

Part II

# **Background and evidence**

# 3 The companies involved, and the merger situation

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## Introduction

3.1. The companies involved in the merger situation are GEC and VSEL. This chapter gives a brief history of them and a description of their present structure, management organization and finance. We also describe

the merger situation and GEC's plans for the development and integration of VSEL should the merger proceed.

## **GEC**

### **History and development**

3.2. GEC is among the 20 largest companies in the UK by value of its shares quoted on the Stock Exchange. Its origins can be traced to the General Electric Apparatus Company which was formed in the mid-1880s and whose business in the manufacture of electrical fittings and telephones was transferred to GEC when it was incorporated as a private company in 1889. By the end of the 19th century GEC employed 3,000 people and in 1900 the company was made public by flotation on the Stock Exchange.

3.3. Today GEC and its subsidiary and associated companies are an industrial group operating on a world scale, the principal businesses of which comprise the manufacture and sale of electronic systems, power systems, telecommunications systems and equipment, consumer goods, electronic metrology equipment, office and printing equipment, medical equipment, electronic components and industrial apparatus.

3.4. The present shape and size of GEC has come about through two distinct phases of rationalization and restructuring in the UK electronics and electrical industries. The first phase took place in 1967/68. It consisted of GEC's acquisition of Associated Electrical Industries Limited and its merger with The English Electric Company, which included Elliott Automation Limited and The Marconi Company Limited. The Elliott Automation and Marconi businesses were subsequently combined with GEC's defence business to form the basis of what is now GEC's Electronic Systems Division.

3.5. The second phase of rationalization took place in the late 1980s in response to the need for GEC's major businesses in defence, electronics and heavy engineering to grow and to compete more effectively outside the UK. GEC made several major acquisitions and forged a series of joint ventures and alliances. The most important of these were:

- (a) the amalgamation in 1988 of the telecommunications activities of GEC and The Plessey Company PLC (Plessey) to form a 50:50 joint venture now called GPT Holdings Limited (GPT). Following the successful offer made jointly by GEC and Siemens AG (Siemens) in August 1989 for the remaining share capital of Plessey that they did not already own, GPT in March 1990 became owned as to 60 per cent by GEC and 40 per cent by Siemens. Under the joint bidding arrangements with Siemens, GEC acquired several former Plessey businesses, most notably Plessey Aerospace, Plessey Avionics, Plessey Semiconductors, Plessey Electronic Systems Corp (US), Plessey Research-Caswell and Plessey Naval Systems;
- (b) the merger in March 1989 of the power generation, power distribution and transmission and rail transport businesses of GEC and Compagnie Générale d'Electricité (now Alcatel Alsthom) of France in a 50:50 joint venture, GEC-Alsthom NV. This company is now the second largest power engineering business in the world and the largest in railway technology;
- (c) the creation in April 1989 of General Domestic Appliances Limited, a joint venture with GE of the USA, whereby GE acquired a 50 per cent interest in GEC's Consumer Goods Group (comprising Hotpoint, Creda, Cannon, Redring Electric and Xpelair); and
- (d) the acquisition in March 1990 of certain defence systems activities of Ferranti International PLC (Ferranti) and in February 1992 of the Ferranti Dynamics division. After Ferranti was placed in administrative receivership in December 1993 GEC acquired several other Ferranti businesses including Defence Systems Integration. With the agreement of Thomson-CSF of France, GEC has also agreed to acquire Ferranti's 50 per cent shareholding in Ferranti Thomson Sonar Systems Limited.

3.6. With its acquisitions of Plessey's and Ferranti's defence businesses GEC has strengthened the position of GEC-Marconi in the defence and electronic systems field. In 1985 GEC acquired YSL from British Shipbuilders. YSL, the former naval businesses of Plessey and Ferranti, and GEC-Marconi's other naval businesses now form GMNS.

## Financial information

3.7. GEC's sales and operating profits in the past ten years are shown in Table 3.1. This table suggests that GEC's sales, adjusted to 1994 prices by means of the retail price index (RPI), have been relatively static over the past five years but that operating profits (similarly revalued) measured as a percentage of sales have declined by approximately 2.5 percentage points during the last six years. More detailed financial information is contained in Appendix 3.1.

TABLE 3.1 GEC: sales and operating profits, year ended 31 March 1985 to 1994

Year ended 31 March	<i>£ million</i>				
	<i>Sales</i>	<i>Sales revalued by RPI (year ended March 1994 = 100)</i>	<i>Operating profits* (before interest and tax)</i>	<i>Operating profits revalued by RPI (year ended March 1994 = 100)</i>	<i>Operating profits as a percentage of sales</i>
1985	5,575	8,560	529	812	9.5
1986	5,560	8,191	508	748	9.1
1987	5,555	7,869	492	697	8.9
1988	5,816	7,961	561	768	9.6
1989	6,664	8,456	652	827	9.8
1990	8,786	10,313	671	788	7.6
1991	9,482	10,283	688	746	7.3
1992	9,435	9,835	702	732	7.4
1993	9,410	9,626	695	711	7.4
1994	9,701	9,701	684	684	7.1

Source: MMC from GEC accounts.

\*Excludes share of operating profits of associated companies.

Note: GEC told us that, in respect of certain of its businesses, output prices have not moved in line with the RPI and the trend in sales revalued with reference to the RPI therefore cannot necessarily be interpreted as a measure of changes in the volume of output in those businesses.

## Current group structure

3.8. GEC is currently organized into four major divisions into which the activities of its subsidiaries and associated companies can broadly be divided:

- (a) *Electronic Systems* is the largest area of GEC's operations, contributing one-quarter of the group's total sales and one-third of its operating profits in the year to 31 March 1994. It includes a wide range of defence equipment and systems produced by GEC-Marconi and its subsidiaries covering such fields as avionics systems, terrestrial and satellite communications, warships, underwater weapons and sonar, radar, guided missiles, electronic warfare and data transmission systems. Its activities extend, however, beyond the defence field and include civil communications and broadcasting.
- (b) *Power Systems* covers the areas of power generation, transmission and distribution and transportation through GEC-Alsthom NV. Products include steam, gas and hydro turbines, generators, diesel engines, substation equipment and control systems, and rail transport equipment. GEC-Alsthom also owns Chantiers de l'Atlantique at Saint Nazaire which builds large gas carriers and cruise ships, but has also built warships for the French Navy.
- (c) *Telecommunications* covers the operations of GPT which supplies network operators and others with digital main telephone exchanges, private branch exchanges, transmission equipment, intelligent payphones, teleconferencing and videotex systems, communications systems and cables.
- (d) *Industrial* covers a wide range of activities including:
  - *consumer goods*: General Domestic Appliances manufactures a wide range of domestic appliances, including laundry products, cookers, heaters, dishwashers, refrigerators and freezers;
  - *electronic metrology*: the manufacture of products and systems which include fuel dispensing and management systems, meters, retail weighing, point-of-sale and food processing systems and industrial weighing and counting systems;

- *office equipment and printing*: the manufacture, supply and support of ink-jet printing systems, automatic printing and mailing systems and document creation equipment;
- *medical equipment*: the manufacture, sale and servicing of diagnostic equipment, including computed tomography, magnetic resonance imaging, nuclear medicine and X-ray products;
- *electronic components*: the manufacture of silicon integrated circuits, power semiconductors and other products based on microwave and hybrid technology;
- *industrial apparatus*: the production of power and other wires and cables, ventilation equipment, building management and control systems and elevators; and
- *distribution and trading*: primarily the sale and servicing in international markets of products manufactured by GEC's own operating units.

3.9. A breakdown of GEC's sales and operating profits for the financial years 1990 to 1994 for each of GEC's divisions is shown in Table 3.2. This also shows the breakdown between UK customers and overseas customers.

## **Organization and management**

3.10. The main Board of GEC currently comprises 19 directors, of whom six are non-executive. The central management team exercising overall responsibility for the business as a whole comprises eight executive directors supported by about 100 head office staff engaged in functions which include Group Finance, Treasury, Tax, Legal, Contracts, Exports, Overseas Operations, Personnel, Publicity and Company Secretariat.

3.11. GEC's four major divisions are further divided into separate strategic business units responsible for their own marketing and sales and treated as independent profit centres with specific financial targets against which performance is closely monitored. The management of each business unit meets with central management at least once a year to discuss the performance of its business. Supporting these business units are various group and divisional facilities including research, computing services and training, central and divisional marketing support (especially for exports) and the requisite financial support and expertise to handle major contracts and investments.

3.12. GEC explained to us that each operating business was responsible for its own capital investment decisions. The management of each operating company has authority for capital expenditure that forms part of its agreed budget and also has discretionary authority for capital expenditure up to a level appropriate to the size of its business. In the case of YSL, for example, the discretionary level is £25,000. Any unbudgeted expenditure over these amounts, such as the acquisition of a company or an unexpected purchase of fixed assets, could be financed from the group's central resources provided that the management of the business can justify the expenditure.

## **Employment**

3.13. In 1993/94 GEC (excluding associated companies) had an average of 86,121 employees, of whom 59,000 worked in the UK. Including associated companies the total workforce was 134,000, of whom 74,000 worked in the UK.

TABLE 3.2 GEC: sales and operating profit (before interest and tax) by activity, and sales in the UK and overseas, 1990 to 1994

£ million

Area of activity	Year ended 31 March									
	1990		1991		1992		1993		1994	
	Sales	Operating profit	Sales	Operating profit	Sales	Operating profit	Sales	Operating profit	Sales	Operating profit
Electronic systems	2,219	223	2,763	269	2,782	260	2,717	271	2,749	252
Power systems	2,606	130	2,530	123	2,760	157	3,135	174	3,103	166
Telecommunications	909	87	1,253	125	1,125	127	1,012	106	1,050	120
Consumer goods	276	21	271	18	268	21	253	16	259	17
Electronic metrology	501	49	427	37	432	36	413	19	489	30
Office equipment and printing	387	31	339	26	321	17	303	32	323	34
Medical equipment	447	25	463	26	517	32	568	39	674	54
Electronic components	336	16	346	-	306	12	302	23	291	8
Industrial apparatus	374	37	401	36	345	27	342	14	333	6
Distribution and trading	345	28	366	20	320	15	290	13	351	14
Other	111	24	127	8	118	(2)	97	(12)	72	(17)
Less: Intra-group	*	Nil	*	Nil	*	Nil	(134)	Nil	(151)	Nil
Total	<u>8,511</u>	<u>671</u>	<u>9,286</u>	<u>688</u>	<u>9,294</u>	<u>702</u>	<u>9,298</u>	<u>695</u>	<u>9,543</u>	<u>684</u>
UK customers	3,307	N/A	3,722	N/A	3,478	N/A	3,006	N/A	2,852	N/A
Overseas customers	<u>5,204</u>	N/A	<u>5,564</u>	N/A	<u>5,816</u>	N/A	<u>6,292</u>	N/A	<u>6,691</u>	N/A
Total	<u>8,511</u>		<u>9,286</u>		<u>9,294</u>		<u>9,298</u>		<u>9,543</u>	

Source: GEC.

\*Intra-group sales for 1990, 1991 and 1992 were £276 million, £284 million and £235 million respectively. However, these figures cannot be broken down between UK and export sales and have therefore been excluded.

## Exports

3.14. A summary of GEC's export sales from the UK by area of activity is set out in Table 3.3. Over the last five years GEC's exports from the UK have grown from £1,131 million to £1,725 million which is currently equivalent to 60.4 per cent of group sales in the UK.

TABLE 3.3 GEC's exports from the UK by area of activity, 1990 to 1994

	<i>Year ended 31 March</i>					<i>£ million</i>
	<i>1990</i>	<i>1991</i>	<i>1992</i>	<i>1993</i>	<i>1994</i>	
Electronic systems	472	583	608	861	902	
Power systems	272	288	214	230	359	
Telecommunications	93	133	124	102	163	
Consumer goods	18	18	20	20	22	
Electronic metrology	38	31	34	34	37	
Office equipment and printing	1	1	1	-	3	
Medical equipment	8	-	-	-	-	
Electronic components	120	153	149	149	154	
Industrial apparatus	76	80	72	67	84	
Other	33	19	28	9	1	
	<u>1,131</u>	<u>1,306</u>	<u>1,250</u>	<u>1,472</u>	<u>1,725</u>	

Source: GEC.

Note: Export figures include shares, calculated by reference to the GEC group interest in the equity, of joint venture associated companies.

3.15. GEC has an extensive network of international operating companies and overseas marketing offices covering a total of 55 countries. GEC also has experience in forming joint ventures overseas to satisfy indigenous production requirements (which have become increasingly important for major overseas contracts) and technology transfer requirements. In addition, GEC companies are able to draw upon the group's capabilities to arrange offset or counter trade proposals through its other divisions; for example, a defence contract might be offset against infrastructure projects carried out through GEC- Alstom or GPT. GEC told us that such arrangements have become an integral part of almost every major export contract in recent years and thus the ability to make such arrangements was vital to GEC's export success. GEC-Marconi's sales and marketing activities are discussed further below.

## Research and development

3.16. GEC devotes substantial resources to research and development (R&D) and in addition receives R&D funding from the DTI, the MoD and potential customers or joint venture partners. In the year to 31 March 1994 total expenditure amounted to £1.02 billion and capital expenditure on new fixed assets to update its production facilities was £240 million (including £14 million of assets under construction net of payments on account). The GEC group's expenditure on R&D and fixed asset additions on a historical cost basis is set out in Table 3.4.

TABLE 3.4 GEC group expenditure on R&D and fixed assets, 1990 to 1994

	<i>Year ended 31 March</i>					<i>£ million</i>
	<i>1990</i>	<i>1991</i>	<i>1992</i>	<i>1993</i>	<i>1994</i>	
Total R&D	840	1,040	1,040	1,030	1,020	
Total R&D (% of sales)	9.9	11.2	11.2	10.9	10.5	
Own funded	390	435	417	398	406	
Own funded (% of R&D)	46.4	41.8	40.1	38.6	39.8	
Fixed asset additions*	244	252	230	198	240	
Fixed asset additions (% of sales)	2.8	2.7	2.5	2.1	2.5	

Source: GEC.

\*Excluding additions from acquisitions.

## GEC's defence and related activities

3.17. GEC's defence activities are grouped chiefly within the Electronic Systems Group (GEC-Marconi). The structure of GEC-Marconi and its defence business is illustrated in Appendix 3.2. In the year ended 31 March 1994, the turnover of GEC-Marconi was £2,749 million and operating profit was £252 million. Table 3.5 sets out the defence sales of GEC-Marconi from 1990 to 1994 divided between avionic systems (airborne communications, navigation, radar, Identification Friend or Foe, weapon systems, flight data systems, aircraft defensive aids and power systems), land systems (communications, command and control, surveillance and simulation and training systems), naval systems (described further below) and other defence sales (including lasers).

TABLE 3.5 GEC-Marconi: defence sales by activity, 1990 to 1994

	Year ended 31 March					£ million
	1990	1991	1992	1993	1994	
Avionic systems	650.2	863.0	864.0	872.8	819.7	
Land systems	307.6	361.1	380.3	526.0	542.3	
Naval systems	450.0	596.8	582.2	421.6	483.6	
Other defence	12.7	18.9	16.9	18.3	9.4	
Total	1,420.5	1,839.8	1,843.4	1,838.7	1,855.0	
Non-defence sales*	798.5	923.2	936.6	878.3	894.0	
Total GEC-Marconi sales	2,219.0	2,763.0	2,780.0	2,717.0	2,749.0	

Source: GEC.

\*Includes a share of Matra Marconi Space.

3.18. Several other divisions within GEC have also made sales of equipment for defence purposes, most notably GEC-Alsthom which reported defence sales of 138 million ECUs in the year ended 31 March 1994. Sales of gas turbine and diesel engines and other industrial equipment accounted for 75 per cent of this total. GEC-Alsthom has provided the steam turbines, condensers and emergency diesel engines for the Vanguard submarines being constructed by VSEL. Other divisions (including GPT and GEC Plessey Semiconductors) contributed approximately £100 million of defence sales in the same period.

## GMNS

3.19. Almost all of the naval activities of GEC-Marconi are grouped together within GMNS. In addition to YSL, this division contains several distinct businesses concerned with the supply of naval systems:

- (a) *GEC-Marconi Sonar Systems* produces a complete range of sonar systems including minehunting sonar and has been the principal supplier to the Royal Navy for submarine and surface ship sonars in recent years. Export sales of sonar equipment to Sweden, the Netherlands, South Korea, the USA and France have recently been achieved.
- (b) *GEC-Marconi Combat Systems* designs and supplies complete ship and submarine combat systems. All of the command and control systems on the Royal Navy's existing major warships and submarines (with the exception of HMS *Vanguard*) and minehunters have been supplied by this division. The Ferranti Naval Systems business is currently managed as a separate unit, as agreed with the MoD at the initial request of the French Government in order to ensure that there remains effective competition for the combat system on the CNGF for which Ferranti Naval Systems has a leading role in one of the competing consortia of European suppliers.
- (c) *GEC-Marconi Underwater Weapons* is the UK's sole provider (as prime contractor) of lightweight and heavyweight torpedoes: these include Sting Ray, Tigerfish and Spearfish. The division's products also include a family of surface ship weapon launchers, mines and countermeasure systems. Export orders

have been won in several countries including Thailand, Egypt, Brazil, Norway, Finland, the Netherlands, Pakistan and Turkey.

3.20. Table 3.6 shows the breakdown of the sales of GMNS by type of system for the period 1990 to 1994. These figures include YSL, which is a direct subsidiary of GEC but for management purposes is grouped with GMNS.

TABLE 3.6 GMNS and related activities: sales, 1990 to 1994

	<i>Year ended 31 March</i>					<i>£ million</i>
	<i>1990</i>	<i>1991</i>	<i>1992</i>	<i>1993</i>	<i>1994</i>	
	Ships	[				
Radar						
Sonar systems						
Navigation systems						
Displays and data processing systems						
Torpedoes and guided weapons						
Mines						
Spares						
Other						
Total						]

*Figures omitted.  
See note on page iv.*

*Source:* GEC.

## GEC's defence export activities

3.21. GEC-Marconi's export sales over the period 1990 to 1994 are set out in Table 3.7. GEC told us that the value of naval exports has grown from approximately 4 per cent of total GEC-Marconi defence exports to about 14 per cent (£100 million) over this period.

TABLE 3.7 GEC-Marconi export sales, 1990 to 1994

	<i>Year ended 31 March</i>					<i>£ million</i>
	<i>1990</i>	<i>1991</i>	<i>1992</i>	<i>1993</i>	<i>1994</i>	
	Europe	190	311	350	356	275
North America	118	102	92	132	161	
Middle East	118	90	67	130	170	
Asia	27	62	78	200	246	
Rest of world	<u>19</u>	<u>18</u>	<u>21</u>	<u>43</u>	<u>50</u>	
Total exports	472	583	608	861	902	
Defence exports*	332	454	472	687	704	

*Source:* GEC.

\*Gross defence export sales from the UK less defence sales into the UK by GEC-Marconi international companies.

3.22. GEC-Marconi has developed a sales and marketing organization built around subsidiaries in seven major countries including the USA, Canada and Australia supported by marketing offices in a further nine countries and plans are well advanced to open three new offices. In addition, GEC-Marconi is assisted by the directors of GEC, including the Chairman, in identifying and securing export opportunities. The basic sales and marketing establishment about approximately 900 people world-wide and total annual marketing costs are at least £[†] million. For specific opportunities these personnel are commonly organized into teams combining technical, commercial and project management skills with additional supporting personnel from the operating businesses.

## YSL

### History and current activities

3.23. YSL and its predecessor companies have 130 years' experience in building warships: 239 vessels for the Royal Navy and 198 for overseas customers. Together with the other naval shipbuilders and most of the rest of the UK shipbuilding industry, YSL was nationalized in 1977 under the Aircraft and Shipbuilding Industries Act 1977 and was subsequently privatized in 1985 through its acquisition by GEC.

3.24. The YSL yard, at Scotstoun on the Clyde, is currently involved in three projects:

- (a) The construction of three Type 23 frigates (*HMS Somerset*, *HMS Grafton* and *HMS Sutherland*) for the Royal Navy, for completion in 1997. Two of these frigates have already been launched. The total contract value to YSL is about £[ \* ] million.
- (b) Acting as the prime contractor for the construction of two light frigates of 2,300 tonnes (one of which has already been launched) for the Royal Malaysian Navy for completion in 1996 with a total value of about £[ \* ] million. YSL is responsible for designing and building the frigates to a complete performance specification.
- (c) GMNS (through YSL) is leading the UK-designated team of GEC, BAe and VT, responsible for co-ordinating the UK contribution to the design of the CNGF.

3.25. Since 1984 YSL has completed (or is working on) a total of nine Type 23 frigates as well as carrying out the procurement and integration of all the ship's weapons equipment for an AOR on behalf of H&W.

### Production facilities

3.26. YSL has the capacity to build vessels with a displacement of up to 7,000 tonnes. Warship construction is carried out in a module hall and covered slipway with a heavy lift transportation system, built in 1987 at a cost of £8 million. This facility enables YSL to construct warships in a series of modules so that components and systems can be fitted in a cost-effective manner. The heavy lift transportation system moves the modules into place for final assembly on one of three slipways. This allows three vessels to be under construction under cover concurrently. YSL also has a covered GRP construction facility for the production of small vessels with GRP hulls, such as minehunters. This facility cost £2 million in 1979 but is currently unused. YSL also has a dry dock capable of taking a ship in excess of 10,000 tonnes, and several uncovered berths where ships in excess of 20,000 tonnes can be fitted out after launch.

3.27. YSL has acquired modern computer-aided design (CAD) technology which now covers the full spectrum of a technical project from conceptual design to detailed design. It has developed an advanced three-dimensional modelling capability which offers benefits in both the design and construction of warships. This facility is also linked to YSL's laser-cutting machinery, enabling it to implement computer-controlled production techniques, in which machinery is programmed to follow instructions derived directly from the design facility.

### Financial information

3.28. Summarized operating results and balance sheets for YSL are set out in Tables 3.8 and 3.9 respectively.

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\*Figures omitted. See note on page iv.

TABLE 3.8 YSL: summarized operating results, 1990 to 1994

	<i>Year ended 31 March</i>					<i>£'000</i>
	<i>1990</i>	<i>1991</i>	<i>1992</i>	<i>1993</i>	<i>1994</i>	
Turnover	97,193	119,724	135,419	80,308	151,014	
Profit before tax	14,137	13,122	12,545	10,176	14,053	
Dividends*	1,598	Nil	4,500	38,000	Nil	
R&D†	43	Nil	Nil	10	3	
Average number of employees (no)	3,341	3,396	3,193	2,584	2,399	

*Source:* YSL.

\*GEC told us that the dividend paid by YSL in 1993 was part of the normal procedures followed by GEC in planning to pay its group dividend.

†Excludes R&D expenditure of £11 million incurred on the Malaysian frigate contract between 1992 and 1994 which was funded out of the contract price.

TABLE 3.9 YSL: summarized balance sheets, 1990 to 1994

	<i>As at 31 March</i>					<i>£'000</i>
	<i>1990*</i>	<i>1991</i>	<i>1992</i>	<i>1993</i>	<i>1994</i>	
Fixed assets and investments	25,104	24,186	25,357	25,286	25,302	
Current assets						
Stocks and debtors	43,181	32,697	12,614	82,108	100,399	
Cash	3,934	13,810	44,217	57,521	24,506	
	47,115	46,507	56,831	139,629	124,905	
Current liabilities	(34,689)	(22,381)	(30,061)	(140,943)	(117,372)	
Net current assets/(liabilities)	12,426	24,126	26,770	(1,314)	7,533	
Provisions and other liabilities	(5,397)	(7,387)	(7,353)	(10,419)	(9,863)	
Net assets	32,133	40,925	44,774	13,553	22,972	
Share capital and reserves	32,133	40,925	44,774	13,553	22,972	

*Source:* YSL annual reports and accounts.

\*As restated.

## Significant accounting policies

3.29. YSL (in common with other GEC-Marconi companies) recognizes profits on its defence contracts in relation to the achievement of trigger points or milestones. For example, on frigate contracts, the first milestone is typically when [†] per cent of the labour content of the vessel is complete at which point [†] per cent of the profit is recognized, subject to certain contingencies (a convention also employed by other GEC-Marconi companies with large long-term contracts). For previous batches of Type 23 frigates, this contingency amounted to [†] per cent of the total contract value (released one year before delivery) and a timing contingency of £[†] million (released in part on delivery and in part at the end of the guarantee period).

*Details omitted. See note on page iv.*

3.30. YSL's annual overhead cost (of currently approximately £26 million) is absorbed across its contracts in progress using a predetermined overhead recovery rate proportional to the labour costs of each contract. GEC told us that, although a significant proportion of YSL's site is surplus to requirements, the land and buildings are currently derated with all services disconnected and buildings sealed and thus do not accrue any costs.

## Employment

3.31. YSL's current workforce of just over 3,000 can be split into five groups:

- (a) *Technical*: professional engineers and technicians responsible for design and combat systems engineering.
- (b) *Projects*: professional engineers, technicians and support staff responsible for project management and quality assurance, and also the development of the CNGF.
- (c) *Commercial*: professional, technical and support staff responsible for estimating, marketing, ship support and purchasing.
- (d) *Administration*: finance and personnel.
- (e) *Production*: management and the skilled and semi-skilled workforce responsible for all pre- and post-launch manufacturing.

The numbers of employees falling under each group are shown in Table 3.10.

TABLE 3.10 YSL workforce, by group and skill group, as at February 1995

	<i>Number of employees</i>
Technical	[
Projects	
Commercial	*
Administration	]
Production	
Management	[
Skilled	*
Semi-skilled	]
	[ * ]
	3,052

*Source*: GEC.

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## Capital expenditure

3.32. Over the five-year period from 1990 to 1994 capital expenditure at YSL totalled £9.4 million, largely on machinery and equipment. The management of YSL told us that GEC required capital expenditure to be financed in the first instance from YSL's own cash resources but that additional funds required for any approved project would be made available from group resources.

## Exports

3.33. Prior to nationalization YSL gained several export orders and won the Queen's Award for Export on two occasions. The vessels built by YSL for export between 1958 and 1977 are set out in Table 3.11.

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\*Figures omitted. See note on page iv.

TABLE 3.11 **YSL: warships built for export, 1958 to 1977**

<i>Year</i>	<i>Country</i>	<i>Vessel</i>
1958	South Africa	Frigate
1960	South Africa	Frigate
1960	Ghana	Seaward defence boats
1965	Ghana	Frigate
1966	Malaysia	Frigate
1967	New Zealand	Frigate
1969	Thailand	Frigate
1969	Chile	Two frigates
1970	South Africa	Research vessel
1972	Iran	Two landing ships
1977	Iran	Four landing ships

*Source:* GEC.

3.34. Between 1977 and 1985 under the ownership of British Shipbuilders, YSL was required to concentrate on the production of surface vessels for the Royal Navy. The order for two Malaysian frigates received in 1992 was the first export order won since privatization in 1985. Currently YSL is competing with the Spanish yard Bazán for a contract to build patrol corvettes for South Africa.

## **VSEL**

### **Introduction**

3.35. Our inquiry is concerned only with those aspects of the merger which relate to military activities. The following section concentrates on the military aspects of VSEL's business which, in the year to 31 March 1994, comprised more than 95 per cent of its activities by turnover.

### **History and development**

3.36. VSEL is currently the UK's sole builder of nuclear-powered submarines and is the only warship-building yard in the UK licensed to fuel and commission such vessels. Nuclear licences are also held by the Royal Dockyards (as discussed in paragraph 4.92) in respect of refuelling which is not covered by VSEL's licence. It has built all but three of the UK's nuclear-powered submarines as well as building diesel electric submarines and surface vessels. VSEL owns CL, which has a yard in Birkenhead which VSEL closed in July 1993. VSEL is also a long-established manufacturer of naval guns and field artillery.

### ***Pre-nationalization***

3.37. For 80 years, prior to nationalization in 1977, VSEL's Barrow-in-Furness shipbuilding and engineering facilities were owned by Vickers PLC (Vickers). In the early 1970s Vickers was a major defence company involved in the design and manufacture of equipment for all three of the armed services and for export. At that time Vickers and GEC jointly owned the British Aircraft Corporation, which is now a core business of BAe. Vickers maintained a significant export marketing and sales infrastructure which served not only the shipbuilding and engineering businesses in Barrow-in-Furness, but also Vickers' other defence interests.

3.38. The shipbuilding business (which forms the core of VSEL) has been involved in the construction of submarines for many years and, in the late 1950s, was asked to take responsibility for the construction of the Royal Navy's nuclear-powered submarines. Since then, 22 such submarines have been built in the shipyard at Barrow-in-Furness and prior to nationalization Vickers provided lead yard services to enable three more to be built at the then independent CL yard in Birkenhead.

3.39. During the 1970s, as well as building submarines for the MoD, VSEL built three conventionally-powered submarines for export to Israel and two for export to Brazil. It carried out the detailed design and construction of the first-of-class for both the *Invincible* aircraft carrier and the Type 42 destroyer. VSEL also provided lead yard services (including the provision of technical support, advice, detailed specifications and designs) to allow other yards to undertake follow-on build for these classes. In addition, it manufactured and exported surface warships to Argentina and Iran.

3.40. Historically, VSEL's engineering business had been run as a separate enterprise, notwithstanding the significant level of interdependence between it and shipbuilding. In addition to providing services for the shipyards, during the 1970s the engineering business was engaged in the manufacture of a wide range of engineering equipment for both the defence and the commercial markets. Its products included a medium-calibre naval gun, several types of missile launcher, towed artillery equipment, diesel traction engines, marine diesels, cement plant and pumps.

### ***Nationalization***

3.41. In 1977 the UK shipbuilding industry was nationalized (under the Aircraft and Shipbuilding Industries Act 1977). All of the Barrow-in-Furness facilities, including the engineering business, were absorbed into British Shipbuilders. Nationalization coincided with a further major drop in demand for warships from UK yards. British Shipbuilders decided that the Barrow-in-Furness yard should concentrate its attention exclusively on building submarines (both nuclear- and conventionally-powered) for the Royal Navy. Therefore, during the first half of the 1980s, the management in Barrow-in-Furness focused all its attention on further improving the yard's capacity and ability to build submarines. Likewise the considerable investment in facilities, recruitment and training was focused on the requirements of submarine-building.

### ***Privatization***

3.42. The present VSEL was formed in 1986 as VSEL Consortium PLC to acquire Vickers Shipbuilding and Engineering Limited and CL (which became a subsidiary of VSEL) under the Government's privatization programme. Initially, 7 million shares of £1 each were subscribed for at par by directors, employees and local residents, followed almost immediately by an offer for subscription of a further 28 million shares taking the issued share capital to £35,000,001. As a result more than 11,500 employees, (82 per cent of the workforce), and 5,000 local residents became shareholders. The shares were listed on the Stock Exchange, London, in July 1986. By 31 March 1994 the issued share capital had increased to 37.9 million shares and on 7 April 1995 VSEL's market capitalization was about £610 million.

3.43. Since privatization the Government has held a single special share in VSEL. It may be held only by or on behalf of a Minister of the Crown. It does not carry any voting or dividend rights, but does carry certain others. These include the right of the holder to prevent certain alterations to the Articles of Association, in particular provisions blocking any person from holding shares carrying 15 per cent or more of the company's voting rights, and preventing foreign ownership. The holder's consent is also required to wind up VSEL or to make any disposal of a material part of its assets or its subsidiaries.

3.44. At the time of privatization the company had on its order book four Trafalgar class, nuclear-powered attack submarines and four Upholder class diesel-powered submarines. There was a further expectation (although no contractual certainty) that before the turn of the century orders would be placed for four Trident nuclear-powered strategic submarines, one nuclear-powered attack submarine for delivery in each year beyond 1995 and up to 12 Upholder class conventionally-powered submarines. In fact, the order for the first Trident submarine was placed in the month following privatization. By 1990 VSEL was employing 13,000 people at Barrow-in-Furness on the design and construction of nuclear-powered submarines (out of a total workforce of 14,500 people at that time), along with a further 2,500 people employed at CL on the construction of conventionally-powered submarines.

3.45. However in 1990 VSEL's prospects were altered dramatically by the 'Options for Change' review, undertaken by the MoD, which led to the cancellation of all future plans for conventionally-powered submarines and a sharp reduction in the plans for nuclear-powered submarines. The cost to VSEL of these lost orders has been estimated at £2 billion and another result was a significant fall in the level of employment within VSEL, which by 1994 had dropped to approximately 5,800 people. In the face of the consequent

sudden drop in demand for warships, VSEL decided to cease naval shipbuilding at CL and started to look for a buyer for the yard who might wish to use the facilities available at Birkenhead for the construction of merchant ships. The main impediment to its disposal was the denial of Shipbuilding Intervention Fund help (see paragraph 4.23). Subsequently (in January 1995) the VSEL Board approved a proposal to form a joint venture with English Partnerships (formerly English Estates) with the intention of developing, and disposing of, the CL site for industrial, residential, leisure and potentially retail ventures. The existing ship repair business carried on by Coastline Industries Ltd (which leases one of the berths from VSEL) may remain, as may the construction hall which has been maintained in the hope that further shipbuilding work can be found. If this is not possible it is likely that the shipbuilding capability of CL will be dismantled.

3.46. Since privatization the major warship contracts carried out by VSEL have included:

- (a) *Nuclear-powered attack (Trafalgar) submarines.* Five vessels were delivered between 1985 and 1990 at a value of approximately £180 million per vessel (excluding GFE) of which £[\*] million was subcontracted out.
- (b) *Strategic deterrent (Trident) submarines.* Four vessels were delivered or are due for delivery between 1993 and 1999 as replacements for the Polaris submarines. The value of each vessel is approximately £600 million (excluding GFE) of which approximately £[\*] million is subcontracted out.
- (c) *Conventionally-powered (Upholder) submarines.* Four Upholder class submarines were delivered between 1991 and 1993 (but subsequently decommissioned by the Royal Navy) at a value of £110 million for the first-of-class and £85 million for each of the remaining three. Approximately £[\*] million was subcontracted on each vessel.
- (d) *Type 22 frigate.* HMS *Campbeltown* was delivered in 1989 and was the last of its class. It was the last surface warship built at CL and cost approximately £95 million of which £[\*] million was subcontracted out.
- (e) *LPH.* The first-of-class LPH (HMS *Ocean*) is scheduled for delivery in 1997. It is being built in partnership with KG and the value of the contract is approximately £[\*] million, of which £[\*] million is subcontracted out.

3.47. Since privatization VSEL has tendered for several contracts for which it has not been successful, including two batches of Type 23 frigates, the UK prime contractorship role on the CNGF, a survey vessel for the MoD and potential submarine and surface vessel contracts for Australia, Singapore, Chile, Indonesia and Kuwait.

3.48. As part of the development of its submarine-manufacturing capability at Barrow, VSEL constructed a purpose-built fully enclosed submarine fabrication facility known as the Devonshire Dock Hall (DDH). This facility (which includes a 24,000 tonne ship-lift) was completed in 1988 at a total cost of almost £200 million and allows VSEL to construct up to four Trident submarines at any one time. It can also be used to manufacture surface warships. Adjacent to DDH is VSEL's nuclear fuel handling facility; the only other UK establishments so equipped are the dockyards at Rosyth and Devonport.

3.49. In 1987 the Fleet Support Division was established to provide long-term support services for surface ships and submarines of the Royal Navy and foreign customers. In the year to 31 March 1994 it generated sales of £31 million. VSEL has joined a consortium planning to bid for the Devonport Royal Dockyard facility.

3.50. VSEL also possesses considerable experience in and facilities for the construction of large-calibre guns for both naval and land-based applications. Since privatization major contracts for large-calibre guns have included:

- (a) *Mark 8 4.5 Inch naval gun mountings.* Between 1985 and 1995 VSEL has delivered 22 naval guns to the Royal Navy and foreign governments. VSEL guns have been mounted on some of the Royal Navy Type 22 and all of the Type 23 frigates and VSEL hoped it would be chosen to supply a Mark 8 4.5 Inch gun for the CNGF, although the provisional specification appears to preclude this. The average

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\*Figures omitted. See note on page iv.

current value of each gun mounting is £[\*] million of which £[ \* ] million is subcontracted. VSEL is currently the only UK manufacturer of Mark 8 4.5 Inch guns.

(b) *Towed howitzer (FH70)*. Between 1988 and 1993 VSEL delivered [ \* ] FH70 towed howitzers to the [ \* ]. This order was the last for the successful FH70 programme which was developed in the 1960s and 1970s by an international consortium. [ \* ] *Details omitted. See note on page iv.*

(c) *Tracked howitzers (AS90)*. In the late 1980s the British Army selected the AS90 as its new tracked artillery weapon and placed an order for 179 vehicles with VSEL worth in excess of £330 million of which £240 million was subcontracted.

3.51. VSEL has acquired three small non-military businesses since privatization: Seaboard Lloyd and Forsac, which manufacture offshore equipment, and Topexpress Group which is an acoustic consultancy which performed some military work. VSEL disposed of Topexpress in 1993. We have not considered these businesses further as they fall outside the scope of our inquiry.

### **VSEL's current strategic position**

3.52. Some 95 per cent of VSEL's business is defence and the dominant part is shipbuilding, particularly submarines: nuclear-powered submarines have been built at Barrow-in-Furness continuously since the 1950s. It is building the UK's fleet of four Trident submarines, the first two of which are now in commission. The last surface warship built at Barrow was launched in 1980 but VSEL is keen to regain its position as a surface warship-builder. As mentioned above, its only current surface vessel activity is the LPH whose hull and machinery are being built by KH, but VSEL has indicated its intention to bid for the next batch of Type 23 frigates and for LPD in March 1995. In order to win the LPH contract, and so re-establish its reputation in the market for surface vessels, VSEL chose to support its bid from its own reserves, ie to price its bid at such a level as to incur an overall loss on the contract. VSEL made a provision in its accounts in 1993 of £[\*] million for losses on the LPH contract although it believed that the final loss would be about half that amount.

3.53. In armaments, VSEL is the only UK supplier of ship-mounted guns, and has a standard product in the form of its Mark 8 4.5 Inch gun which sells for approximately £[ \* ] million. More than 70 of these guns have been supplied during the last 25 years. The barrel and breech are bought in from Royal Ordnance (RO), which is a subsidiary of BAe; VSEL builds the gun mounting and ammunition-handling equipment, and provides the control systems. On land, VSEL's contract for 179 AS90 self-propelled howitzers for the British Army, valued at £330 million, is almost complete. Attention is now being given to the export potential of the AS90. VSEL is trying to sell an ultra-lightweight towed howitzer to the US Defense Department, in competition with RO, [ \* ] *Details omitted. See note on page iv.*

### **Financial information**

3.54. VSEL's turnover and operating profits since privatization are shown in Table 3.12.

3.55. VSEL's sales by product category are shown in Figure 3.1. This illustrates its substantial dependence on the Trident programme in recent years offset partially by the AS90 contract in 1993 and 1994. More detailed financial information is reproduced in Appendix 3.3. At 31 March 1994 VSEL had total assets of £584 million. VSEL told us that since that date its total assets had not changed materially. At the date of the reference therefore the value of VSEL's assets (determined in accordance with section 67(2)(b) of the Fair Trading Act 1973) exceeded £70 million.

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\*Details omitted. See note on page iv.

TABLE 3.12 VSEL: analysis of turnover and operating profit, by activity and geographical area of sales, 1989 to 1994

Area of activity	Year ended 31 March										£ million	
	1989		1990		1991		1992		1993		1994	
	Turnover	Operating profit	Turnover	Operating profit	Turnover	Operating profit	Turnover	Operating profit	Turnover	Operating profit	Turnover	Operating profit
Submarines and surface warships*	370	16	441	33	413	40	381	41	278	52	290	48
Other shipbuilding†	25		20		29		20		31		29	
Fleet support	35	2	40		45		37		30		31	
Armaments	28	6	26	‡ 5	28	‡ 7	70	‡ 1	91	‡ 4	102	‡ 12
Other	8	1	9		8		12		13		13	
Unrecovered overheads	-	(3)	-	(4)	-	(9)	-	(4)	-	(14)	-	(9)
Total	466	22	536	34	523	38	520	38	443	42	465	51
<i>Geographical analysis of sales by destination</i>												
UK	451		532		521		517		438		457	
Europe	2		2		1		2		1		4	
America	1		2		1		1		1		1	
Asia	12		-		-		-		1		4	
Australasia	-		-		-		-		1		-	
	466		536		523		520		442		466	

Source: VSEL.

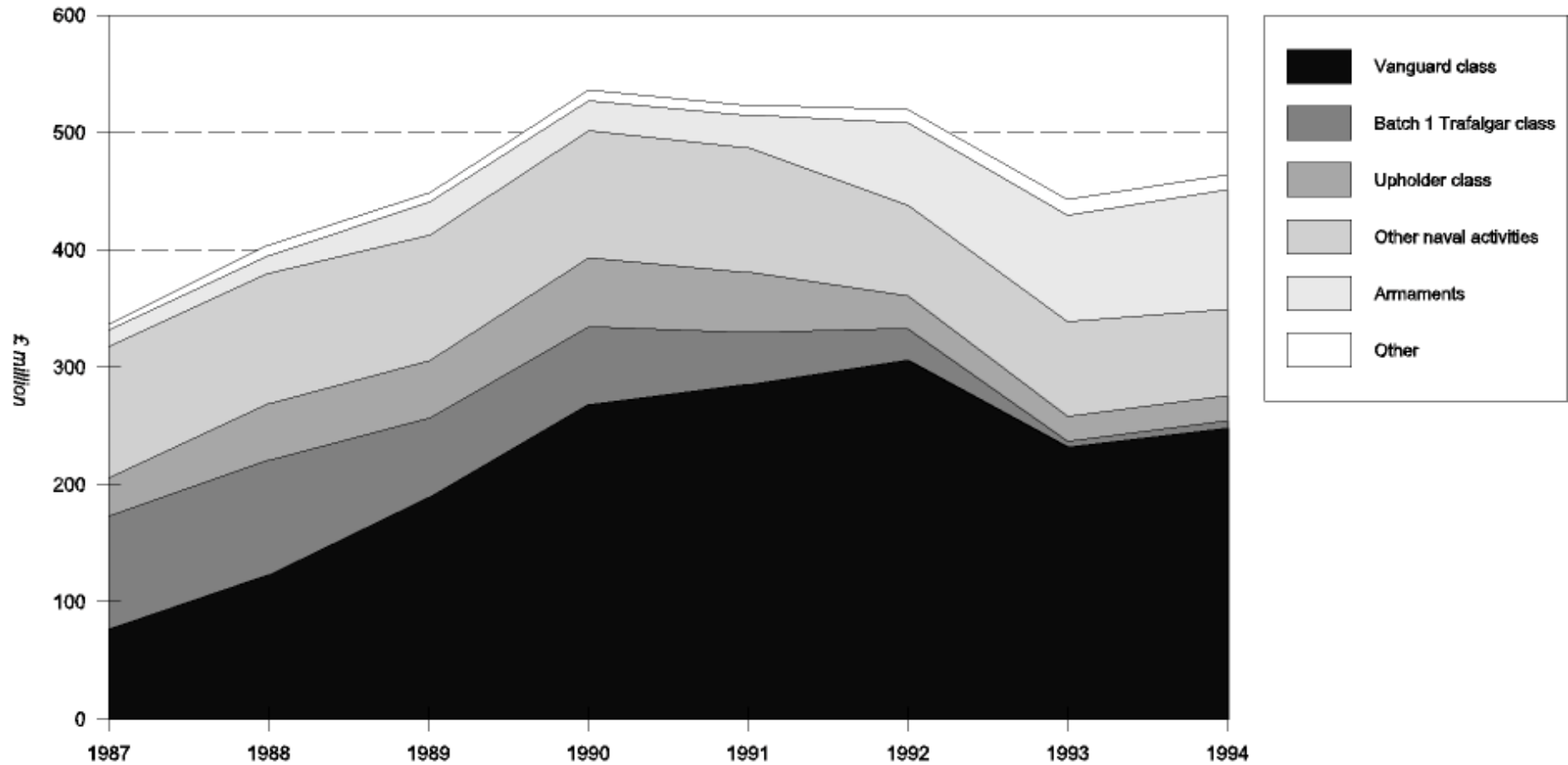
\*Includes amounts received in respect of design contracts and R&D.

† 'Other shipbuilding' is predominantly revenues from the combat systems businesses.

‡ Since 1989 VSEL has not separately identified operating profits for each business, other than warship-building.

FIGURE 3.1

VSEL: breakdown of sales by product, 1987 to 1994



Source: VSEL.

Note: Sales, for the purposes of this figure, are represented by the sales value of work done.

3.56. The most notable feature of VSEL's balance sheet is its cash balance (currently estimated to be in excess of £250 million). This has been built up from £8 million at 31 March 1990 to £287 million at 31 March 1994. According to VSEL, the decision to build its cash balance was in response to MoD advice that substantial financial resources would be required of any prime contractor, particularly for B2TC. VSEL interpreted this as meaning cash reserves equal to approximately 10 per cent of the contract value. Several factors have contributed to this build-up. Operational efficiency has improved (for example, sales per employee have increased from £32,000 in 1990 to £63,000 in 1994), the DDH facility has been paid for, but depreciation on it is recovered as an overhead on contracts, and current levels of capital expenditure are low (down from £33 million in 1990 to £10 million in 1994). In addition, VSEL told us that it has achieved a margin on sales on the Trident submarine programme of around 16 per cent, caused partly by efficiency improvements, and partly by its ability to charge depreciation on a replacement cost basis (which was agreed with the MoD to enable VSEL to recover a large proportion of costs of the DDH directly over the Trident programme). Furthermore, in its report on the award of the LPH contract<sup>1</sup> the NAO noted that VSEL had been able to achieve a cost saving of 7 per cent of the original target cost of the first Trident submarine (HMS *Vanguard*) and that a saving was also expected on the three remaining submarines. The savings on all four submarines are to be split between VSEL and the MoD in accordance with a shareline agreement. VSEL's share of these savings has assisted in improving its operating profit.

### **Significant accounting policies**

3.57. VSEL told us that profit on long-term contracts is taken on a progressive basis beginning when 25 per cent of the work is complete and increasing on a formula basis to 100 per cent when the work is finished. A prudent assessment procedure is operated every three months to identify potential losses and to assess the likely outcome of a contract on a worst case basis; immediate provision is made to cover identified potential losses. Separate target appraisals are used for management purposes to induce cost reduction and loss retrieval.

3.58. VSEL currently incurs approximately £100 million a year in overhead costs (including historic cost depreciation of £22 million) which are not directly related to specific contracts. These costs are spread across existing contracts by means of an overhead recovery rate which is calculated in accordance with Government accounting conventions. In the year to 31 March 1995 VSEL expects to incur costs for R&D contracts and sales and marketing activities of £5 million which it may not be able to recover on its existing contracts.

### **Organization and management**

3.59. VSEL has a Board of seven directors. The (non-executive) Chairman of the Board is Lord Chalfont. There are three other non-executive directors: Mr A W P Stenham, Professor J E Ffowcs Williams and Mr A H Pope; and three executive directors: Mr C N Davies (Chief Executive), Mr A C Peak (Deputy Chief Executive) and Mr R D Holden (Finance Director). The Chairman and Chief Executive are approaching retirement age. No formal plans have been agreed with GEC regarding the positions of the existing senior management should the merger proceed.

### **Employment**

3.60. VSEL has been, and remains, much the largest employer in Barrow-in-Furness. Its workforce still numbers some 5,800, or the equivalent of 17 per cent of the population in the relevant travel-to-work area. It is estimated that a further 8 per cent are in employment which depends on VSEL. The workforce has been reduced from 14,000 over four years and VSEL is predicting a workforce of 2,500 employed on submarines by the end of the decade. VSEL has provided in its accounts for redundancies to reduce its workforce to approximately 5,000 and made a formal announcement of 589 redundancies on 28 February 1995. However, it remains concerned at the gap of 2½ years between the end of the Trident programme and the potential start

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<sup>1</sup>NAO Report: *Ministry of Defence, the award of the contract for the landing platform for helicopters*, 29 July 1993, paragraphs 4.50 to 4.55, pages 29 and 30.

of B2TC construction. Failure to win new work (in addition to the hoped-for LPD contract) would result in significant further reductions in manpower.

3.61. The VSEL workforce possess a wide range of skills in the design and manufacture of nuclear submarines and other vessels. The workforce is divided between five directorates, as follows:

- (a) *Projects Directorate*, responsible for the design, bid preparation, project management (including prime contracting functions), systems integration, technical support functions and business process re-engineering programme;
- (b) *Operations Directorate*, the largest, with over 4,200 employees currently, responsible for all of the planning, manufacturing, integration and quality assurance processes;
- (c) *Finance Directorate*, responsible for the financial and management accounting functions, and the information technology requirements;
- (d) *Commercial and Marketing Directorate*, responsible for procurement, estimating and the sales and marketing activities, and the provision of product support for VSEL's naval and land systems, including engineering support and publications; and
- (e) *Personnel and Quality Assurance Directorate*, responsible for personnel administration, development and training, press affairs, quality assurance and health and safety.

3.62. The numbers of people employed in each directorate in January 1995 are shown in Table 3.13. In the case of the Projects and Operations Directorates the workforce is further broken down by major contract type. It is not appropriate to allocate the employees in the other divisions on a similar basis as their responsibilities relate to more than one contract. Table 3.13 also shows the split of employees between management, technical skilled and unskilled employees.

TABLE 3.13 VSEL: breakdown of workforce, by directorate, task and occupation group, as at January 1995

Directorate	Number of employees						Total
	Trident	Surface ships	B2TC	Armaments and engineering	Other		
Projects	96	157	83	78	396*		810
Operations	2,803	110	-	647	718†		4,278
Sub-total	2,899	267	83	725	1,114		5,088
Finance							189
Commercial							453
Personnel							120
Total							5,850

Directorate	Management	Technical management	Technical staff	Clerical	Skilled	Unskilled	Total
Projects	119	258	299	127	2	5	810
Operations	167	46	1,112	411	1,913	629	4,278
Finance	29	47	62	48	-	3	189
Commercial	79	65	233	71	-	5	453
Personnel	16	14	52	35	3	-	120
Total	410	430	1,758	692	1,918	642	5,850

Source: VSEL.

\*Of this total 373 employees carry out concept design, technical support and combat system design activities.

†Of this total 470 employees provide a range of site services and 225 are responsible for quality control.

3.63. The trade unions represented at VSEL are the AEEU, GMB, APEX Partnership, MSF, UCATT and EMA, with about 90 per cent of the workforce, including managers, as members.

## Research and development

3.64. VSEL has established itself primarily to build submarines and its infrastructure is substantially complete; expenditure has predominantly been on development work for new products funded by the MoD although a notable exception was the AS90 which VSEL funded itself. VSEL's R&D expenditure from 1989 to 1994 is shown in Table 3.14.

TABLE 3.14 VSEL's R&D expenditure, 1989 to 1994

	<i>Year ended 31 March</i>						<i>£ million</i>
	<i>1989</i>	<i>1990</i>	<i>1991</i>	<i>1992</i>	<i>1993</i>	<i>1994</i>	
Contract funded	47	48	32	20	17	13	
Own funded	2	3	8	4	19	1	
Total R&D	49	51	40	24	36	14	

Source: VSEL.

The increase in privately-funded expenditure in 1993 was owing to the AS90 programme.

## Exports

3.65. VSEL's exports in recent years have been less than 5 per cent of turnover; actual figures are shown in Table 3.12.

3.66. VSEL has not directly exported any warships since the 1970s. However, if the four Upholder class submarines were sold to Canada, VSEL would hope to win a contract for the refit and fleet support services for their maintenance (for which it has recently tendered) and potentially further new build work for other navies. Additionally, in collaboration with a local Turkish shipyard, Marmara, VSEL has tendered for the construction of 14 Offshore Patrol Vessels for the Turkish Navy. Efforts have also been made to sell consultancy work and intellectual property rights (IPRs) to foreign shipbuilders, and VSEL has a long-term contract to sell aircraft carrier IPRs to a foreign yard. VSEL has also bought IPRs relating to surface ships.

3.67. On the armaments side, VSEL has sold its Mark 8 4.5 Inch gun to six navies. It was previously part of an international consortium which designed and built the FH70 towed howitzer, three of which were sold to Malaysia in 1994. So far, there have been no export sales of its AS90 howitzer but interest has been shown in the Middle East. VSEL is working on an AS90 gun turret for retrofitting to existing vehicles. This is expected to generate export sales (VSEL has recently submitted a tender to provide technology transfer and up to 200 such turrets for India).

3.68. VSEL has identified several potential export opportunities in each of its product categories. However, it is not sanguine about its prospects for selling warships in these markets without outside assistance: all markets are expected to attract experienced competition. VSEL maintains offices in Washington, Kuala Lumpur and the Middle East, retaining a sales team comprising three regional sales directors and some supporting staff. The export marketing budget for the coming year is £[\*] million.

3.69. VSEL has placed much emphasis on its disadvantage in being confined to building submarines during its period of nationalization and the damage to its credibility in those markets from which it was required to withdraw. This narrowing of its product range denied it the opportunity to develop exports, which are now seen as important, particularly to fill the 2½-year workload gap between the Trident and B2TC programmes. VSEL maintains that it is now so severely disadvantaged in export markets that it needs to be part of a larger group already possessing the necessary experience and contacts.

\*Figure omitted. See note on page iv.

## Future prospects

### Orders

3.70. The value of VSEL's order book as at 31 March 1994 was £2.7 billion, comprising largely the Trident, LPH and AS90 programmes. VSEL's future work prospects are summarized in Table 3.15 and discussed in further detail in Chapter 4.

TABLE 3.15 VSEL's prospective MoD workload for which tenders have been submitted or are under preparation

<i>MoD</i>	<i>Quantity</i>	<i>Value £m</i>	<i>Tender date</i>	<i>Year of order</i>
B2TC	3	[	29 June 1995	1996
B2TC follow-on	2		To be announced	2001/02
LPD	2	*	To be announced	1996
Type 23 frigate	3	]	13 June 1995	1995

*Source:* MoD.

## Financial prospects

3.71. In the Stock Exchange listing particulars issued by BAe on 17 October 1994, the VSEL Board forecast that pre-tax profits for the year to 31 March 1995 would not be less than those achieved in the previous year. For the future, VSEL pointed out to us that, notwithstanding the substantial profits remaining to be taken on the Trident programme, its levels of profit were necessarily uncertain because of the unpredictability of the award of future contracts. VSEL's cash balance in January 1995 stood at more than £250 million and is likely to have increased by its year end on 31 March 1995. The position beyond 1995 is unclear because of uncertainty over future contracts.

## Employment prospects

3.72. VSEL hopes that by winning the B2TC and LPD contracts and a share in the forthcoming Type 23 and CNGF frigate programmes, it can maintain employment at around the 5,000 level. This would comprise 2,500 on submarines, 1,500 on surface ships and 1,000 on land defence and commercial equipment. Further redundancies are planned during 1995 to bring the total down to approximately 5,000. Failure to win any of the new frigate work would cause a reduction for a period to around 3,000. VSEL told us that the business would be difficult to support at that level, unless the MoD were willing to re-examine the level of overhead recoveries on submarine work.

3.73. The prospects for other employment in the Barrow travel-to-work area are poor. VSEL believed that, of the 9,000 employees who have left VSEL since 1990, 3,000 have moved elsewhere to seek work (although some have left family and dependants in Barrow), 3,000 are on the unemployment register, and 3,000 have either retired or are registered as unable to work.

## The merger situation

### Background to the bid

3.74. GEC and VSEL told us they had been having informal discussions for about 12 months, examining ways in which they might collaborate or combine. GEC's interest in VSEL began in 1986 when it considered forming a consortium to bid for VSEL on the privatization of British Shipbuilders.

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\*Figures omitted. See note on page iv.

3.75. GEC told us it was involved in discussions with VSEL between 1989 and 1993 about a possible merger of YSL and all or part of VSEL's activities, or alternatively the acquisition by GEC of a substantial interest in VSEL. These discussions had not progressed further as GEC was not prepared to close YSL (such closure having been identified as a possible outcome of such a merger). VSEL told us that its discussions with GEC had always been conducted on a friendly and informal basis.

3.76. During the early 1990s VSEL commissioned a study from Arthur D Little on its strategic options in the light of the 'Options for Change' review described in paragraph 3.45. One of the potential strategies identified in that study was for VSEL to become part of a larger group which would provide it with strong financial backing and, most importantly, access to an established sales and marketing organization to support its need for export orders. VSEL told us that as a result of this study the Board and management of VSEL had recognized the potential advantages of a merger and had agreed to be prepared and willing to consider the possibility of acquisition by another company as the best long-term prospect for VSEL.

## **GEC's relationship with BAe**

3.77. GEC told us that in 1992 and 1993 it talked to BAe about a possible merger of their defence businesses. They exchanged confidential information under the terms of a confidentiality agreement, and they entered into a standstill agreement whereby each agreed not to acquire shares in the other for two years ending in June 1995. However, shortly after these agreements became effective the discussions were ended by BAe.

3.78. GEC also told us that in April 1993 it had been approached by a third party, known to BAe, GEC and VSEL, about a proposal to merge the VSEL guns business with that of BAe and subsequently to merge the GEC and BAe naval activities with those of VSEL. GEC had said that, if BAe confirmed to it that it was going forward with the proposal, GEC would follow. No such confirmation was received.

3.79. On 29 September 1994 VSEL announced that it had received approaches that might lead to a bid. Shortly afterwards BAe told GEC that it was talking to VSEL, and arranged for meetings between BAe and GEC, between 7 and 18 October. BAe tried to persuade GEC not to intervene, and promised that if GEC complied it would revive the earlier discussions about a merger of GEC's and BAe's defence businesses. At one of the meetings GEC suggested that BAe and GEC should bid jointly for VSEL, but no firm proposals were made. At the same time that these discussions were taking place BAe continued to negotiate terms with VSEL, and at the meeting on 11 October it informed GEC of its intention to bid for VSEL. It announced its bid publicly on 12 October and issued its offer document on 17 October.

## **The bid for VSEL**

3.80. BAe's offer to VSEL was of 2.747 new BAe ordinary shares for each VSEL share, valuing the issued share capital of VSEL at about £486.5 million (on the basis of BAe's share price on the day the offer was announced of 466.5p). BAe also offered VSEL shareholders a cash alternative of 1,140p for each VSEL share. After BAe's initial offer was announced BAe met GEC on 18 October to ascertain GEC's attitude towards it, following press speculation of a bid for BAe itself. GEC's proposal that BAe and GEC should bid jointly for VSEL was considered and rejected by the BAe Board on 25 October 1994.

3.81. On 28 October 1994, in response to BAe's bid, GEC announced an offer to VSEL of 1,400p in cash for each VSEL share (with a loan note alternative). This valued VSEL's existing ordinary share capital at about £531.7 million, a premium of approximately 44 per cent over the Stock Exchange quoted middle market price that day of 973p. GEC planned to finance the offer from existing cash resources.

3.82. VSEL shareholders who accepted GEC's offer would be entitled to retain the interim dividend of 12p (net) per share payable in respect of the current financial year. As an alternative to some or all of the cash consideration receivable under the offer, accepting VSEL shareholders could elect to receive GEC loan notes on the basis of £1 nominal of loan notes for each £1 in cash under the offer.

3.83. Between 28 October and 1 November 1994 GEC purchased 13.99 per cent of the ordinary shares of VSEL on the stock market. GEC's pension funds own a further 1.0 per cent. As explained in paragraph 3.43, VSEL's Articles of Association currently stipulate that no more than 15 per cent of the voting shares of VSEL should be controlled by any single person.

3.84. Upon referral of the bid to the MMC the bid automatically lapsed pending the publication of the MMC's report. Prior to the referral, and at the request of each offeror, VSEL duly held Extraordinary General Meetings which approved changes to its Articles that would allow the bids to proceed, subject in each case to the consent of the Secretary of State for Defence as the holder of the VSEL special share. The Secretary of State indicated that he was prepared to give such consent in each case, subject to relevant regulatory approvals and appropriate assurances or undertakings to safeguard his other existing rights as holder of the special share; however, the shareholder approvals were specific to each bid and so have lapsed. Appendix 3.4 sets out the timetable that would apply under the City Code on Takeovers and Mergers should the merger be allowed to proceed.

## **GEC's plans for VSEL**

3.85. Should the merger proceed, GEC plans to maintain warship-building facilities at both VSEL and YSL. GEC has assured the Secretary of State for Defence that it intends to continue building frigates and smaller ships at YSL and that if YSL wins the current competition for the final batch of Type 23 frigates, it is GEC's intention to build them at YSL. Similarly GEC has given assurances that sufficient resources and expertise would be maintained at YSL to enable it successfully to complete its role in the development and construction of the first-of-class under the CNGF programme.

3.86. GEC intended that VSEL would be managed as a separate operating unit within GMNS, specializing in the construction of submarines and large warships displacement greater than 7,000 tonnes). The senior management of VSEL would largely remain in their existing roles. GEC has undertaken that should its bid for VSEL be successful it would not close, decommission or dispose of the whole or a material part of VSEL's nuclear submarine construction facilities without the approval of the Secretary of State. This assurance was requested by the MoD to safeguard VSEL's nuclear capabilities.

3.87. GEC stated in its submission to the Office of Fair Trading (OFT) that it believed cost savings and other benefits would be achieved from:

- (a) a co-ordinated production programme designed to optimize utilization of both shipyards;
- (b) a more focused design and development effort, avoiding duplication of expense;
- (c) the maintenance and enhancement of centres of design and manufacturing excellence for the construction of warships for the Royal Navy and for export;
- (d) a reduction in financial risk and volatility as a consequence of the wider business mix; and
- (e) a reorganization of the marketing efforts of the separate businesses, giving VSEL access to GEC's international network.

3.88. GEC told us that over the past ten years efficiency improvements at YSL had led to cost savings on the construction of warships to the MoD of the order of 30 per cent as a result of reductions in man-hours, overheads and the volume and cost of materials. In particular, GEC emphasized to us its advanced computer graphics capabilities and the manufacturing efficiencies that it had achieved at YSL (partly through the introduction of flexible working practices amongst the skilled workforce). GEC believed improvements could be made at VSEL through the application of similar techniques.