

### 4.3 Competitors

Major suppliers of equipment and services in the ocean sciences sectors are predominantly in the U.K., Germany and France. Major competitors outside the E.C. are in Norway and the U.S.

Competitors are predominantly small independents or subsidiaries of larger companies, e.g., GEC-Marconi and Dowty (U.K.), Thomson (France), Krupp (Germany). In the service area, there is also a competitive university sector supplying consultancy and survey operations.

In response to military expenditure cut-backs there is a growing trend for the major underwater defence contractors to consider the civil markets more seriously. In the U.K., GEC-Marconi is developing a very dominant position, similar to Thomson in France, as a result of its acquisitions of Plessey Marine and parts of Ferranti. Although it is doubtful that the larger contractors will be able to compete on low cost equipment, they have the financial, technical and, now, the manpower resources to compete for larger contracts, such as underwater vehicles and large sonar systems.

This trend is not limited to large companies. There are also a number of smaller, predominantly defence, contractors considering diversification. This is also true of the oil and gas suppliers, especially in the U.K., who are looking to apply technologies developed in the areas of vehicles, subsea electronics and other instrumentation to other marine markets.

The instrumentation markets are very well differentiated, with a large number of very competitive niche markets.

A key area identified in the ocean sciences sector is that of AUVs. This is an area in which Canadian companies also have potential. Within Europe, only two countries have an interest: the U.K. and France. In France this has been led by IFREMER, with ECA as a subcontractor for constructing the EPAULARD AUV. Within the U.K., considerable interest has been generated by the NERC AUTOSUB project by ARUS, and by a perceived military interest. A number of companies are active in this field, including: GEC-Marconi, Vickers Shipbuilding (VSEL) and a number of manufacturers of subsystems. There is a relatively large number of ROV manufacturers, especially in the U.K., e.g., Slingsby, OSEL and Perry Tritech, though it is not believed they will play a part, in view of the large development costs and the stage of market development.

In the area of surveying systems the market leaders are Krupp Atlas, GEC-Marconi, Thomson, Simrad and Dowty. These are all large defence contractors who have developed major systems on the back of the military. For example, Bathyscan, an interferometric sonar developed by Bathymetrics Ltd. in the U.K., is now tied in with GEC-Marconi under a marketing agreement. The smaller companies with niche products have entered into marketing agreements with established industry leaders.

The leading European companies in the area of manipulators are Slingsby Engineering in the U.K. and Cybernetix — a subsidiary of Comex SA — in France.

The market for marine environmental equipment is similar to that for ocean sciences in that there are a large number of small niche suppliers.

The following (in Table 9) are the leading companies: