

ASIAN IPAs MOST EAGER TO ATTRACT R&D FROM TNCs

More than 90% of investment promotion agencies (IPAs) in Asia and Oceania actively target foreign direct investment (FDI) in research and development (R&D), according to UNCTAD. This is a considerably higher figure than in other regions. Countries that seek to attract R&D-related FDI commonly use science parks and tax incentives. For promotional efforts to be successful in this area, IPAs need to collaborate closely with other government bodies.

TNCs are key players in global R&D

According to the *World Investment Report 2005*, transnational corporations (TNCs) account for at least 70% of global business R&D. In 2002, the top 700 R&D spenders reported R&D expenditures of more than \$300 billion. In fact, the R&D spending of some large TNCs is higher than that of many countries. Ford, Pfizer, DaimlerChrysler, Siemens, Toyota and General Motors each spent more than \$5 billion on R&D in 2003. In comparison, among the developing economies, total R&D spending exceeded \$5 billion only in Brazil, China, the Republic of Korea and Taiwan Province of China.

Interestingly, a rising share of these companies' R&D expenditures are undertaken in developing countries. Between 1994 and 2002, the developing-country share of all overseas R&D by US TNCs increased from 7.5% to 13%. Today, more than half of the world's top R&D spenders conduct R&D activities in China, India or Singapore.

R&D has traditionally been the least internationalized of the various corporate functions. Intensified competition, however, is forcing firms to innovate more while at the same time trying to keep costs under control. In response, more companies are expanding R&D activities in locations that boast an ample supply of skilled human resources at lower costs than at home. In China alone, more than 700 foreign-owned R&D centres have been established during the past decade or so.

Emerging markets remain preferred destinations for new R&D investments. According to data from LOCOMonitor, more than 400 FDI projects involving R&D (including software development) were noted in the first seven months of 2005. The top target

destinations were India and China, followed by the United Kingdom and Russia.

The role of IPAs

What role can IPAs play in a country's strategy to benefit from R&D internationalization? The answer depends, among other things, on the country's level of development, comparative advantage, institutional framework and development objectives. For a location with potential to attract FDI in R&D, the prime function of the IPA is to communicate and market existing investment opportunities – for example, through targeted promotion. Such targeting needs to be based on an assessment of the location's strengths and weaknesses and a good understanding of the locational determinants of potential R&D-related projects.

If a location does not offer the basic conditions needed to attract R&D by TNCs, the IPA's main role may be policy advocacy (rather than active promotion of related FDI opportunities). IPAs can draw the attention of relevant government bodies to areas that are important for making a location attractive for knowledge-intensive activities by TNCs. IPAs can serve as a bridge between the private and public sectors, helping to improve understanding of what is required to benefit from R&D by TNCs.

Most Asian IPAs target R&D-related FDI; very few in Latin America do

The extent to which IPAs actively engage in the promotion of R&D-related FDI differs by region and country. In an UNCTAD survey conducted in February–April 2005 in which 84 national IPAs participated, 55% of the respondents reported that they actively target FDI in R&D (table 1). A large number of IPAs

UNCTAD Investment Brief

Number 3  2005

in developed countries – including six of the new EU members – promote it (79%), as do 48% of the IPAs based in developing countries. By sub-region, the highest percentage was noted for IPAs in Asia and Oceania. Conversely, a minority of IPAs in Africa actively promote R&D-related FDI, and only 11% of the Latin American and Caribbean IPAs that participated in the survey do so.

In terms of industry focus, computer and ICT services are the industries most commonly targeted by IPAs in both developed and developing countries that promote R&D-related FDI. In developed countries (excluding the new EU members), many IPAs also target such FDI in chemicals and chemical products (including pharmaceuticals), along with motor vehicles and other transport equipment; developing-country IPAs pay relatively more attention to R&D by TNCs in agriculture.

The promotional tools most often used by countries to encourage FDI in R&D are "general investment promotion" (such as missions, seminars and websites), followed by the setting up of science parks and the provision of tax incentives for R&D activities.

Collaboration is essential

To play a constructive and effective role, IPAs need to be well connected with relevant government ministries and have a well-defined mandate. There are various examples of this,

including from the Czech Republic and the Republic of Korea, two countries that are among the top 20 recipients of recent R&D-related FDI projects.

CzechInvest targets companies with mobile R&D and technologically advanced innovative projects, while simultaneously fulfilling a policy advocacy role. It has joined with the Ministry of Industry and Trade to design and implement two programmes specifically aimed at supporting innovation. Also involved are the Office of the Deputy Prime Minister, the Department of Research, Development and Innovation, and the Council for Research and Development.

In the Republic of Korea, the Government in 2003 set up an IPA, *Invest Korea*, to promote FDI, including in R&D. In the same year, it also established the Korea Foundation for International Cooperation of Science and Technology (KICOS) to serve as a bridge between domestic and foreign non-profit R&D centres. KICOS focuses on promoting R&D centres involving prestigious foreign research institutions and educational organizations. The two agencies both provide assistance to investors in R&D, as part of the Government's effort to make the Republic of Korea the North-East Asian R&D hub for the advancement of science and technology.

Source: UNCTAD.

Table 1. Do IPAs actively target FDI in R&D?
(Number of responses)

| Region | Yes | No |
|--|-----|----|
| All economies | 46 | 38 |
| Developed countries (excl. new EU members) | 9 | 3 |
| New EU members | 6 | 1 |
| South-East Europe and the CIS | 5 | 4 |
| Developing countries | 26 | 30 |
| Africa | 9 | 13 |
| Latin America and the Caribbean | 2 | 16 |
| Asia and Oceania | 15 | 1 |

Source: UNCTAD survey of IPAs, February–April 2005.

For more on this topic, see
World Investment Report 2005: Transnational Corporations and the Internationalization of R&D
(available at www.unctad.org/wir)