Singapore offers unlimited opportunities for Biomedical Sciences (BMS) companies. Strong government support and a pro-business environment have attracted industry leaders such as Abbott, Aventis, Baxter, Becton-Dickinson, Eli Lilly, GlaxoSmithKline, Lonza, Merck & Co, Novartis, Pfizer, Schering-Plough, Siemens and Wyeth to Singapore for manufacturing and R&D activities.

The three agencies that are involved in Singapore’s Biomedical Sciences (BMS) initiative are the Economic Development Board’s Biomedical Sciences Group (EDB BMSG), the EDB’s Bio*One Capital and the Biomedical Research Council (BMRC) of the Agency for Science, Technology & Research (A*STAR). EDB BMSG is responsible for industry development, Bio*One Capital makes strategic investments in companies with spin offs to Singapore, while BMRC takes the lead in coordinating and funding public sector and academic research, as well as supporting the training of scientists.

Increasing Depth and Breadth of Manufacturing and R&D Activities

The BMS industry did exceptionally well in 2006. The manufacturing output grew strongly to S$23 billion in 2006, an unprecedented 30% increase over 2005. Within a short span of six years, the manufacturing output has grown almost fourfold from the year 2000. Pharmaceuticals account for 91% of the total output while Medical Technology maintained its output levels at over S$2 billion. Employment expanded by 4% to reach 10,571. Of the total jobs in the BMS manufacturing sector, 62% are in the Medical Technology sector. The target is for Singapore’s BMS industry to reach S$25 billion in manufacturing output and an employment of 15,000 by 2015.

Biologics, a fast growing segment of the global BMS industry, featured prominently in the expansion of Singapore’s biopharmaceuticals manufacturing base in 2006. Lonza and Bio*One’s joint venture biologics plant, which had just broken ground in February 2006, has successfully contracted 100% of its capacity to Genentech, one of the world’s most successful biotechnology companies. Genentech has also negotiated an exclusive option to purchase this facility before 2012. To keep pace with anticipated market growth, Lonza and Bio*One have entered into a second joint venture plant. In another
significant first, GSK Biologicals broke ground for its largest vaccine investment in Asia and Singapore’s first human vaccine manufacturing plant.

New investments were also made in 2006 by leading pharmaceutical companies, Abbott and Merck. Abbott commenced construction work on its greenfield nutritional plant in Singapore. A newcomer to the pharmaceuticals scene here, Abbott’s S$450 million plant is the largest nutritional investment that it has ever made. Merck’s S$100 million expansion of its manufacturing formulation facility broadens its manufacturing capabilities in Singapore and brings its total investment to over S$1 billion.

In the fast growing Medical Technology sector, Singapore saw investments in new high value manufacturing activities such as implantable devices and sophisticated instrumentation systems, which leverages on our capabilities in complex manufacturing and precision engineering. Edwards Lifesciences is building a tissue heart-valves manufacturing plant while MDS Sciex opened its first facility in Asia Pacific to manufacture CellKey™, its new cellular analysis system. Other new investments included Waters, which expanded its Asian presence through a partnership with Soelectron Medical, by inaugurating a new purpose-built facility that will manufacture high performance liquid chromatography systems. In addition, Philips Medical Systems established its first learning centre in Asia Pacific and one of only three in the world to provide training on the use of its advanced imaging equipment.

In the area of R&D, the Novartis Institute for Tropical Diseases (NITD) established a new Malaria research programme in partnership with the Wellcome Trust, Medicines for Malaria Venture and EDB. NITD has also advanced its tuberculosis and dengue research efforts. Singapore company, Davos Life Science opened the world’s largest tocotrienols R&D centre to complement its plant which makes more than 90% of the world’s supply of natural tocotrienols.

In addition to manufacturing and R&D investments, Singapore also made significant headway in our efforts to create a plug and play environment for BMS R&D and manufacturing. SGS opened its new laboratory dedicated for Quality Control Testing while Invitrogen, a leading reagents company, established its first on-site supply centre in
Asia at Biopolis. Tuas Power, in partnership with Pfizer, broke ground for its new, state-of-the-art trigeneration facility, the first in Singapore to use this technology. Trigeneration, which produces three types of utilities – electricity, steam and chilled water from a single integrated system, leads to greater energy efficiency and cost savings.

In the Healthcare Services sector, the Joint Commission International (JCI) opened its Asia Pacific office in Singapore, as an endorsement of Singapore’s role in the international healthcare field. The JCI sets the gold standard for patient safety and care. Its accreditation is well recognised and sought after by hospitals around the world. Over a third of the hospitals in Singapore are already JCI accredited.

Support Schemes
In addition to tax incentives, research and training grants, companies setting up operations in Singapore can also explore investment funding options to support the different stages of their development. Bio*One Capital, an EDB investment arm, manages S$1.2 billion in funds for investments in overseas or local projects with economic spin-offs to Singapore.

In 2006, Bio*One invested S$114 million into 16 projects, comprising both new and follow-on investments to support existing portfolio companies. In line with Bio*One’s developmental objectives, close to 95% of the funds were invested in companies with activities in Singapore, adding to the critical mass of BMS operations here.
Looking Ahead

The first phase of the BMS initiative (2000-2005) put in place key building blocks by establishing core capabilities in biomedical research, and introducing important human capital and industrial capital development initiatives. For the next phase (2006-2010), we will build on this foundation and strengthen our capabilities in translational and clinical research to bring discoveries from the bench to the bedside and the marketplace, and ultimately improve human healthcare.

Singapore has established itself as the most competitive and trusted site for pharmaceutical bulk actives and secondary manufacturing. It is now building critical mass for biologics manufacturing and fully expects to maintain this momentum as even more companies are attracted here. Singapore will also continue its focused effort to grow the Medical Technology sector by leveraging on its strengths in electronics and precision engineering as well as physical sciences research capabilities.

Similarly, we aim to further expand the industry R&D base, and increase the number of companies undertaking the discovery and development of new drugs and medical devices in Singapore. Biopolis Phase II, which opened in October last year, is expected to achieve 70% occupancy by end 2007.

For more information, please visit www.biomed-singapore.com and www.bio1capital.com

Contributed by Singapore Economic Development Board