of the world valued at EUR 208.0 billion, some 34.2 % of the total for all Member States. France (13.5 %) was the only other Member State to report a double-digit share of exports among the EU-27 Member States. The largest shares of industrial exports accounted for by transport equipment were 27.4 % in Spain and 26.0 % in Slovakia.

The EU-27 ran a significant trade surplus with non-member countries for transport equipment which was valued at EUR 81.2 billion in 2007, the second highest surplus among the industrial chapters (Chapters 2 to 14) in this publication. Exports from the EU-27 were valued at EUR 191.4

billion, and imports at EUR 110.2 billion, 16.4 % and 8.3 % respectively of industrial trade. Over two thirds (67.8 %) of exports were accounted for by motor vehicles, trailers and semi-trailers (CPA Division 34), while in contrast, only just over half (54.2 %) of the imports were accounted for by the same products. These differences in the respective shares of transport equipment exports and imports were reflected in the EU-27's trade surplus for motor vehicles, trailers and semi-trailers (EUR 70.1 billion). Trade in aircraft and spacecraft (CPA Group 35.3) dominated other transport equipment, with exports of EUR 41.5 billion in 2007 generating a trade surplus of EUR 11.2 billion. Trade surpluses just over EUR 2 billion were recorded for ships and boats as well as for railway and tramway locomotives and rolling-stock (CPA Groups 35.1 and 35.2), while a deficit of EUR 4.5 billion was recorded for motorcycles and bicycles (CPA Group 35.4). In 2007 the United States retained its position as the most important market for EU-27 exports of transport equipment, although its share declined.

Figure 12.7: Transport equipment (CPA Subsection DM)
Main trading partners, EU-27, 2007 (% share of exports/imports in value terms)



Source: Eurostat (Comext)

12.1: Motor vehicles, trailers and semi-trailers

NACE Division 34 covers the manufacture of motor vehicles, trailers and semi-trailers. It contains three NACE groups, namely, the manufacture of motor vehicles (NACE Group 34.1), the manufacture of bodies for motor vehicles, trailers and semi-trailers (NACE Group 34.2) and the manufacture of parts and accessories for motor vehicles and their engines (NACE Group 34.3). The data presented in this subchapter does not cover the manufacture of tyres (see Chapter 7), nor that of batteries or other electrical equipment used in motor vehicles (see Chapter 11).

In December 2005 the European Commission published a ten year strategy for the EU's car sector put forward by the 'CARS 21 High Level Group'. In October 2008 a conference based on a mid-term review of the strategy was held⁽²⁾ to focus on actions to foster a competitive European car industry. This recommended: a supportive regulatory framework and better regulation; basing future policy to reduce carbon dioxide emissions from road transport on an integrated approach involving motor vehicles, fuels, consumers/drivers and infrastructure; increased trade liberalisation, provided this is achieved on the basis of mutual benefit.

Reducing emissions remain a major issue for all types of vehicle manufacturing. In December 2007 the European Commission adopted a proposal⁽³⁾ for setting emission performance standards for new passenger cars. The aim is to introduce binding requirements on car manufacturers to reduce carbon dioxide emissions, while at the same time trying to reduce emissions in other ways, for example, through changes in fuels, tyres and other components impacting fuel consumption. After the adoption of new standards (referred to as Euro 5 and 6) to reduce the emissions of new passenger cars and light commercial vehicles in 2007, the European Commission adopted in December 2007 a proposal⁽⁴⁾ for standards (referred to as Euro VI) for heavy duty vehicles. Compared to the Euro V standards, emissions of nitrogen oxides from lorries and buses should be reduced by 80 % and particulate matter by 66 %. In January 2009 a Regulation of the European Parliament and of the Council⁽⁵⁾ was adopted

on the type-approval of hydrogen-powered motor vehicles, aiming to simplify the marketing of clean and safe hydrogen vehicles.

The motor vehicles, trailers and semi-trailers manufacturing sector is characterised by a structure that is dominated by enterprises belonging to a few very large enterprise groups. These are supported by partners and contractors who deliver systems, parts and accessories. Demand for vehicle parts and accessories is divided between that for original equipment (OE) which is supplied directly to motor vehicle manufacturers, and that for the after-market (AM) as used for the upkeep, repair and modification of vehicles. Larger vehicle parts suppliers tend to cluster around their major customers.

According to VDA⁽⁶⁾, the EU-25 produced 28.5 % of the world's passenger cars in 2007 a slightly larger share than the three NAFTA⁽⁷⁾ countries (24.9 %), but less than the Asian total of 36.4 %. For information on the retail sale (rather than production) of motor vehicles please refer to Chapter 17.

Structural profile

The EU-27's motor vehicles, trailers and semi-trailers (NACE Division 34) sector consisted of 18.4 thousand enterprises which generated EUR 144.0 billion of value added in 2006, which equated to 73.9 % of the transport equipment manufacturing (NACE Subsection DM) total. Its share of the transport equipment manufacturing workforce was less, at 70.9 %, implying a higher than average apparent labour productivity. Within this sector, the motor vehicles manufacturing subsector (NACE Group 34.1) generated 61.0 % of EU-27 sectoral value added, motor vehicle parts and accessories manufacturing (NACE Group 34.3) a further 33.3 %, and the manufacture of bodies, trailers and semi-trailers (NACE Group 34.2) the remaining 5.7 %; in employment terms the share of motor vehicles manufacturing was considerably lower and that of the other two subsectors higher.

As already noted, Germany dominated transport equipment manufacturing in general, and this was particularly true for the manufacture of motor vehicles, trailers and semi-trailers where it generated close to half (47.4 %) of the EU-27's

(2) See <http://ec.europa.eu/enterprise/automotive/pagesbackground/competitiveness/cars21.htm>.

(3) COM(2007) 856.

(4) COM(2007) 851.

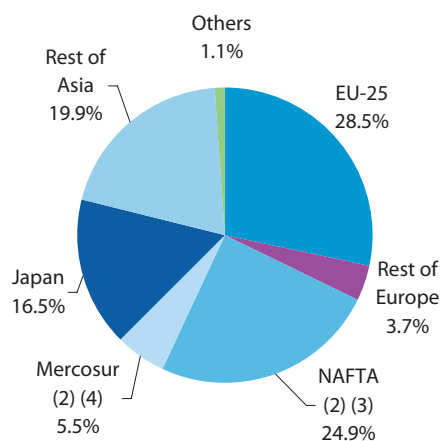
(5) Regulation (EC) No 79/2009 of the European Parliament and of the Council of 14 January 2009 on type-approval of hydrogen-powered motor vehicles.

(6) VDA (Verband der Automobilindustrie), more information at: <http://www.vda.de>.

(7) NAFTA (North American Free Trade Agreement) is a free trade agreement between Canada, the United States and Mexico.

Figure 12.8: Manufacture of motor vehicles, trailers and semi-trailers

Largest passenger car producing countries/regions, 2007 (% share of world production) (1)



(1) Including interim or estimated figures.

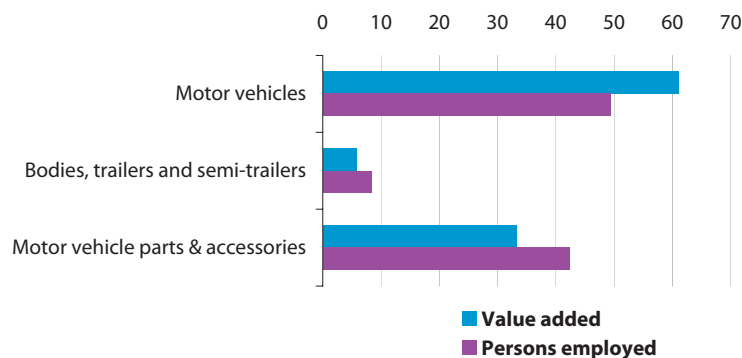
(2) Including light trucks.

(3) North American Free Trade Agreement covering Canada, the United States and Mexico.

(4) Southern Common Market covering Argentina, Brazil, Paraguay and Uruguay.

 Source: VDA, <http://www.vda.de>
Figure 12.9: Manufacture of motor vehicles, trailers and semi-trailers (NACE Division 34)

Relative weight within the manufacture of motor vehicles, trailers and semi-trailers, EU-27, 2006 (%)



Source: Eurostat (SBS)

Table 12.6: Manufacture of motor vehicles, trailers and semi-trailers (NACE Division 34)

Structural profile: ranking of top five Member States in terms of value added and persons employed, 2006

	Highest value added (1)			Largest number of persons employed (1)			Most specialised: share in non-financial business economy (%) (2)	
	Country	(EUR million)	(% of EU-27)	Country	(thousand)	(% of EU-27)	Country	Value added
1	Germany	68 225	47.4	Germany	840.4	37.6	Germany	5.9
2	France	16 271	11.3	France	267.7	12.0	Czech Republic	5.4
3	United Kingdom	12 766	8.9	United Kingdom	178.4	8.0	Hungary	5.3
4	Spain	9 284	6.4	Italy	166.1	7.4	Slovakia	4.3
5	Italy	9 264	6.4	Spain	158.2	7.1	Sweden	3.5

(1) Luxembourg and Malta, not available; the Netherlands, Poland and Portugal, 2005.

(2) Luxembourg, Malta and the Netherlands, not available; Bulgaria, Cyprus, Poland, Portugal and Romania, 2005.

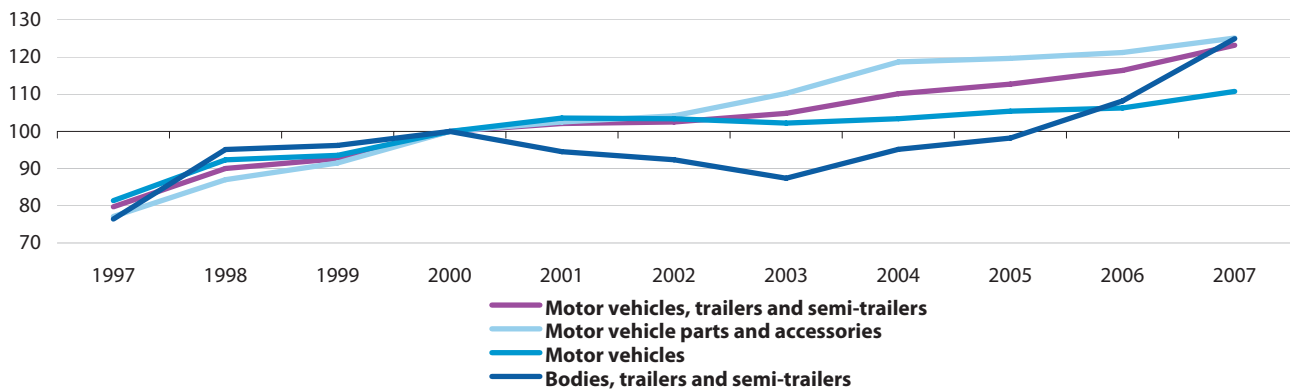
Source: Eurostat (SBS)

value added in 2006. Within the subsector of the manufacture of motor vehicles (NACE Group 34.1), Germany's share rose to 50.9 % of EU-27 value added, while for the motor vehicle parts and accessories manufacturing subsector Germany's share was 44.6 %; among the non-financial business economy NACE groups for which data are available these were respectively the third and fifth highest shares Germany recorded in the EU-27 total. Unsurprisingly, Germany was the most specialised Member State regarding the manufacture of motor vehicles, trailers and semi-trailers, as this sector contributed 5.9 % of

German non-financial business economy (NACE Sections C to I and K) value added. Looking in more detail, Slovenia and Sweden recorded a particularly high specialisation in the manufacture of bodies, trailers and semi-trailers, and the Czech Republic and Hungary in the manufacture of motor vehicle parts and accessories.

Output from the manufacture of motor vehicles, trailers and semi-trailers in the EU-27 increased each and every year between 1997 and 2007, with 5.8 % growth in the latest year available (2007), which was above the latest ten-year average of 4.4 % per annum.

Figure 12.10: Manufacture of motor vehicles, trailers and semi-trailers (NACE Division 34)
Index of production, EU-27 (2000=100)



Source: Eurostat (STS)

Table 12.7: Motor vehicles (CPA Division 34)
Production of selected products, EU-27, 2007 (1)

	Prodcom code	Production value (EUR million)	Volume of sold production (million)	Unit of volume
Motor vehicles with a petrol engine >1 500 cm ³ (including motor caravans of a capacity >3 000 cm ³) (excluding vehicles for transporting ≥10 persons, snowmobiles, golf cars & similar vehicles)	34.10.22.30	126 193	6.206	units
Motor vehicles with a diesel or semi-diesel engine >1 500 cm ³ but ≤ 2 500 cm ³ (excluding vehicles for transporting ≥10 persons, motor caravans, snowmobiles, golf cars & similar vehicles)	34.10.23.30	106 462	6.157	units
Goods vehicles with a diesel or semi-diesel engine, of a gross vehicle weight ≤5 tonnes (excluding dumpers for off-highway use)	34.10.41.10	20 266	1.568	units
Vehicle compression-ignition internal combustion piston engines (diesel or semi-diesel) (excluding for railway or tramway rolling stock)	34.10.13.00	17 023	6.699	units
Motor vehicles with a diesel or semi-diesel engine ≤1 500 cm ³ (excluding vehicles for transporting ≥10 persons, snowmobiles, golf cars & similar vehicles)	34.10.23.10	16 642	1.713	units
Parts suitable for use solely or principally with spark-ignition internal combustion piston engines (excluding for aircraft engines)	34.30.11.00	15 964	-	-
Vehicle reciprocating piston engines of a cylinder capacity >1 000 cm ³	34.10.12.00	13 417	7.855	units
Road tractors for semi-trailers	34.10.44.00	13 188	0.199	units
Motor vehicles with a diesel or semi-diesel engine >2 500 cm ³ (excluding vehicles for transporting ≥10 persons, motor caravans, snowmobiles, golf cars & similar vehicles)	34.10.23.40	12 690	0.342	units
Parts suitable for use solely or principally with compression-ignition internal combustion piston engines	34.30.12.00	12 287	-	-
Gear boxes	34.30.20.33	11 417	83.425	units
Brakes and servo-brakes and their parts (excluding unmounted linings or pads)	34.30.20.20	10 935	6 289.462	kg
Bodies for lorries, vans, buses, coaches, tractors, dumpers and special purpose motor vehicles including completely equipped and incomplete bodies, vehicles for the transport of ≥10 persons	34.20.10.50	10 734	1.152	units
Goods vehicles with compression-ignition internal combustion piston engine (diesel or semi-diesel), of a gross vehicle weight >20 tonnes (excluding dumpers designed for off-highway use)	34.10.41.40	10 385	0.144	units

(1) Excluding products of a generic nature (other), sales of services such as repair, maintenance and installation; estimates; threshold of production value set at EUR 10 billion.

Source: Eurostat (PRODCOM)

Expenditure and productivity

Gross tangible investment in the motor vehicles, trailers and semi-trailers manufacturing sector was EUR 25.7 billion in 2006, 81.4 % of all investment in transport equipment manufacturing. The investment rate of 17.9 % was above the industrial average, and the highest among the transport equipment manufacturing activities. Within this sector investment rates varied greatly from just 9.1 % for the manufacture of bodies, trailers and semi-trailers subsector to 20.4 % for the motor vehicles manufacturing subsector. Slovakia recorded an investment rate of 97.4 % in this sector, closely followed by Slovenia with a rate of 82.4 %.

Personnel costs accounted for 14.2 % of operating expenditure in the EU-27's motor vehicles, trailers and semi-trailers manufacturing sector in 2006, which was the lowest share within transport equipment manufacturing. For the motor vehicles manufacturing subsector the share was particularly low, at 12.1 %. Average personnel costs in the motor vehicles, trailers and semi-trailers manufacturing sector were EUR 47.6

thousand per employee, but this average disguised great differences between the subsectors. Average personnel costs for the motor vehicles manufacturing subsector were EUR 59.0 thousand per employee, the fourth highest average personnel costs in 2005 or 2006 among all of the NACE groups within the non-financial business economy; average personnel costs were at least EUR 22.0 thousand per employee lower in the other two subsectors. This disparity was reflected in the apparent labour productivity recorded for each subsector, which was EUR 79.7 thousand per person employed for the motor vehicles manufacturing subsector and was at least EUR 29.0 thousand per person employed lower in the other two subsectors. Despite these big differences, all three subsectors recorded relatively similar wage adjusted labour productivity ratios, with the motor vehicles, trailers and semi-trailers manufacturing sector as a whole recording a ratio of 135.3 %. Several of the Member States that joined the EU in 2004 recorded particularly high wage adjusted labour productivity ratios in this sector, notably Hungary and Poland (2005) where the latest figures available rose to over 300 %.

12.2: Ships and boats

NACE Group 35.1 covers the building and repairing of ships and boats. Note that, unlike for motor vehicles, this activity does not include the manufacture of parts or (marine) engines.

Structural profile

In 2006, there were 20.8 thousand enterprises in the EU-27's sector for the building and repairing of ships and boats (NACE Group 35.1). These enterprises generated EUR 11.2 billion of value added and employed an estimated 300.0 thousand persons. This sector contributed 5.8 % of transport equipment (NACE Subsection DM) value added, and 9.5 % of the transport equipment workforce. The building and repairing of ships (NACE Class 35.11) was the largest subsector, with EUR 8.0 billion of value added and a workforce of an estimated 230.0 thousand persons, with the building and repairing of pleasure and sporting boats (NACE Class 35.12) making up the rest of the sector.

Italy and France were the largest producers (in value added terms) in this sector within the EU-27. In terms of employment the importance of this sector in Romania and Poland can be

observed, as over 30.0 thousand persons worked in this sector in each of these countries, more than one tenth of the EU-27 total. Those Member States with a coastline tended to report relatively high value added specialisation in this sector, notably in the Baltic Member States, Romania, Bulgaria, Finland and Greece. In fact, in Bulgaria, Lithuania and Finland more than half of transport equipment value added was generated in this sector.

Output from the building and repairing of ships and boats declined in the EU-27 most years between 1997 and 2004, with an average contraction of 2.3 % per annum. During this period annual growth was only recorded in 2001. From 2004 onwards output expanded, only slightly in 2005, but more strongly in 2006 and 2007.

Expenditure and productivity

Gross tangible investment in the EU-27's sector for the building and repairing of ships and boats was EUR 1.1 billion in 2005, resulting in an investment rate of 11.0 %. Personnel costs accounted for 21.9 % of operating expenditure in this sector in 2006, above the transport equipment manufacturing average (15.9 %). Among the transport equipment manufacturing activities presented in

Subchapters 12.1 to 12.5 the EU-27's building and repairing of ships and boats sector recorded the lowest average personnel costs (EUR 30.2 thousand per employee), apparent labour productivity (EUR 37.4 thousand per person employed) and wage adjusted labour productivity ratio (124.1 %). Romania (95.6 %) and Denmark (57.8 %) both

recorded wage adjusted labour productivity ratios below parity in this sector, indicating that value added per person employed was lower than average personnel costs, while Ireland recorded a very large, negative ratio as Irish value added in this sector was negative.

Table 12.8: Building and repairing of ships and boats (NACE Group 35.1)

Structural profile: ranking of top five Member States in terms of value added and persons employed, 2006

	Highest value added (1)			Largest number of persons employed (1)			Most specialised: share in non-financial business economy (%) (2)	
	Country	(EUR million)	(% of EU-27)	Country	(thousand)	(% of EU-27)	Country	Value added
1	Italy	2 036	18.1	Italy	43.0	14.3	Romania	0.7
2	France	1 976	17.6	France	36.5	12.2	Lithuania	0.6
3	Germany	1 663	14.8	Poland	34.7	12.0	Finland	0.6
4	United Kingdom	1 607	14.3	United Kingdom	32.7	10.9	Estonia	0.5
5	Spain	979	8.7	Romania	30.7	10.2	Bulgaria	0.5

(1) Malta and Slovakia, not available; Estonia, the Netherlands and Poland, 2005.

(2) Malta, the Netherlands and Slovakia, not available; Bulgaria, Estonia, Cyprus, Poland and Romania, 2005.

Source: Eurostat (SBS)

Table 12.9: Ships and boats (CPA Group 35.1)

Production of selected products, EU-27, 2007 (1)

	Prodcom code	Production value (EUR million)	Rounding base (EUR million)	Volume of production (thousand)	Unit of volume	Rounding base (million)
Bulk carriers, general cargo ships, container ships, ro-ro vessels, car carriers, gas carriers, etc., and other vessels for the transport of both persons and goods, sea-going	35.11.24.70	4 570	-	3 497	GT	-
Cruise ships, excursion boats for people, ferry boats, sea-going	35.11.21.30	4 225	-	841	GT	-
Sea-going motorboats for pleasure or sports (excluding outboard motorboats)	35.12.13.30	3 300	100	28	units	7
Sea-going sailboats for pleasure or sports	35.12.11.30	1 980	-	13	units	-
Rigid boats > 100 kg in weight and 7.5 m in length (including outboard motorboats, rowing boats and canoes)	35.12.13.97	1 408	-	9	units	-

(1) Excluding products of a generic nature (other), sales of services such as repair, maintenance and installation; estimates; threshold of production value set at EUR 1 billion; the rounding base indicates the magnitude of the rounding employed to protect confidential cells (in the case of PRODCOM code 35.12.13.30, the value lies within the range +/- EUR 100 million of the reported value).

Source: Eurostat (PRODCOM)

12.3: Railway equipment

The manufacture of railway and tramway locomotives and rolling stock is covered by NACE Group 35.2).

Structural profile

Value added generated by the 1.1 thousand enterprises classified to railway and tramway locomotives and rolling stock manufacturing (NACE Group 35.2) in the EU-27 was EUR 7.1 billion in 2006, equivalent to a 3.6 % share of the transport equipment manufacturing (NACE Sub-section DM) total. The workforce in this sector numbered 164.8 thousand persons, equivalent to 5.2 % of the transport equipment manufacturing workforce.

Slightly more than one quarter of the EU-27's value added was accounted for by Germany (26.7 %), followed by France, the United Kingdom and Spain each with more than 10 % of the EU-27 total. The workforces in this sector in Romania and Poland were the second and third largest within the EU-27, smaller only than in Germany. Romania was particularly specialised in railway and tramway locomotives and rolling stock manufacturing, as this sector contributed 0.5 % of total value added within the Romanian non-financial business economy in 2005, a share that was more than four times as high as the EU-27 average.

Railway and tramway locomotives and rolling stock manufacturing saw output in the EU-27 fall sharply in 2000, since when output expanded

most years. Average output growth between 2000 and 2007 was 2.3 % per annum, boosted by strong growth in 2002 and most recently in 2007.

Expenditure and productivity

In 2006 gross tangible investment in the EU-27's railway and tramway locomotives and rolling stock manufacturing sector was equivalent to 6.6 % of value added, giving this sector the lowest investment rate among the transport manufacturing equipment activities presented in Subchapters 12.1 to 12.5. The labour-intensive nature of this activity was reinforced by the high proportion of operating expenditure devoted to personnel costs which was 24.2 % compared with a transport equipment manufacturing average of 15.9 %. Average personnel costs in the EU-27's railway and tramway locomotives and rolling stock manufacturing sector were EUR 31.8 thousand per employee, above the non-financial business economy average, while apparent labour productivity was EUR 42.8 thousand per person employed, below the non-financial business economy average. The EU-27 wage adjusted labour productivity ratio of 134.4 % was in line with the transport equipment manufacturing average (133.3 %), and therefore well below the non-financial business economy average (151.1 %). Slovakia and Portugal (2005) both recorded low wage adjusted labour productivity ratios in this sector, while Spain was the only Member State⁽⁸⁾ to record a wage adjusted labour productivity ratio in this sector above its average for the non-financial business economy.

(8) Latvia, Poland and Portugal, 2005; Belgium, Denmark, Estonia, Ireland, Cyprus, Luxembourg, Malta, the Netherlands and Austria, not available.

Table 12.10: Manufacture of railway, tramway locomotives, rolling stock (NACE Group 35.2)
Structural profile: ranking of top five Member States in terms of value added and persons employed, 2006

	Highest value added (1)			Largest number of persons employed (2)			Most specialised: share in non-financial business economy (%) (3)	
	Country	(EUR million)	(% of EU-27)	Country	(thousand)	(% of EU-27)	Country	Value added
1	Germany	1 880	26.7	Germany	26.3	16.0	Romania	0.5
2	France	929	13.2	Romania	23.2	14.1	Czech Republic	0.3
3	United Kingdom	780	11.1	Poland	17.5	10.2	Latvia	0.3
4	Spain	762	10.8	France	13.5	8.2	Slovenia	0.2
5	Italy	659	9.3	Italy	11.9	7.2	Hungary	0.2

(1) Belgium, Denmark, Estonia, Ireland, Malta and Austria, not available; Latvia, the Netherlands, Poland and Portugal, 2005.

(2) Belgium, Denmark, Estonia, Ireland, Malta, the Netherlands and Austria, not available; Poland and Portugal, 2005.

(3) Belgium, Denmark, Estonia, Ireland, Malta, the Netherlands and Austria, not available; Bulgaria, Cyprus, Latvia, Poland, Portugal and Romania, 2005.

Source: Eurostat (SBS)

Table 12.11: Railway equipment (CPA Group 35.2)
Production of selected products, EU-27, 2007 (1)

	Prodcom code	Production value (EUR million)	Volume of sold production (million)	Unit of volume
Parts of locomotives or rolling-stock	35.20.40.30	4 987	-	-
Self-propelled railway or tramway coaches, vans and trucks powered from an external source of electricity (excluding railway or tramway maintenance or service vehicles)	35.20.20.30	3 040	2	units
Rail/tramway passenger coaches; luggage vans, post office coaches and other special purpose rail/tramway coaches excluding rail/tramway maintenance/service vehicles, self-propelled	35.20.32.00	2 353	1	units
Rail locomotives powered from an external source of electricity	35.20.11.00	1 100	1	units

(1) Excluding products of a generic nature (other), sales of services such as repair, maintenance and installation; estimates; threshold of production value set at EUR 1 billion.

Source: Eurostat (PRODCOM)

12.4: Aerospace equipment

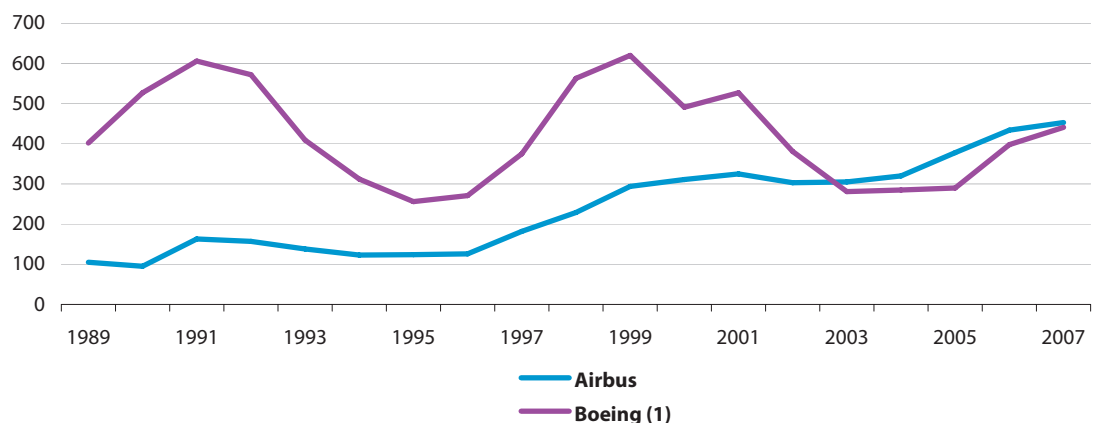
This subchapter includes information on the production of aircraft that are used for the transport of passengers or freight, as well as military applications. The data presented also cover other means of air transport, for example, gliders, balloons and spacecraft, as well as the manufacture of parts and accessories which are used in the construction of aerospace equipment; all of these activities are classified under NACE Group 35.3.

The aerospace equipment manufacturing sector is highly concentrated within the EU and the United States, and within a few large manufacturers with a pyramidal supply chain: manufacturers of aircraft, missiles, space equipment and engines

at the top of the pyramid, followed by a second-tier of suppliers making systems, medium-sized enterprises producing structural elements and components, and a final tier of SMEs producing materials, software and services (note that these may be excluded from data on this sector, as their principal activity may not be the manufacture of aerospace equipment). There are two main market segments for the aerospace sector, military and civilian, with the former dependent on government defence spending plans and the latter being a cyclical market.

Globally the main producers of civil aircraft are Boeing and Airbus; their delivery figures since 1989 clearly indicate the cyclical nature of this part of the sector.

Figure 12.11: Manufacture of aircraft and spacecraft
Deliveries of commercial aircraft (number)



(1) Including McDonnell Douglas for all years.

Source: Boeing (<http://www.boeing.com>) and Airbus (<http://www.airbus.com>)

Aerospace equipment manufacturing is one of the most important manufacturing sectors in terms of research and development (R&D). The level of intra-mural R&D expenditure by this sector in ten of the Member States (that collectively accounted for more than four fifths of EU-27 value added in this sector) reached EUR 6.8 billion. This sector's contribution to manufacturing (NACE Section D) R&D was particularly significant in the United Kingdom and France, the two EU-27 Member States most specialised in this sector.

Structural profile

The EU-27's aerospace equipment manufacturing (NACE Group 35.3) sector in 2006 consisted of 2.3 thousand enterprises which created EUR 30.0 billion of value added and employed 384.0 thousand persons. This was equivalent to 15.4 % of transport equipment manufacturing (NACE Sub-section DM) value added, and 12.2 % of its workforce, making this the second largest transport equipment manufacturing sector as presented in Subchapters 12.1 to 12.5 of this publication.

The United Kingdom reported a 33.0 % share of EU-27 value added in this sector, the highest share among the Member States, followed by France and Germany. These three large Member States dominated this sector to such an extent that none of the other Member States were relatively specialised in this activity, in the sense that the contribution of this sector to national non-financial business economy value added was below the EU-27 average in all other Member States⁽⁹⁾.

The evolution of the index of production for EU-27 aerospace equipment manufacturing followed a rather similar pattern to that for transport equipment manufacturing as a whole, although with slower growth after 2001. The effects of the general economic slowdown, coupled with a downturn in air transport after the terrorist attacks in the United States in September 2001, resulted in a relatively large contraction in output in 2002, and there was a smaller contraction in 2006.

Expenditure and productivity

The EU-27's aerospace equipment manufacturing sector recorded EUR 3.7 billion of tangible investment in 2006, equivalent to 12.5 % of value added, below the average investment rate for transport equipment manufacturing (16.2 %).

Table 12.12: Manufacture of aircraft and spacecraft (NACE Group 35.3)
Intra-mural research and development expenditure: selected Member States, 2006 (1)

	R&D expenditure (EUR million)	Share of manufacturing R&D expenditure (%)
CZ	26.7	3.4
DE	1 853.7	4.0
ES	416.6	12.4
FR	2 458.1	16.5
LT	0.1	0.8
AT	3.7	0.1
PL	13.9	6.3
RO	0.2	1.3
SE	255.9	3.9
UK	1 752.1	23.3
NO	5.5	0.6

(1) Poland and Romania, 2005.

Source: Eurostat (SBS)

Personnel costs accounted for a notably higher share of operating expenditure in the EU-27's aerospace equipment manufacturing sector, a little more than one quarter (26.3 %) of the total, which was around 10 percentage points above the transport equipment manufacturing and non-financial business economy averages.

Average personnel costs were EUR 59.4 thousand per employee in the EU-27's aerospace equipment manufacturing sector in 2006, the third highest level among non-financial business economy NACE groups in 2005 or 2006, while apparent labour productivity was EUR 78.0 thousand per person employed. For both of these indicators these were the highest levels recorded among the transport equipment manufacturing activities presented in Subchapters 12.1 to 12.5. Combining the ratios of apparent labour productivity and average personnel costs, the EU-27's wage adjusted labour productivity ratio for aerospace equipment manufacturing was 131.4 % in 2006, slightly below the transport equipment manufacturing average (133.3 %). In most Member States⁽¹⁰⁾ value added per person employed exceeded average personnel costs per employee, the exceptions being the Czech Republic, Ireland and Bulgaria where the wage adjusted labour productivity ratio was below 100 %.

⁽⁹⁾ Cyprus, Poland, Portugal and Slovakia, 2005; Bulgaria, Estonia, Latvia, Luxembourg, Malta, the Netherlands and Romania, not available.

⁽¹⁰⁾ The Netherlands, Poland, Portugal and Slovakia, 2005; Estonia, Cyprus, Latvia, Luxembourg and Malta, not available.

Table 12.13: Manufacture of aircraft and spacecraft (NACE Group 35.3)

Structural profile: ranking of top five Member States in terms of value added and persons employed, 2006

	Highest value added (1)			Largest number of persons employed (2)			Most specialised: share in non-financial business economy (%) (3)	
	Country	(EUR million)	(% of EU-27)	Country	(thousand)	(% of EU-27)	Country	Value added
1	United Kingdom	9 878	33.0	United Kingdom	99.7	26.0	France	1.0
2	France	7 572	25.3	France	92.8	24.2	United Kingdom	0.9
3	Germany	6 429	21.5	Germany	77.1	20.1	Germany	0.6
4	Italy	2 457	8.2	Italy	33.7	8.8	Sweden	0.4
5	Spain	1 098	3.7	Spain	15.7	4.1	Italy	0.4

(1) Estonia, Latvia, Luxembourg and Malta, not available; the Netherlands, Poland, Portugal and Slovakia, 2005.

(2) Estonia, Luxembourg and Malta, not available; the Netherlands, Poland, Portugal and Slovakia, 2005.

(3) Bulgaria, Estonia, Latvia, Luxembourg, Malta, the Netherlands and Romania, not available; Cyprus, Poland, Portugal and Slovakia, 2005.

Source: Eurostat (SBS)

12.5: Miscellaneous transport equipment

This subchapter brings together information on the manufacture of motorcycles and bicycles (NACE Group 35.4), and the manufacture of other transport equipment (NACE Group 35.5), such as wheelbarrows, hand-carts and luggage trucks.

Manufacture of motorcycles and bicycles

The EU-27's motorcycles and bicycles manufacturing subsector (NACE Group 35.4) consisted of 2.3 thousand enterprises which created EUR 2.4 billion of value added in 2006, equivalent to a 1.2 % share of the transport equipment manufacturing (NACE Subsection DM) total. The sector employed 55.9 thousand persons, 1.8 % of the transport equipment manufacturing total.

Italy was the largest producer of motorcycles and bicycles in the EU-27, with a 40.2 % share of EU-27 value added and a 34.9 % share of the workforce; Italy and Lithuania were the most specialised producers of motorcycles and bicycles within the EU-27 in terms of the sector's contribution to non-financial business economy (NACE Sections C to I and K) value added.

In 2007 motorcycles and bicycles manufacturing output in the EU-27 grew by 2.2 %, following 1.8 % growth in 2006: this was the first time since 1998 that output growth was recorded for two successive years.

In 2006 the EU-27's motorcycles and bicycles manufacturing subsector combined an apparent labour productivity of EUR 42.6 thousand per person employed with low average personnel costs (EUR 30.9 thousand per employee) to leave a wage adjusted labour productivity ratio of 138.0 %, the highest among the transport equipment manufacturing NACE groups. In most Member States⁽¹⁾ value added per person employed exceeded personnel costs per employee, the exceptions being Slovenia and France where the wage adjusted labour productivity ratio was below 100 %, and in Ireland where negative value added resulted in a large, negative wage adjusted labour productivity ratio.

Manufacture of other transport equipment n.e.c.

The EU-27's other transport equipment manufacturing not elsewhere classified subsector (NACE Group 35.5) consisted of just under 0.7 thousand enterprises in 2006, which employed 8.6 thousand persons. In 2005 the value added of this subsector in the EU-27 was EUR 0.3 billion. This subsector represented just 0.2 % and 0.3 % respectively of transport equipment manufacturing value added and employment.

Germany generated EUR 186.7 million of value added in this subsector, far ahead of the next largest Member State which was the United Kingdom with EUR 59.1 million of value added.

The EU-27's other transport equipment n.e.c. subsector recorded apparent labour productivity of EUR 38.8 thousand per person employed in 2005, and average personnel costs of EUR 34.9 thousand per employee in 2006.

(1) Poland, 2005; Estonia, Cyprus, Latvia, Luxembourg, Malta, the Netherlands and Romania, not available.

Table 12.14: Miscellaneous transport equipment (NACE Groups 35.4 and 35.5)
Structural profile, EU-27, 2006

	Enterprises (thousand)	Turnover (EUR million)	Value added (EUR million)	Persons employed (thousand)	Share in total (%)	
					Value added	Persons employed
Miscellaneous transport equipment (1)	3.0	11 519	2 727	64.5	100.0	100.0
Motorcycles and bicycles (2)	2.3	11 200	2 380	55.9	87.6	86.7
Other transport equipment n.e.c. (3)	0.7	1 041	337	8.6	12.4	13.3

(1) Rounded estimates based on non-confidential data; turnover and value added, 2005.

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

(3) Turnover and value added, 2005.

Source: Eurostat (SBS)

Table 12.15: Miscellaneous transport equipment (NACE Groups 35.4 and 35.5)
Structural profile: ranking of top five Member States in terms of value added and persons employed, 2006

	Highest value added (1)			Largest number of persons employed (2)			Most specialised: share in non- financial business economy (%) (3)	
	Country	(EUR million)	(% of EU-27)	Country	(thou- sand)	(% of EU-27)	Country	Value added
1	Italy	975	34.0	Italy	19.9	30.8	Italy	0.2
2	Germany	475	17.0	Germany	9.8	15.3	Lithuania	0.1
3	Spain	284	9.6	France	5.6	8.7	Sweden	0.1
4	United Kingdom	278	9.0	United Kingdom	4.7	7.3	Spain	0.1
5	France	212	8.8	Spain	4.0	6.1	Portugal	0.0

(1) Belgium, Denmark, Ireland, Latvia, Luxembourg, Malta, Austria, Romania, Slovenia and Slovakia, not available; value added: the Netherlands and Poland, 2005; share of EU-27: all 2005.

(2) Belgium, Denmark, Ireland, Luxembourg, Malta, the Netherlands, Austria, Slovenia and Slovakia, not available; Poland, 2005.

(3) Belgium, Bulgaria, Denmark, Ireland, Latvia, Luxembourg, Malta, the Netherlands, Austria, Romania, Slovenia and Slovakia, not available; Cyprus and Poland, 2005.

Source: Eurostat (SBS)

Table 12.16: Miscellaneous transport equipment (CPA Groups 35.4 and 35.5)
Production of selected products, EU-27, 2007 (1)

	Prodcom code	Production value (EUR million)	Rounding base (EUR million)	Volume of sold production (thousand)	Unit of volume	Rounding base (thousand)
Non-motorized bicycles and other cycles with ball bearings (including delivery tricycles)	35.42.10.50	1 699	-	10 256	units	-
Parts and accessories for motorcycles, mopeds and scooters (excluding saddles)	35.41.20.90	1 452	-	-	-	-
Motorcycles with an engine capacity > 800 cm ³	35.41.12.70	1 000	500	180	units	90
Scooters with an engine capacity > 50 cm ³ but ≤ 250 cm ³	35.41.12.13	840	60	360	units	30
Motorcycles, and cycles fitted with an auxiliary motor, with an engine capacity ≤ 50 cm ³	35.41.11.00	706	-	530	units	-
Motorcycles with an engine capacity > 500 cm ³ but ≤ 800 cm ³	35.41.12.50	693	-	109	units	-

(1) Excluding products of a generic nature (other), sales of services such as repair, maintenance and installation; estimates; threshold of production value set at EUR 600 million; the rounding base indicates the magnitude of the rounding employed to protect confidential cells (in the case of PRODCOM code 35.41.12.70, the volume of production lies within the range +/- 90 000 units of the reported value).

Source: Eurostat (PRODCOM)

Table 12.17: Manufacture of motor vehicles, trailers and semi-trailers (NACE Division 34)
Main indicators, 2006 (1)

	BE	BG	CZ	DK	DE	EE	IE	EL	ES	FR	IT	CY	LV	LT
Enterprises	0.5	0.1	0.5	0.1	2.3	0.0	0.1	0.4	2.1	2.1	2.0	0.0	0.0	0.0
Persons employed	47.0	2.8	112.5	6.4	840.4	2.2	3.9	2.9	158.2	267.7	166.1	0.3	1.2	1.2
Turnover	19 323	63	18 917	1 059	338 016	142	733	200	58 754	110 838	58 311	18	66	122
Production	18 038	57	18 783	1 016	281 629	138	697	216	52 645	105 324	50 496	16	69	101
Purch. of goods & serv.	15 760	51	15 710	709	269 533	103	506	150	50 511	93 815	49 561	11	56	110
Value added	3 672	14	3 656	379	68 225	41	213	84	9 284	16 271	9 264	7	15	18
Personnel costs	2 376	7	1 475	283	55 626	24	129	63	5 954	13 271	6 478	5	9	8
Average personnel costs	51.0	2.7	13.2	44.5	66.3	10.7	33.7	25.6	37.8	49.6	39.7	19.8	7.3	7.1
Gross operating surplus	1 297	7	2 181	96	12 599	17	84	21	3 329	3 000	2 786	2	6	10
Gross investment	613	3	909	45	8 877	6	19	22	1 944	3 834	2 138	0	7	8
Apparent labour prod.	78.1	5.1	32.5	59.3	81.2	18.4	55.0	29.3	58.7	60.8	55.8	26.3	12.0	15.3
Wage adj. labour prod.	153.2	188.8	246.2	133.3	122.4	171.3	163.4	114.5	155.0	122.5	140.6	132.4	164.9	216.0
Gross operating rate	6.7	11.0	11.5	9.0	3.7	12.2	11.4	10.7	5.7	2.7	4.8	10.9	8.7	8.0
Investment rate	16.7	19.1	24.9	11.7	13.0	14.5	8.8	26.5	20.9	23.6	23.1	6.3	49.7	45.3
	LU	HU	MT	NL	AT	PL	PT	RO	SI	SK	FI	SE	UK	NO
Enterprises	0.0	0.4	:	0.6	0.3	1.1	0.5	0.4	0.1	0.1	0.3	1.0	3.1	0.1
Persons employed	:	51.2	:	22.7	33.1	108.4	23.1	62.5	8.9	29.1	6.7	85.8	178.4	4.7
Turnover	:	11 858	:	9 002	15 273	15 960	4 279	3 453	1 998	7 381	1 197	31 028	67 599	1 031
Production	:	11 611	:	8 352	15 068	15 387	3 904	3 833	1 804	7 399	1 177	29 029	58 091	1 016
Purch. of goods & serv.	:	9 832	:	6 880	12 260	13 167	3 631	2 734	1 723	6 786	841	25 831	54 554	747
Value added	:	2 223	:	2 141	3 072	3 072	754	761	303	781	367	5 668	12 766	301
Personnel costs	:	676	:	1 023	1 666	1 007	465	356	165	330	271	4 125	9 121	247
Average personnel costs	:	13.2	:	45.9	50.5	9.4	20.2	5.7	18.6	11.3	40.7	51.5	51.5	53.3
Gross operating surplus	:	1 547	:	1 118	1 406	2 065	288	405	138	451	96	1 401	3 644	54
Gross investment	:	754	:	164	338	842	113	485	250	760	26	1 247	2 360	21
Apparent labour prod.	:	43.4	:	94.3	92.8	28.3	32.6	12.2	34.1	26.9	54.5	66.0	71.5	64.7
Wage adj. labour prod.	:	328.2	:	205.4	183.6	300.8	161.5	213.7	183.5	236.7	133.8	128.2	138.9	121.5
Gross operating rate	:	13.0	:	12.4	9.2	12.9	6.7	11.7	6.9	6.1	8.0	4.5	5.4	5.3
Investment rate	:	33.9	:	7.6	11.0	27.4	15.0	63.7	82.4	97.4	7.1	22.0	18.5	7.1

(1) The Netherlands and Poland, 2005; Portugal, except for enterprises, 2005; unless otherwise stated, values refer to EUR million; number of enterprises and number of persons employed are given in thousands; average personnel costs and apparent labour productivity are given in EUR thousand per person; wage adjusted labour productivity, gross operating rate and investment are ratios expressed as percentages.

Source: Eurostat (SBS)

Table 12.18: Manufacture of other transport equipment (NACE Division 35)
Main indicators, 2006 (1)

	BE	BG	CZ	DK	DE	EE	IE	EL	ES	FR	IT	CY	LV	LT
Enterprises	0.3	0.3	0.4	0.4	1.4	0.1	0.0	0.9	2.7	3.3	5.3	0.0	0.1	0.2
Persons employed	9.4	11.3	21.8	7.9	139.4	2.8	3.8	14.0	58.0	148.4	108.4	0.1	5.4	7.2
Turnover	1 693	275	1 290	1 597	33 573	170	468	1 029	12 311	36 792	20 393	9	161	269
Production	1 740	282	1 352	1 582	34 192	168	467	1 075	12 380	36 836	23 301	9	165	270
Purch. of goods & serv.	1 138	229	1 040	1 264	24 066	141	247	521	9 977	27 986	17 181	5	124	191
Value added	632	78	366	342	10 447	37	-291	589	3 123	10 688	6 127	4	50	90
Personnel costs	494	49	262	412	8 625	33	187	473	2 261	8 650	4 117	3	31	64
Average personnel costs	54.0	4.5	12.3	53.6	62.3	11.8	49.5	36.7	40.1	58.6	40.8	19.5	5.7	8.9
Gross operating surplus	137	28	104	-70	1 821	4	-478	116	862	2 037	2 010	2	19	26
Gross investment	39	54	88	41	986	17	10	46	496	1 558	724	1	12	19
Apparent labour prod.	66.9	6.9	16.8	43.4	74.9	13.1	-76.7	42.2	53.8	72.0	56.5	28.5	9.1	12.5
Wage adj. labour prod.	123.9	153.1	137.2	80.9	120.2	111.1	-154.8	114.9	134.2	122.8	138.6	146.3	159.1	140.8
Gross operating rate	8.1	10.3	8.0	-4.4	5.4	2.4	-102.1	11.3	7.0	5.5	9.9	18.9	11.5	9.7
Investment rate	6.1	69.8	24.0	11.9	9.4	45.7	-3.3	7.7	15.9	14.6	11.8	16.0	24.3	21.4
	LU	HU	MT	NL	AT	PL	PT	RO	SI	SK	FI	SE	UK	NO
Enterprises	0.0	0.4	:	1.8	0.1	2.4	0.8	0.7	0.2	0.1	0.7	1.7	2.6	1.1
Persons employed	:	8.1	:	25.3	11.3	70.1	10.6	60.4	2.7	7.3	10.7	22.2	147.2	36.4
Turnover	:	462	:	5 775	2 726	3 004	786	1 423	172	285	2 169	3 998	33 726	11 032
Production	:	416	:	5 047	2 693	3 037	751	1 583	164	307	2 200	3 833	32 940	11 222
Purch. of goods & serv.	:	333	:	3 857	1 965	2 149	567	1 294	119	261	1 664	2 629	21 692	8 320
Value added	:	146	:	1 398	799	1 000	238	445	63	55	562	1 294	12 544	3 053
Personnel costs	:	104	:	1 005	580	655	203	363	48	66	431	1 089	8 517	2 525
Average personnel costs	:	13.2	:	42.9	51.6	9.6	19.4	6.0	18.5	9.0	41.0	53.2	58.5	70.0
Gross operating surplus	:	42	:	393	218	345	35	83	16	-11	131	165	4 027	529
Gross investment	:	26	:	95	50	147	27	116	8	21	63	119	1 104	254
Apparent labour prod.	:	18.0	:	55.2	70.5	14.3	22.4	7.4	23.8	7.5	52.5	58.2	85.2	83.8
Wage adj. labour prod.	:	136.6	:	128.7	136.6	147.8	115.6	122.7	128.5	83.2	128.1	109.3	145.8	119.7
Gross operating rate	:	9.1	:	6.8	8.0	11.5	4.4	5.8	9.1	-3.9	6.0	4.1	11.9	4.8
Investment rate	:	18.0	:	6.8	6.3	14.7	11.3	26.0	12.5	38.1	11.3	9.2	8.8	8.3

(1) The Netherlands and Poland, 2005; Portugal, except for enterprises, 2005; unless otherwise stated, values refer to EUR million; number of enterprises and number of persons employed are given in thousands; average personnel costs and apparent labour productivity are given in EUR thousand per person; wage adjusted labour productivity, gross operating rate and investment are ratios expressed as percentages.

Source: Eurostat (SBS)

