

## APAC Biotech Policy Highlights

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<b>Japan</b>	The Japanese government issued a strategic plan in 2002 to focus research and commercial efforts based on emerging bio-based technologies. The goal was to stimulate the economy while addressing two pressing concerns: an aging population and a depletion of natural resources. The plan concentrates on four areas of research capitalizing on Japan's strengths in genomics research and technological proficiencies: • Pharmaceuticals • Medical supplies & equipment • Microbial and Bioprocess Engineering • Functional foods
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<p><b>New Zealand</b></p>	<p>Released in May 2003, the New Zealand Biotech Strategy is based on three key objectives – promoting community understanding &amp; connection, growth and effective regulation. As far as implementation goes, the Bioethics Council provides independent advice to the Government on biotechnological issues that have significant cultural, ethical and spiritual dimensions. Amendments to the Hazardous Substances and New Organisms Act (HSNO) strengthened the provisions for consideration of cultural, ethical and spiritual matters. The ministerial call-in powers have been extended to include these matters. Also, amendments to reflect better the Treaty of Waitangi include adding knowledge and experience of the Treaty and tikanga Maori to the knowledge and experience that the Minister for the Environment considers when appointing members of the Environmental Risk Management Authority (ERMA) Board.</p>
<p><b>China</b></p>	<p>In early 2006, China adopted a 15-year "Medium-to Long-Term Plan for the Development of Science and Technology" (MLP) with an aim to become an "innovation-oriented society" by the year 2020, and a world leader in science and technology (S&amp;T) by 2050. The MLP is built around developing indigenous innovation capabilities in the new science-intensive industries. According to the plan, China will invest 2.5 percent of its increasing gross domestic product in R&amp;D by 2020, up from 1.34 percent in 2005; raise the contributions to economic growth from technological advance to more than 60 percent; and limit its dependence on imported technology to no more than 30 percent.</p>
<p><b>Korea</b></p>	<p>"In 1999 the "Long-range Science and Technology Development Vision Toward 2025" was established, with a goal of promoting science and technology competitiveness to the G7 level by 2025. In 2001 the Science and Technology Basic Law was enacted. The Science and Technology Principle Plan (2002 - 2006) was enacted in conjunction with a five-year plan on science and technology reform that was already underway. In 2004, the headquarters of Science and Technology Innovation was established under the Ministry of Science and Technology.</p> <p>In 2006, Korea outlined its Bio-Vision 2016 Plan. In this plan the Ministry of Science and Technology of Korea proposed to invest \$14.3 billion in biotechnology research and industrialization over the next 10 years to create a \$60 billion market by 2016. This investment will drive Korean biotechnology industry to capture the seventh position in the world from its current position 14."</p>
<p><b>Australia</b></p>	<p>In 1999 the Government established Biotechnology Australia and the Commonwealth Biotechnology Ministerial Council to coordinate government biotechnology activity and to develop a national biotechnology strategy. The Government also established the Biotechnology Consultative Group (BIOCOG), a panel of experts from industry and the industry and the scientific research community, to provide independent advice to government. The National Biotechnology Strategy addresses the six key themes: Biotechnology in the community; Ensuring effective regulation; biotechnology in the economy; Australian biotechnology in the global market; resources for biotechnology; and maintaining momentum and coordination. Australia has put in place excellent regulatory infrastructure including the Office of the Gene Control Regulator (OGTR) to smoothen GMO approvals.</p>

<p><b>Singapore</b></p>	<p>The Singapore Biomedical Sciences (BMS) initiative was launched in June 2000 to develop the Biomedical Sciences cluster as one of the key pillars of Singapore's economy, alongside Electronics, Engineering and Chemicals. To achieve its aim, the BMS initiative is led and coordinated both by a Steering Committee on Life Sciences, comprising the Ministers for Trade &amp; Industry, Health and Education, and the BMS Executive Committee. The first phase of development (2000-2005) of the Biomedical Sciences (BMS) initiative was focused on establishing a firm foundation of basic biomedical research in Singapore. In the second phase (2006-2010), the focus is on deepening our basic research capabilities and strengthening translational and clinical research (TCR) to help realize the full potential of our investments in the BMS initiative with the translation of laboratory discoveries to clinically useful and commercially viable applications. The country's biomedical policy came under heavy criticism by World Bank in early 2007 for resources being spread too thinly. However, the Government's Agency for Science, Technology and Research (A*STAR) stated that there is no rethink or a change at the broad policy level while the debate still continues on what is the most gainful deployment of resources.</p>
<p><b>Thailand</b></p>	<p>Thailand finalized the National Biotechnology Policy framework in 2005. The key strategies include: 1) To construct/develop infrastructure such as a biotechnology park to attract both domestic and overseas investment, as well as using services in research and development. 2) To set forth clear policy or management to settle some highly controversial issues, such as issuance of law on protection of bioresources and policy on the development of safe GMOs products. 3) To create an environment and incentives for venture capital to be invested in biotechnology, which needs a longer period than other industrial technologies for the return of the investment. These include taxation privileges, in particular import duties, corporate tax and co-ownership of the rights to utilize bioresources where Thailand has a particular advantage. 4) To promote investment in research, development and innovation, as well as cultivate capability for biotechnology research following the concept of cluster research, skill-based technology and innovation approaches 5) To support the listing of biotechnology companies on the Stock Exchange of Thailand.</p>
<p><b>Malaysia</b></p>	<p>"Malaysia's National Biotechnology Policy unveiled in 2005 encompasses nine thrusts that underline its commitment to the sector:</p> <ul style="list-style-type: none"> <li>· To transform and enhance value creation of the agricultural sector through biotechnology.</li> <li>· To capitalize on the strengths of biodiversity to commercialize discoveries in health-related natural products and bio-generic drugs.</li> <li>· To leverage our strong manufacturing sector by increasing opportunities in bio-processing and biomanufacturing.</li> <li>· To establish biotechnology centres of excellence in the country, where we bring together multi-disciplinary research teams in coordinated initiatives.</li> <li>· To build the nation's human capital in biotechnology via education and training.</li> <li>· To develop financial infrastructure to support biotechnology.</li> <li>· To improve the country's innovation system by reviewing the country's legal and regulatory framework.</li> <li>· To build international recognition for Malaysian biotechnology.</li> <li>· To establish a dedicated and professional agency to spearhead the development of Malaysia's biotechnology sector."</li> </ul>

**Taiwan**

The Promotion Plan for the Biotechnology Industry, a road map defining national industry goals and clearly detailing the corresponding action steps required to get there, was first written and released by the Executive Yuan branch of the government in 1995, and has been revised biannually ever since. A major aspect of the Promotion Plan is that it has identified specific areas in need of attention to upgrade not only the local biotech industry but also to enhance the investment attraction of Taiwan to the overseas life science community. These five areas of attention are: • Related laws and regulations • R&D and application • Technology transfer and commercialization • Investment promotion and cooperation • Marketing information and services.