STATE OF THE INDUSTRY
THE UK PLASTIC PROCESSING SECTOR

Executive summary

Update on the economic performance of the industry since 2002

- The economic performance of the UK plastic processing industry has shown little improvement since 2002. In 2005, total value added in real terms was an estimated £6,028.4m, slightly lower than the level recorded in 2002 while total employment fell from some 198,000 in 2002 to 177,000 in 2005

- Builders' ware of plastics was the best performing sub-sector over the period 2002-2005. Total value added in real terms has continued to rise steadily while employment has fallen at a slower rate than in the other three sub-sectors – plastic plates, sheets, tubes and profiles, plastic packing goods and other plastic products. This has been due in part to strong demand from the construction and the growing trend of home improvement

- Despite the fall in employment, total employment costs in real terms have remained relatively unchanged between 2002 and 2005. However, these factors combined have led to a significant rise in the average annual cost per employee in real terms in all four sub-sectors over this period

- The number of businesses in the plastics processing industry – and the builders' ware of plastics sub-sector in particular – has increased significantly since 2003. This contrasts with the other plastic products sub-sector where the number of businesses has continued to decline. In all four-sub-sectors, the average number of employees per enterprise fell between 2002 and 2005

- The UK trade surplus for builders' ware of plastics returned grew in 2005 after shrinking markedly between 2002 and 2004 while the trade deficit for other plastic products has remained relatively stable since 2003. By comparison, the trade deficit for plastic packing goods has worsened significantly since 2002

- Labour productivity – measured crudely as gross value added per person employed – in the plastic processing industry has risen steadily but at a slower rate relative to the manufacturing sector as a whole. Labour productivity has risen in all sub-sectors except the plastic plates, sheets, tubes and profiles sub-sector where it has continued to decline

- Investment – measured crudely here as total net capital expenditure – has fallen further in real terms since 2002 in all sub-sectors of the plastic processing industry except builders' ware of plastics where the level of investment has remained relatively stable since 2002. A similar picture emerges with respect to investment per

Further findings from the Phase 2 study

Investment

- Around 25% of responding firms with less than 14 employees never invest in replacement machinery while around the same percentage of responding firms with more than 50 employees only invest every 6-10 years

- A large percentage of responding firms with less than 49 employees stated that they would be willing to invest more in new physical capital if demand increased or their profit margins improved

- A significant percentage of the firms interviewed with between 15 and 49 employees stated that they would invest more if tax incentives were improved

Skills and training

- A large percentage of responding firms with fewer than 49 employees stated that they did not perceive any barriers to training with firms tending to train their staff in-house or on the job rather than send them on recognised training schemes

- The cost of training (in terms of training fees and the opportunity cost of the output lost while employees are being trained) was considered a barrier to training by a large percentage of responding firms. Employee loyalty and a lack of interest among staff to take up training opportunities were also frequently cited

- Among responding firms with less than 49 employees, a lack of money stemming from low profit margins was another commonly cited barrier to training

Product and process development

- Firms interviewed believe that the tax system only weakly encourages spending on product and process development. On the basis of the responses received, it appears that the current tax rules favoured firms which had more than 50 employees slightly more than firms which had less than 14 employees

- At least 75% of firms interviewed do not use regional innovation support funding or consultancy. For responding firms which had fewer than 14 employees, the percentage was nearly 90%

- Different sources of innovation such as universities, government and research and technology organisation were considered only fairly important by the firms which responded. Firms which had more than 50 employees tended to view these sources as slightly more the important than firms which had less than 14 employees

Market structure, competition and supply chain relationships

- Responding firms considered transport costs to be fairly significant to their competitiveness. Firms which had more than 50 employees tended to view transport costs as having a more significant impact than firms which had less than 14 employees

- Nearly a third of responding firms which had more than 50 employees expected to move to a country with relatively lower labour costs. A small percentage of interviewed firms did not know

- The supply chain was viewed as relatively more co-operative by responding firms which had fewer than 14 employees.

Breakdown of firm responses by size band

	Micro firms (< 14 employees)	Small firms (15-49 employees)	Medium to large firms (> 50 employees)
Most commonly cited driver for investment	To protect existing markets	To improve productivity	To take advantage of new markets
Most commonly cited barrier to investment in new technology	Lack of confidence in the future of the economy	Lack of confidence in the future of the economy	Lack of confidence in the future of the economy
Frequency of investment in replacement machinery	Around 60% of respondents invest every 3-5 years but nearly 25% never invest	Over 70% of respondents invest every 3-5 years	Around 50% invest every 3-5 years but around 25% invest every 6-10 years
Most commonly cited conditions for investing in training	Critical need and opportunities to increase sales	Critical need and opportunities to increase sales	Health and safety concerns and critical need
Most commonly cited barrier to investment in product and process development	Lack of interest from existing customers	Lack of interest from existing customers	Lack of interest from existing customers
Use of temporary labour	Nearly 60% of respondents do not use it; nearly 30% use it to manage occasional peaks	Nearly 50% of respondents do not use it; around 40% use it to manage occasional peaks	Nearly 50% of respondents use it to manage peaks; 30% use it on a consistent basis
Most commonly cited barriers to investment in process development	Lack of interest from existing customers and lack of access to strategic customers	Lack of interest from existing customers and lack of access to strategic customers	Lack of interest from existing customers and lack of access to strategic customers
Type of product and process development	Pro-active and re-active, prompted by customer enquiry, linked to customer requirements and focused on the development of new products. Strong dependence on machinery supplier	Pro-active and re-active, prompted by customer enquiry, linked to customer requirements and focused on the development of new products. Strong dependence on machinery supplier	Pro-active, prompted by customer enquiry, linked to customer requirements and focused on the development of new products. Fairly strong dependence on machinery supplier
Impact of tax rules on product and process development	Weakly encourage	Weakly encourage	Weakly encourage
Importance of different sources of innovation support	Research and technology organisations, industry groups and R & D funding.	Industry groups, R & D funding and research and technology organisations.	Industry groups, research and technology organisations and R & D funding.
Influence of large customers and raw suppliers	Raw material suppliers have a strong influence Larger customers have a slightly weaker influence	Raw material suppliers have a strong influence Larger customers have a slightly weaker influence	Raw material suppliers have a strong influence Larger customers have a slightly weaker influence
Most commonly cited order-winners	Service, price, quality, delivery	Service, price, quality, delivery	Service, price, quality, delivery
Competition	Home producer fairly important. Competitors within 100 miles for over 50% of respondents. Top 10 customers account for nearly two thirds of annual revenue	Home producer fairly important. Competitors over 100 miles for over 60% of respondents. Top 10 customers account for over 60% of annual revenue	Home producer fairly important. Competitors over 100 miles for over 60% of respondents. Top 10 customers account for over 60% of annual revenue
Influence of transport costs on competitiveness	Not significant	Fairly significant	Fairly significant
Expectation to move to a low labour cost country	Around 60% of respondents do not expect to move; around 15% expect to do so	Nearly 50% of respondents do not expect to move; over 25% expect to do so	Around 50% of respondents do not expect to move; 30% expect to do so
Supply chain relationships	Fairly co-operative.	Fairly co-operative.	Fairly co-operative

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Background

In 2004, the DTI published the results of two Phase 1 Sector Competitiveness Analysis studies on the UK plastics processing industry. The first was a statistical analysis of economic trends and relative productivity levels in the UK industry while the second was a review of the existing literature on the key factors underlying its relative productivity and competitiveness[1]

These have been followed, in 2006, by a Phase 2 Sector Competitiveness Analysis study, to which uses international field research to explore in greater detail the possible explanations identified in these earlier studies for the relative poor performance of the UK vis-à-vis other countries. The results of this latest study can be found on the DTI website[2].

Aim of paper

The aim of this short paper is twofold. First, it updates the statistical analysis contained in the Phase 1 report. Using the same methodology, it explores what has happened to the UK plastics processing industry since 2002 by reporting the latest trends in value added, employment, employment costs, the number and average size of enterprises, labour productivity and investment.

Second, it complements the Phase 2 study by exploring the differences in survey responses to questions given by smaller and larger sized firms on the six policy themes: investment, skills and training, product and process development, supply chain issues, market structure and competition and the institutional framework.

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[1] These can be found on the DTI website at:

[2] The report can be found on the DTI website at:

Defining the UK plastics processing industry

In this short paper we adopt the definition of the industry used in the Phase 1 study – namely, all activities falling under Standard Industrial Classification (SIC) code 25.2 "*Manufacture of plastic products.*"[3] Table 1 below characterises the industry in more detail.

Table 1: Breakdown of the UK plastic processing industry

SIC code	Sub-sector	Products
25.21	**Plastic plates, sheets, tubes and profiles**[4]	***Manufacture of semi-manufactures of plastic products***: plastic plates, sheets, blocks, film, foil, strip etc ***Manufacture of finished plastic products***: plastic tubes, pipes and hoses; hose and pipe fittings
25.22	**Plastic packing goods**[5]	***Manufacture of plastic articles for the packing of goods*** including plastic bags, sacks, containers, boxes, cases, carboys, bottles etc
25.23	**Builders' ware of plastics**[6]	***Manufacture of plastic floor covering*** including plastic floor coverings in rolls or in the form of tiles ***Manufacture of other builders' ware of plastic*** including: manufacture of plastic builders' ware plastic doors, windows, frames, shutters, blinds, skirting boards, tanks, reservoirs, plastic wall or ceiling coverings in roles or in the form of tiles etc, plastic sanitary ware such as the manufacture of plastic baths, shower-baths, wash basins, lavatory pans, flushing cisterns etc.
25.24	**Other plastic products**[7]	***Manufacture of plastic tableware, kitchenware and toilet articles*** and ***manufacture of diverse plastic products*** such as plastic headgear, insulating fittings, parts of lighting fittings, office or school supplies, articles of apparel, fittings for furniture, statuettes, transmissions and conveyor belts etc

Source: Office for National Statistics. http://www.statistics.gov.uk/methods_quality/sic/contents.asp

The plastic processing industry supplies a number of end-user markets. The main ones are:

- Packaging and film
- Construction
- Transport (automotive)
- Electrical and electronics industry
- Medical

[3] This is not a perfect definition of the industry since it does not include outputs produced by the UK plastics processing industry which fall under SIC codes other than 25.2. These other outputs are not included in this short paper because of time constraints.
[4] This sub-sector does not include manufacture of plastics in primary forms (cf. 24.16), manufacture of plastic optical elements (cf. 33.40/1) or the manufacture of mattresses of uncovered cellular plastic (cf. 36.15)
[5] This sub-sector does not include manufacture of plastic travel goods (cf. 19.20), manufacture of articles of synthetic or natural rubber (cf. 25.1) or packaging (cf. 74.82)
[6] This sub-sector does not include manufacture of linoleum and hard non-plastic surface floor coverings (cf. 36.63/9) or manufacture of articles of synthetic or natural rubber (cf. 25.1)
[7] This sub-sector does not include manufacture of plastic travel goods (cf. 19.20), manufacture of plastic footwear (cf. 19.30), manufacture of plastic medical and dental appliances (cf. 33.10), manufacture of plastic optical instruments (cf. 33.40/1), manufacture of plastic furniture (cf. 36.1). manufacture of mattresses of uncovered cellular plastic (cf. 36.15), manufacture of plastic sports requisites (cf. 36.40), manufacture of plastic games and toys (cf. 36.50/9) or manufacture of linoleum and hard non-plastic surface floor coverings (cf. 36.63/9)

Table 1 below sets out the value of output from the UK plastics industry purchased by various end-user sectors including construction, automotive and electrical and electronics sector.

Table 1: Share of six end-user markets to total demand for plastic products

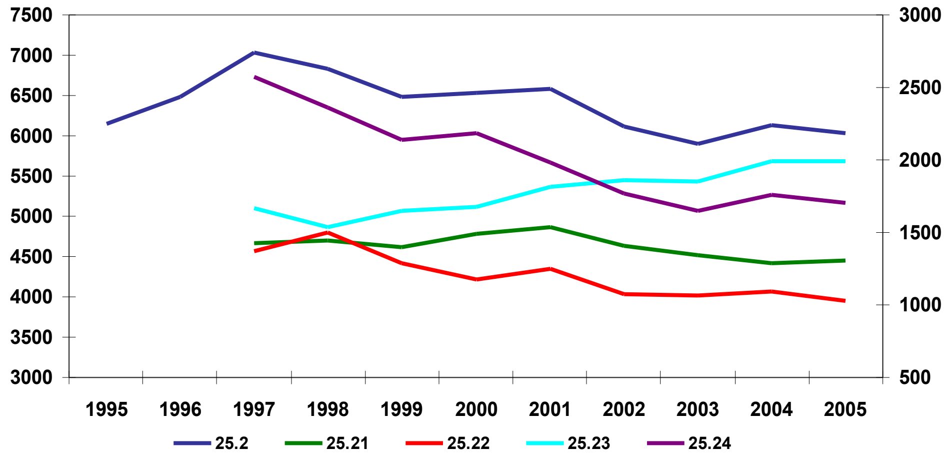
End-user market	Value (£m)	%
Construction	**3522**	**20.4**
Automotive	**2329**	**13.5**
Motor vehicles	1542	**8.9**
Motor vehicle distribution and repair, fuel retail	787	4.5
Electrical/ electronics	**740**	**4.3**
Office machinery and computers	122	0.7
Electronic valves and tubes and other components	5	0.0
Television and radio transmitters	112	0.6
Television and radio receivers	38	0.2
Medical precision and optical instruments	263	1.5
Electric motors, generators and transformers	87	0.5
Electrical equipment	113	0.7
Telecommunications	**893**	**5.2**
Wholesale and retail distribution	**1096**	**6.3**
Wholesale	798	4.6
Retail	298	1.7
Plastic products	**2125**	**12.3**
Contribution of six sectors to total demand for plastic products	**10705**	**62**

Source: Input-output statistics, Office of National Statistics

Value added

1. Figure 1 below shows in 2005 total value added in the plastics processing industry (left-hand axis) in real terms was an estimated £6,028.4m, lower than the level recorded in 2002. This was despite the slight recovery in value added reported in 2004.

Figure 1: Value added (£m in 2002 prices) in the plastics industry (left-hand axis) and its constituent sectors (right-hand axis)



Source: Office of National Statistics, Annual Business Inquiry

2. Table 1 below reports the change in total value added in real terms by sub-sector over the period 2002-2005. Only in the builders' ware of plastic sub-sector has total value added increased in real terms over this period. This has been due in part to strong growth in the construction sector and increased demand brought about by a rising number of people carrying out home improvements.

Table 1: Total value added in real terms (£m at 2002 prices) by sub-sector

	2002	2005
Plastic plates, sheets, tubes and profiles	1,407.0	1,304.1
Plastic packing goods	1,073.0	1,026.9
Builders' ware of plastics	1,859.0	1,988.7
Other plastic products	1,771.0	1,707.9

3. Table 2 below shows that over the period 2002-2005 the contribution of the builders' ware of plastic sub-sector to total value added in the industry has increased while the share of the other three sub-sectors has fallen.

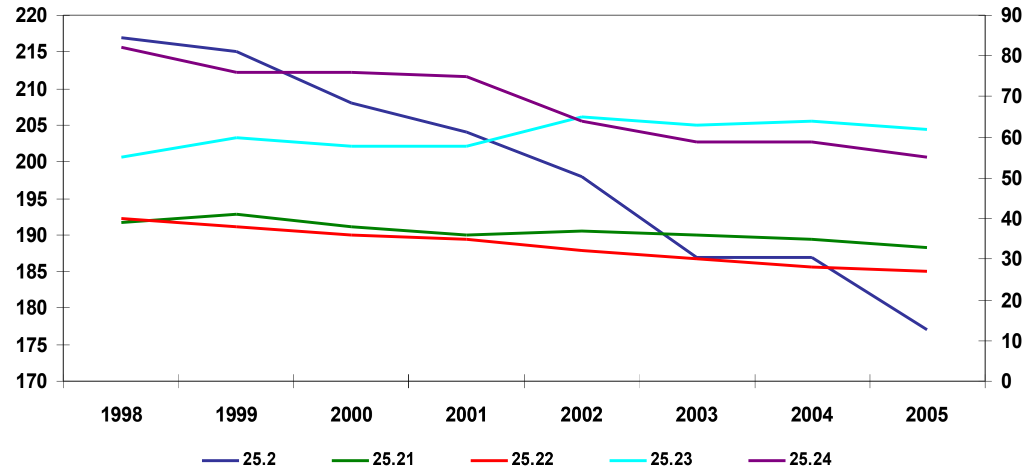
Table 2: Contribution of sub-sectors to total value added in real terms

	2002	2005
Plastic plates, sheets, tubes and profiles	23.0	21.3
Plastic packing goods	17.6	16.8
Builders' ware of plastics	30.4	32.5
Other plastic products	29.0	27.9

Employment

4. Figure 2 below shows that between 2002 and 2005, total employment in the plastics processing industry (left-hand axis) fell from some 198,000 to around 177,000.

Figure 2: Employment (000s) in the plastics industry (left-hand axis) and its constituent sectors right-hand axis)



Source: Office of National Statistics, Annual Business Inquiry

5. Table 3 below shows that nearly half of the total fall in employment in the industry occurred in the other plastics products sub-sector.

Table 3: Employment levels (000s) by sub-sector

	2002	2005
Plastic plates, sheets, tubes and profiles	37,000	32,000
Plastic packing goods	32,000	27,000
Builders' ware of plastics	65,000	62,000
Other plastic products	64,000	55,000

6. Table 4 below shows that over the period 2002-2005, the contribution of the builders' ware of plastics sector to total employment in the industry has increased while the share of the other three sub-sectors has fallen.

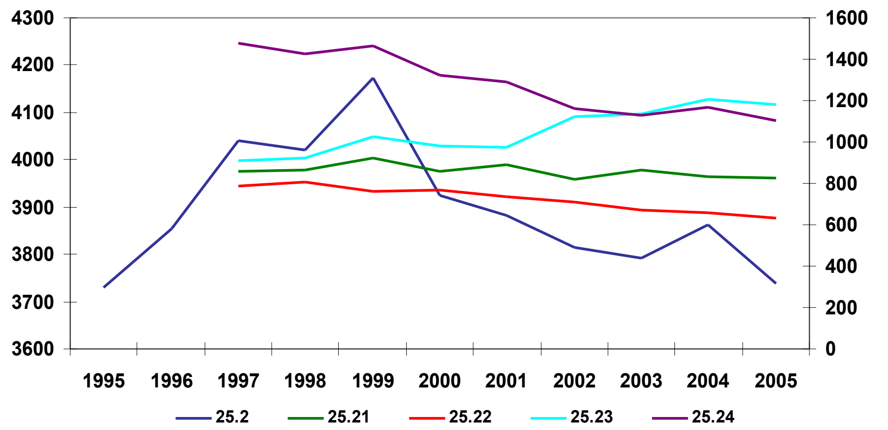
Table 4: Contribution of sub-sectors to total employment

	2002	2005
Plastic plates, sheets, tubes and profiles	18.7	18.6
Plastic packing goods	16.2	15.3
Builders' ware of plastics	32.8	35.0
Other plastic products	32.3	31.1

Employment costs

7. Figure 3 below shows that total employment costs (left-hand axis) in the plastics industry fell slightly in real terms from an estimated £3,814.0m in 2002 to an estimated £3,737.8m in 2005.

Figure 3: Employment costs (£m in 2002 prices) in the plastics industry (left-hand axis) and its constituent sectors (right-hand axis)



Source: Office of National Statistics, Annual Business Inquiry

8. Table 5 below shows that over this period, total employment costs rose slightly in real terms in the builders' ware of plastics and plastic plates, sheets, tubes and profiles sub-sectors and fell slightly in the plastic packing and other plastic products sub-sectors.

Table 5: Employment costs in real terms (£m in 2002 prices) by sub-sector

	2002	2005
Plastic plates, sheets, tubes and profiles	821.0	825.9
Plastic packing goods	710.0	630.5
Builders' ware of plastics	1,123.0	1,177.4
Other plastic products	1,159.0	1,103.1

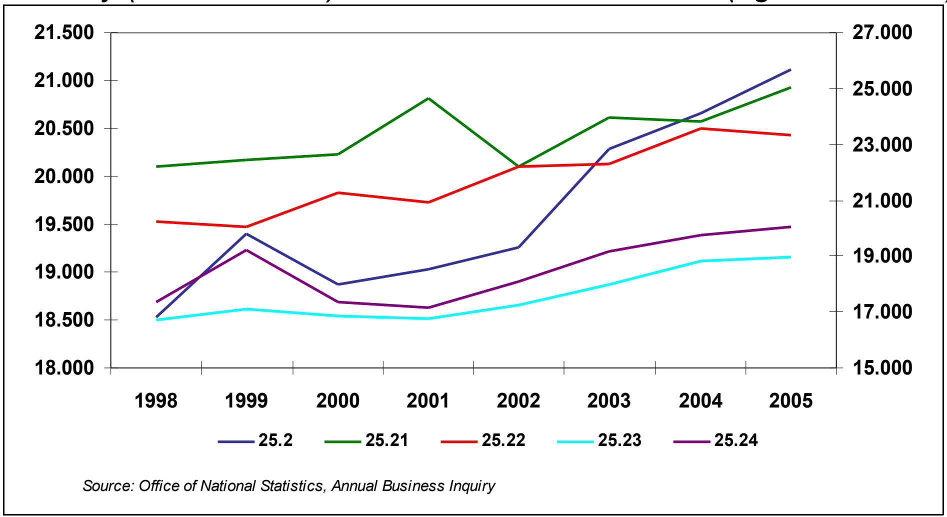
9. Figure 6 overleaf shows that the average annual cost per employee has risen sharply in the plastic industry (left-hand axis) over the period 2002-2005 from an estimated £19,263 to an estimated £21,118.

10. Table 6 below shows that the plastic plates, sheets, tubes and profiles sub-sector has experienced the most significant increase in the average annual cost per employee over this period.

Table 6: Average annual cost per employee in real terms (£ in 2002 prices) by sub-sector

	2002	2005
Plastic plates, sheets, tubes and profiles	22,189	25,028
Plastic packing goods	22,188	23,351
Builders' ware of plastics	17,277	18,991
Other plastic products	18,109	20,056

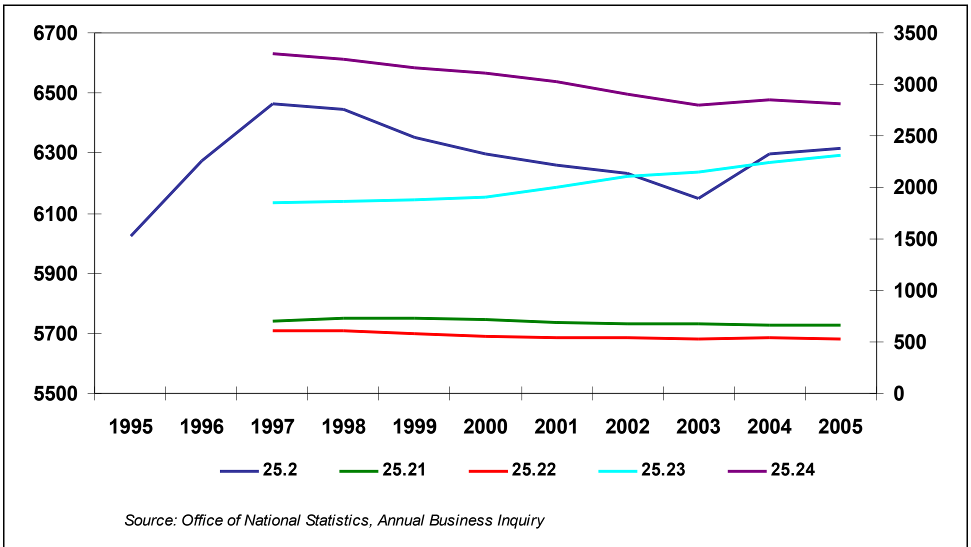
Figure 6: Average annual cost per employee (£ in 2002 prices) in the plastics industry (left-hand axis) and its constituent sectors (right-hand axis) [8]



Number of enterprises

11. Figure 7 below shows that the total number of enterprises in the industry rose between 2002 and 2005 from 6,230 to 6,315.

Figure 7: Number of enterprises in the plastics industry (left-hand axis) and its constituent sectors (right-hand axis).



12. Table 7 below shows that over the period 2002-2005, the number of businesses in the builders' ware of plastics increased markedly while in the other three sub-sectors the number declined

Table 7: Number of enterprises by sub-sector

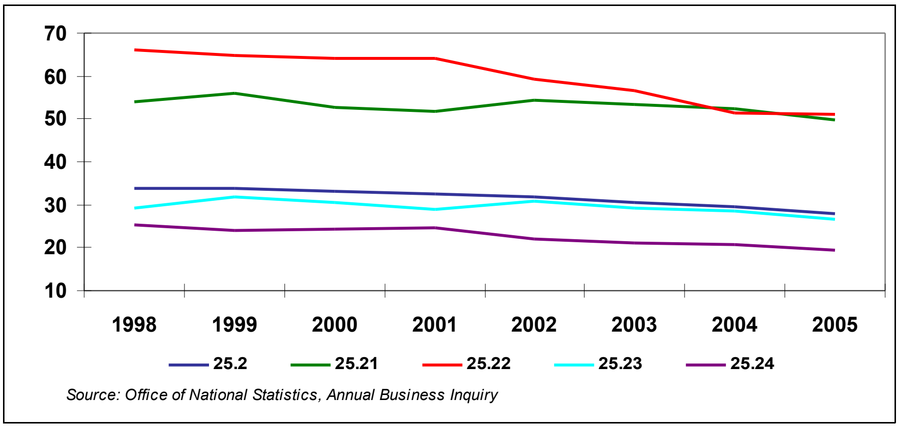
	2002	2005
Plastic plates, sheets, tubes and profiles	680	665
Plastic packing goods	540	527
Builders' ware of plastics	2,109	2,315
Other plastic products	2,901	2,808

[8] This is calculated as total employment costs in 2002 prices divided by total average employment during the year. This figure is a rough estimate as it does not take into account the differences in employment costs between full time and part time workers.

Average firm size

13. Figure 8 below shows that for the industry as a whole the average number of employees per enterprise fell slightly over the period 2002-2005 from an estimated 31.8 employees to 28 employees.

Figure 8: Average number of employees per enterprise in the plastics industry (left-hand axis) and its constituent sectors (right-hand axis).



14. Table 8 below shows that average number of employees per enterprise fell the most in the plastic packing sub-sector.

Table 7: Average number of employees per firm by sub-sector

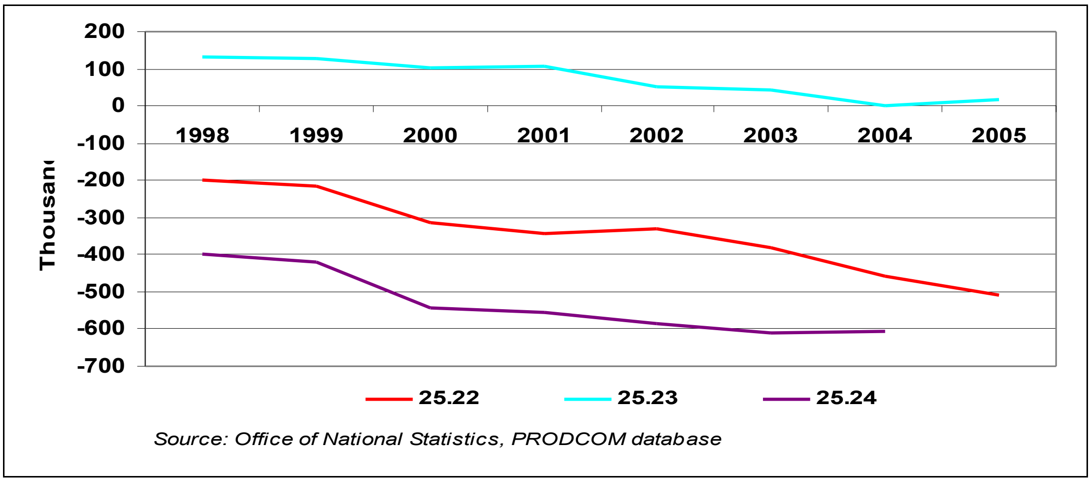
	2002	2005
Plastic plates, sheets, tubes and profiles	54.4	49.6
Plastic packing goods	59.3	51.2
Builders' ware of plastics	30.8	26.8
Other plastic products	22.1	19.6

UK trade performance

15. Figure 9 below shows that the trade balance for plastic packing goods deteriorate further over the period 2002-2005

16. The trade balance for the builders' ware of plastics recovered in 2005 after worsening between 2002 and 2004 while the trade balance for other plastic products stabilised in 2004 after deteriorating further in 2002 and 2003

Figure 9: Trade balance[9] (£000m) in current prices

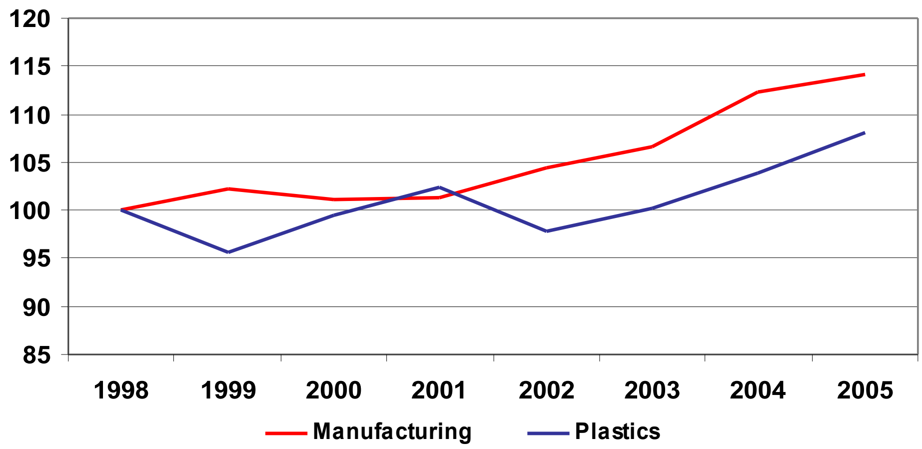


[9] Trade data for the plastic plates, sheets, tubes and profiles sub-sector is not available for disclosive reasons.

Labour productivity

17. Figure 11 below shows that over the period 2002-2005, average labour productivity[10] has risen steadily but at a slower rate relative to the manufacturing sector as a whole.

Figure 11: Average labour productivity in the manufacturing and plastics industry (1998=100)



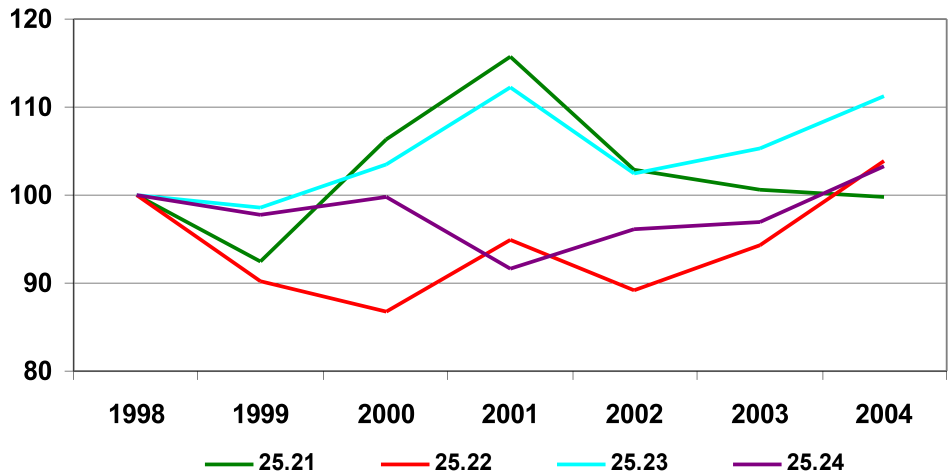
Source: Office of National Statistics, Annual Business Inquiry

18. Within the plastics industry there has been considerable variation as shown in Figure 12 below. After falling in 2002, productivity has improved in the plastic packaging and builders ware of plastics sectors.

19. In the other plastic products sector, this trend began a year earlier in 2001 and has continued to gather pace.

20. By contrast, productivity in the plastic sheets, plates and tubes sector has continued to deteriorate after peaking in 2001.

Figure 12: Gross value added per employee in the different sectors of the plastics industry (£ per employee in 2002 prices)



Source: Office of National Statistics, Annual Business Inquiry

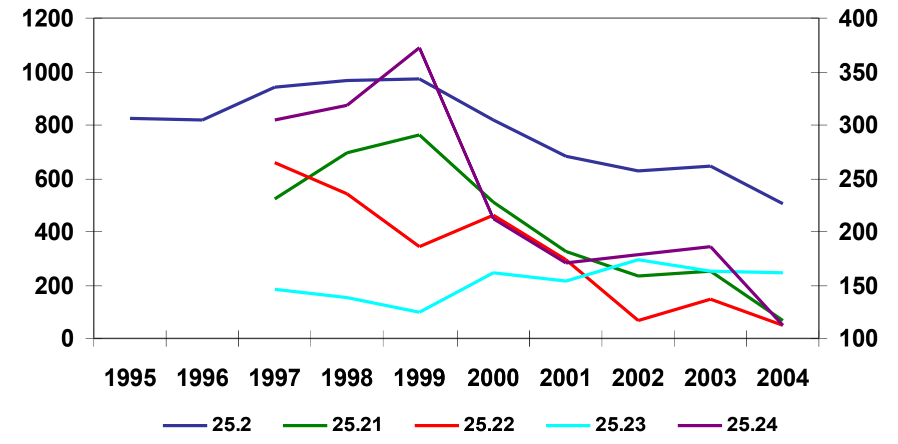
[10] This is defined crudely here as total value added at 2002 prices divided by total average employment.

Investment

21. Figure 11 below shows that investment – defined here in terms of total net capital expenditure in the plastics industry – in the plastics industry (left-hand axis of Figure 13) fell further in real terms in 2004 after a slight recovery in 2003.

22. This trend was repeated in all the different sub-sectors except builders ware of plastics where total net capital expenditure in real terms has stabilised.

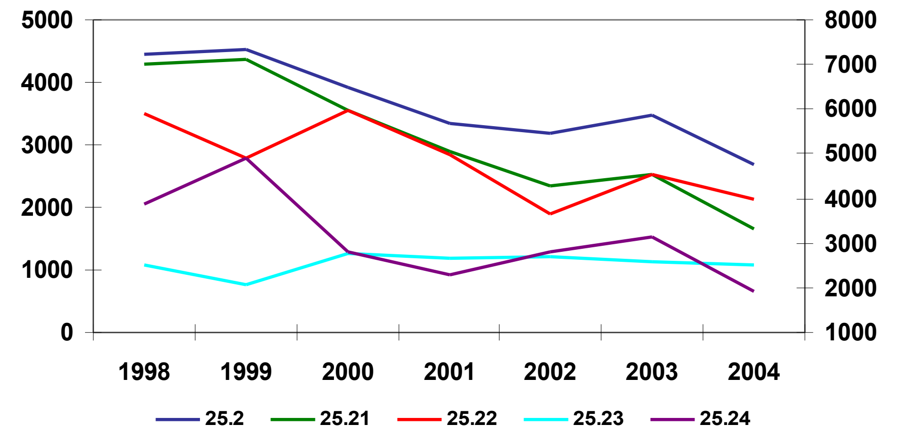
Figure 13: Total net capital expenditure (£000s in 2002 prices)



Source: Office of National Statistics, Annual Business Inquiry

23. A similar trend appears for investment per person employed (see Figure 14 below). Again builders' ware of plastics contrasts sharply with the rest of the industry in that it has hardly fallen since 2002 despite the slight rise in employment in the sector.

Figure 14: Total net capital expenditure per person employed (£ per employee in 2002 prices)



Source: Office of National Statistics, Annual Business Inquiry

Part 2: Further statistical analysis of the survey data from the Phase 2 SCA study

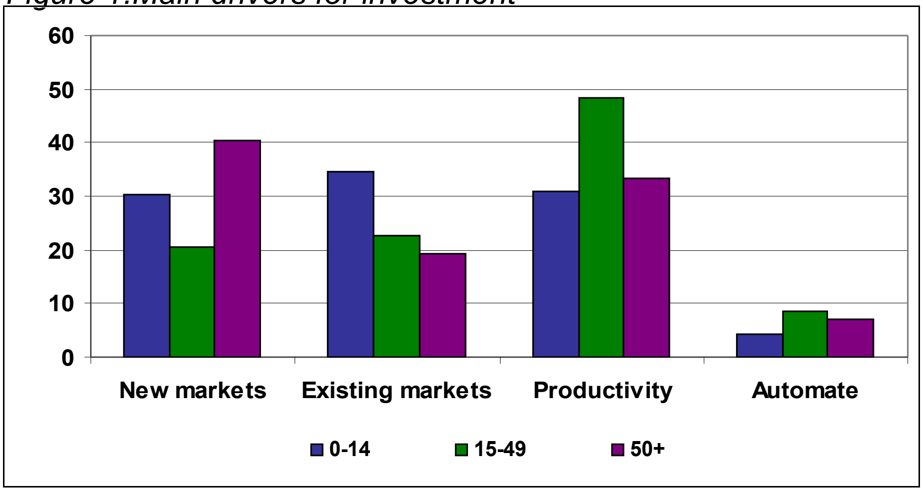
<u>Investment</u>

- Figure 1 below suggests that protecting existing markets, taking advantage of new markets and improving productivity are all equally important drivers of investment among micro[11] businesses in the sample.

- Improving productivity is the key driver of investment among small firms in the sample.

- Taking advantage of new markets and improving productivity are the main factors driving investment among medium to large firms in the sample.

Figure 1:Main drivers for investment

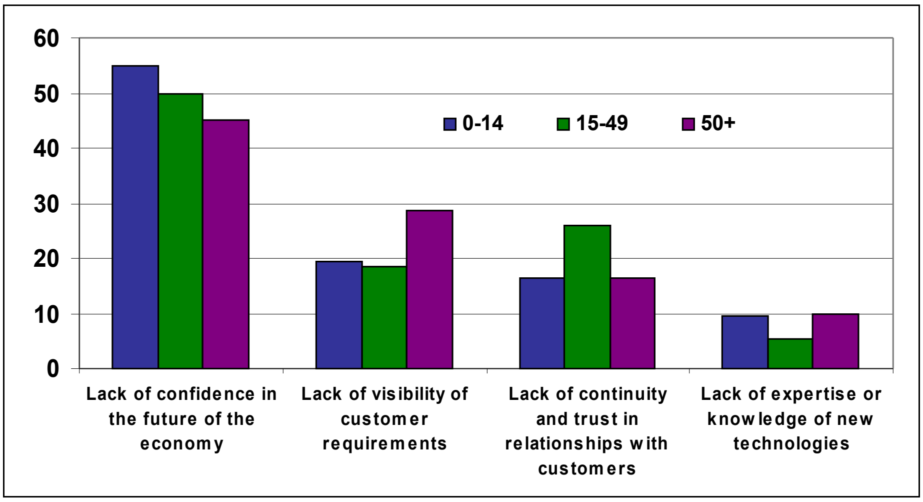


- Figure 2 overleaf shows that the lack of confidence in the future of the economy is the main barrier to investment for firms of all size bands in the sample.

- The lack of continuity and trust in relationships with customers in another major barrier for small[12] firms in the sample while the lack of visibility of customer requirements is considered a further obstacle for medium to large firms in the sample.

[11] Micro businesses are firms interviewed in the Phase 2 study with fewer than 14 employees. This corresponds closely to the Small Business Service definition of micro businesses which is an enterprise with fewer than 10 employees.
[12] Small firms are businesses interviewed in the Phase 2 study with between 15 and 49 employees. This corresponds closely to the Small Business Service definition of small business which is an enterprise with fewer than 49 employees.

Figure 2:The main barriers to investment in new technology

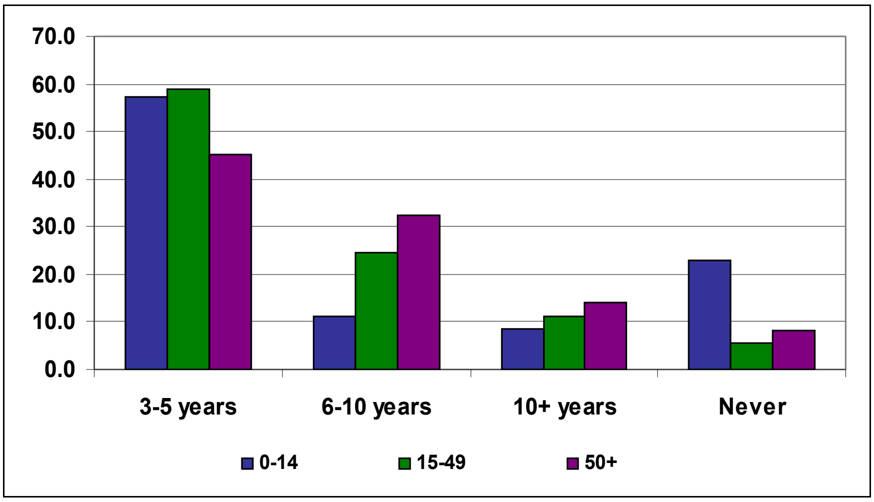


- Figure 3 suggests that the majority of firms in the sample in all size bands choose to invest in replacement machinery every 3 to 5 years.

- Nearly a third of medium to large[13] firms in the sample only invest in replacement machinery every 6-10 years

- Almost a quarter of micro businesses never invest in replacement machinery.

Figure 3: Frequency of investment in replacement machinery



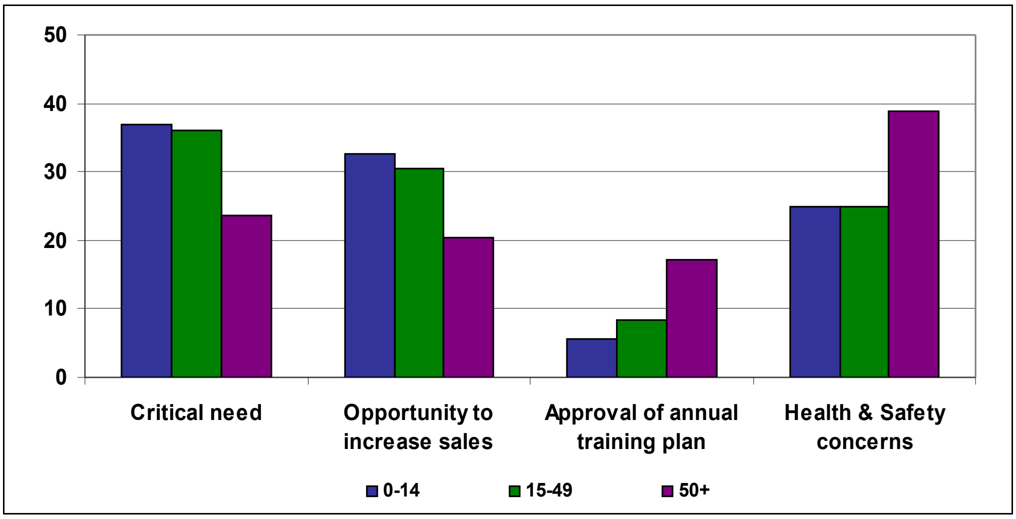
Skills and training

- Figure 4 overleaf suggests that critical need and the opportunity to increase sales are the most common reasons given by micro and small businesses in the sample for investing in training.

- For medium to large firms in the sample, health and safety concerns was the most common reason given for investing in training.

[13] These are firms interviewed in the Phase 2 study with 50 employees or more.

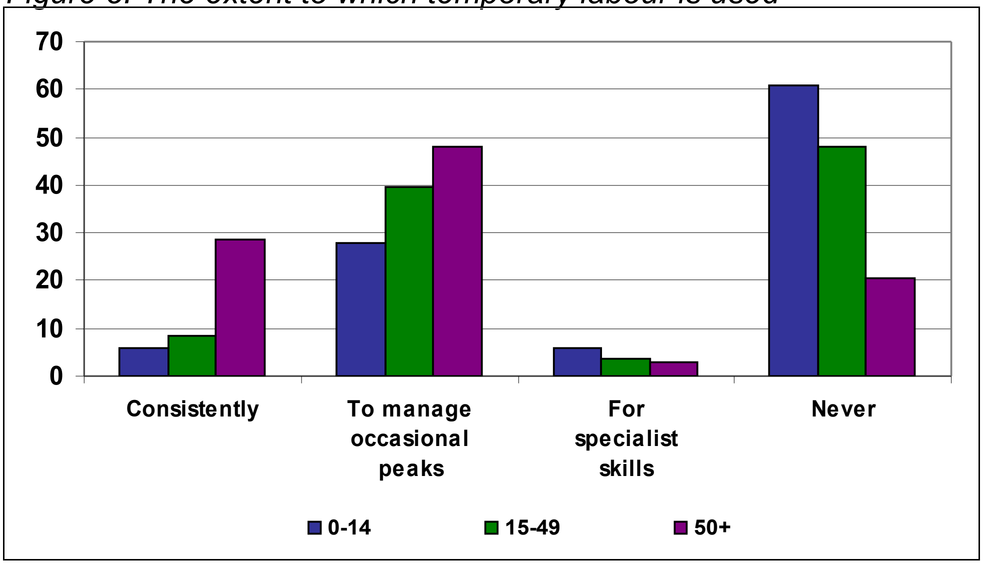
Figure 4: Conditions for investing in training



- Figure 5 below shows that the majority of micro and small businesses in the sample never use temporary labour. Amongst those that do, the main reason is to manage occasional peaks in demand.

- Temporary labour is used by a large proportion of medium to large firms in the sample. The majority use it to manage occasional peaks in demand although a small proportion use it on a consistent basis.

Figure 5: The extent to which temporary labour is used

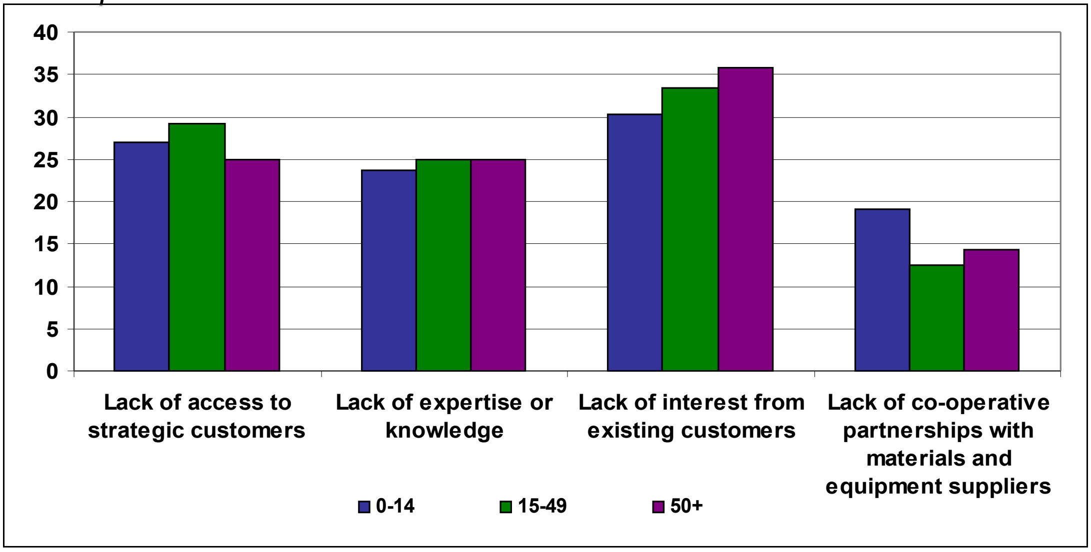


Product and process development

- Figure 6 overleaf suggests that the main barrier to investment in product and process development for all firms in the sample is the lack of interest from existing customers.

- The lack of access to strategic customers and lack of expertise or knowledge are also major barriers for firms of all sizes in the sample.

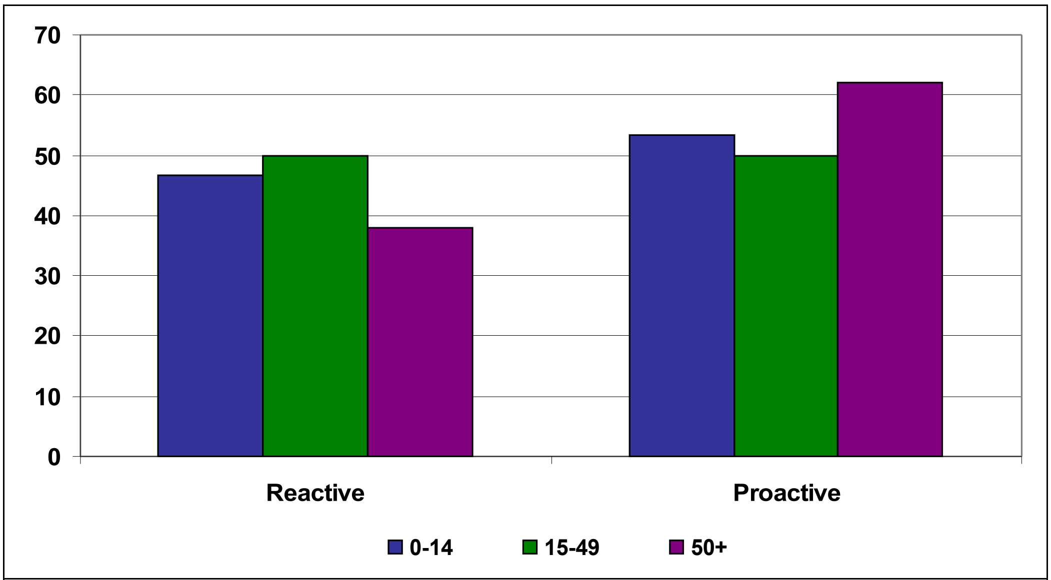
Figure 6: The barriers to higher levels of investment in product and process development.



- Figure 7 below shows that for the majority of micro businesses and medium to large firms in the sample, product and process development is pro-active rather than re-active.

- For small firms in the sample, there appears to be an even split between pro-active and re-active product and process development.

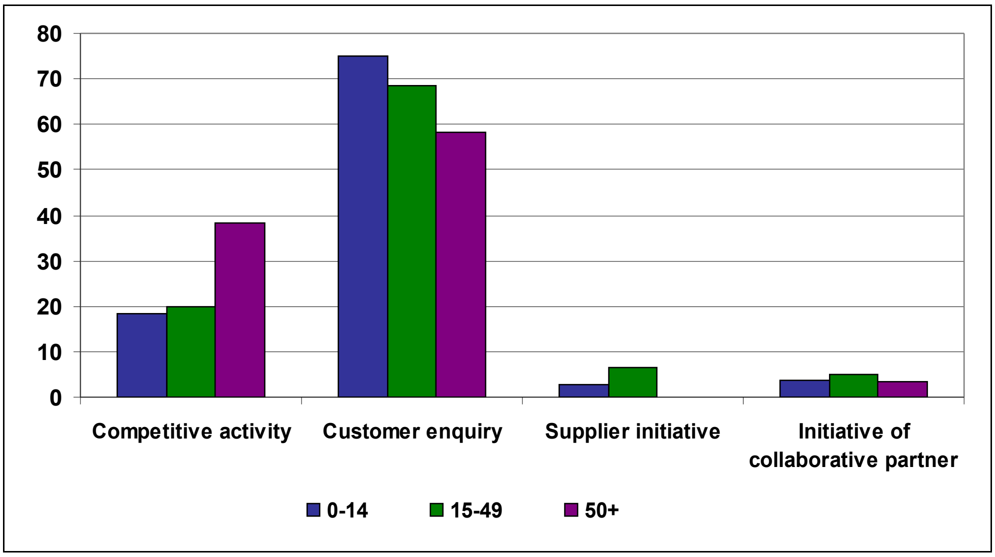
Figure 7: Is product and process development reactive or pro-active?



- Figure 8 overleaf shows that customer enquiry tends to prompt development for firms of all sizes in the sample.

- Competitive activity also appears to be a relatively more important driver for medium to large firms in the samples than micro or small firms.

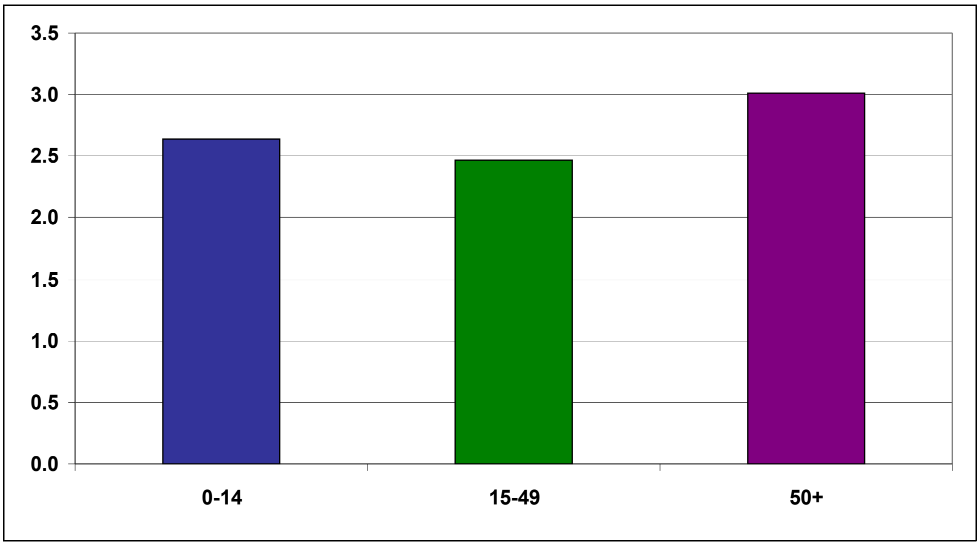
Figure 8: Factors prompting development



- Figure 9 below shows that all firms in the sample consider the tax rules only weakly encourage spending on product and process development.

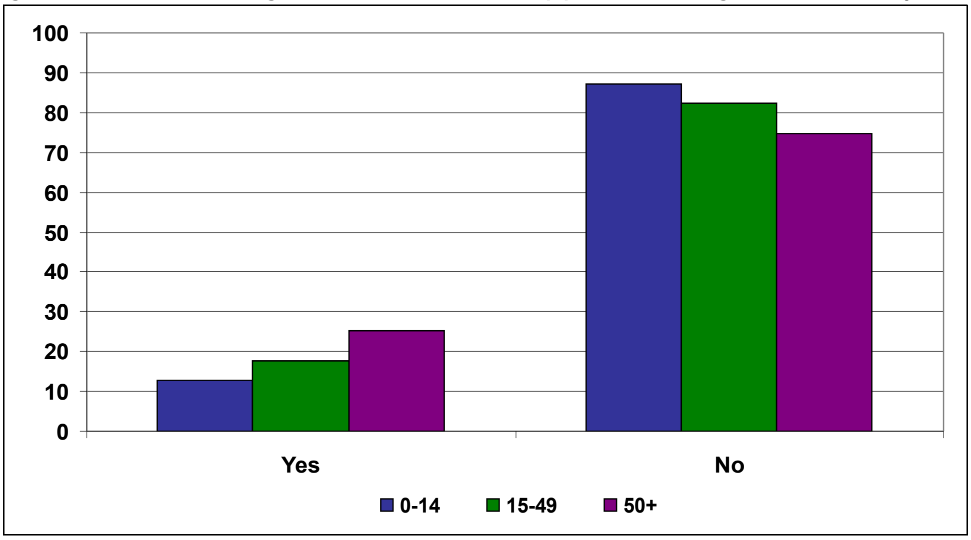
- The medium to large firms in the sample believe the tax rules encourage spend on product and process development slightly more than the micro and small firms in the sample.

Figure 9: To what extent do tax rules encourage spend on product and process development?



- Figure 10 overleaf shows that a relatively larger proportion of medium to larger firms in the sample tend to use regional innovation support funding and consultancy than micro and small firms.

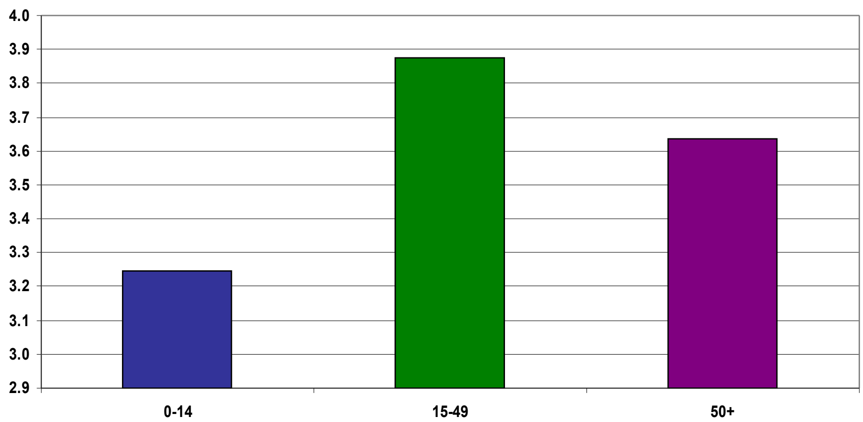
Figure 10: Use of regional innovation support funding/ consultancy



- Figure 11 below shows that firms in the sample consider product and process development to be driven by both customer requirements and the general market.

- However micro businesses in the sample consider product and process development to be linked to specific customer requirements slightly more than the small and medium to large firms in the sample.

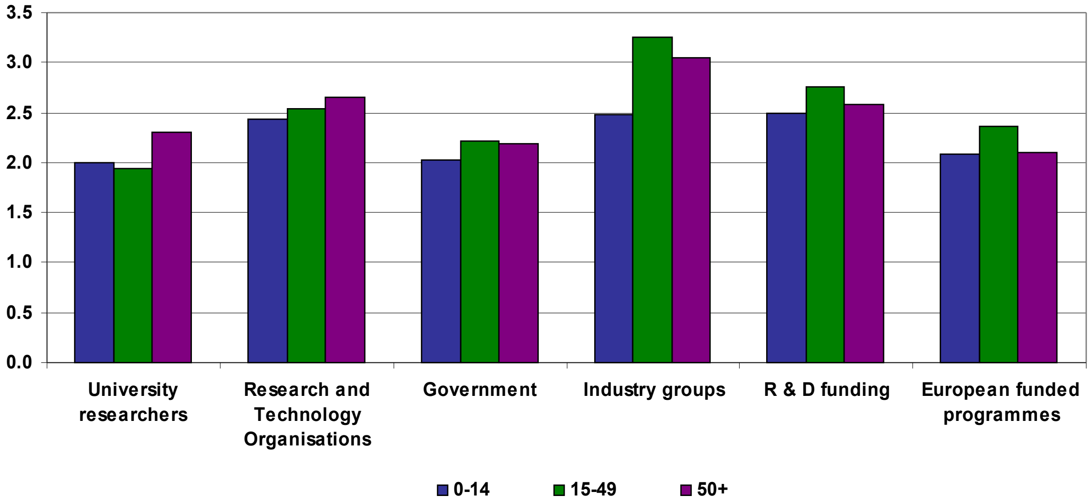
Figure 11: To what extent is product and process development linked to customer requirements rather than general market driven developments (1= customer;; 7=market driven).



- Figure 12 overleaf shows that firms of all sizes in the sample do not value the different sources of innovation support particularly highly.

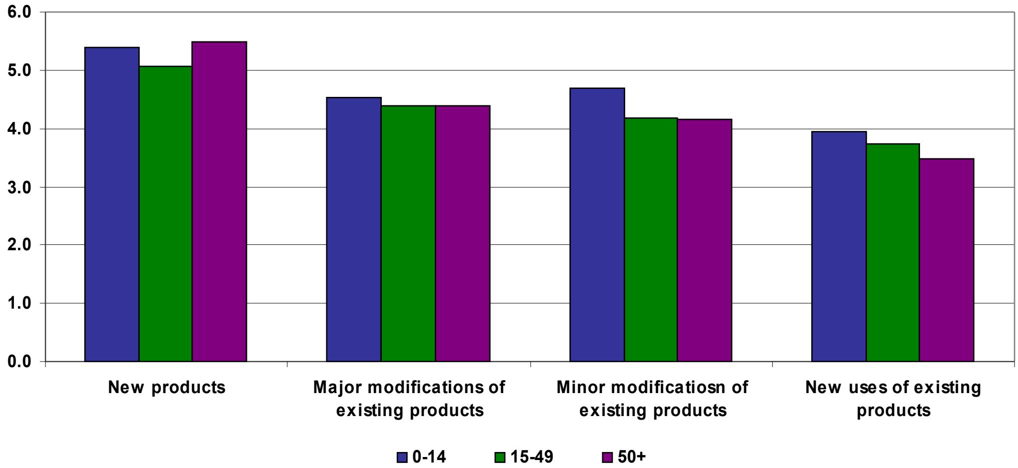
- The three sources of innovation support most valued by all firms in the sample tended to be research and technology organisations, industry groups and R & D funding most highly.

Figure 12: Importance of difference sources of innovation support



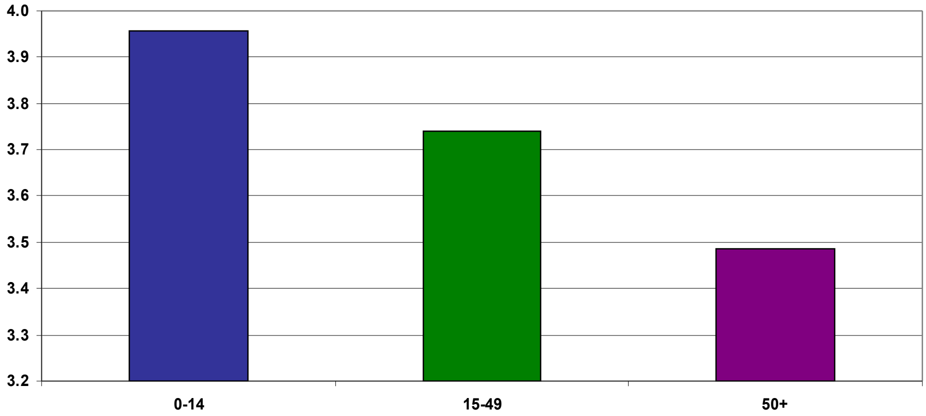
- Figure 13 shows that firms of all sizes in the sample give most importance to the development of new products and least importance to new uses of existing products.

Figure 13: Importance of different types of product development



- Figure 14 overleaf shows that micro firms in the sample are relatively more dependent on their machinery supplier for product and process development than the small and medium to larger firms in the sample.

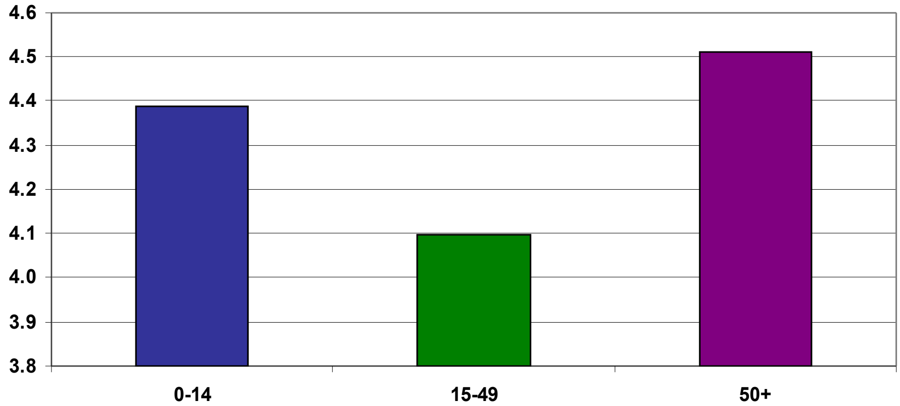
Figure 14: Dependence on machinery supplier for product and process development



Variations in market structure and pressures of competition

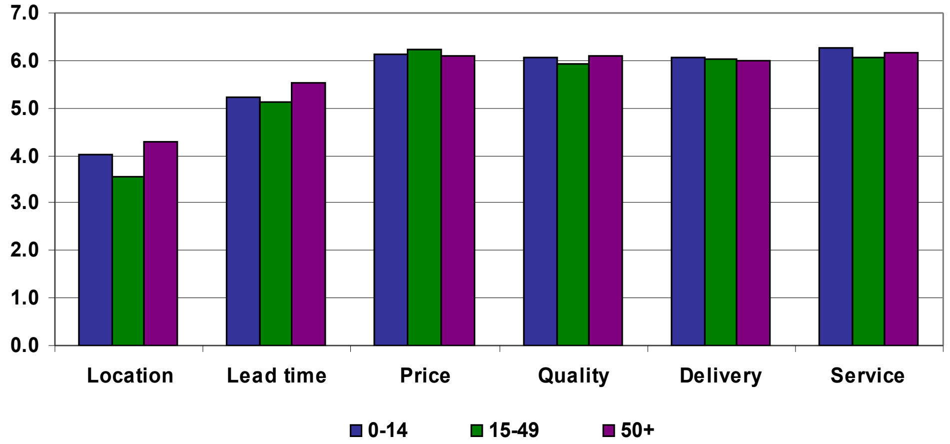
- Figure 15 below shows that firms of all sizes believe the ‘home producer’ is relatively important with the medium to larger firms in the sample believing it is more so than the small firms in the sample.

Figure 15: Importance of ‘home producer’, i.e. do buyers prefer local suppliers



- Figure 16 overleaf shows that firms of all sizes in the sample regard price, quality, delivery and service as more important order-winners than location and lead-time.

Figure 16: The extent to which the following factors are order-winners

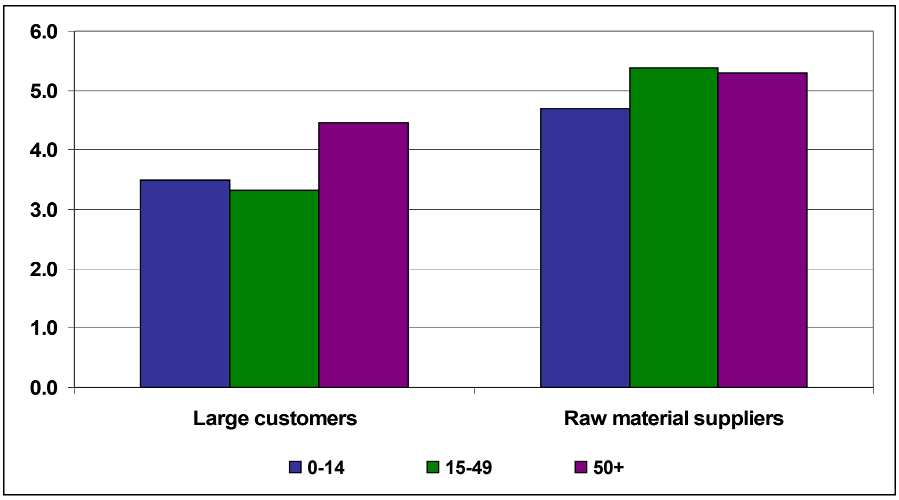


- Figure 17 overleaf shows that firms of all sizes in the sample believe that raw material suppliers exert relatively greater influence than large customers such as the retail chains.

- Large customers tend to influence the medium and larger firms in the sample relatively more than micro and small businesses.

- Raw material suppliers tend to influence the small businesses in the sample slightly more than the micro and medium to large firms

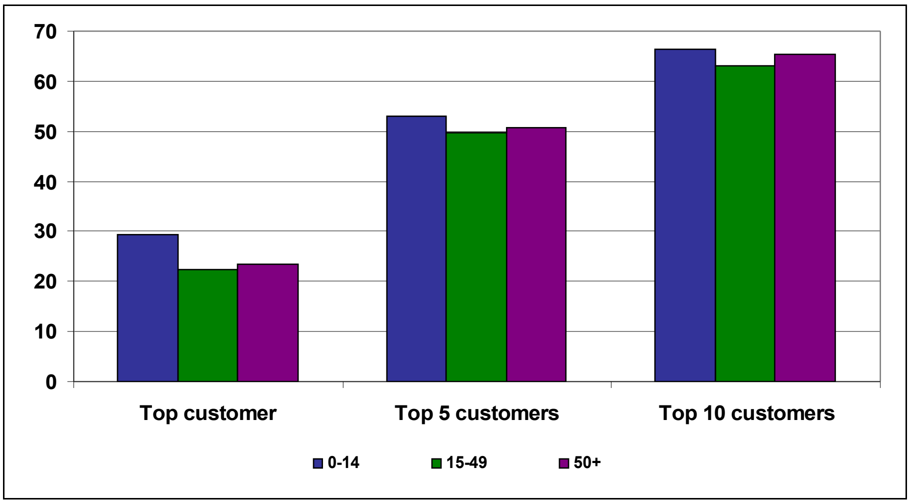
Figure 17: Influence of large customers and raw material suppliers



- Figure 18 overleaf shows that the top customer is a more important source of revenue for micro firms in the sample than small and medium to larger firms.

- For all firms in the sample, the top ten customers contribute around 60-65% to total annual revenue

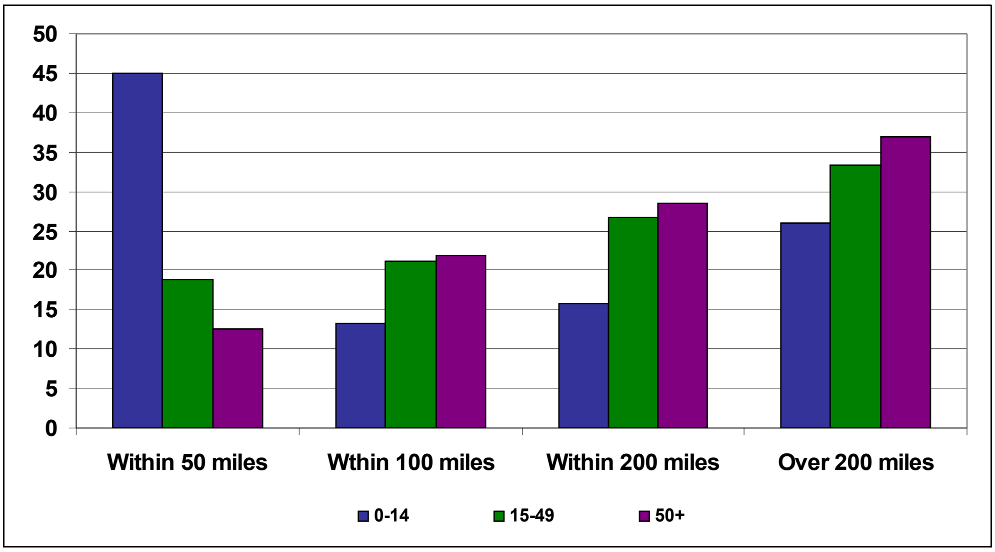
Figure 18: Percentage of annual revenue derived from key customers



- Figure 19 shows that for the majority of micro businesses in the sample, its main competitors are located within 50 miles.

- Less than 40% of small and medium to large firms in the sample have its main competitors located within 100 miles.

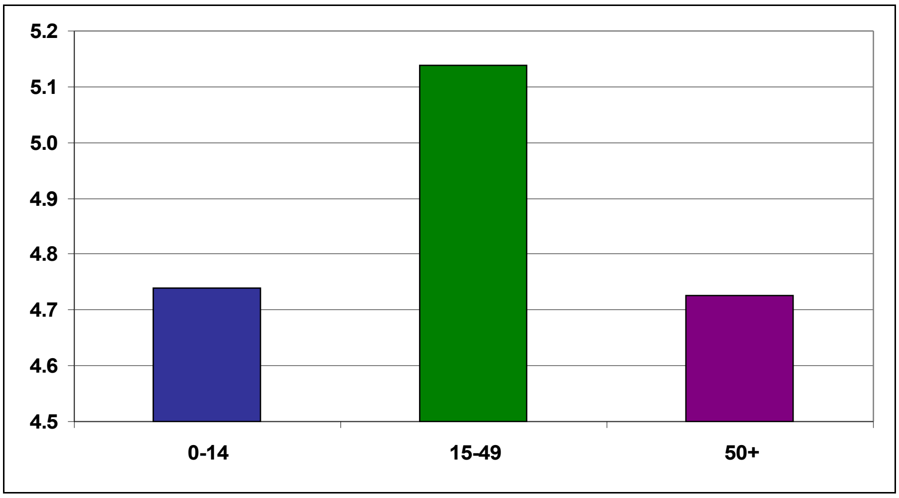
Figure 19: Location of main competitors



- Figure 20 overleaf shows that firms of all sizes in the sample regard transport costs as fairly significant to their competitiveness.

- Transport costs tend to be relatively more important for small firms in the sample than micro firms or medium to large firms.

Figure 20: To what extent are transport costs significant to your competitiveness

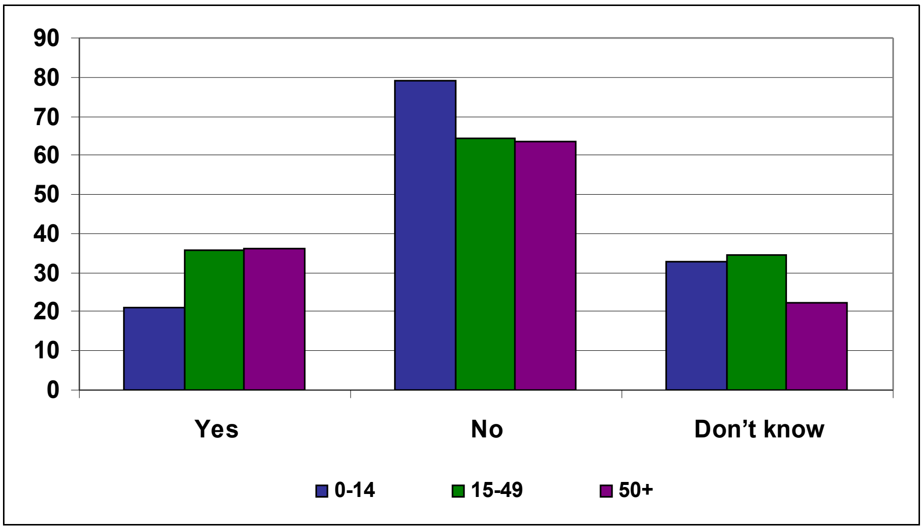


Supply chain issues

- Figure 21 below shows around a third of small and medium to large firms in the sample expect to move to a low labour cost company to compete.

- Around 20% of micro businesses in the sample did not expect to do so.

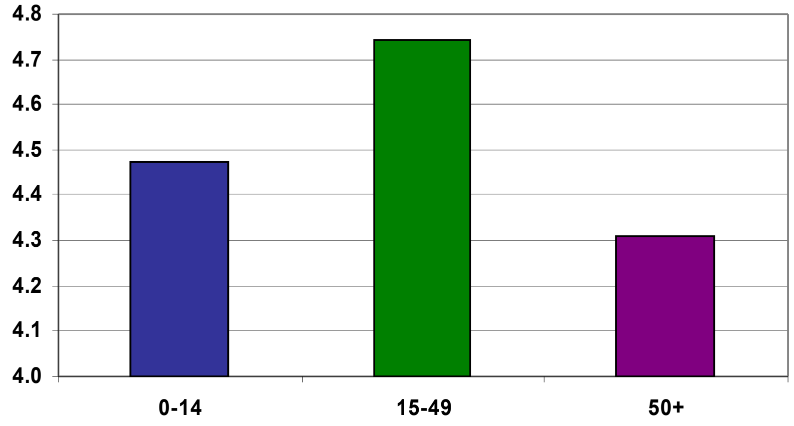
Figure 21: Is there an expectation to move to a low labour cost country to compete?



- Figure 22 overleaf shows that all firms in the sample tend to view supply chain relationships as relatively co-operative.

- Small firms in the sample tend to view supply chain relationships as slightly more co-operative than micro and medium to large businesses.

Figure 22: Extent to which supply chain relationships are adversarial or co-operative



Industry Economics and Statistics Directorate
Department of Trade and Industry
December 2006

Appendix 1: Detailed sector categories

This appendix details at the six digit code level manufacturer sales in value terms for 1999, 2002 and 2005 from PRODCOM. The letter S indicates where data are suppressed for reasons of confidentiality. N/A denotes where data was not available.

Table A.1
PRA 25.21
Plastic plates, sheets, tubes and profiles

CODE	PRODUCT	1999	2002	2005
		(£000s)	(£000s)	(£000s)
PCC 25211050	Monofilament with any cross-sectional dimension exceeding 1mm, rods, sticks and profile shapes, of polymers of ethylene INCLUDING: - surface worked but not otherwise worked	7,925	13,120	16,104
PCC 25211070	Monofilament with any cross-sectional dimension exceeding 1mm, rods, sticks and profile shapes of polymers of vinyl chloride INCLUDING: - surface worked but not otherwise worked	249,997	215,682	281,937
PCC 25211090	Monofilament with any cross-sectional dimension exceeding 1mm, rods, sticks and profile shapes of plastics EXCLUDING: - of polymers of ethylene - of polymers of vinyl chloride	5,572	3,040	S*
PCC 25212130	Artificial guts (sausage skins) of hardened protein or cellulosic materials	S*	S*	S*
PCC 25212153	Rigid tubes, pipes and hoses of polymers of ethylene	127,400	110,731	107,503
PCC 25212155	Rigid tubes, pipes and hoses of polymers of propylene	81,398	99,108	104,051
PCC 25212157	Rigid tubes, pipes and hoses of polymers of vinyl chloride	188,155	171,653	189,961
PCC 25212170	Rigid tubes, pipes and hoses of plastics EXCLUDING: - of polymers of ethylene - of polymers of propylene - of polymers of vinyl chloride	59,336	67,455	84,163
PCC 25212220	Flexible tubes, pipes and hoses of plastics, with a minimum burst pressure of 27.6MPa	69,582	88,173	116,757
PCC 25212235	Plastic tubes, pipes and hoses EXCLUDING: - rigid - flexible tubes, pipes and hoses with a minimum burst pressure of 27.6MPa - reinforced or otherwise combined with other materials - those with fittings	37,569	21,354	16,811
PCC 25212237	Plastic tubes, pipes and hoses with fittings attached EXCLUDING: - rigid - flexible tubes, pipes and hoses, with a minimum burst pressure of 27.6MPa - reinforced or otherwise combined with other materials	43,398	61,285	67,200
PCC 25212250	Plastic tubes, pipes and hoses EXCLUDING: - artificial (guts, sausage skins) - rigid - flexible tubes and pipes having a minimum burst pressure of 27.6MPa	79,037	64,708	79,858
PCC 25212270	Plastic fittings for tubes, pipes and hoses INCLUDING: - joints, elbows and flanges	228,937	313,683	316,536
PCC 25213010	Plates, sheets, film, foil and strip of a thickness not exceeding 0.125mm, of polymers of ethylene, non-cellular EXCLUDING: - reinforced, laminated or similarly combined with other materials - floor coverings, wall or ceiling coverings - self-adhesive	297,405	334,013	545,511
PCC 25213017	Plates, sheets, film, foil and strip of a thickness exceeding 0.125mm, of polymers of ethylene, non-cellular EXCLUDING: - floor, wall or ceiling coverings - self-adhesive - reinforced, laminated, supported or similarly combined with other materials	195,727	129,082	145,622
PCC 25213021	Plates, sheets, film, foil and strip of thickness not more than 0.10mm, of polymers of propylene, non-cellular biaxially oriented EXCLUDING: - floor, wall or ceiling coverings - not reinforced, laminated, supported or similarly combined with other materials - self-adhesive	133,238	174,435	186,094
PCC25213023	Plates, sheets, film, foil and strip of a thickness not more than 0.10mm, of polymers of propylene, non-cellular EXCLUDING: - floor wall or ceiling coverings - self-adhesive - reinforced, laminated, supported or similarly combined with other materials - biaxially orientated	33,463	61,219	72,721
PCC 25213025	Decorative strip for packaging, of a thickness exceeding 0.10mm and of a width exceeding 5mm but not exceeding 20mm of polymers of propylene, non-cellular EXCLUDING: - self-adhesive - reinforced, laminated, supported or similarly combined with other materials	S*	S*	S*
PCC 25213027	Strip for packaging, of a thickness exceeding 0.10mm and of a width exceeding 5mm but not exceeding 20mm, of polymers of propylene, non-cellular EXCLUDING: - self-adhesive - reinforced, laminated, supported or similarly combined with other materials - decorative strip	44,330	51,225	45,640
PCC 25213029	Plates, sheets, film, foil and strip of a thickness exceeding 0.10mm, of polymers of propylene, non-cellular EXCLUDING: - floor, wall and	21,703	29,683	26,069

	ceiling coverings - self-adhesive - reinforced, laminated, supported or similarly combined with other materials			
PCC 25213030	Plates, sheets, film, foil and strip of polymers of styrene, non-cellular EXCLUDING: - floor, wall or ceiling coverings - self-adhesive - reinforced, laminated, supported or similarly combined with other materials	40,320	38,475	80,183
PCC 25213035	Other plates, sheets, film, foil and strip, of polymers of vinyl chloride containing =>6% of plasticisers, thickness <=1mm	68,962	84,063	38,819
PCC 25213036	Other plates, sheets, film, foil and strip, of polymers of vinyl chloride, containing >=6% of plasticisers, thickness >1mm	S*	S*	30,130
PCC 25213037	Other plates, sheets, film, foil and strip of polymers of vinyl chloride, containing < 6% of plasticisers, thickness <= 1mm	S*	18,688	7,602
PCC 25213038	Other plates, sheets, film, foil and strip, of polymers of vinyl chloride, containing < 6% of plasticisers, thickness >1mm	31,239	61,065	61,396
PCC 25213053	Plates, sheets, film, foil and strip of polymethyl methacrylate, non-cellular EXCLUDING: - floor, wall or ceiling coverings - self-adhesive - reinforced, laminated, supported or similarly combined with other materials	S*	S*	S*
PCC 25213059	Plates, sheets, film, foil and strip of acrylic polymers, non-cellular EXCLUDING: - floor, wall or ceiling coverings - self-adhesive - reinforced, laminated, supported or similarly combined with other materials - of polymethyl methacrylate	5,601	7,017	8,451
PCC 25213061	Plates, sheets, film, foil and strip of polycarbonates, non-cellular EXCLUDING: - floor, wall or ceiling coverings - self-adhesive - reinforced, laminated, supported or similarly combined with other materials	S*	47,818	62,127
PCC 25213062	Plates, sheets, film, foil and strip of polyethylene terephthalate, non-cellular EXCLUDING: - floor, wall or ceiling coverings - self-adhesive - reinforced, laminated, supported or similarly combined with other materials	126,108	121,219	N/A
PCC 25213063	Plates, sheets, film, foil and strip of unsaturated polyesters, non-cellular EXCLUDING: - floor, wall and ceiling coverings - self-adhesive - reinforced, laminated, supported or similarly combined with other materials	0	0	0
PCC 25213065	Plate, sheets, film, foil, strip, of polyethylene terephthalate non-cellular, of a thickness <= 0.35mm EXCLUDING: - floor, wall or ceiling covering - self-adhesive - reinforced, laminated, supported or similarly combined with other materials		N/A	148,607
PCC 25213067	Plates, sheets, film, foil, strip, of polyethylene terephthalate, non-cellular of a thickness > 0.35mm EXCLUDING: - floor, wall or ceiling coverings - self-adhesive - reinforced, laminated, supported or similarly combined with other materials		N/A	0
PCC 25213069	Plates, sheets, film, foil and strip of polyesters, non-cellular EXCLUDING: - floor, wall or ceiling coverings - self-adhesive - of polycarbonates, polyethylene terephthalate, and unsaturated polyesters	11,485	25,432	56,781
PCC 25213070	Sheets, film and strip, of regenerated cellulose, not reinforced, of thickness less than 0.75mm		39,577	S*
PCC 25213071	Non-printed Sheets, film and strip of a thickness of less than 0.75mm, of regenerated cellulose, non-cellular and NOT reinforced, laminated, supported or similarly combined with other materials EXCLUDING: - floor, wall and ceiling coverings - self-adhesive	S	S	N/A
PCC 25213072	Printed sheets, film and strip, of a thickness of less than 0.75mm, of regenerated cellulose, non-cellular and NOT reinforced, laminated, supported or similarly combined with other materials EXCLUDING: - floor, wall or ceiling coverings - self-adhesive	S	S	N/A
PCC 25213073	Plates, sheets, film, foil and strip of regenerated cellulose, non-cellular EXCLUDING: - sheets, film or strip of a thickness not exceeding 0.75mm - floor, wall or ceiling coverings - self-adhesive - reinforced, laminated, supported or similarly combined with other materials	S*	S*	S*
PCC 25213074	Plates, sheets, film, foil and strip of vulcanized fibre, non-cellular EXCLUDING: - floor, wall or ceiling coverings - self-adhesive - reinforced, laminated, supported or similarly combined with other materials	S*	48	61
PCC 25213076	Films in rolls or in strips of cellulose acetate, non-cellular, of a kind used for cinematography or photography EXCLUDING: - reinforced, laminated, supported or similarly combined with other materials	0	0	0
PCC 25213077	Plates, sheets, film, foil and strip, of cellulose acetate, non-cellular EXCLUDING: - film in rolls or in strips, for cinematography or photography - floor, wall and ceiling coverings - self-adhesive - reinforced, laminated, supported or similarly combined with other materials	S*	S*	S*
PCC 25213079	Plates, sheets, film, foil and strip of cellulose derivatives, non-cellular EXCLUDING: - floor, wall or ceiling coverings - self-adhesive - of regenerated cellulose - of vulcanized fibre - of cellulose acetate -	S*	60	184

	reinforced, laminated, supported or similarly combined with other materials			
PCC 25213081	Plates, sheets, film, foil and strip of polyvinyl butyral, non-cellular EXCLUDING: - floor, wall or ceiling coverings - self-adhesive - reinforced, laminated, supported or similarly combined with other materials	S*	S*	S*
PCC 25213082	Plates, sheets, film, foil and strip of polyamides, non-cellular EXCLUDING: - floor, wall or ceiling coverings - self-adhesive - reinforced, laminated, supported or similarly combined with other materials	1,234	184	219
PCC 25213083	Plates, sheets, film, foil and strip of amino-resins, non-cellular EXCLUDING: - floor, wall or ceiling coverings - self-adhesive - reinforced, laminated, supported or similarly combined with other materials	0	0	0
PCC 25213084	Plates, sheets, film, foil and strip of phenolic resins, non-cellular EXCLUDING: - floor, wall or ceiling coverings - self-adhesive - reinforced, laminated, supported or similarly combined with other materials	S*	S*	S*
PCC 25213086	Plastic plates, sheet, film, foil, strip, of condensation or rearrangement polymerization products, non-cellular EXCLUDING: - floor wall or ceiling coverings - self-adhesive - of polyvinyl butyral, polyamides, amino resins and phenolic resins; of polymers of ethylene, styrene, propylene and vinyl chloride; of acrylic polymers; of polycarbonates, alkyd resins, pollyallyl esters or other polyesters; of cellulose or its derivatives; reinforced, laminated etc.	8,217	S*	S*
PCC 25213087	Plastic plates, sheets, film, foil and strip of addition polymerization products, non-cellular EXCLUDING: - floor, wall or ceiling coverings - self-adhesive - of polyvinyl butyral, polyamides, amino resins and phenolic resins; of polymers of ethylene, styrene, and vinyl chloride; of polycarbonates, alkyd resins, polyallyl esters or other polyesters; of cellulose or its chemical derivatives; reinforced, laminated etc.	S*	S*	9,642
PCC 25213090	Plastic plates, sheets, film, foil and strip of plastics, non-cellular EXCLUDING: - floor, wall or ceiling coverings - self-adhesive - of polyvinyl butyral, of ethylene, propylene, styrene, vinyl chloride, acrylic polymers, polycarbonates, alkyd resins, polyallyl esters or other polyesters, of cellulose and its derivatives, reinforced, laminated etc.	13,697	10,745	S*
PCC 25214120	Cellular plates, sheet, film, foil and strip of polymers of styrene	62,968	74,308	75,973
PCC 25214130	Cellular plates, sheets, film, foil and strip of polymers of vinyl chloride	9,771	10,453	S*
PCC 25214150	Cellular plates, sheets, film, foil and strip of polyurethanes	147,382	253,586	354,707
PCC 25214170	Cellular plates, sheets, film, foil and strip of regenerated cellulose	0	0	0
PCC 25214180	Cellular plates, sheets, film, foil and strip of plastics EXCLUDING: - of polymers of styrene - of polymers of vinyl chloride - of polyurethanes - of rengenerated cellulose	40,291	67,855	73,858
PCC 25214230	Non-cellular plates, sheets, film, foil and strip, of condensation or rearrangement polymerization products, of polyesters, reinforced, laminated, supported or similarly combined with other materials	27,188	34,041	55,305
PCC 25214250	Non-cellular plates, sheets, film, foil and strip, of condensation or rearrangement polymerization products, of phenolic resins, reinforced, laminated, supported or similarly combined with other materials	9,524	10,341	9,108
PCC 25214275	Non-cellular plates, sheets, film, foil and strip of condensation or rearrangement polymerization products, of amino-resins with high pressure laminates with a decorative surface on one or both sides	64,527	85,169	S*
PCC 25214279	Other plates, strips sheets, film, foil and strip of condensation or rearrangement polymerization products, of epoxide resins, reinforced, laminated supported or similarly combined with other materials	45,998	24,227	S*
PCC 25214280	Non-cellular plastic plates, sheets, film, foil and strip, reinforced, laminated, supported or similarly combined with other materials EXCLUDING: - of condensation or rearrangement or addition polymerization products	149,306	166,828	198,409
PCC 25219900 = 25213071+25213072	Sheets, film and strip of a thickness of less than 0.75mm, of regenerated cellulose, non-cellular and NOT reinforced, laminated, supported or similarly combined with other materials EXCLUDING: - floor, wall and ceiling coverings - self-adhesive	S*	S*	S*
2521	**Total of above (i.e. excluding suppressed items)**	**2,767,990**	**3,151,268**	**3,647,100**
Total of suppressed items		**327,454**	**310,677**	**378,355**
Total UK manufacturing sales of products in this industry		**3,095,444**	**3,461,945**	**4,052,455**

Table A.2
PRA 25.22
Plastic packing goods

CODE	PRODUCT	1999	2002	2005
		(£000s)	(£000s)	(£000s)
PCC 25221100	Sacks and bags of polymers of ethylene INCLUDING: - cones	690,153	483,586	569,327
PCC 25221200	Plastic sacks and bags INCLUDING: - cones EXCLUDING: - of polymers of ethylene	197,862	157,885	166,889
PCC 25221300	Plastic boxes, cases, crates and similar articles for the conveyance or packing of goods	404,445	517,853	440,107
PCC 25221450	Plastic carboys, bottles, flasks and similar articles for the conveyance or packing of goods, of a capacity not exceeding 2 litres	524,653	480,589	702,078
PCC 25221470	Plastic carboys, bottles, flasks and similar articles for the conveyance or packing of goods, of a capacity exceeding 2 litres	137,361	142,073	187,736
PCC 25221521	Plastic cassettes, spools, cops, bobbins and similar supports for photographic film, cinematographic film, video or audio film or tape	433	S*	S*
PCC 25221523	Plastic spools, cops, bobbins and similar supports EXCLUDING: - for photographic or cinematographic film, video or audio film or tapes	8,197	2,207	205
PCC 25221525	Plastic caps and capsules for bottles	107,662	113,453	147,743
PCC 25221527	Plastic stoppers, lids, caps and other closures EXCLUDING: - for bottles	8,121	112,346	103,314
PCC 25221528	Plastic netting extruded in tubular form	25,767	S*	S*
PCC 25221540	Plastic articles for the conveyance or packing of goods, and plastic closures EXCLUDING: - boxes, cases, crates and similar articles - sacks and bags - carboys, bottles, flasks and similar articles - spools, cops, bobbins and similar supports - stoppers, lids, caps and other closures - netting extruded in tubular form	533,835	534,263	470,705
25.22	**Total of the above (i.e. excluding suppressed items)**	**2,698,489**	**2,544,257**	**2,788,104**
Total of suppressed items				**26,827**
Total UK manufacturing sales of products in this industry		**2,699,450**	**S**	**2,814,931**

Table A.3
PRA 25.23
Builders' ware of plastics

CODE	PRODUCT	1999	2002	2005
		(£000s)	(£000s)	(£000s)
PCC 25231155	Floor coverings in rolls or in tiles, and wall or ceiling coverings consisting of a support impregnated, coated or covered with polyvinyl chloride	137,661	124,157	76,906
PCC 25231159	Floor coverings in rolls or in tiles and wall or ceiling coverings of polymers of vinyl chloride EXCLUDING: - consisting of a support impregnated, coated or covered with polyvinyl chloride	134,711	135,126	148,907
PCC 25231190	Floor coverings in rolls or in tiles, and wall or ceiling coverings of plastics EXCLUDING: - of polymers of vinyl chloride	S*	43,298	6,574
PCC 25231250	Plastic baths; shower-baths, sinks and wash-basins	136,738	248,074	244,460
PCC 25231270	Plastic lavatory seats and covers	14,392	26,752	28,73
PCC 25231290	Plastic bidets; lavatory pans; flushing cisterns and similar sanitary ware EXCLUDING: - baths, shower-baths, sinks and wash-basins - lavatory seats and covers	28,413	18,981	18,672
PCC 25231300	Plastic reservoirs, tanks, vats, intermediate bulk and similar containers, of a capacity exceeding 300 litres	111,851	179,409	236,502
PCC 25231450	Plastic doors, windows and their frames and thresholds for doors. Income from installation work is reported separately under ALL OTHER INCOME	1,822,906	2,609,324	2,601,911
PCC 25231470	Plastic shutters, blinds and similar articles and parts thereof	11,421	10,041	12,878
PCC 25231550	Plastic fittings and mountings intended for permanent installation in or on doors, windows, staircases, walls, roofs or other parts of buildings INCLUDING: - wall cladding, large scale shelving, balconies, balustrades, gutters and fittings, knobs, handles, brackets, towel rails, switch plates, roof elements, roof lights and frames, ornamental architectural features	398,641	342,215	422,841
PCC 25231590	Other builders' ware of plastic INCLUDING: - rawl plugs and other wall plugs; trunking, ducting and cable trays for electrical circuits - reservoirs, tanks, vats and similar of a capacity of 300 litres or less - gates and fencing - structural elements for use in floors, walls or partitions, ceilings, roofs and like	175,988	265,326	209,780
PCC 25232000	Plastic prefabricated buildings, such as sheds, greenhouses, conservatories, holiday homes or industrial plant room, whether or not equipped with electrical wiring or fittings, machinery or other equipment INCLUDING:- complete buildings assembled ready for use; complete buildings unassembled; incomplete but having essential character EXCLUDING:- separately presented parts. Income from installation work is reported separately under ALL OTHER INCOME	198,699	278,479	316,882
25.23	**Total of the above (i.e. excluding suppressed items)**	**3,171,421**	**4,281,180**	**4,325,285**
Total of suppressed items		**36,711**	**12,810**	**10,721**
Total UK manufacturing sales of products in this industry		**3,028,132**	**4,293,990**	**4,336,006**

Table A.4
PRA 25.24
Other plastic products

CODE	PRODUCT	1999	2002	2004
		(£000s)	(£000s)	(£000s)
PCC 25241000	Plastic articles of apparel and clothing accessories INCLUDING: - gloves, raincoats, aprons, belts and babies' bibs EXCLUDING: - headgear	8,742	8,241	10,053
PCC 25242130	Self-adhesive strips of plastic with a coating consisting of unvulcanized natural or synthetic rubber, in rolls of a width not exceeding 20cm	36,424	36,852	55,920
PCC 24242155	Self-adhesive plates, sheets, film, foil, tape and other flat shapes of polyesters in rolls of a width not exceeding 20cm EXCLUDING: - strips with a coating consisting of unvulcanized natural or synthetic rubber	7,911	7,939	11,024
PCC 25242159	Self-adhesive plates, sheets, film, foil, tape and other flat shapes of condensation or re-arrangement polymerization products, whether or not chemically modified, in rolls of a width not exceeding 20cm EXCLUDING: - strips with a coating consisting of unvulcanized natural or synthetic rubber - of polyesters	17,532	S*	4,791
PCC 25242175	Self-adhesive plates, sheets, film, foil, tape and other flat shapes of plasticized polyvinyl chloride or of polyethylene, in rolls of a width not exceeding 20cm EXCLUDING: - strips with a coating consisting of unvulcanized natural or synthetic rubber	98,201	81,002	99,209
PCC 25242179	Self-adhesive plates, sheets, film, foil, tape and other flat shapes of addition polymerization products, in rolls of a width less than 20cm EXCLUDING: - strips with a coating consisting of unvulcanized natural or synthetic rubber - of plasticized polyvinyl chloride or of polyethylene	2,978	S*	S*
PCC 25242190	Self-adhesive plates, sheets, film, foil, tape, strip and other flat shapes of plastics, in rolls of a width not exceeding 20cm EXCLUDING: - strips with a coating consisting of unvulcanized natural or synthetic rubber - of condensation or rearrangement polymerization products - of addition polymerization products	9,021	5,503	4,303
PCC 25242230	Self-adhesive plates, sheets, film, foil, tape, strip and other flat shapes of plastic, further worked than surface-worked, or cut to shapes EXCLUDING: - in rolls of a width not exceeding 20cm - rectangular or square	28,449	28,127	44,121
PCC 25242255	Self-adhesive plates, sheets, film, foil, tape, strip and other flat shapes of polycarbonates, alkyd resins, polyallyl esters or other polyesters EXCLUDING: - in rolls of a width not exceeding 20cm - further worked than surface-worked or cut to shapes other than rectangular or square	40,494	34,138	41,690
PCC 25242259	Self-adhesive plates, sheets, film, foil, tape, strip and other flat shapes of condensation or rearrangement polymerization products, whether or not chemically modified EXCLUDING: - in rolls of a width not exceeding 20cm wide - further worked than surface-worked or cut to shapes other than rectangular or square - of polycarbonates, alkyd resins, polyallyl esters or other polyesters	2,738	1,814	2,243
PCC 25242270	Self-adhesive plates, sheets, film, foil, tape, strip and other flat shapes of addition polymerization products EXCLUDING: - in rolls of a width not exceeding 20cm - further worked than surface-worked or cut to shapes other than rectangular or square	25,088	27,647	29,674
PCC 25242290	Self-adhesive plates, sheets, film, foil, tape, strip and other flat shapes of plastic EXCLUDING: - in rolls of a width not exceeding 20cm - further worked than surface-worked or cut to shapes other than rectangular or square - of condensation or rearrangement polymerization products - of addition polymerization products	28,847	22,448	23,725
PCC 25242320	Tableware and kitchenware of plastic	111,991	97,964	86,865
PCC 25242330	Sponges of regenerated cellulose	18,084	17,074	7,732
PCC 25242350	Household and toilet articles of regenerated cellulose EXCLUDING: - sponges	S*	0	0
PCC 25242370	Household and toilet articles of plastic INCLUDING: - bins, clothes hangers, curtains, sandwich boxes, table covers, watering cans - soap dishes, towel rails, toothbrush holders but NOT those intended for permanent installation on walls EXCLUDING: - tableware and kitchenware - of regenerated cellulose	163,292	157,906	169,134
PCC 25242400	Plastic parts for lamps, lighting fittings and illuminated signs and name-plates	77,377	63,447	67,104
PCC 25242550	Safety headgear of plastic INCLUDING: - with microphones or earphones; ear defenders	35,442	41,035	46,356
PCC 25242590	Headgear of rubber or plastic EXCLUDING: - safety headgear	505	S*	S*
PCC 25242600	Insulating fittings of plastic, for electrical machines, appliances or equipment EXCLUDING: - electrical insulators	90,411	85,157	63,542
PCC 25242700	Office or school supplies of plastic INCLUDING: - paperweights, paper-knives, blotting pads, pen-rests, and bookmarks	123,736	84,686	79,010

PCC 25242820	Plastic fittings for furniture, coachwork or the like	51,179	46,705	36,488
PCC 25242830	Statuettes and other ornamental articles of plastic INCLUDING: - photograph, picture and similar frames	24,283	17,743	20,957
PCC25242840	Plastic perforated buckets and similar articles used to filter water at the entrance to drains	15,756	15,902	S*
PCC 25242850	Articles made from sheet plastic INCLUDING: - dust sheets, protective bags, awnings; screws washers and bolts; transmission, conveyor or elevator belts; ion-exchange columns; ice-bags; watch glasses EXCLUDING: - office or school supplies - articles of apparel and clothing accessories	345,255	205,229	239,659
PCC 25242870	Miscellaneous plastic articles, other than of sheet plastic INCLUDING: - nut, screws, washers and bolts and similar fittings, transmission, conveyor or elevator belts, ice-bags, tool boxes for general use, cups and glides for placing under furniture, tool handles, watch glasses, figures and letters, label holders	1,064,937	826,727	1,014,787
PCC 25249010	Plastic parts for machinery and mechanical appliances EXCLUDING: - internal combustion piston engines, gas turbines	54,125	47,553	58,459
PCC 25249023	Plastic parts for electro-mechanical hand tools, electro-mechanical domestic appliances, electric water heaters and immersion heaters, electric space-heating apparatus, electric soil-heating apparatus, electro-thermic hair drying or hand-drying apparatus, electric smoothing irons, microwave ovens, cookers, cooking plates, boiling rings, grillers and roasters	128,089	N/A	N/A
PCC 25249025	Plastic parts for apparatus of HS 8509 and 8516 e.g. electro-mechanical domestic electric appliances, electric water heaters and immersion heaters, electric space-heating apparatus, electric soil heating apparatus, electro-thermic hair drying or hand drying apparatus, electric smoothing irons, microwave ovens,cookers, cooking plates, boiling rings, grillers, roaster, tea and coffee makers, toasters	N/A	84,173	47,378
PCC 25249027	Plastic parts for turntables, record players, cassette-players, other sound reproducing apparatus, magnetic tape recorders, other sound recording apparatus and video recording or reproducing apparatus EXCLUDING: - pick-up cartridges	4,309	1,001	969
PCC 25249030	Plastic parts for transmission and reception apparatus for radio-telephony, radio-telegraphy, or radio-broadcasting, televisions, television cameras, radar apparatus, radio-navigational aid apparatus, radio remote control apparatus, television receivers, video monitors and video projectors	76,207	44,773	46,886
PCC 25249040	Plastic parts for electrical apparatus for switching, protecting or making connections in or to electrical circuits, for boards, panels, consoles, desks, cabinets and other bases equipped with two or more electrical apparatus and for electrical integrated circuits and microassemblies	80,584	75,847	58,582
PCC 25249050	Plastic parts for locomotives or rolling stock, railway or tramway track fixtures and fittings, mechanical signalling, safety or traffic control equipment	18,413	12,548	18,386
PCC 25249060	Plastic parts and accessories for all land vehicles EXCLUDING: - for locomotives or rolling stock	866,908	777,226	835,964
PCC 25249080	Plastic parts for aircraft and spacecraft	58,446	40,001	45,416
PCC 25249093	Manufacture of plastic parts for electrical machinery and equipment; sound recorders and reproducers, television image and sound recorders and reproducers	116,171	54,187	29,936
PCC 25249097	Plastic parts for optical, photographic, cinematograhic, measuring, checking, precision, medical, or surgical instruments and apparatus	385,383	194,119	131,637
25.23	**Total of the above (i.e. excluding suppressed items)**	**4,217,308**	**3,239,714**	**3,431,999**
Total of suppressed items		**26,917**	**39,206**	**44,675**
Total UK manufacturing sales of products in this industry		**4,244,225**	**3,278,920**	**3,476,675**