COMMISSION

COMMISSION DECISION

of 30 September 1992

declaring the compatibility of a concentration with the common market

(Case No IV/M214 — Du Pont/ICI)

(Only the English text is authentic)

(93/9/EEC)

THE COMMISSION OF THE EUROPEAN COMMUNITIES,

Having regard to the Treaty establishing the European Economic Community,

Having regard to Council Regulation (EEC) No 4064/89 of 21 December 1989 on the control of concentrations between undertakings [1], and in particular Article 8 (2) thereof,

Having regard to the Commission Decision of 3 June 1992 [2] to initiate proceedings in this case,

Having given the undertakings concerned the opportunity to make known their views on the objections raised by the Commission,

Having regard to the opinion of the Advisory Committee on Concentrations [3],

Whereas :

I. BACKGROUND

The nature of the proceedings

(1) These proceedings concern the proposed acquisition of the worldwide nylon operations of Imperial Chemical Industries plc (ICI) by E.I. du Pont de Nemours and Company (Du Pont) which was notified on 30 April 1992 pursuant to Article 4 of Council Regulation (EEC) No 4064/89 (the 'Merger Regulation').

(2) On 20 May 1992 the Commission decided to continue the suspension of the concentration pursuant to Article 7 (2) of the Merger Regulation, and on 3 June 1992 the Commission initiated proceedings in this case pursuant to Article 6 (1) (c) of that Regulation.

The parties

(3) Du Pont is a US-based group with worldwide activities in particular in the chemical and petroleum industries. In 1991, the worldwide sales of Du Pont were around ECU 31 billion, of which around 30 % were accounted for by sales of polymers and fibres. The overall turnover of Du Pont in the Community in 1991 was around ECU 9 billion.

(4) ICI is a UK based group with international activities in particular in chemical and related industries. In 1991 the worldwide sales of ICI were around ECU 18 billion, of which nylon accounted for around ECU 800 million.

II. THE CONCENTRATION

(5) The acquisition of the nylon business of ICI by Du Pont is a concentration within the meaning of Article 3 (1) of the Merger Regulation.

III. COMMUNITY DIMENSION

(6) The aggregate worldwide turnover of Du Pont and of the nylon business of ICI which is the subject of the transaction exceeded ECU 5 billion in 1991.

[1] OJ No L 395, 30. 12. 1989, p. 1 ; corrected version : OJ No L 257, 21. 9. 1990, p. 13.
[2] OJ No C 144, 6. 6. 1992, p. 10.
[3] OJ No C 8, 13. 1. 1993, p. 2.

Both Du Pont and ICI's nylon business have a Community-wide turnover of more than ECU 250 million, and they did not achieve more than two-thirds of their Community-wide turnover in one and the same Member State. Thus the concentration has a Community dimension within the meaning of Article 1 (2) of the Merger Regulation.

IV. ASSESSMENT PURSUANT TO ARTICLE 2 OF THE MERGER REGULATION

1. Structure of the nylon industry

(7) Nylon (or polyamide as it is also known) is created from successive chemical processes. There are three basic steps to obtain nylon fibre :

— step one involves the production of the raw material. This is caprolactam for the so-called nylon 6 process, and nylon salt (hexamethylene diamine adipate) for the so-called nylon 6.6 process. Caprolactam and nylon salt are produced in a chain involving the transformation or mixing of several intermediates. The most important nylon specific intermediates for nylon 6.6 are adiponitrile (ADN) and hexamethylene diamine (HMD),

— step two involves the polymerization (forming long molecular chains) of the raw material to produce a paste (molten polymer) which is cooled and then cut into chips (polymer granulate),

— step three involves the re-melting of the chips, and extrusion of the molten polymer into either filament yarn (bulked continuous filament yarn known as BCF) or staple fibre.

(8) Different companies participate in the various industrial levels in the production chain. Some companies participate at all levels (the integrated companies). In Europe there are three integrated companies. There are ICI, Du Pont and the French company Rhône-Poulenc, all three having large petro-chemical facilities ([1]). Other petro-chemical companies such as the German company BASF are only active in the first two steps of the production chain, i.e. producing caprolactam or nylon salt, and polymerization.

Some companies are only active on the last two steps of the production chain, i.e. polymerization and fibre production. These companies, such as the Italian producers SNIA, Radici and Aquafil, buy in their requirements of caprolactam or nylon salt.

A third group of companies only manufactures fibres, buying in the polymer. These companies are either specialists in certain niches, or are small companies mainly producing commodity fibres. This group of companies mainly produces textile fibre.

One European carpet manufacturer, Beaulieu, (the world's second largest carpet manufacturer) also produces nylon fibres for its own use. It is not, however, capable of producing the entire range of nylon fibre which is requires ([2]).

(9) There was fast growth in the use of nylon fibres until the 1970s and lower growth rates, at least in Europe, thereafter. The overall demand for nylon was growing at around 3 % per year over the last decade and is expected to continue at around this level for the next decade. The lowest growth rate (2 to 3 %) is expected in North America, the highest growth rate (4 to 5 %) in the Asia Pacific region, whilst Europe is expected to have growth of around 3 to 4 %.

The European nylon industry has for some time been characterized by overcapacity at the nylon fibre production level, which has had an impact on the profitability of most of the players.

2. Relevant product markets

(10) The proposed concentration has a direct impact on the end-use applications of nylon fibres. The end-uses of nylon fibre must be distinguished because the different applications result in different relevant markets for the various types of nylon fibres produced.

The major groups of end-use applications for nylon fibre are :

— fibres for textile applications,

— fibres for floor coverings (carpets),

— fibres for industrial applications.

([1]) ICI shut its ADN facilities in July 1992 and currently buys in its ADN requirement for the continuing production of HMD. Du Pont has no production of adipic acid (AA) in Europe, and buys this raw material. AA is an ingredient used in many chemical processes. In the production of nylon, it is combined with HMD to make nylon salt.

([2]) Only one other European manufacturer, the Belgian company ITC, has been identified as having even a minimal nylon fibre production capacity.

Both Du Pont and ICI are active competitors in the Community in fibres for carpets and in industrial yarns. ICI is, in addition, present in textile applications with Du Pont being the leading supplier in the neighbouring market for elastane fibres with its Lycra products.

In 1991 in the Community, ICI had a turnover of around ECU [...](*)(1) million in nylon textile fibres, around ECU [...](2) million in nylon carpet fibres, and around ECU [...](3) million in industrial fibres. Du Pont had a turnover of around ECU [...](4) million in nylon carpet fibres and around ECU [...](5) million in industrial fibres. Du Pont had negligible sales of nylon textile fibres because it has no Community production. The other nylon sales of Du Pont and ICI in the Community was mainly accounted for by industrial engineering resins. (Du Pont around ECU [...](6) million, ICI around ECU [...](7) million.)

Du Pont's worldwide nylon revenue in 1991 was around ECU [...](8) million, of which around ECU [...](9) million was in Western Europe.

(11) The fibres for each of these major end-use applications belong to distinct markets. While the nylon polymers used in the manufacture of the different nylon fibres are essentially the same, many of the physical properties, e.g. weight, thickness, softness, durability, tenacity, etc., vary significantly from one group of fibres to another, depending on the end-use for which it is intended. Hence, for exemple, a nylon carpet fibre cannot be used for a textile/apparel application and a textile yarn cannot be used for a typical industrial application. To illustrate these differences, the range of typical nylon fibre decitex(10) depending on the intended end-use is as follows:

textile fibre:	10-150
carpet fibre:	700-2 000
industrial fibre:	1 000-2 000.

(*) In the published version of the Decision, some information has hereinafter been omitted, pursuant to the provisions of Article 17 (2) of Regulation (EEC) No 4064/89.
(1) Precise figure deleted; between 250 and 300.
(2) Precise figure deleted; between 100 and 200.
(3) Precise figure deleted; between 50 and 100.
(4) Precise figure deleted; between 150 and 200.
(5) Precise figure deleted; less than 50.
(6) Precise figure deleted; between 100 and 150.
(7) Precise figure deleted; between 50 and 100.
(8) Precise figure deleted; between 2 500 and 3 000.
(9) Precise figure deleted; between 350 and 400.
(10) Decitex measures grams per 10 000 metres.

In addition to varying decitexes, the nylon polymer may also be modified depending on the intended application to provide for special fibre properties.

The differences in decitex, as well as other key fibre properties required for each end-use, mean that these different fibres are not manufactured on the same equipment.

(12) It is not necessary to decide in this case whether or not there are relevant product markets for nylon fibres for textile applications or for a specific use within textile applications. There is no horizontal overlap between Du Pont and ICI for these products and the acquisition by Du Pont of ICI's nylon fibres for textiles activities does not lead to the creation or strengthening of a dominant position as a result of which effective competition would be significantly impeded in the common market or in a substantial part of it.

(13) Similarly, there is no creation or strengthening of a dominant position in nylon fibres for industrial applications. It can therefore be left open whether there is one or more relevant product markets for nylon fibre in the various industrial end-uses.

Nylon fibres for carpets

(14) There is a relevant product market comprising all nylon fibres used for carpets. The different types of nylon fibre compete within this overall market. ICI's turnover within the Community in this market represents around 20 % of its overall worldwide nylon turnover.

Other fibres used for carpet manufacturing, such as polypropylene, wool, polyester and acrylic are not regarded by the carpet manufacturers as interchangeable or substitutable to a significant extent with nylon carpet fibres, by reason of their characteristics, their prices and their intended use in the manufacturing process.

It appears that nylon fibres produced through both the nylon 6 route and the nylon 6.6 route are largely substitutable for use in carpet manufacturing. Nylon 6 and nylon 6.6 are two different chemical forms of nylon, with a different manufacturing process and different raw materials. Manufacturers generally produce one or the other, not both. Both Du Pont and ICI produce nylon 6.6.

The principal differences in characteristics between the two types of nylon are temperature resistance, surface smoothness, stretch recovery and to some extent low-temperature dyeability. As far as use in carpet manufacturing is concerned, however, these different characteristics are not so significant from a technical point of view as in other end-use applications. Although there is a slight difference in price between the two types of nylon fibre (nylon 6.6 carpet fibre is around 5 % more expensive than nylon 6 carpet fibre), and there are some switching costs in changing from one to the other (for example, arising from changes necessary to dyeing systems), both fibre types would appear to be considered by the carpet industry to be substitutable to a significant extent.

(15) For both nylon 6 and nylon 6.6 fibres, there are two different types of fibres used for the manufacture of carpets, staple fibres and bulked continuous filament (BCF) fibres.

Filament yarns are produced in 'infinite' length via melt spinning and sold as a wound package to the carpet manufacturers. Staple fibres are produced by the same basic melt spinning process, but here the filaments are cut to relatively short lengths and baled for dispatch. However, to be used in carpets, staple fibres must be spun into yarn form in an additional processing step carried out by specialist spinning companies. For the carpet manufacturers, the price of comparable BCF and spun staple fibre is essentially the same. Because of the simpler initial production process, staple fibres are sold by the fibre producers to the spinners at prices which are generally cheaper than BCF fibres. The BCF fibres are ready to use by the carpet manufacturers, and are sold directly to them.

Experience built up over the years and installed equipment have led carpet manufacturers to have a certain preference for either BCF or staple fibres. However, the importance of the differences between BCF and staple has declined over time as technical improvements have led to greater uniformity of BCF yarns. Today, most carpet types can be made from either BCF or staple. There remain, however, some types of carpet, for example solid shade velours, where BCF cannot yet fully compete with staple due to its lack of uniformity, and thus staple is preferred.

It is considered for the reasons set out above that for carpet manufacturing nylon staple fibre and BCF belong to the same relevant product market.

(16) Du Pont states in its notification that polypropylene carpet fibres should be considered as substitutable for nylon carpet fibres.

The Commission's investigation, however, shows that for the carpet manufacturers there is no significant substitutability between nylon carpet fibres and polypropylene carpet fibres.

(17) The main reasons for the use of nylon carpet fibres derive from their distinct inherent characteristics *vis-à-vis* other fibres which give specific advantages both for manufacturers in terms of processing and for the final consumer in terms of performance.

The most significant distinct characteristics of nylon fibre are :

— dyeability,

— appearance retention,

— excellent resilience and abrasion resistance,

— safe flammability.

(18) Unlike polypropylene fibre, nylon carpet fibre can be both dyed and printed during the process of carpet manufacturing. In this way, for example, large runs of undyed carpets can be produced which can then be dyed as required in response to customer demand. This leads to high flexibility, and efficiencies in production, stock and in distribution. Because of this dyeability, furthermore, nylon carpet fibres can be printed with different colours during manufacturing, giving unlimited pattern choice. These advantages are particularly relevant in the production of tufted carpets, this being the most widely produced form of carpet. Colour and design are amongst the most important parameters by which carpet manufacturers can differentiate their products.

This dyeability characteristic of nylon fibre has a major implication for the business of a carpet manufacturer. It enables the manufacturer to determine the value added by colouring and printing, these being the main means of product differentiation for the manufacturer. The value added in the colouring and/or printing stages of production is much higher than in the tufting or carpet construction stage. Even for a simple plain-coloured tufted carpet, for example, the dyeing costs are around two-thirds higher than the tufting costs, according to Du Pont estimates. If a pattern is to be introduced, then there is further significant value added at this stage, this being much more complicated than plain-dyeing.

The efficiencies in stocking and distribution costs resulting from this dyeability characteristic of nylon carpet fibres arise from the possibility to stock only the undyed (white) fibres, as opposed to hundreds of potential colour variants, and/or the possibility

to stock undyed carpets which can be dyed and printed to order, as opposed to the entire range of carpets available for sale. This enables the manufacturer to react quickly ('just in time') to specific orders without incurring high stocking costs. This allows much leaner distribution with short lead times.

Polypropylene carpet fibre is capable of use only in a pre-dyed form since colour can only be added to the molten polymer during fibre production. Once the fibre is produced, it cannot accept further colour processing because of its chemical make-up.

(19) The other specific characteristics of nylon fibre, which determine the appearance and wearability of the final product, also account for the use of nylon fibre in higher quality carpets. For the most significant performance and appearance requirements, nylon carpet fibres have the best balance of properties. Nylon fibre is accordingly considered by the carpet manufacturers to have the best performance/cost ratio of all carpet fibres in the medium to high price range of carpets.

(20) Because of the excellent abrasion resistance and resilience, and good appearance retention, nylon carpets generally wear better and longer than polypropylene carpets. For the contract market, it is important for most applications to have hard-wearing carpets which conform to flammability standards. The characteristics of nylon fibre compared to those of polypropylene fibre in this respect make nylon fibre the preferred fibre for most contract use in the Community.

(21) Almost all the carpet manufacturers who have responded to the Commission's enquiries to date state that nylon carpet fibre cannot be substituted by polypropylene or other carpet fibres either at all or only to limited extent (21 out of 23 manufacturers, the remaining two unclear). A significant number of these manufacturers which were contacted produce both nylon and polypropylene carpets. These manufacturers which use both types of fibre state that the different fibres are geared to specific parts of the carpet market in view of their specific characteristics (e.g. nylon fibre used for, *inter alia*, the contract market and for printed carpets, polypropylene fibre for the low-end residential market).

(22) The overwhelming majority of the carpet manufacturers contacted did not consider it feasible to substitute their current and anticipated nylon fibre use by polypropylene fibre. The reasons cited include :

— using only polypropylene fibre would not permit the manufacturer to cover an adequate range of the carpet market,

— using only polypropylene fibre would mean the loss of those segments where the highest value-added is achieved,

— the high capital investment in dyeing and printing facilities could not be recovered because this machinery cannot be used with polypropylene fibres which are not dyeable,

— higher production costs arising from the loss of manufacturing flexibility. Since nylon can be produced in an undyed form, and then coloured and printed to order, this achieves significant production efficiences impossible with polypropylene fibre,

— higher stocking costs, again arising from the different dyeability characteristics. Because polypropylene fibre is pre-dyed, a complete range of colours must be stocked.

Only three carpet manufacturers of those contacted state that there would be no technical difficulty for them to replace their current nylon fibre use by polypropylene fibre. Two of these, however, go on to state that this would involve a very considerable change from their current product profile.

(23) It follows from the above that carpet manufacturers are in general not able to switch between nylon and polypropylene fibres in reaction to significant changes in the supply conditions of either fibre. For two products to be regarded as substitutable, the direct customer must consider it a realistic and rational possibility to react to, for example, a significant increase in the price of one product by switching to the other product in a relatively short period of time. Each product must be a reasonable alternative for the other in economic and technical terms. In this context, industrial customers will usually make an objective evaluation of alternative inputs.

In the present case, for example, the carpet manufacturers can and do switch in a relatively short period of time between the use of staple nylon fibre and nylon BCF, and between fibres from the nylon 6 route and fibres from the nylon 6.6 route. In contrast with this they do not switch back and forth between nylon and polypropylene fibres.

(24) There is a large price difference between nylon fibres and polypropylene fibres in general. A typical average nylon fibre would cost almost twice as much as a typical polypropylene fibre (the polypropylene : nylon fibre price ratio is around 1 : 2,13 based on 1991 data ; the ratio was 1 : 1,87 in 1987).

Despite this price gap, nylon fibre remains so far the most widely used fibre in carpet manufacturing. The cost of fibres in general accounts for between 25 and 40 % of the ex-factory price of carpets for the manufacturers. Since fibre cost is so significant for the carpet manufacturer, the fact that nylon fibre has not been displaced by polypropylene fibre can therefore only be explained by the non-substitutability of the two fibres arising from their different specific characteristics.

(25) Since polypropylene fibre has been available since the early 1970s, it could have been expected that if it was possible or rational to replace nylon fibre by polypropylene fibre, this would have already taken place to a significant extent.

This is confirmed by a detailed analysis of the historical development of the use of different fibres in carpet manufacturing. Over the last twenty years, the use of polypropylene fibres has grown to around 36 % of total carpet fibre use, in an expanding overall carpet market. In contrast, nylon fibre, which accounted for around 40 % of total carpet fibre use in the early 1970s, actually increased to 49 % by 1979. There was a decline in the overall share of nylon to 41 % by 1984. Subsequently the share of nylon has remained almost stable (a decline of 1,4 % in the period 1984 to 1990).

Volume (in 1 000 tonnes) and % in total fibre use

	1984		1985		1986		1987		1988		1989		1990	
Nylon	193	41 %	197	41 %	198	41 %	213	40 %	219	40 %	234	39 %	239	39 %
Polypropylene	128	27 %	134	28 %	149	31 %	171	33 %	189	35 %	214	36 %	220	36 %
All fibres	465		466		477		526		545		593		609	

(26) The overall use of carpet fibre grew substantially throughout the last 15 years. Over the whole period, nylon fibre has been the most widely used fibre. Its use grew from around 170 000 tonnes in the early 1970s to around 240 000 tonnes in 1990. In the period from 1984 to 1990, where the share of nylon fibre of total fibre use was almost stable, the volume of nylon fibre used grew by some 23 % from around 195 000 tonnes.

(27) Over the last 15 years, however, polypropylene fibre has eroded the overall shares of all fibres used in carpets, although this development has slowed down from 1984 onwards. Overall, it is expected that the trends in the use of the various carpet fibres observed over the period 1984 to 1990 will continue in the foreseeable future. The estimates of the parties show that the use of polypropylene fibre will grow at a rate of around [...](1) per year, whilst the use of nylon fibre will grow at around [...](1) per year between now and 1995. No significant substitution of nylon fibre by polypropylene fibre is therefore expected.

(28) The general price development in the Community of nylon fibre and polypropylene fibre for use in carpets over the last five years has been checked. There is no indication that the polypropylene fibre price has a significant influence on the nylon fibre price. Polypropylene fibre prices for carpets have fallen by between 10 % and 11 % in nominal terms over the last five years, whereas nylon fibre prices for carpets have increased in nominal terms by between 3 and 4 % over the same period. Since during this period the share of nylon fibres in total carpet fibre usage remained largely constant, these figures do not indicate significant positive cross-price elasticity between nylon and polypropylene fibres for carpets.

This analysis of the comparative price development of nylon and polypropylene carpet fibre prices is based on the average prices of the main fibre producers. Both nylon carpet fibres and polypropylene carpet fibres are differentiated products, rather than homogeneous products. Such an analysis therefore cannot result in a precise measurement of cross-price elasticity since the average prices depend to a certain extent on the product mix sold.

(1) Precise figure deleted ; less than 3 %.

The figures however show a tendency. Furthermore, the object of the calculation is to reflect the dynamic of competition between nylon carpet fibres and polypropylene carpet fibres. Both types of fibre are continuously changing and improving, and the product mix therefore changes over time. Any comparison of the price development must reflect this dynamic.

3. Relevant geographic market

(29) It is considered that the relevant geographic market for nylon carpet fibres is the Community.

The Community carpet manufacturers are concentrated in Belgium, Germany, the UK, the Netherlands and France. The nylon carpet fibre producers are based mainly in Germany (Du Pont, ICI, Akzo), the UK (ICI), France (Rhône-Poulenc) and Northern Italy (Snia, Radici, Aquafil). The carpet manufacturers buy, and the fibre producers sell, throughout the Community. Du Pont and ICI, for example, sell their carpet fibres to all Member States where there is carpet production. All the fibre suppliers sell to carpet manufacturers in the five most significant carpet producing Member States (which account for around 90 % of all Community nylon carpet fibre consumption).

On the other hand, the evidence shows that the market is not wider than the Community. There are relatively low imports (less than 10 %), negligible exports and consequently relatively little mutual inter-penetration between the Community and other areas such as North America and the Far East. There has been no significant change in the export/import pattern over the last decade. There is no indication that this will change in the foreseeable future.

The main reason for this low inter-penetration is that a close relationship is required between the fibre manufacturers and their customers. This arises mainly because of the necessity for security of supply of fibre by the carpet manufacturer, and the close working relationship between fibre manufacturers and carpet manufacturers in the development of specific fibres and carpets. There are, furthermore, additional transport costs for overseas shipments and also an import duty of 9 % into the Community.

4. Structure of the nylon markets

(30) Over the last decade, there has been no significant entry into the overall Community nylon industry or into any of the nylon fibre markets. During this period, exit from and consolidation within the industry has continued.

4.1. *Nylon fibres for carpets: competitors and market shares*

(31) The competitors in the nylon carpet fibre market and an indication of their market shares in terms of value of sales in the Community in the last three years are as follows (1):

	1989 (1)	1990 (1)	1991
	%	%	%
Du Pont	...	...	...(2)
ICI	...	...	...(2)
	...	...	43
Rhône-Poulenc/Snia		20-25	
Aquafil			
Radici			
Akzo		5-10 each	
Allied			
Others			
	100	100	100

(1) Precise figures deleted.
(2) Precise figures deleted; between 20 and 25 %.

(1) Total production in the Community was around 250 000 tonnes in 1991. Capacity is estimated at around 320 000 tonnes, the rate of utilization of capacity being similar for all producers.

In a market where products are differentiated in terms of price and quality, the appropriate method of calculation of market shares has to be based on value rather than volume. In this way, high value items are given their correct weight relative to low value items. A calculation based on volumes would not reflect the real market position of the players.

Furthermore, although relevant in any assessment of market power, it would be incorrect to include captive production in market share calculations because these quantities are not available on the market. In the present case for example the other carpet manufacturers cannot buy nylon carpet fibres from the backward integrated carpet manufacturer, Beaulieu. Beaulieu's captive production is therefore excluded from the above figures.

The total value of the Community nylon carpet fibre market was around ECU 750 million in 1991.

5. Impact of the concentration

5.1. *Position of Du Pont after the concentration*

(32) By acquiring ICI's nylon business, Du Pont would increase its market share in the EC from around [...](1) to 43 % based on 1991 figures. This is about twice that of the next competitor, Rhône-Poulenc/Snia. Overall, the other competitors are smaller. Over the last three years, Du Pont's market share declined by [...](2) and ICI's by [...](2). It cannot be excluded that this decline in market share would continue after the concentration.

(33) Du Pont and ICI are the leading companies in terms of quality of products and technological development. Through its research programme, for example, ICI has developed the largest selection of carpet yarns and fibres in the world, offering to the carpet manufacturers enormous variety of decitexes, lustres, cross-sections and dye variants. Both ICI and Du Pont incorporate technical support into their mainstream development activity. They are recognized in the industry as working with manufacturers, wholesalers and retailers to a much greater extent than their other competitors. This technical collaboration involves, *inter alia*, the joint development of new fibres and carpets, and the examination of new production methods for carpets.

The level of research and development of both Du Pont and ICI is above the nylon industry average. Du Pont for example spends around [...](3) of sales on product development work and a further [...](3) to [...](3) on technical service to assist customers in product enhancement and differentiation.

(34) Both Du Pont and ICI pursue a strategy of selling high value premium fibres, as well as selling commodity fibres. They are the main competitors in the industry to market brands at the level of retailers and final consumers through, for example, country-wide advertising campaigns. [...](4) ICI is Du Pont's closest competitor overall. Both companies sell a wide variety of differentiated products and ICI has been Du Pont's most likely source of competition in quality of product and innovation in the past.

(35) Both Du Pont and ICI are integrated nylon fibre producers, i.e. they cover all the manufacturing steps in the claim to produce nylon fibre from the base chemicals to the end fibre. On the basis of Du Pont's figures, being an integrated producer is a competitive advantage. By acquiring ICI, Du Pont would be able to source its adipic acid requirement internally. This would improve Du Pont's cost base.

Du Pont is the lowest cost producer in the world, because of the scale of its production in particular in the US and since its proprietary route to nylon via butadiene is the cheapest.

(36) The strength of Du Pont in the nylon carpet fibre market in the Community after the proposed concentration has to be assessed in the context of Du Pont's global position in the nylon industry.

Du Pont is one of the world's largest chemical companies. The nylon facilities of Du Pont in the different regions of the world can rely on its large US based research and development activity.

(37) Du Pont is therefore already a strong competitor in the Community nylon carpet fibre market and it would be strengthened by the acquisition of ICI's nylon business.

(1) Precise figure deleted; between 20 % and 25 %.
(2) Precise figure deleted; less than 5 %.
(3) Precise figure deleted.
(4) Business secret deleted.

5.2. Position of competitors

(38) The most significant competitor of Du Pont and ICI in the nylon carpet fibre market to date is Rhône-Poulenc. Rhône-Poulenc and the Italian subsidiary of Fiat, Snia, have recently entered into an agreement to combine their nylon carpet fibre activities in a joint-venture company. Both companies considered that this agreement was necessary to attain a size which would enable them to better competete in the market.

The combined product range of Rhône-Poulenc/Snia is not as large as that of Du Pont/ICI. This is largely because Rhône-Poulenc and Snia in the past have carried out relatively limited product development and research. Rhône-Poulenc/Snia, however, now has a strategy of focusing its future growth on the higher segments of the market. The joint-venture arrangement will provide an improved sales base in which to exploit this development.

The Rhône-Poulenc/Snia business can justify a higher level of investment than was possible in the past for the two partners alone. It would take a considerable time, however, to significantly broaden the existing product range in this way.

Furthermore, Rhône-Poulenc is also a fully integrated producer of nylon fibres, based on the butadiene route which is the cheapest. Rhône-Poulenc produces all its adiponitrile requirement in a 50 : 50 joint venture with Du Pont. Despite the significance of adiponitrile in the nylon chain, there is no indication that this cooperation between Rhône-Poulenc and Du Pont has influenced to a significant extent the competitive behaviour of Rhône-Poulenc *vis-à-vis* du Pont.

(39) There are three other significant competitors which each presently have around 10 % of the Community nylon carpet fibre market.

The Italian company Aquafil has grown significantly over the last few years, its market share increasing by around one third over the last three years. A large proportion of its sales are of high quality fibres.

Another Italian company, Radici, is a supplier of commodity fibres. Its sales and market share have also been growing over the last three years.

The Dutch company Akzo, which is one of the Community's largest chemical companies specializes in selling high quality fine nylon yarns at the top end of the market. It has maintained market share in this segment.

(40) There is some import penetration from the large US nylon producer Allied Signal, which has less than 5 % of the market. There is no indication, however, that the other large US nylon producers intend to export production to the Community in the foreseeable future.

(41) In general terms, the competitors do not at present cover the whole range of fibres supplied by Du Pont and ICI. In the short to medium term these competitors are not likely to be able to develop a significantly broader range of high quality fibres across the board. The range of fibres which both Du Pont und ICI are currently able to offer has been built up over a long time, and is a result of research and development justified by the large sales base of both companies.

Product differentiation is a key element of competition in this market. The existence and further development of a large variety of nylon fibres is very important for the Community carpet manufacturers since this is a factor which enables them in turn to differentiate their products. The success of the Community carpet manufacturers, at least in the medium to high end of the overall carpet market, depends on their ability to offer a broad range of different products.

5.3. Position of customers

(42) The customers are the European carpet manufacturers. There is a group of large companies. The largest company, Beaulieu, which is based in Belgium, has a turnover of around ECU 1,1 billion in 1990. There are three carpet manufacturers in the Community in the range of ECU 250 million to ECU 350 million turnover retail on 1990 figures. There are eleven manufacturers in the range of between ECU 100 million and ECU 250 million. The remaining carpet manufacturers are small or medium-sized companies.

(43) To a certain extent, when a carpet manufacturer chooses a particular fibre to make a particular carpet in a collection, the manufacturer is committed to that fibre for that carpet at least for the life of the collection.

The cost of launching a new carpet range involving design, the production and distribution of sample books to all outlets, and promotion, is a significant expense for carpet manufacturers. When a carpet manufacturer introduces a new range of carpet, therefore, this range would usually have a life of

between three and seven years. The construction of a carpet is made with regard to the technical properties and attributes of the specified fibre. Without using the specified fibre, the carpet manufacturer cannot produce the same carpet as that sold in accordance with sample books.

The choice of a particular fibre and a particular supplier is therefore a significant one for the carpet manufacturer. Manufacturers therefore follow a strategy of multiple supply as much as possible. This can be expected to continue after the proposed concentration, since it is not in the manufacturers' interest to become dependent on any one supplier. It may be, therefore, that over time, where a manufacturer currently buys fibres from both Du Pont and ICI, there will be an incentive to shift some of this demand to another supplier.

(44) The parties have also submitted that the carpet manufacturers have the option to integrate backwards into nylon fibre production, and that this is a potential source of buyer leverage. In the Community, Beaulieu and ITC of the carpet manufacturers have integrated backwards into nylon fibre production. Beaulieu is by far the largest European carpet manufacturer.

The only other Community carpet manufacturer amongst the larger producers so far to decide to install come captive fibre production facilities is the Belgian Balta/ITC group. This production facility was installed in 1984. It is now run at full capacity.

Although the other carpet manufacturers contacted have no current plans to install their own fibre production facilities, this possibility cannot be excluded in the medium to long term.

5.4. *Indirect competitive pressure from other fibres at retail level*

(45) Du Pont would achieve, with the proposed acquisition, a strong position in the market for nylon carpet fibres. Nonetheless there is indirect competitive pressure on Du Pont, as on all nylon fibre producers, arising from the retail price of carpets made from other fibres, in particular polypropylene fibres.

(46) For the residential customer in particular, it is difficult to distinguish between polypropylene carpets and nylon carpets. Consumers make their buying decisions for carpets on the basis of four main criteria, these being price, colour/design, intended use, and quality. Price, however, is the most important factor generally.

Prices of carpets in general vary enormously. There are however identifiable price categories at which nylon and polypropylene carpets are sold. These vary to a certain extent from one Member State to another. Polypropylene carpets so far have been mainly sold in the lowest price category. This category also contains the cheapest nylon carpets. In the Medium price category, the carpets sold have been mainly nylon carpets but polypropylene carpets are now making inroads. In the higher price category, very few polypropylene carpets have been sold in the past.

There is therefore direct competition between polypropylene carpets and nylon carpets in the main segments of the overall carpet market. This degree of overlap at retail level results in significant indirect competitive pressure on the prices of carpet fibres. This indirect pressure amounts to a significant constraint on the competitive behaviour of the nylon fibre suppliers.

5.5. *Effect of the proposed concentration on the nylon carpet fibre market*

(47) The Community nylon carpet fibre market is for the time being competitive. There is price competition and there is in particular competition with regard to quality and innovation. As a result of the proposed acquisition of ICI's nylon business, Du Pont would be the strongest player in the Community nylon carpet fibre market. It is true that the position of the remaining competitors, the possibilities for the carpet manufacturers to switch suppliers over time, together with the significant indirect competitive pressure from polypropylene carpets on the retail level, amount to some constraint on Du Pont's freedom of action. Nevertheless, the strengthening of Du Pont in the Community nylon carpet fibre market leads to a considerable reduction of competition, in particular with regard to the competition in product development. Product differentiation resulting from continuing innovation is one of the driving forces of this market. Competition in product development between Du Pont and ICI in the past has been an important source of innovation in the Community. Consequently, it is reasonable to assume that the position of Du Pont would be such as to enable it to act independently of its competitors and of its customers.

(48) Du Pont has recognized the Commission's concerns in this respect and in order to meet these concerns Du Pont has accordingly modified its original concentration plan by entering into the following undertakings *vis-à-vis* the Commission.

'Du Pont undertakes that, as soon as practicable after the completion of the notified transaction and in any event not later than 30 days after the completion of the notified transaction, Du Pont will take necessary steps to enter into good faith negotiations with interested third parties with regard to the following arrangement and will conclude such arrangement as soon as practicable but no later than [...](1) after the completion of the notified transaction. These periods may be extended with the agreement of the Commission.

1. Du Pont will reserve capacity to produce up to 12 000 tonnes per annum of nylon staple fibre representing a cross-section of ICI's current product range for the benefit of an independent third party. So as to ensure improved competition, such a third party must be a supplier of nylon fibres and not a carpet producer.

2. Du Pont will manufacture up to 12 000 tonnes per annum of such nylon staple fibre as may be specified by such third party for a period of five years renewable by the selected candidate. Such products will be sourced from the facility best suited to meeting such third party's requirements. The fee to be paid for such fibre products will be based on a polymer pricing formula plus a fibre conversion fee as agreed between Du Pont and the third party. Such fee will be based on take or pay principles common in similar manufacturing arrangements.

3. Du Pont will, on terms and conditions as agreed between Du Pont and the third party, agree to transfer to such third party a free-standing carpet research and development facility comparable in terms of quality to those currently existing in Oestringen and Geneva and appropriate to the business transferred. Such facility, which will be staffed with competent technical personnel at least half of whom should be from ICI's Oestringen facilities, will be at a location chosen by the third party. Du Pont will, on terms and conditions as agreed between Du Pont and the third party, take all reasonable steps to encourage the relevant ICI personnel to take up employment with the third party.

4. Du Pont will, on terms and conditions as agreed between Du Pont and the third party, take all reasonable steps to encourage the competent sales personnel familiar with the business being transferred to take up employment with the third party.

5. Du Pont will, on terms and conditions as agreed between Du Pont and the third party, license exclusively or assign to the selected third party ICI's "Timbrelle" trademark.

Any dispute between Du Pont and the selected third party arising out of the implementation of these undertakings will be submitted to independent arbitration to be mutually agreed between Du Pont and such third party.'

These undertakings have been taken into account in the Commission's assessment of the effect of the proposed concentration. The undertakings will immediately enable a third party to replace ICI partially as a supplier of high quality fibres by the transfer of the equivalent of [...](2) of the existing staple fibre production of ICI at its main nylon carpet fibre facility at Oestringen, in Germany. This third party will be able to maintain and build on this position in the segment of the market which is closest to that of Du Pont in terms of quality through the research and development facility and development and support expertise also to be transferred. This would significantly improve the competitiveness of the third party, in particular as regards its product range and future product development. These undertakings therefore will substantially reduce the likelihood that Du Pont could be able to determine the degree of product development and innovation in the market.

CONCLUSION

(49) The proposed concentration, amended by the inclusion of the undertakings would not therefore create a dominant position on the EC nylon carpet fibre market as a result of which effective competition would be significantly impeded in the common market within the meaning of Article 2 (3) of the Merger Regulation,

HAS ADOPTED THIS DECISION:

Article 1

The proposed acquisition by Du Pont of ICI's nylon business is declared compatible with the common market.

Article 2

This Decision is subject to the obligation that Du Pont fulfils the undertakings which it has entered into *vis-à-vis* the Commisison.

(1) Precise time deleted.

(2) Precise figure deleted; around half.

Article 3

This Decision is addressed to :

E.I. du Pont de Nemours and Company,
c/o Cleary, Gottlieb, Steen & Hamilton,
23 Rue de la Loi,
B-1040 Brussels.

Done at Brussels, 30 September 1992.

For the Commission
Leon BRITTAN
Vice-President