

# 7 Conclusions

7.1. In this inquiry we are concerned with the proposed acquisition by Alcatel Cable SA (Alcatel Cable) of STC Limited (STC), a company incorporated in the UK (see Appendix 1.1 and paragraph 7.8). We are required by the first question in our terms of reference to investigate and report whether arrangements are in progress or in contemplation which, if carried into effect, would result in the creation of a merger situation qualifying for investigation, as defined in section 64(8) of the Fair Trading Act 1973 (the Act), in that enterprises carried on by or under the control of Alcatel Cable would cease to be distinct from enterprises carried on by or under the control of STC. For this purpose the reference refers to the test in section 64(1)(b) of the Act (the assets test) and provides that, if we find this test or the alternative test in section 64(1)(a) (the market share test) satisfied, we shall exclude the other from our consideration.

7.2. The offer made by Alcatel Cable and accepted by STC, subject to clearance by the regulatory authorities, valued STC at £600 million. The gross value of STC's world-wide assets as at the time of its last balance sheet at 31 December 1992 amounted to £183 million (see paragraph 3.28). We know of no change that would materially reduce that value.

7.3. We conclude that the assets test is satisfied and that, if the arrangements referred to in paragraph 7.1 are implemented, a merger situation qualifying for investigation will be created. As the merger has not been implemented, the second question in our terms of reference relating to the actual creation of a merger situation does not require an answer. We have therefore to consider the third question in the terms of reference, whether the creation of the merger situation may be expected to operate against the public interest.

## The companies

7.4. Alcatel Cable is a subsidiary of Alcatel Alsthom SA (Alcatel). Alcatel is the holding company for a large multinational group of companies employing some 200,000 people world-wide. Two-thirds of this workforce is engaged in the design, production, sale and servicing of communications equipment in 30 countries. Alcatel told us that neither it nor any entity within it was owned or controlled by the French Government.

7.5. Alcatel's submarine cables systems business is undertaken by six subsidiaries, including Alcatel Cable, and co-ordinated by Alcatel Submarcom, an Economic Interest Grouping under French law. The business consists of the design, supply and installation of cable, repeaters (regenerators or optical amplifiers), terminal equipment and software communications systems operating from nine sites:

- |                           |                                                                                                                       |
|---------------------------|-----------------------------------------------------------------------------------------------------------------------|
| Clichy, France (23)       | - headquarters, mechanical, metallic and electrical constructions, manufacture of wires and cables;                   |
| Calais, France (468)      | - cable manufacture (submarine and terrestrial), technical services supervision of marine operations;                 |
| Bezons, France (125)      | - optical fibre manufacture;                                                                                          |
| Marcoussis, France (33)   | - research and development (R&D) into opto-electronic components, optical fibres, sub-assemblies and systems studies; |
| Liverpool, Australia (63) | - assembly of submarine repeaters, and repeater and systems engineering;                                              |

- |                                |                                                              |
|--------------------------------|--------------------------------------------------------------|
| Port Botany, Australia (212)   | - submarine cable manufacture and power feed;                |
| Upper Hutt, New Zealand (17)   | - terminal and power feed equipment assembly;                |
| La Ville-du-Bois, France (100) | - R&D and manufacture of repeaters, terminal equipment, and  |
| Lannion, France (50)           | related software as well as provision of installation, main- |
| Orléans, France (170)          | tenance and after-sales services.                            |

There were some 1,260 employees in the business in the last quarter of 1993: the number at each site is shown in brackets. Alcatel subcontracts marine installation services.

7.6. In 1987 Northern Telecom Limited (NT) bought a 27 per cent interest in STC PLC from ITT Corporation. It acquired the remaining shares in STC PLC in March 1991.

7.7. NT's headquarters are in Canada and it owns a group which operates 52 plants around the world engaged principally in the manufacture of central office switching equipment; business communications systems and terminals; transmission equipment; and cable and outside plant products, including conventional wire and optical fibre cable as well as submarine cables. Northern Telecom Europe Limited (NTEL) has the prime market responsibility for the NT group within Europe.

7.8. NT's submarine systems activities are carried on by STC and its subsidiaries in STC/Submarine Systems Division. NTEL is the parent company of STC.

7.9. STC operates from five principal locations:

- |                             |                                                                                                                                                                                                     |
|-----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Greenwich, UK (539)         | - headquarters, project management functions, manufacture of repeaters, optical amplifiers, terminal equipment, test of electronic components, R&D on repeaters, terminal and power feed equipment; |
| Southampton, UK (340)       | - cable design, manufacture, systems assembly and testing;                                                                                                                                          |
| Portland, Oregon, USA (214) | - cable manufacturing, systems assembly, and systems testing;                                                                                                                                       |
| Perth, Australia (32)       | - software development for supervisory systems;                                                                                                                                                     |
| Stevenage, UK (58)          | - software development for supervisory systems.                                                                                                                                                     |

STC had 1,183 employees on 1 January 1994: the number at each site is shown in brackets. Like Alcatel it subcontracts marine installation services.

7.10. BNR Europe (BNRE) is a wholly-owned subsidiary of NTEL, based in Harlow. Under the proposed transaction, BNRE will continue to supply research services to STC for another two or three years, but a team of about 14 BNRE employees who are engaged in R&D on cable design and repeater testing will be transferred to STC. The proposed transaction also contemplates that NTEL's Opto-Electronics Division at Paignton will continue to supply key opto-electronic components and related development services to STC. NTEL's Transmission Division at New Southgate will continue to supply to STC, at least in respect of current orders at the proposed date of divestment, multiplexing equipment to support STC's contractors' requirements. NTEL and STC have agreed to continue to develop interfaces between the software elements of the NTEL product and the STC supervisory software.

## The proposed merger

7.11. Alcatel Cable has agreed to purchase, subject to regulatory approval, the entire issued share capital of STC from NTEL for £600 million. In addition the name and trade mark 'STC' will be purchased from either NTEL or NT by a sister company of Alcatel Cable. It is contemplated that ancillary agreements will include the provision to STC by BNRE of R&D in support of existing contracts or outstanding bids submitted by STC up to March 1994 and for the advanced developments for STC's longer-term business. This continuing support is expected to go on for a period of two or three years (see paragraph 7.10).

7.12. NT told us that its prime interest in the acquisition of STC PLC had been the complementary nature of the two businesses in switching systems and transmission equipment, and in the geographical extension that STC PLC offered to NT in these core activities. STC did not fit within this core strategy and NT had contemplated disposing of it from the beginning. There had been a number of discussions with interested parties but only Alcatel Cable had made an offer. Alcatel had been identified as a prospective purchaser at an early stage because of its commitment to the submarine cables business. NT considered that STC needed to be part of an organization which regarded submarine cable systems as a core business and would therefore be prepared to devote to it the technical and business resources necessary to maintain its position in a rapidly changing market.

7.13. We asked NT about the price Alcatel had offered for STC. NT told us that the sum of £600 million did not reflect any significant premium. A PE ratio of [ \* ] was not unusual for a primary telecommunications business. Alcatel confirmed that it regarded its submarine cable business as a core activity. It believed that the proposed merger offered significant benefits in a market where:

- (a) Telecommunications operators' demands for submarine systems were constantly increasing in terms of performance, reliability and costs per circuit.
- (b) The growth in demand for very large multi-point branching systems such as Asia Pacific Cable Network (APCN) would require sophisticated integration techniques and complex network management software. This would now favour the supply of entire systems using a single technology instead of a number of independent integrated designs.
- (c) The recent alliance of American Telephone and Telegraph Company (AT&T) with Kokushin Denshin Denwa Co Ltd (KDD), both telecommunications operators, provided single technology long-haul systems. AT&T was in a predominant position as an international carrier, and KDD had increasing importance in this role, particularly in the Asia-Pacific area.

7.14. The advantages of the proposed merger lay in the complementary nature of Alcatel's and STC's traditional areas of operations, and available synergies in R&D, purchasing and marketing. Although the merger would not in itself inevitably maintain the parties' relative technological positions, they would together be able to explore more diverse areas of research in order to develop an effective and substantial independent offering of future generation systems to all telecommunications operators.

7.15. STC broadly shared Alcatel's views. It believed it needed the financial strength of a parent company such as NT or Alcatel to finance the next generation of long-haul submarine systems. Moreover, given the financial demands likely to be placed on a supplier of these systems, STC also considered that it needed to be part of a group which regarded it as a core business.

## The market for telecommunication links

7.16. There is no significant overlap between submarine cables and land cables or microwave (see paragraph 4.4).

7.17. Over the years satellites have to varying degrees competed successfully with submarine cables. Satellites continue to have a clear advantage for point to multi-point communication such as broadcasting, but

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\*Figures omitted. See note on page iv.

offer inferior quality for voice and especially data transmission (see paragraph 4.5). They are also more suitable than cable for mobile communications; even on routes where cable links exist they may be able to offer a premium service in this area of demand. A network of low earth-orbit satellites, which is currently being promoted, could be well suited to this role.

7.18. More recently cable costs per unit of capacity have been falling rapidly and this trend is likely to continue as cable capacity increases. Cable now has a clear cost advantage over satellite for any route with substantial traffic. The viability threshold for cable continues to fall and many new cable links are expected to be completed over the next five years.

7.19. The bulk of the evidence we have received suggests that direct competition between satellites and submarine cable is currently limited. Although both Alcatel and STC took the view that the balance of advantage between cable and satellite might change, as it had in the past, it is doubtful whether competition from satellites is now effectively constraining the prices charged by suppliers of submarine cable systems. We therefore conclude that submarine cable and satellite systems are separate markets. The proposed merger directly affects only the submarine cable systems market.

### ***The market for submarine cable systems***

7.20. Submarine cable systems may be divided into long-haul (repeated) and short-haul (unrepeated). The suppliers generally operate on a global basis, particularly for repeated systems. Supply should therefore also be considered on a global basis although indigenous suppliers may be favoured within a country or region.

### **Long-haul systems**

7.21. Long-haul submarine cable systems require the installation of repeaters underwater at regular intervals in order to maintain the quality of transmission. This increases substantially the unit equipment cost of a system because of the high degree of reliability necessary for a planned life of 20 to 25 years without underwater maintenance.

7.22. There are few significant suppliers in the long-haul market sector. Apart from Alcatel and STC, there are only AT&T and three Japanese firms (KDD, NEC, and Fujitsu Ltd (Fujitsu)). Sector shares over the four years 1990 to 1993 are shown in Table 7.1.

TABLE 7.1 Percentage market shares in the long-haul sector, 1990 to 1993

	%
STC	19
Alcatel	19
Combined	38
AT&T	36
Japanese firms	24*
Pirelli	2†
	100

Value \$6,788 million over the four years.

Source: MMC estimates based on information provided by STC.

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\*Individual shares not available.

†In most cases Pirelli had a share of the contracts but that share did not include the supply of repeaters. In the other cases, Pirelli had the whole contract and, it is assumed, subcontracted repeater manufacture.

7.23. AT&T is the world's largest manufacturer of telecommunications equipment as well as the largest carrier of switched telecommunications traffic. AT&T manufactures all main parts of the system except the cable. It has its own cable-laying ships. Alcatel and NT told us in their joint submission (Alcatel/NT) that following its world-wide reorganization in 1990 to create a separate submarine systems business, AT&T had evidenced a clear intention to compete actively across the market as a supplier of submarine cable systems.

7.24. AT&T and KDD, as suppliers of these systems, have signed a technical co-operation agreement and are developing optical amplifier technology together.

7.25. As we have already indicated, both Alcatel and STC manufacture all the main parts of the submarine cable system but subcontract cable-laying to firms such as BT (Marine) Ltd. STC purchases multiplex equipment and opto-electronic components from elsewhere in the group and optical fibre from Corning in the USA or Optical Fibres (Deeside) Ltd, a joint venture between Corning and BICC. Alcatel purchases optical fibre from within the Alcatel group.

7.26. NEC and Fujitsu usually purchase optical fibre cable but manufacture the other main parts of the system themselves. They do not have their own installation capacity. KDD, the largest Japanese overseas telecommunications carrier, recently increased its involvement in the supply of submarine cable systems. KDD has its own cable-laying ships but does not manufacture any of the main parts of the system.

7.27. Expenditure in the industry on R&D is high-about [\*] per cent of turnover for STC and Alcatel, which believed that AT&T spent relatively more than that. The figures for other companies are not available, but NEC told us that the R&D expenditure on submarine cable systems was relatively higher than for other products.

### ***Short-haul systems***

7.28. The maximum length of an unrepeated system has reached about 350 km but systems may be festooned around coasts, thus covering much longer distances without the use of underwater repeaters.

7.29. The suppliers of repeated systems also supply over 60 per cent of the unrepeated systems but there are five other suppliers (see Table 4.4). Sector shares over the four years 1990 to 1993 are set out in Table 7.2.

TABLE 7.2 **Percentage market shares in the short-haul sector, 1990 to 1993**

	%
STC	22
Alcatel	<u>22</u>
Combined	44
AT&T	12
Japanese firms	7
Pirelli	16
NKT	7
Others	<u>14</u>
	100

Value \$779 million over the four years.

Source: MMC estimates based on information supplied by STC and Alcatel.

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The short-haul sector is at present only about one-tenth of the size of the total market for submarine cable systems but its share is expected to increase to around one-fifth over the next few years (see paragraph 4.35).

### ***Purchasing of submarine cable systems***

7.30. Submarine cable systems may be purchased by a single telecommunications carrier where the system lies within a single country. More frequently, submarine cables link two or more countries. The cable system is then owned by a consortium of carriers, which may include not only carriers operating in the countries at either end of the cable but also carriers intending to use the cable for through traffic. The consortium may also include investment-only participants. The consortium owns the cable system and each member may use it in proportion to his share in the consortium. It is usual for a procurement group, consisting of the largest members of the consortium, to do the detailed work of choosing the system and to manage the operation of the system, once built. The procurement group will either issue a general invitation to tender or invite one or more specific

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\*Figure omitted. See note on page iv.

suppliers to bid. Following receipt of the bids, there is a further period of negotiation with the supplier or suppliers. The purchasers may invite one or more suppliers to form themselves into a consortium, for example where all the criteria set out at the bidding stage cannot be met by one supplier.

7.31. A number of those providing evidence referred to the leading or predominant role of AT&T as a purchaser of submarine cable systems. As shown in Table 4.8, AT&T accounts for a larger share of international telecommunications traffic than any other carrier-about 70 per cent more than Deutsche Telekom, the next largest carrier.

## **Demand for submarine cable systems**

7.32. Table 4.6 shows that orders for optical fibre submarine cable systems between 1986 and 1993 totalled over \$10 billion. About half of these orders were placed in 1991 and 1992. However, ordering is inevitably lumpy and orders for 1993 are at a much lower level than in 1991 and 1992. Nevertheless, the trend has been of an increasing volume and value of orders over time. About half these orders have been in Asia or the Pacific and the remainder in the Atlantic, Caribbean, North Sea and Mediterranean areas. The proportion of orders in Asia or the Pacific has been increasing over time (see paragraph 7.35).

7.33. Alcatel told us that it expected continuing growth in the market, with orders of \$12 billion to \$14 billion in aggregate over the next five years. STC's estimates suggest a total market value of up to \$15 billion for all submarine systems over the same period.

7.34. As we noted in paragraph 7.29, short-haul (unrepeated) systems are expected to account for a larger share of the market in future.

7.35. With very high rates of growth in many Asian economies and in their telecommunications infrastructure, the importance of Asia and the Pacific in the submarine cables market is expected to increase. Alcatel thought that 60 to 65 per cent of the value of new orders would be in those regions. There is also a tendency for new systems, especially in the Asian and Pacific regions, to be increasingly complicated networks rather than simple point to point links (see paragraph 4.36).

7.36. Future orders are also expected to be made increasingly by 'independent' purchasing consortia. An example of this type of independent consortium is the FLAG (Fibre-optic Link Around the Globe) system. This is a proposed 28,000 km link between the UK and Japan, with landfalls currently expected to include Gibraltar, Italy, Egypt, Saudi Arabia, UAE, India, Thailand, Indonesia, Malaysia, Hong Kong and Korea. Investors in FLAG are led by NYNEX Corporation (see paragraph 4.37).

## **Links between companies**

7.37. Alcatel/NT told us that, traditionally, major contracts such as those for the transatlantic links had tended to be shared out between the suppliers in proportion to the share held by the relevant national carrier in the purchasing consortium. Thus Alcatel would receive a share of the supply contract in relation to France Telecom's share in the purchasing consortium and similarly for STC and British Telecommunications plc (BT).

## **Competition in the supply of submarine cables systems**

7.38. Technology has advanced rapidly in the supply of submarine cable systems. The increase in capacity of optical fibre systems since they were first introduced in 1986 has resulted in the cost per circuit falling to about one-sixteenth of its original level, as indicated in Figure 4.3. As we have said, this trend is expected to continue.

7.39. There has been a degree of liberalization in the international telecommunications market, encouraging operators to become more aggressive in their purchasing behaviour. New independent operator groupings have emerged (see paragraph 7.36). BT commissioned the first European link to be provided by Japanese suppliers in 1989. Cable & Wireless plc (C&W) participated with Sprint International Inc in establishing the first 'private' transatlantic cable (PTAT 1).

7.40. All the suppliers of repeatered submarine systems now offer optically-amplified systems operating at 5 Gigabits per second (Gbits/s). Competition between similar technology products will be primarily on the basis of price, quality of service and product reliability and delivery dates, although fully open tendering has up to now been limited (see paragraph 4.30). The main technological advances such as the move to optical amplification seem to have resulted from the competitive response of suppliers to pressure from operators for improved performance, in order to satisfy a rapidly expanding demand for telecommunications. We were told that the capacity of optically amplified systems was expected to increase to 40 Gbits/s as a result of current research into wavelength division multiplexing and soliton technology (see paragraphs 2.28 and 2.29).

7.41. Subsidiary technological advances have involved improving the capacity (bit-rate) of existing technology and have enabled one supplier to gain a short-term competitive advantage over the others. Thus, STC developed a 420 Megabits per second (Mbits/s) system which enabled it to win the contracts for PTAT 1 and NPC independent systems, and a similar advance enabled Fujitsu to win the contract for the UK/Germany 5 System.

## **Barriers to entry**

### ***Long-haul systems***

7.42. There are a number of requirements for entry into the long-haul sector of the market. First, the potential supplier must have access to underwater repeaters and the associated optical amplification technology. Secondly, long-haul underwater systems operate at higher capacity than land cables and short-haul underwater systems. Third, long-haul systems carry a high-voltage electrical current to operate the repeaters, imposing additional requirements on the cable. In short, suppliers of long-haul submarine systems require access to more advanced technology than other telecommunication cables suppliers. Alcatel/NT estimated a new entrant's development and proving costs for a long-haul system at £47 million. A new entrant would also have to convince purchasers of the reliability of his system.

7.43. From a purchaser's point of view, the risks of contracting with a new entrant are therefore high. Consequently they are likely to prefer to stay with existing suppliers with a good record.

7.44. Pirelli Cavi SpA (Pirelli) told us that it intended to enter the long-haul market in 1996. However, Alcatel/NT thought Pirelli was initially most likely to compete at the shorter end of that market, where Italian carriers may be significant purchasers. Pirelli would not then be a significant immediate challenge to existing suppliers for longer-distance contracts, which continue to account for the bulk of the repeatered sector.

### ***Short-haul systems***

7.45. Submarine cable systems for the short-haul sector of the market comprise terminal equipment and optical fibre cable. A potential supplier could purchase terminal equipment and subcontract manufacture of the cable to an existing manufacturer of electrical or telecommunications cable. In practice, however, entry is most likely to be by an existing cable manufacturer with spare capacity. The main cost facing a potential new supplier is in designing, developing and testing the underwater cable and in the systems technology. One supplier estimated the R&D at £3 million to £5 million and thought it would take about two years. Alcatel/NT thought the cost would be higher at some £12 million. As we have already indicated, the laying of the cable may readily be contracted out.

7.46. Entrants into the short-haul market since the introduction of optical fibre cable include Pirelli, NKT Elektronik (NKT), Siemens Bros & Co Ltd, Nokia Cables and GPT Submarine Communications. All of these were existing cable manufacturers. The number of entrants into the short-haul sector confirms that entry barriers are not excessive.

## **The public interest issues**

### ***Competition***

7.47. We concluded in paragraph 7.19 that there was a separate market for submarine cable systems and in paragraph 7.20 that supply of these systems should be considered on a global basis for both sectors of the market, repeatered and unrepeatered.

### ***Long-haul systems***

7.48. As we showed in Table 7.1, STC and Alcatel both had 19 per cent of the long-haul sector of the submarine cable systems market over the period 1990 to 1993, giving the combined entity a share of 38 per cent of a sector worth about \$6,788 million over that period. AT&T had 36 per cent and Japanese firms 24 per cent between them. Pirelli accounted for the remaining 2 per cent, but did not itself manufacture the repeaters for the contracts concerned (see Table 7.1).

7.49. Both Alcatel and STC argued that the merger would enable Alcatel to compete more effectively with AT&T, whose dominance of international telecommunications had been significantly enhanced by its alliance with KDD (see paragraph 4.43). On balance, customers were inclined to support this view. The danger of creating an AT&T/Alcatel duopoly was recognized, but largely discounted because of the presence in the market of powerful and knowledgeable purchasers who were well able, where necessary, to negotiate a competitive price. BT told us that if it was not satisfied that it was receiving bids for a contract at competitive prices, it would have the option of 'encouraging' a bid from a new entrant to the long-haul sector.

7.50. Although we received evidence that STC has been a lively competitive force in this sector of the market, there was a general lack of anxiety about the proposed merger amongst purchasers, which included BT, C&W and Deutsche Telekom. There were other factors such as systems reliability and technical capability which might be enhanced by the scale of the merged entity. On balance they tended to believe that their interests would not be damaged by the merger.

7.51. On the other hand the Department of Trade and Industry was concerned that the merger could lead to further concentration of market power in an already imperfect market with high entry barriers. This view was broadly shared by a UK supplier and a European supplier (see Chapter 5).

7.52. There was general agreement that the need to acquire a reputation for supplying reliable repeatered systems represents a severe barrier to the entry of new suppliers. This is supported by the evidence that no new suppliers have entered the long-haul sector in recent years despite a robust increase in demand. Although Pirelli may start supplying complete long-haul submarine cable systems in 1996 (see paragraphs 7.44 and 7.48), it is unclear how far it will be able to compete with the existing suppliers. Alcatel/NT argued that entry could occur with the assistance of major purchasers. However, the bulk orders are expected to be in the Asia-Pacific region where the largest purchasers are AT&T and KDD, who are themselves major suppliers and are therefore likely to enjoy a degree of preference. For all these reasons, market performance is likely to depend on competition between existing suppliers rather than new entry.

### ***Short-haul systems***

7.53. Table 7.2 shows that STC and Alcatel both had 22 per cent of the short-haul sector of the market over the period 1990 to 1993, giving the combined entity a share of some 44 per cent of a sector worth \$779 million over that period. AT&T had 12 per cent, Japanese firms 7 per cent, Pirelli 16 per cent and NKT 7 per cent. Other suppliers shared the remaining 14 per cent.

7.54. Despite the significant increase in concentration after the proposed merger, there was virtually no concern expressed about competition in the short-haul sector. The generally-held view was that there would be ample remaining competition and that in any event entry was relatively easy, particularly for existing cable manufacturers.

## Other issues

### *STC's future as a UK business*

7.55. We noted some concern that STC's future as an important UK business might be jeopardized by the proposed merger, if, for example, some of STC's R&D and manufacturing were transferred to Alcatel establishments in France. A UK supplier thought that at best STC would become a manufacturing outpost of Alcatel. As a consequence it was thought there would also be knock-on effects on STC's UK suppliers.

7.56. C&W, on the other hand, thought that STC was unlikely to have a long-term independent future, partly because it would be unable to achieve on its own the necessary economies of scale and partly because it was in a volatile business where there was only a limited number of contracts in any year. C&W said that STC was known to be the more vulnerable of the main manufacturers. BT also expected at least one of the main suppliers to be driven out of the market. It suggested that STC would have difficulty in funding the heavy R&D and capital costs required for the next generation of submarine cable systems without the backing of a large parent company.

7.57. Alcatel told us that in view of the differences in STC's and Alcatel's existing optically-amplified systems, and the expected increase in market demand for the foreseeable future, each entity would continue with its own development and manufacture of these systems. Moreover, Alcatel would be committed to fulfilling the contract specification for STC's orders for at least three years, and these specifications could not in any event be met by Alcatel's existing manufacturing facilities within the time-frame of the contracts. There was therefore no immediate scope for rationalization of the parties' facilities. There would, nevertheless, be early savings on procurement. The rationale for the merger lay in the development of future generations of high-capacity systems, in order to be able to offer an independent alternative system to that being developed by AT&T and KDD Submarine Cable Systems Inc. In its perception there was a strong underlying pressure from AT&T for its next generation submarine cable technology to be universally adopted. Alcatel would expect to achieve significant synergies in developing systems through the focusing of R&D in the particular centres of excellence within each business's sites, but its projected business plan for the merged entity showed that R&D expenditure was expected to increase in absolute terms over the next five years.

7.58. Alcatel also assured us that in the longer term it planned to maintain and develop STC as a strong UK-based company, with its own identity, R&D capabilities, and UK production facilities. It pointed to its record in regard to the Anglo-French venture, GEC Alsthom NV, and its acquisition of Telettra Spa in Italy, The Network Transmission Systems Division of Rockwell International Corporation in the USA and AEG Kabel AG in Germany, as evidence of the policy that it intended to apply to STC. Alcatel said that in the case of each of these acquisitions, it has eliminated duplication and furthered specialization by pooling R&D, developed exports and improved productivity, and built upon the existing R&D and industrial presence of the acquired company. In managing these acquisitions, it had established centres of excellence in different countries, with each designated centre taking a 'lead house' role in relation to specific products or systems.

7.59. By joining the two R&D teams under a common head who would have the role of co-ordinator, Alcatel said that it believed specialization, efficiency and work progress would be improved. In the absence of the merger Alcatel and STC could fail to keep pace with the technological alliance forged between KDD and AT&T. There was in these circumstances a material risk that the next transatlantic link, as well as the developing multi-point networks in the Pacific, would be of US and Japanese design, with both Alcatel and STC relegated to the role of subcontractor.

7.60. STC's senior management told us that they were initially wary about the proposed merger but had been pleasantly surprised by Alcatel's positive attitude towards the maintenance of STC's independence as a business, subject to the co-ordination of R&D and marketing activities. They were confident about the future of Greenwich as a centre of excellence for opto-electronics and submarine systems and of Southampton as one of the most ideal locations for cable supply. They believed Alcatel had a good track record for growing global businesses.

7.61. Only two of STC's suppliers who responded to our enquiry about the proposed merger expressed concern about the possible closure of STC's plants in the UK.

## ***Employment***

7.62. We received no representations from trade unions representing STC's workforce.

7.63. Alcatel said that it had no plans to make any redundancies in either its own or STC's business. It had assumed relatively constant employment levels (consistent with growth in sales). This is consistent with Alcatel's description of its plans for STC (see paragraphs 7.57 to 7.59).

## ***UK telephone users***

7.64. Alcatel/NT recognized that UK telephone users could be indirectly affected by the merger to the extent that it had an influence on prices paid by the UK operators BT and Mercury (a subsidiary of C&W) for international services. Both BT and C&W said that the effects of the merger, either favourable or unfavourable, on the prices of international calls were likely to be very small. The Telecommunications Users' Association believed the merger would inevitably present a narrowing of market choice, but new investment in STC by a third party could be seen to benefit the public interest. The Office of Telecommunications believed that price control arrangements affecting BT until at least 1997 were sufficient to ensure that customers were protected from any abuse in the form of higher prices that might result from the acquisition (see paragraphs 5.9 and 5.10).

## ***Benefits***

7.65. It was argued in the joint submission that in the long term the proposed merger would ensure that Alcatel/STC, as an independent supplier, would be able to supply the new generations of systems in competition with AT&T and KDD. There were varying degrees of support for this view from BT, C&W, Deutsche Telekom and Telekom SA. Alcatel/NT also argued that the benefits of the merger would increase as Alcatel and STC developed the new generations of systems. The combined capacities of the two businesses in R&D and systems development would ensure that the new technologies could be developed and brought to the market more rapidly and more economically for the benefit of telecommunications operators, and ultimately telecommunications users world-wide. The result would be a greater flow of business for the enhanced STC research, development and manufacturing facilities in the UK.

## **Conclusion on the public interest**

7.66. We were impressed by the generally high regard for STC in the industry both as a competitor and an innovator. We do not have much doubt that there would be benefits to competition in its continuing as an independent force in both the repeated and unrepeated sectors of the market. We believe, however, that STC is unlikely to be successful in an increasingly demanding market without the long-term wholehearted support of a strong parent company, ideally itself committed to the telecommunications market. It is not clear that this support will be forthcoming from NT for what it regards as a 'non-core' business.

7.67. NT told us that it had discussed the possible sale of STC with prospective purchasers but only Alcatel had made a firm offer. BT said that from its standpoint a merger of STC with AT&T or a Japanese company might present more problems than the proposed merger with Alcatel where the balance was reasonably neutral. Either of the former alternatives might leave Alcatel in a vulnerable position.

7.68. The senior management of STC said that they had given some consideration to a management buy-out but had decided that it would be impracticable. In their view it would be impossible for STC on its own to provide the levels of guarantees both in terms of organization and financially to enable the company to survive on its own. It was essential, on a reputation basis alone, to have the backing of a large parent company. Customers expected STC's products and support to be available over a period of 20 to 25 years.

7.69. NT told us that it intended to return the £600 million proceeds of the sale of STC to the UK, first in order to reduce its indebtedness in the UK and secondly to support future growth of its other businesses in the UK. It had spent about £[ \* ] million in the UK over the three years since it had taken over STC PLC, about £[

\* ] million in capital and £[ \* ] million in R&D. NT said that these sums had been invested to grow the core businesses it had acquired from STC PLC and to develop them on a global basis. If the proposed sale of STC did not go forward, however, STC would face strong competition for funding, and might not be able to secure funds at an appropriate level, given the expected heavy demands of NT's core business.

7.70. As to the future of STC after the proposed merger, Alcatel has pointed to its policy of developing its foreign acquisitions. We have no reason to believe it would not implement this policy following the acquisition of STC. On the contrary, it clearly thinks highly of STC's UK facilities and of its ability as a supplier of submarine cable systems, and it would hardly be in Alcatel's interests to damage an expensive acquisition.

7.71. The merger will increase an already high level of concentration amongst suppliers in the long-haul sector of the market. This may, however, be inevitable, as BT and C&W have suggested, given the increasing sophistication of the product and the consequent increasing demands for R&D and capital investment. As we have seen, barriers to entry are high in an industry subject to rapid technological change.

7.72. The short-haul sector is also highly concentrated and is taking an increasing share of the total market. But the technological demands are not so great, making the sector attractive to the smaller competitors; there is a larger number of suppliers; and in any even market entry is relatively easy.

7.73. Despite the high levels of concentration in both sectors of the submarine cables systems market there has been remarkably little concern expressed by components suppliers, telecommunications users or competitors. Notwithstanding the arguments of Alcatel and STC, we are not convinced that the proposed merger will strengthen competition. STC has clearly been a lively independent competitor, and we recognize the dangers inherent in the further concentration of supply in the long-haul sector of the market. However, we are satisfied that STC will need the long-term wholehearted support of a strong parent company if it is to continue to thrive. We accept that Alcatel intends to provide that support and to continue both to manufacture submarine cable systems and to carry out concomitant R&D in the UK. The proposed merger is therefore likely to be a means of preserving STC's presence in the UK as a significant exporter and employer at the leading edge of telecommunications technology. We believe that any tendency which the merged group might have to abuse its market position will be kept in check by competition between suppliers and the strong countervailing power of the purchasers of submarine cable systems. We therefore conclude that the creation of the merger situation that we have identified may not be expected to operate against the public interest.

G C S MATHER (*Chairman*)

I S BARTER

N H FINNEY

D J JENKINS

G WHITTINGTON

A J NIEDUSZYNSKI (*Secretary*)

28 January 1994

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\*Figure omitted. See note on page iv.