corporatelocation

THE FOREIGN DIRECT INVESTMENT MAGAZINE

APRIL/MAY 2004

www.corporatelocation.com

LIFE SCIENCES: BATTLE FOR BIOTECH'S BILLIONS

Motives driving investment

CEO GUIDE THE NEW EUROPE

RANKINGS – World's Top Brains and Bases

→ World Knowledge Competitiveness Index

→ International Location Experts Survey

A Euromoney Institutional Investor publication

Contents

april/may 2004

www.englishsites.com

For development land, investment opportunities and relocation in England

English Partnerships is the national regeneration agency, supporting high quality sustainable growth across the country. We are a key delivery agency for urban renaissance and the government's new Sustainable Communities agenda. All our projects are developed with both the community and environment in mind.

This means working in partnership to help make England a better place to live.

We work in partnership with central and local government, the Regional Development Agencies and the private and public sector, to bring about sustainable economic regeneration and development.

English Partnerships continues to build on its success by:

- continuing to actively seek new partners for future real estate joint ventures
- helping major companies realise their expansion, relocation or investment plans in England

English Partnerships manages a strategic sites database www.englishsites.com which profiles over 200 of the best sites in the English Regions, chosen for their suitability as a development opportunity and for companies wishing to relocate or expand.

If you are interested in real estate business in England and joint venture opportunities that are available, visit our website or contact us directly.

www.englishsites.com

For more information contact **Leo Kolassa** on **+44 (0)1925 644 749** or via e-mail **leokolassa@englishpartnerships.co.uk**

English Partnerships
The National Regeneration Agency

Letter from the editor

Corporate Location is back!

Actually it never left. The title was bought by Euromoney Institutional Investor PLC in 1991 and continued publishing under that name until 2000 when it was renamed Strategic Direct Investor. In 1998 Euromoney also started a regional direct investment magazine called EuroInvest. Now we have merged both titles back into one global magazine and have reestablished the brand name that was widely recognised as the premier source for information on foreign direct investment.

But we are back with difference. Not just in look, but in content. We are more focused. Each of our quarterly issues will concentrate on specific clusters of investment opportunity. In this issue we explore the life sciences, which range from biotechnology to pharmaceuticals, and what it takes to create the right environment to stimulate innovation. We not only look at where the projects are going, the jobs created and where they are being funded from, but we also try to give you a measure of motives behind the corporate reasoning to locate their manufacturing, research & development or service centre in one place rather than another. Instead of using than using the traditional approach of ranking by terms of dollars spent, we've chosen to present these in terms of FDI projects created in the past 12 months.

To complement this approach, we have committed ourselves to publishing top quality, quantitative research to serve as benchmarks and/or indicators of trends for corporate decision makers. In this issue we publish the results of a joint survey with the United Nations Conference on Trade and Development canvassing international location experts from 24 countries that is part of a pioneering project to compare attitudes on foreign direct investment among investment promotion agencies, transnational corporation executives and the location experts who advise them.

You will also find the World Knowledge Competitiveness Index which ranks 125 locations around the world for their capacity and capability to create new ideas, thoughts, processes and products, and translate these into economic value and wealth.

Our free website www.corporatelocation.com also has a fresh look as well as all the back editions for the past three years. More importantly, it is where you can find detailed explanations and many pages of data from the research conducted that we did have not space to print in the magazine.

As Mick Jagger rightly observed, "It's all right letting yourself go as long as you can let yourself back".

Samuel Passow

Samuel Passow

corporatelocation

EDITOR & PUBLISHER
Samuel Passow
+44 (0) 207 779 7226
spassow@euromoneyplc.com

DEPUTY EDITOR
Jonathan Cobb
+44 (0) 207 779 8120
corporate-location@euromoneyplc.com

ASSOCIATE EDITOR
Sharon Rathbone
+44 (0) 207 681 1810
sharonrathbone@aol.com

SUPPLEMENTS EDITOR
John Muir
+44 (0) 207 779 8679
jmuir@euromoneyplc.com

DESIGNER & PRODUCTION EDITOR
Ray Heath
+44 (0) 208 402 9812
rayheath@ntlworld.com

ASSOCIATE PUBLISHER
James Sandford
+44 (0) 207 779 8758
jsandford@euromoneyplc.com

CORPORATE LOCATION
International Direct Investment Group
Nestor House
Playhouse Yard
London EC4 5EX
United Kingdom
Tel: 44 (0)207 779 8888
Fax: 44 (0)207 779 8964

CUSTOMER SERVICES
Tel: +44 (0) 207 779 8610
Fax: +44 (0) 207 779 8602
customerservice@euromoneyplc.com

SUBSCRIPTIONS (NEW)
UK hotline
Tel: +44 (0) 20 7779 8999
Fax: +44 (0) 207 246-5200
hotline@euromoneyplc.com
US Hotline
Tel: +1 212 224 3570

SUBSCRIPTION RENEWALS
Tel: +44 (0) 207 779 8938
Fax: +44 (0) 207 779 8344
renewals@euromoneyplc.com
Annual subscription rate
US$385 (£215 UK Only) €375

Group Director: Christopher Brown

Printed by Wyndham Grange.

INTERNATIONAL LOCATION EXPERTS SURVEY 2004-2007

This report was compiled by SAMUEL PASSOW, Editor of Corporate Location and JAMES ZHAN, Chief of Global Investment Prospects Assessment, UNCTAD

After three years of continuous decline in global foreign direct investment, more than four out of five international location experts from around the world are expressing optimism that a turn in fortune is about to happen.

In the period 2004-2005, 77% believe the overall investment environment will improve, 9.2% say it will worsen and 13.8% say it will remain the same. For 2006-2007, the level of optimism rises to 80.5% while only 6.1% per cent say things will get worse, and just 13.4% say things will remain the same (Figure 1).

China, India and United States are the clear top hot spots for direct investment over the next four years, according to location experts. Thailand ranks a surprising fourth, followed by Poland and the Czech Republic tied for fifth, Mexico and Malaysia tied for sixth and the United Kingdom, Singapore and South Korea, tied for seventh place, accounting for the rest of the leaders.

These results are based on a joint survey conducted by United Nations Conference on Trade and Development (UNCTAD) based in Geneva and Corporate Location Magazine in London.

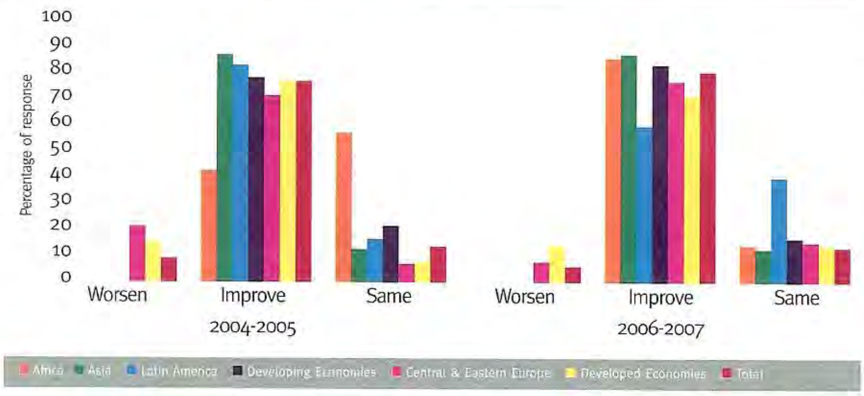
The electronic polling of 593 international location experts from 62 countries was conducted from January 5 to February 15, 2004 by Corporate Location Deputy Editor Jonathan Cobb. A total of 87 completed questionnaires from 24 countries were returned. The names for the survey were taken from the magazine's editorial database. Mr. Ludger Odenthal, Expert, Global Investment Prospects Assessment at UNCTAD analysed the data.

One clear message emerging from the survey is that location experts expect that investment promotion agencies will intensify their efforts to attract FDI in response to the increased competition worldwide for projects. The general expectation is that countries will open up their markets further through liberalisation measures, additional incentives and increased sector targeting (Figure 2). There are regional differences, of course. In Africa for instance, more experts indicated a preference for additional incentives as opposed to greater targeting. In Central and Eastern Europe, the reverse holds true. For the developed countries, the expectation is that liberalisation will play a lesser role, and that targeting, and to a certain extent, additional incentives will become more important.

The experts noted that the most likely options for business expansion overseas were evenly divided between either mergers and acquisitions (40%) or greenfield investments (40%). Licencing or strategic alliances were mentioned by only 20% of the respondents.

Despite the fact that the emotive issue of outsourcing of highly-paid white-collar jobs has become a major issue in the upcoming US Presidential elections and dominates international business headlines, our respondents still see the bulk of relocations occurring in lower value-added corporate functions. Processing activities, logistics and supply functions are the most frequently mentioned corporate functions likely to relocate abroad (Figure 3) .

FIGURE 1: LEVEL OF FDI CONFIDENCE 2004-2007



BREAKDOWN BY REGIONS

North America & Western Europe: The United States, followed by the United Kingdom, then Canada and France tied for third, were ranked as the top expected locations for FDI over the next four years among the developed economies. Across the board, electrical and electronic products, motor vehicles and other transport equipment are the most attractive industries in the manufacturing sector, followed by chemicals, machinery and equipment. In services, transport and business services are most attractive for FDI, followed by tourism, retail and wholesale trade and computer-related services. In the countries of Western Europe, traditionally among the largest FDI recipients, the prospects for a quick recovery seem less bright.

UNITED NATIONS CONFERENCE ON TRADE AND DEVELOPMENT

corporatelocation

Africa: South Africa, Angola and Tanzania are the region's top three locations. South Africa is perceived to be the most attractive, while Angola and Tanzania are tied in second position. The latter two have bright prospects in natural resource extracting industries, particularly in the petroleum industry in the case of Angola. In Africa, non-metallic products, food and beverages, textile, clothing and leather & wood products would be attractive to FDI. In the service sector, electricity, gas and water services, and to a much lesser extent, banking and insurance services would be attractive for FDI flows into Africa. In general, the short-term (2004-2005) outlook for Africa is modest optimism, but is expected to improve in the medium-term.

Asia-Pacific: China and India take the top positions as attractive destinations for FDI in the near future, with Thailand in third place. In the manufacturing sector, improved prospects are expected for motor vehicles and other transport equipment, machinery and equipment, chemicals and to a lesser extent, electrical and electronic products, publishing and media, printing and recording services. In the service sector, banking and insurance, business services, tourism, transport, computer-related services, retail and wholesale will take the lead in attracting FDI in the years to come. Asia-Pacific remains the most optimistic region in the world for opportunity.

Latin America: The traditional magnets for FDI inflows – Mexico, Brazil and Chile – are seen by experts as continuing to play that role at least in the short term. Contrary to the pattern in other regions, metal products, mining and petroleum and agriculture are expected to take the lead in FDI recovery in the region. Other industries that will be attractive to FDI are non-metallic products, food and beverages, chemicals, textiles, clothing and leather industries. In the service sector, tourism is expected to be attractive for FDI. Experts are optimistic regarding the short-term prospects rather than the longer-term.

Central and Eastern Europe: Poland and the Czech Republic come out in the top two places, while Russia and Romania are jointly ranked in third place. FDI inflows are expected to increase in food and beverages, motor vehicles and other transport equipment, and to a lesser extent, in publishing and media, printing and recording, and electrical and electronics industries. The perception of improved prospects for FDI in the service sector is broad-based, and includes industries such as construction and real estate, retail and wholesale trade, transport, education and health, business services, computer-related services, banking and insurance. Accession to the European Union for many of the countries in this region should give them a new competitive advantage.

Firms who participated in this survey included: ABN AMRO Bank, ABSA, ANZ Investment Bank, Arab Bank PLC, Asia-Pacific Business Intelligence (S) Pte Ltd, Bamburra Ltda, Business Mobility International S.A., Capital Group, CB Richard Ellis Consulting, Cemex Consulting Group, Control Risks Group, Dealtek Ltd, Deloitte & Touche, Denton Wilde Sapte, East West Locations Ltd, Emerging Markets Advisory Corp, Ernst & Young, GDP Global Development, IBM Business Consulting Services – Global Location Strategies/Plant Location International, Ignis Project & Finance Solutions (Pty) Ltd, Industrial Design Corporation, Knight Frank, KPMG LLP, Location Advisory Services, Inc., Location Consultants International, Inc., Manpower Inc., McCallum Sweeney Consulting Inc., MEC Int'l, MECA Int'l, Musat & Asociatii, Pace Global Energy Services, RHA, Rizvi, Isa, Afridi and Angell, Roschier Holmberg Attorneys Ltd, Singapore Institute of International Affairs, Sullivan Cromwell, The Wadley-Donovan Group, Thorpe Corporation, ThyssenKrupp AG, Voegele Partner GmbH, White & Case

FIGURE 2: HOW COUNTRIES WILL ATTRACT FDI

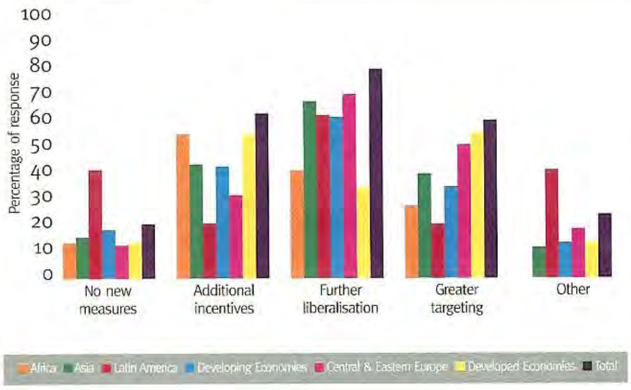
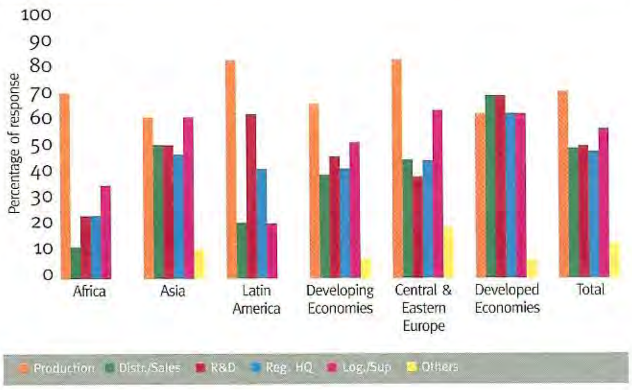


FIGURE 3: BUSINESS FUNCTIONS GOING ABROAD



BATTLE FOR BIOTECH'S BILLIONS

Strategies to attract Life Sciences' big spenders

The darling of life sciences is biotech. Global locations are vying to attract key players, with industry clusters and bioparks peppering the landscape. But luring biotech players involves innovative thinking. SHARON RATHBONE, Associate Editor, reports.

Biotech investment is a hot issue again. According to William Powlett Smith, Partner and UK Health Sciences Leader at Ernst & Young: "[Biotech] companies have responded to the loss of investor confidence in the past two years by right-sizing their businesses. They restructured to focus on their most promising drug programmes, balanced risks through collaborations and, in some cases, intelligent mergers, and products are getting approved."

The recovery is largely due to positive news, with over 17 new drugs approved by the US Federal Drugs Administration up to July 2003, compared to 20 for the whole of 2002. They include medicines for cancer, asthma, psoriasis, AIDS and other infectious diseases. "The increase in approvals reflects the expanding pipeline coinciding with new leadership at the FDA, and bodes well for the future. Clinical trial results of products in late-stage development have also been positive, especially for new cancer drugs. This has helped to restore confidence in the biotech industry's ability to create innovative medicines and get them to those who need it most – patients," he says.

Furthermore, in Europe there has been clear evidence of consolidation via mergers and acquisitions. Examples include Chiron/Powderject, General Electric/Amersham, Astex/metaGen and British Biotech/Vernalis.

So who is best placed to attract increasing FDI flows? "The UK has got itself well placed in Europe, primarily because government policy encourages biotech. The support of Lord Sainsbury (Parliamentary Undersecretary of State for Science and Innovation) has made the British biotech sector more confident," says Professor Colin Howard, Director of the London Bioscience Innovation Centre.

Three of the top 10 spots for research and development in Europe are in the UK, according to the World Knowledge Competitiveness Index 2004 (See page 58).

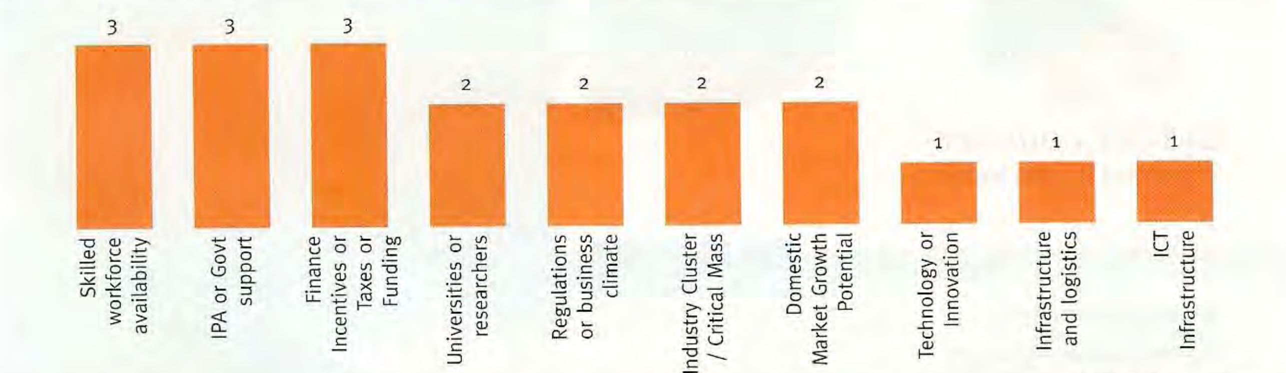
WHERE PROJECTS ARE GOING

COUNTRY	NUMBER OF PROJECTS
India	11
USA	8
UK	7
Canada	6
China	5
Spain	4
Germany	4

SOURCE: OCO CONSULTING

Note: Based on 76 new and expansion biotech FDI projects announced from March 2003 to February 2004

MOTIVES DRIVING INVESTMENT IN THE BIOTECH SECTOR



SOURCE: OCO CONSULTING

Note: Ranking of motives is based on investor feedback on location decisions, where available, on 76 projects announced from March 2003 to February 2004

The Professor adds: "In the last two years Nobel prize-winners for Science have been British [Sir Peter Mansfield, 2003; Sydney Brenner and John E. Sulston 2002]. We have a high success rate in scientific achievement, and we have become more efficient. But the problem is that we have not grown large companies that can compete globally."

For 2002, California-based Amgen, the world's largest biotech company, reported total product sales of US$5billion. But for the same period, the UK's Celltech based in Slough, a leading European biotech firm, had sales of just US$610 million.

According to E&Y's "Beyond Borders"* report, the global biotech industry is comprised of 613 public entities and 3,749 private companies, generating over US$41billion of revenues in 2002. Of this total, US companies generated 70% of global revenues, with only 20% coming from European biotechs, despite the fact that there are 112 more biotech companies in Europe than the US.

So in biotech terms, Europe is still America's poor relation – it may have more companies, but they are smaller and generate considerably less income.

But that is not the whole story. Biopolis in Singapore, one of the largest of the new bioparks in Asia, is hoping to help the Celltechs of this world grow into global players. It's a US$288 million purpose-built complex of seven buildings to house research institutes, private research organisations and biomedical universities.

Biopolis is slated by some to become a world-class R&D hub in the region. "We hope to build on Singapore's good record for attracting international investment... and aim to be the perfect host of MNCs rather than building our own local businesses," said Dr Beh Swan Gin, Second Director, Biomedical Sciences Group Economic Development Board.

Singapore is ranked seventh for R&D in Asia Pacific (Page 58), and 74 in the world, up from 90 in 2003.

Dr Beh adds: "Biopolis aims to act as a hub of expertise for biomedical activities. Singapore has a fighting chance against Boston's Metropolis or the Bay Area of San Diego, which we consider benchmarks for what we are trying to achieve."

Biopolis, say the planners, is designed to foster a collaborative culture with the nearby National University of Singapore, the National University Hospital and the Singapore Science Parks, who share medical research equipment. The Wi-Fi atmosphere of cafés and meeting rooms is aimed at enticing researchers to reach beyond the laboratory to exchange ideas.

Professor Howard underscores the value of this communal space. "Networking is at the fulcrum of innovation. Having a good facility where people can meet in a central atrium is very important. But you don't need a glitzy Starbucks."

CASE STUDY: SINGAPORE

The Novartis Institute for Tropical Diseases is due to move into Biopolis' multi-tenanted facility, Chromos, this April. It is the second foreign firm to have committed to the Singapore installation.

NITD is part of a US$220 million tropical disease research initiative by Novartis AG and the Economic Development Board of Singapore.

Commenting on the decision to shift his research operations to Biopolis, Professor Paul Herrling, Chairman of the Board of NITD, says: "Singapore has an excellent, thriving biomedical scene and Biopolis is at the heart of it all. R&D is not only about physical infrastructure, important though it may be, but it is also about community and network, to facilitate knowledge building and exchange. NITD scientists are looking forward to tapping into the talent pool, hospital and institutional network and the proximity to community synergy offered by Biopolis".

And so far the experience has been positive, he says: "We were able to recruit top-level young scientists into our facility and also design the Biopolis laboratories to our specifications."

Professor Herrling underscores the positive and helpful attitude of the authorities in Singapore, and EDB in particular, which helped them to set up their facility in record time. In addition, the political stability of Singapore and its pharma-friendly attitude to IP issues was a further factor in choosing the location.

TOP JOB CREATING PROJECTS IN THE BIOTECH SECTOR

Parent Company	Origin Country	Location Country	Jobs created	Investment US$m	Product	Activity	Key business function	Type
DSM	Netherlands	Canada	300	116	Immunotech	monoclonal antibodies (MABs) and recombinant proteins – new generation of drugs – combined capacity of more than 60,000 litres	Manufacturing	Exp
First Consulting Group	USA	India	300	Not available	Bioinformatics	increasing the headcount of its development centre from 270 to 570	R&D	Exp
Boehringer Ingelheim	Germany	Austria	200	70	Genomics	6,000 litre fermenter, manufacture of DNA for gene therapy applications	Manufacturing	Exp
Boehringer Ingelheim	Germany	USA	100	260	Other Biotechnology	exp of biochemical plant - largest biotech investment in Virginia	Manufacturing	Exp
Altana	Germany	USA	50	120	Genomics	genomics research centre	R&D	New

SOURCE: OCO CONSULTING

Note: Rankings are defined by number of jobs created on 76 projects announced from March 2003 to February 2004

→ CASE STUDY: NEW ZEALAND

They lost the America's Cup. They missed out on the World Rugby Cup final. So the Kiwis are now pinning their hopes on biotech to bring them the international recognition they so fervently seek. They've lumped together the old Biotenz and NZ Biotechnology Association to roll out the sleek-sounding NZBio. "This is a key time to get a platform in place to create an industry that can make a huge contribution to New Zealand's growth," says CEO Brian Ward. "NZBio will catalyse and accelerate that process."

A recent government Biotechnology Taskforce estimated the sector would grow to NZ$ 1 billion (about US$652 million) in New Zealand over the next 10 years. This is significant given that even a 5% improvement in the sector's earnings amounts to a large gain in the country's economy. But it also made three recommendations: the need to build critical mass (i.e. increasing employment and biotechnology enterprises); regulatory reforms to create a competitive environment for growth and the establishment of a robust international network through which to stimulate the flow of international investment.

"These three issues of concern are well documented in New Zealand," says Dr Jim Watson, Chief Executive of Genesis Research and Development Corporation Ltd based in Auckland. "Issues that relate to building critical mass and international networks are being addressed and are targeted for significant growth."

But regulatory reforms still need to be implemented to foster a more competitive environment for growth. "If these are extended to tax incentives to stimulate the flow of FDI then I think we will be on the right track," he adds.

With current annual export earnings of NZ$250 million (US$163 million), the sector is already growing fast with 50% of the country's 42 core biotechnology companies being formed in just the last three years.

And Dr Watson is adamant that New Zealand can hit their ambitious revenue goal. "This will come mainly from the growth of biotech companies but more importantly from the growing realisation that our competitiveness lies in the agriculture and forestry sector rather than health."

This will attract new foreign capital, although he doubts it will attract established foreign firms. "The growth of our second wave of biotechnology will centre around environmental issues and these are likely to be industry change issues for agriculture and forestry. I can see the growth of what I term environmental engineering from our biotech sector," he predicts.

And, he says, New Zealand's best plus point is its very remoteness. "Isolation and a small economy teach innovative people to be successful in many unusual ways and this is really the hallmark of our own biotech companies," says Dr Watson.

THE BIOPARK ROUTE

Paradigm Therapeutics Ltd, a UK drug discovery company based in the Cambridge Science Park, is establishing a wholly-owned subsidiary in Singapore. They hope the operation will capitalise on the rapid growth of biomedical research in Singapore and establish a research and development base for its genomics-driven drug target validation activities.

"This expansion into the biomedical sciences hub of Singapore will significantly increase our capacity to validate novel drug targets from the human genome," said Dr Mark Carlton, CEO and co-founder of Paradigm Therapeutics. "The Singapore environment is highly dynamic and offers an excellent base to reach Asia Pacific markets".

But Paradigm is one of only two foreign firms to have committed to Biopolis in its first year of operation (See Case Study: Singapore box). With a number of other bioparks planned in Asia and Eastern Europe, competition for Biopolis' planners to attract foreign companies will intensify. Western Europe already has more than 25 specialist science parks, and the number looks set to rise there too.

So how do these bioparks define their competitive advantage?

Asian enterprises such as Biopolis face a number of obstacles. The most critical, according to Professor Howard, is that it is not a place where the world's best scientists want to go to live.

"Biopolis suffers because it is too far away from other major international centres of science and technology," he says. "Free-standing parks offer no services or support facilities. In general, the attraction is that they offer financial incentives to companies looking for a new location."

"But Biopolis is different to many other bioparks. It is a government-driven venture. As the Singapore economy moves away from electronics, they are looking for other spheres for their highly skilled labour force. Their economic imperative is to attract a manufacturing base to service the huge Asian market."

Many of the new biopark developments are located in the US, which ranks first for R&D in the world (See page 58). One of the most respected is the Research Triangle Park in North Carolina, a huge campus housing a number of different companies.

Located next to Duke University, University of North Carolina and North Carolina State University, the Park encompasses 7,000 acres of North Carolina pine forest. It currently houses more than 100 research and development facilities which employ over 38,500 Triangle residents. Capital investment exceeds US$2 billion.

"Parks tend to be located close to where original science has been done," says Professor Howard. "At RTP, its proximity to world-class research institutions is a key to its success."

Location experts consistently tell Corporate Location that although most of the investment into bioparks comes from biotech companies that are maturing into free-standing companies, they still need to keep close ties to the R&D community.

"A biopark that only has nice facilities is not a real biopark. It is only a place to locate activities," says Fabrizio Conicella of Bioindustry Park Canavese in Italy. He continues: "To be a real biopark you need to include universities and public research centres with projects, students and facilities."

Furthermore, he believes start-ups benefit in bioparks because they are treated as a partner in investment and research. "Bioparks don't just offer facilities and personnel. We also provide support services such as project management, patent support, marketing support, administrative support and fund-raising."

Traditional centres of research, he says, are happy to have R&D contracts but manage companies only as clients. "Bioparks usually manage companies as a partner that must grow. We help them to identify interesting business ideas and to support them in their early development."

The Park has been contacted recently by a number of American and European companies interested in investing in Italy.

Another example is the Hong Kong Science & Technology Park at Pak Shek Kok in Shatin, a US$1.5 billion Hong Kong government initiative aimed at transforming the city into an innovation and technology hub. Phase 1 will be completed in the third quarter 2004, with two further phases due by 2011.

The 22-hectare park provides state-of-the-art infrastructure and high-tech support facilities for companies engaged in electronics, precision engineering, IT/telecommunications and biotechnology. To date 55 companies have committed to setting up R&D centres at the Park, of which 19 are from overseas.

A Bioinformatics Centre in the Science Park, opening in 2004, will assist companies in R&D related to bioinformatics, biomedical instruments and diagnostics. "We have just started marketing activities on the biotechnology cluster," says Ricky Ma of HKSTP. "Although the Bioinformatics Centre is still under construction, we have already received encouraging responses from mainland China and overseas biotechnology companies."

Beijing Hua Da Bioinformatics, a leading Asian bioinformatics company, is setting up its R&D centre in the park.

CASE STUDY: JAPAN

In July 2002 the Japanese government created a biotechnology strategy council, chaired by the Prime Minister, to reflect the importance that they place on biotechnology. The ensuing "b-Japan Plan" aims to create a cutting-edge bio-society and bio-based economy by 2010. "They hope biotechnology will have spill-over effects in the economy. Budding biotech ventures may increase the demand for support services such as drug design platforms, biotech-related devices and support services," Andrew Thorson, Partner of Dorsey & Whitney LLP in Tokyo tells Corporate Location.

In addition, Japan has come to realise the need to decentralise its decision-making. Local regions across Japan such as Kansai are moving to develop specialised focuses, resources and incentive structures to define and maximise their competitive viability. "At the heart of Kansai, Japan's second city of Osaka has been burdened by the national downsizing and the hollowing-out of manufacturing industries," says Thorson. "Now Kansai hopes to capitalise on the fact that it is the home of roughly 30% of the country's pharmaceutical industry."

Eight of the top 10 research sites in Asia Pacific are in Japan, according to the World Knowledge Competitiveness Index 2004 (See page 58).

THE BIOTECH CLUSTERS AND RESEARCH CENTRES ROUTE

Other locations are offering an alternative: so-called biotech clusters. These are established locations that are marketing themselves as good biotech destinations, with all the necessary ingredients to hand, but not necessarily on the same site. They are marketed as a virtual site, with a number of tempting goodies, such as financial incentives, to get people in.

In the UK, Oxford and Cambridge have been successful

WHERE THE MONEY IS FROM

COUNTRY	NUMBER OF PROJECTS
USA	35
Switzerland	7
UK	7
Germany	5
Canada	3
Japan	3

SOURCE: OCO CONSULTING

Note: Based on 76 new and expansion biotech FDI projects announced from March 2003 to February 2004

in attracting biotech investment because of their strong college connection. St John's Innovation Centre in Cambridge and Magdalen Park, Oxford, offer free-standing companies a hold in the UK.

The Cambridge cluster, including the city's science parks, embraces 185 biotech companies, 250 specialist service providers with biotech expertise and 30 research institutes and universities.

Also in the UK, Science City York has been singled out as a successful creator of business clusters by a government report on how industry and universities work together. It is a partnership between the City of York Council and the University of York. Set up in 1998 to harness York's existing science base, it focuses on three knowledge-based clusters: bioscience and healthcare, e-science and heritage and arts technology.

In its first four years, the Science City has created 1,800 new jobs and 30 new businesses. Eight of these were bioscience startups. Anna Rooke, Manager for Science City York says: "York has demonstrated how a world-class university can work successfully with industry to develop successful clusters which generate commercial opportunities."

Other cities and regions are also successfully attracting biotech dollars. In Australia, the State of Victoria is building a lead in developing a thriving biotech sector. It has more people in biotech-related employment than all other Australian States put together. Victoria is ranked the number one biotech location in Asia Pacific by Ernst & Young's 2003 Biotech Report and markets itself on the strength of its world-class research.

"The Victorian government has committed more than A$400 million (about US$300 million) to biotechnology. This commitment includes seed funding for biotech projects which are now worth around A$700 million (US$528 million) to the Victorian biotech sector," says Dr Amanda Caples, Director – Biotechnology for the Department of Innovation, Industry and Regional Development of the State of Victoria. "We are the number one biotech state, and more than one third of Australia's core and diversified biotech companies are here."

Major listed companies with head offices in Melbourne include CSL, Biota, Cellestis, AMRAD, AGT Biosciences, Circadian, IDT, Metabolic, Norwood Abbey and Starpharma. And a number of leading US and EU companies are also investing in Victorian biotechnology, including Bristol-Myers Squibb, Merck AG, CK Life Sciences, GlaxoSmithKline, Monsanto, IBM, Bayer Crop Science, Eli Lilly and Schering AG.

So does Dr Caples fear that the new bioparks on the drawing board in Asia will threaten FDI levels in Victoria? "Each of our so-called biotech precincts offers a range of services somewhat similar to bioparks. In addition, the six major biotech

CASE STUDY: MASSACHUSETTS, USA

Analysis by the state of Massachusetts of bio-pharmaceutical companies points to an industry preference for clustering. The location breakdown demonstrates the desire to locate near the education and healthcare centre of Metro Boston with over half of this sector. "As companies move from research and development into production, many have decided to locate manufacturing operations near their existing R&D. Studies show that a key site location driver for pharmaceutical businesses such as Novartis and Merck is the large number of innovative biotech companies here," said Robert Ward, Executive Director of the Massachusetts Office of International Trade and Investment (MOITI).

Illustrative of the process is the Life Science cluster composed of the Bio Pharmaceutical and Medical Device industries. The state has identified 487 life science companies in Massachusetts, employing a total of 43,683 workers. 112 of these are medical device companies, 320 are biopharmaceutical companies and 55 are primary support companies.

For medical equipment firms the distribution of companies reveals that medical device manufacturers tend to take advantage of the lower costs associated with locating their facilities in the outlying areas around Boston. Ward says: "Only seven of the 112 companies in the report are located in the immediate Boston-Cambridge area. The medical device sector also extends significantly into the Central and Southeast regions, distributing the benefits of this cluster across a wide territory, and benefiting in turn from regional clusters in fibre-optics and electrical equipment."

For companies that embark on a formal process of site selection, MOITI and its partner agencies of "Team Massachusetts" convene a project-specific working group to assemble the unique resources each project requires. Central to these working groups is the involvement of regional representatives and industry cluster delegates in addition to the representatives of state and quasi-public agencies charged with providing financing, staffing, infrastructure or other public incentives and support. Team Massachusetts also assists businesses evaluating facility locations by conducting a customised real estate evaluation and search, as well as customised research including: workforce availability; wages by job classification; tax structure; other business costs and university research programmes.

precincts in Victoria are located within a 15km radius of the centre of Melbourne, allowing relatively easy access to the full range of services for biotech companies," she says.

Dr Sabine Ecker of Life Science Austria Vienna Region acknowledges that there is competition between the regions, especially in Europe, to attract companies and venture capital (VC).

"In comparison with well-established clusters like Boston or Bay Area, business promotion measures started relatively late here and in the past only a few companies were financed by VCs," she comments. "But recently life science companies including Intercell have been extremely successful in raising VC money."

Life Science Austria Vienna Region covers Vienna and the provinces of Lower Austria and Burgenland, where the country's life sciences research and industrial activities are concentrated. "Well-established industry leaders like Baxter (with their largest operation outside the US), Novartis Austria, Boehringer Ingelheim Austria and Eli Lilly, scale-ups like Igeneon, Intercell and Austrianova and start-ups like Bioventis and Greenhills Biotechnology form a dynamic life science scene," she says.

A total of 75 life science-related companies are located in the region, employing around 350 people in R&D. Of these, 20 were founded since 1999.

Christer Hedman is Head of Biomedical Development at the Göteborg Business Region in Sweden. He is part of the MedCoast Scandinavia initiative, which aims to create a dynamic biotech cluster among universities, industry, healthcare and other related organisations in the Göteborg-Oslo region. According to the WKCI (See Page 58), two of the top 10 research sites in Europe are in Sweden.

"Last year eight new foreign companies set up in the Göteborg region," says Hedman. "Five of them were European, although we have also seen investment from two US and one Japanese firm."

Foreign companies are investing in MedCoast to either benefit from the region's core knowledge or to get a foothold to access the Nordic and Baltic markets.

So does he see the new bioparks as a threat? "The new bioparks could either present a threat or an opportunity. Of course, as Asian bioparks grow they may attract greater numbers of companies and compete with us. But this growth also presents an opportunity. These companies will still need collaborative initiatives in Europe."

With a great deal of stem cell research being undertaken in Singapore, and more companies there undertaking the work, there is a case for them working in collaboration with companies in Sweden, for example, which has the greatest number of stem cell lines approved by the US National Institute of Health.

"So being positive, I would say that large investments in certain Asian countries will in turn invest and get footholds in other markets. It's all part of the growth of the sector, and you need to keep a global perspective," he says.

Innovative companies wither in a vacuum. Biotech, by its very nature, is at the very forefront of innovation. Whether a company is in R&D, or is venturing out as a stand alone to make and market its products to the world, it needs to keep its umbilical cord firmly plugged into the fast-changing environment of discovery.

So if a location is to thrive and attract increasing volumes of FDI, be it a biopark or biotech cluster, it needs to offer far more than tax breaks and good coffee. It needs an environment that stimulates innovation.

**E&Y's Beyond Borders was published in June 2003 and updated in November last year. For information contact mhussmann@uk.ey.com*

SEEDS OF CONTENTION

Argentina alone grows 21% of the world's genetically modified (GM) crops. But with 200 million people living in poverty, Latin America has many mouths to feed. If GMs are the answer, are foreign firms well placed to capitalise? Report by MARIA VELEZ DE BERLINER

Latin America presents an untapped source of opportunities as GMA (GM agriculture) is in its infancy in the region, with the exception of Argentina, and opposed vehemently in some countries, such as Brazil and Mexico, where the need for it is greater.

The opportunities are enhanced by Brazil's President, Inácio "Lula" da Silva's 'Zero Fome' Programme. It promises to give every Brazilian three basic meals a day by 2007. If Lula is going to keep his promise, GMA is his best bet for success.

With this in mind, in late 2003 Lula introduced a Provisional Law to enable the planting of GM soybeans in Rio Grande do Sul, but only for the 2003-4 harvest. Despite this, the law still prohibits the broad use of transgenic seeds.

Regionally, investment opportunities exist in agriculture (including cattle raising, pork and poultry farms), fisheries, forestry, crop management and, most importantly, consumer education.

Furthermore, and with the exception of Venezuela, agricultural exports are a key component of every country's GDP. Agriculture led the 2003 recovery in Argentina, and it accounted for 29% of GDP in Brazil and for 27% of employment in 2002.

Through biotechnology, Chile (where forestry is a key export industry) will export the first genetically modified tree, the Radiata Pine, in about 2005. Radiata Pine accounts for 80% of Chile's forests.

In Brazil, Empresa Brasileira de Pesquisa Agropecuária (Embrapa) has developed 4,000 types of soy seeds in controlled laboratories. The new seeds could increase yields by 3% and by as much as 10% five years after their introduction.

In Argentina, biotechnology is rescuing the sunflower market from stagnation. Sunflower oil and seed exports from Argentina account for US$1 billion a year. Agemtia has been able to plant 30% more sunflowers thanks to BASF's "Clearsol" IMI molecules which make sunflowers immune to imazapir, a weed that destroys the plant.

Despite opposition to transgenic seeds and biotechnology agriculture in Brazil, the gene is already out of the bottle, so to speak, as attested by Lula's restriction relaxation. Transgenic seeds imported illegally from Argentina account for 8% of all soy production in Brazil, the second largest soy exporter in the world, followed by Argentina, where 90% of soy is produced by biotechnology methods for pest and weed control.

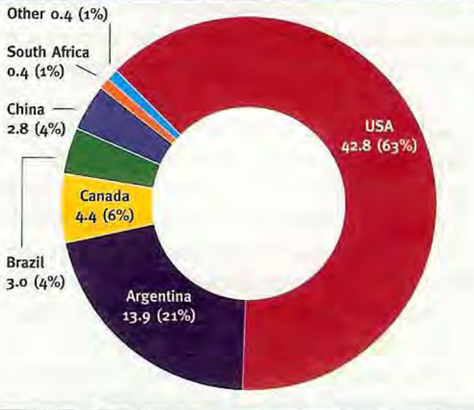
And bio-chips implanted in pork are producing lean pork whose exports enabled Brazil to compensate for a reduction in beef exports during the

Who grows GM food

The International Service for the Acquisition of Agri-biotech Applications, a not-for-profit organisation that promotes the use of GM, has recently published its Global Status of Commercialised Transgenic Crops for 2003.

- Last year the three most populous countries of Asia – China, India and Indonesia (total population 2.5 billion and a combined GDP of over US$1.5 trillion), the three major economies of Latin America – Argentina, Brazil and Mexico (population 300 million and a GDP of US$1.5 trillion) and the largest economy of Africa – South Africa (population 45 million and GDP of US$130 billion) are all officially growing GM crops.
- The top 10 GM countries, each of which grew 50,000 hectares or more of GM crops in 2003, had a combined population of approximately three billion, close to half the world's population, with a combined GDP of US$13 trillion, almost half of the global GDP of US$30 trillion.
- In 2003 GM crops were grown in 18 countries across six continents: Asia, Africa, Latin America, North America, Europe and Oceania. So despite the continuing controversy about GM crops, the hectarage and number of farmers growing GM crops have continued to grow at a double-digit rate or more every year since their introduction in 1996, with seven million farmers adopting the technology in 2003.

LEADING GM COUNTRIES BY CROP AREA, 2003



SOURCE: INTERNATIONAL SERVICE FOR THE ACQUISITION OF AGRI-BIOTECH APPLICATIONS

Note: GM crop area in millions of hectares. Percentages of global total aphtosa scare in Mercosur in 2001-2.

While soy and corn shipments from Brazil to the EU require certification to ascertain they are GM-free, China and some African countries are poised to benefit from the restrictions in Europe and in the US.

China has over one billion people to feed, and traditional agricultural methods are not sufficient to ensure adequate supplies. With no restrictions on GM products or foods, China is an ideal market for companies based in Brazil and Argentina. In late 2003, China relaxed restrictions on the import of GM crops from Brazil.

GM products and food are probably the best approach to solving Latin America's food production and distribution distortions. And GM crops are cheaper thanks to higher yields and less chemical use. But this progress comes at a price, as Lori Fisher, Senior Director of External Communications at Monsanto explains. "As long as Monsanto can continue to develop new products and be fairly compensated for our innovations, we believe Latin America will continue to be an important market for us."

The US, Argentina, Brazil, Canada, and Chile, the continent's most advanced GM producers, are in an enviable position to shape the GM debate by the influence they have on one another's agricultural and food industries.

Argentina and Brazil could easily lead the way as they are the countries in Latin America with the largest number of joint ventures in agriculture. Argentinean and Brazilian agribusinesses are taking their agricultural methods and technologies to Bolivia, Colombia, Mexico, Venezuela, Peru, Ecuador, and even into Europe and the US.

So if you are in this industry or any of its sectors, head to Latin America. You will find plenty of opportunities through agreements or joint ventures with testing and developing laboratories such as Embrapa, and major international players such as Cargill, Monsanto, DuPont, Votorantim Ventures, and FIR Capital Partners.

Maria Velez de Berliner is President of Latin Trade Solutions Inc in the USA.

CASE STUDY: United Kingdom

The UK biotechnology industry has been warned that it will have to compensate farmers who suffer losses from contamination by the spread of GM seeds. When Environment Secretary Margaret Beckett made a statement in the British Parliament in early March that herbicide-tolerant maize could be grown in Britain, she stressed neither the taxpayer nor non-GM farmers should pick up the bill for commercial damage to farmers who lost non-GM status. "Any such compensation scheme would need to be funded by the GM sector itself rather than by government or producers of non-GM crops," she said.

The British Government's decision to allow farmers to grow a strain of GM maize makes it only the second country in the European Union after Spain to permit large-scale cultivation of GM crops (10,000 hectares of GM foods are cultivated on the Iberian peninsula).

Yet within three weeks of the minister's announcement, Bayer CropScience, whose maize variety *Chardon LL* was the only strain to be given approval for widespread cultivation, announced they were pulling it off the market.

Bayer CropScience is a subsidiary of German-based Bayer AG. Bayer AG had annual sales of €5.8 billion (US$7.1 billion) last year, and employs a global workforce of about 19,000 in more than 120 countries.

"The time factor has killed this project," said Dr. Julian Little, Public and Government Affairs Manager for Bayer CropScience UK. "Five new, ill-defined regulatory hurdles have been introduced and time lines are open-ended. So it would be two or three years before we could bring this product to market, which makes it non viable," he tells Corporate Location.

The Chardon strain is already five years old, and close to the end of its shelf life. "We felt it was only honest to tell our farmers we won't be able to get this one to market," he says.

And with the government dragging its feet over initiating discussions over coexistence and contamination liability, Bayer lost patience. "The government decided the liability issue has to be solved before we can progress. But maize has no wild relatives, and at the time of our field trials there were almost no organic maize crops grown in the UK to be contaminated. So this issue is actually a red herring," he says.

Although Little admits the GM crop could contaminate traditional maize farms, he says contamination legislation usually refers to interference with organic varieties.

Compensation legislation usually includes a threshold to account for accidental wind or bird pollination. "The key issue is how to account for malicious contamination," he says. Adding with a note of frustration, "if the government is serious about introducing GM in the UK, we have to sort this out, but we have yet to even start talking to them about this."

Bayer CropScience insists that despite the setback, it will continue to develop plant biotechnologies in the UK as well as the rest of Europe. "We remain committed to the introduction of GM in the UK. No question whatsoever," Little says.

But will they be put off if the government penalises the industry too harshly? "It all depends on the outcome of discussions with the government. As an industry, any way of restricting a new technology with barriers to entry will have an impact on the commercialisation of GMs. But we'll look at the sums, and if they make sense, we'll move forward. But we won't if they don't".

SHARON RATHBONE

TOUGH SELL FOR A PRACTICAL SOLUTION

GM foods have been hailed as the cure to Africa's endemic famines, but as Jonathan Cobb, Deputy Editor, reports, the scientific arguments must be linked to economic development

African countries trying to capitalise on their potential agribusiness sectors through genetically modified crops are increasingly being caught in a political debate between two forces they have little influence on. On one side, US industry is aggressively pushing the technology as both a commercial boon and humanitarian life-saver. On the other side, the European Union, Africa's largest market for agricultural produce, threatens to ban food imports if they are no longer certifiably GM-free as required under current legislation.

The African experience with GM crops had a rocky start. Much of the original research, funded by a mix of corporate GM seed manufacturers and national governments, focused less on empirical evaluation of Africa's mostly subsistence-level farming needs than on commercial mass-market potential. "The research was inappropriate," says Aaron deGrassi of Sussex University's Institute of Development Studies. "Evaluation work was often superficial, and researchers found what they wanted".

David Mowbray of the International Institute of Tropical Agriculture, an Africa-wide agricultural research network, explains another flaw in the early research: "GM seeds are able to provide solutions for resource-poor farmers to problems unique to various eco-regional zones and farming systems in Africa – but they must be bred for the conditions and needs of African users".

African agricultural organisations are now placing more emphasis on meeting end-user farming needs and less on commercial opportunities, and there is progress developing country-specific GM variants of hardy staple crops such as banana, cow pea grain, white maize and cassava. Africa Harvest Biotech Foundation International CEO, Dr Florence Wambugu, a veteran Kenyan GM developer, makes the point: "GM technology alone cannot achieve an impact – it must come as part of bio-safety policy, and together with economic development".

Biotech in general is a clear winner for the continent. "African leaders are embracing biotechnology initiatives such as the new NEPAD Bio-science Centre of Excellence in Kenya," says Dr Wambugu, who also emphasises the criteria for success for GM applications: "Africa's support for GM technology must be seen in the right context, it must address the Africa-specific problems of hunger, malnutrition and poverty that we face. To achieve this success, African countries are putting in place appropriate bio-safety structures and developing human capacity that will drive the continent's GM agenda".

Those two criteria appear to hamper GM's applicability in present-day Africa. Says Arturo Martinez of the U.N. Food & Agriculture Organisation, "when it comes to GM, African countries most need capacity-building in risk assessment, to assess the risks and make an independent decision – biotechnology must go hand in hand with bio-safety".

> WHY ARE WE UNDER PRESSURE TO ACCEPT GM CROPS? WE CAN GROW ALL THE FOOD WE NEED. AFRICA'S PROBLEMS WITH FEEDING PEOPLE ARE CAUSED BY POLITICAL INSTABILITY, IRRIGATION AND DISTRIBUTION DIFFICULTIES. BUT NO ONE OFFERS TO HELP US SORT THOSE OUT – THEY'RE NOT MONEY-MAKING VENTURES
>
> PIERRE DAGBO, MANAGING DIRECTOR OF THE COTE D'IVOIRE INVESTMENT PROMOTION CENTRE

In the end-analysis, the root question for GM is not one of methodology, but rather of *raison d'être* – are capital-intensive, industrialised crops designed for mass consumer markets suitable for Africa's needs? Pierre Dagbo, Managing Director of the Cote d'Ivoire Investment Promotion Centre asks: "Why are we under pressure to accept GM crops? We can grow all the food we need. Africa's problems with feeding people are caused by political instability, irrigation and distribution difficulties. But no one offers to help us sort those out – they're not money-making ventures." And that is an African question for which there is still no answer.

WEIGHING THE OPTIONS

Do pharmaceutical companies coming into Asia Pacific still have to compromise either on cost or intellectual property rights? SHARON RATHBONE looks at the markets that offer the best overall package and tracks investment trends in the region.

Current pharmaceutical foreign investment in Asia falls primarily into two categories: establishing manufacturing bases and marketing existing brands. "China, Thailand and Malaysia attract the most investment," says Ames Gross, President of Pacific Bridge Inc, a consulting firm based in Washington DC dedicated to assisting medical companies in Asia.

With over 300 million people along the coast, and many getting wealthier, foreign drug firms see China as a potential buyer, not a manufacturing base. "Pharmaceutical foreign investment in China is mainly targeted at expanding brand presence in the market," says Bill Liang, Managing Director of China Healthcare Consulting, Inc.

CHC is a leading US healthcare consulting firm with offices in California and Beijing that helps small and medium sized pharmaceutical and medical device firms conduct international business development in China. "We have seen multinational pharmaceutical and chemical raw material companies invest in developing alliances with Chinese research institutions, buying under-utilised manufacturing facilities and merging or setting up joint ventures to develop distribution networks," he says.

Liang explains that foreign pharmaceutical companies have short and long term strategic goals in China. "The fundamental reason for their investment is to expand their reach in China, increase their global competitiveness and reduce costs."

Investors in healthcare are looking to access the huge human and patient resource in China, and have identified the country as a key, growing market. And China is competitive in the low-end pharmaceutical market. "Global foreign investment in China will concentrate mainly on two areas: manufacturing competitive active pharmaceutical ingredients (API) for the world market and expanding manufacturing and sales channels in China to increase sales volumes. We have not seen foreign investment in China for the manufacture of drugs for export to Western markets."

Liang fully expects the domestic market in China to continue to grow.

WHERE PROJECTS ARE GOING

COUNTRY	NUMBER OF PROJECTS
USA	24
China	23
Brazil	12
India	11
Spain	11
Singapore	11

SOURCE: OCO CONSULTING

Note: Based on 217 new and expansion pharmaceutical FDI projects announced from March 2003 to February 2004

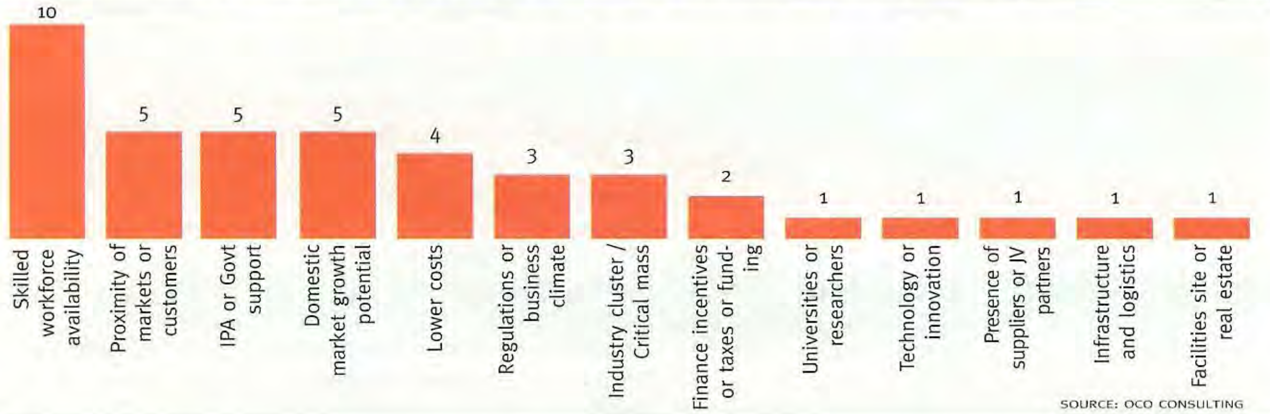
"That means that foreign drugs with a competitive edge will succeed," he says.

> PRODUCT SECRETS ARE NOT KEPT CONFIDENTIAL
> AMES GROSS, PACIFIC BRIDGE INC

He also expects to see domestic pharmaceutical giants start to export generic drugs to the West in the coming years as part of their global expansion.

Thailand and Malaysia on the other hand are seeing inflows of investment into drug manufacture. "Although they are more expensive

MOTIVES DRIVING INVESTMENT IN THE PHARMACEUTICALS SECTOR



SOURCE: OCO CONSULTING

Note: Ranking of motives is based on investor feedback on location decisions, where available, on 217 projects announced from March 2003 to February 2004

WHERE THE MONEY IS FROM

COUNTRY	NUMBER OF PROJECTS
USA	69
Germany	22
UK	18
Switzerland	17
Japan	16
India	16

SOURCE: OCO CONSULTING

Note: Based on 217 new and expansion pharmaceutical FDI projects announced from March 2003 to February 2004

than China, the difference is not that great and intellectual property issues are less acute," says Gross.

IP issues are the most pressing obstacles to pharmaceutical investment in Asia. "Product secrets are not kept confidential," complains Gross. He says some markets have improved on this front, with governments introducing new legislation, but enforcement is still a concern. "India is a good example of this," said Gross. He is convinced that better IP protection will make India, China and Indonesia more attractive to investors.

Liang of China Healthcare Consulting says IP is starting to be addressed in China. "For example, the new drug registration policy requires the submission of an IP non-infringement claim before the Chinese FDA will consider reviewing the applica-

CASE STUDY: FRANCE

Intervet Pharma R&D set up a research facility in Angers, France four years ago as a subsidiary of Intervet International b.v, a business unit of the Dutch conglomerate Akzo Nobel.

Intervet develops, manufactures and sells animal health products (both vaccines and pharmaceuticals). With annual sales of US$1.1 billion, it ranks third in the world. So what made them choose this location in France?

"The other locations we considered included the Netherlands, where this activity was conducted on a smaller scale, but the size of our investment was too large for the site available," said Daniel Aguer, President of Intervet Pharma R&D. "Ireland was also considered but in the end we chose France as it is the leading European market for animal health products and the fourth in the world," he says.

"Angers is also perfectly situated. It is a city known for its quality of life, but also its university and a diversity of R&D activities in biology and medicine." The universities of Nantes, Rennes Tours and Le Mans are all within a 100km radius of the site.

Their next investment, he says, will extend the pilot plant facility. "This is a must for us to be able to produce prototypes of our new medicines in conditions comparable to that of a manufacturing site but at very limited volumes," he says.

The company has embedded their activities in the local economy – they have agreements to receive trainees from several University departments and they have R&D contacts with a number of laboratories.

So how pleased are they with their decision to invest here? Aguer says the logistical help they received from the regional investment promotion agency, Ouest Atlantique, was essential. "Particularly in relation to national and local authorities in Angers City and Maine et Loire Department. They were very supportive in building dossiers to facilitate administrative procedures. Ouest Atlantique also helped us to identify financial facilities made available to companies like ours that create employment locally."

TOP JOB CREATING PROJECTS IN THE PHARMACEUTICALS SECTOR

Parent Company	Origin Country	Location Country	Jobs created	Investment US$m	Product	Activity	Key business function	Type
Johnson & Johnson	USA	Netherlands	750	240	Immunology & Vaccines	Monoclonal anti-bodies	Manufacturing	New
Boehringer Ingelheim	Germany	USA	700	500	Cardiovascular	Labs to support R&D in the immunology, inflammatory and cardiovascular areas as well as support functions for medical and admin organisations	R&D	Exp
Amgen	USA	Puerto Rico	600	800	Cardiovascular	Drugs to boost red and white blood cell production	Manufacturing	Exp
Roche Group	Switzerland	USA	600	135	Clinical Research	Expansion of HQ	HQ	Exp
Merck & Co	USA	Singapore	400	500	Central Nervous System	Ingredients for analgesics and antiarthritics – 2nd facility	Manufacturing	New

SOURCE: OCO CONSULTING

Note: Rankings are defined by number of jobs created / US$ value of investment, as available, on 217 projects announced from March 2003 to February 2004

CASE STUDY: IRAQ

Once famed for its Western-trained doctors and well-equipped, well-run hospitals, Iraq also had a moderate pharmaceutical manufacturing capability. Now after a generation of war and international isolation, the factories may or may not still be there, the doctors have long fled, and the hospitals have been looted.

With a population of 26 million, Iraq is the largest healthcare market in the Middle East, and the need for hospital equipment, pharmaceuticals and prosthetics is obvious and growing – there are an estimated 450-500,000 potential patients for prosthetics alone, a figure that will only increase as the ongoing guerrilla fighting, the minefields along the country's borders and other discarded munitions continue to take their grisly toll.

At the moment, much of the country's needs are being met by smuggling. Ongoing guerrilla warfare and widespread gang activity make moving goods through the country a dangerous enterprise except in armed convoys. Iraqi pharmaceutical traders must travel abroad to make purchases as suppliers simply refuse to run the gauntlet of Iraq's desert highways. "In the short term, the Iraqi Governing Council is trying to re-establish control of the market and provide the country with medical and pharmaceutical supplies, but in the longer term the free market economy will develop", says Dr Munther Salameh, a private consultant for the pharmaceutical industry focusing on the Middle East and North Africa.

Although they refuse to touch it just yet, the major pharmaceutical players are keenly eyeing the market. "Nothing is happening at the moment because of security issues, but there are plenty of plans", says Saimand Banaa, London representative of the Kurdish Regional Government.

"Iraq has great potential, and in principle, when things are more settled we would look very seriously at the country", says Louise Sibley, Head of GlaxoSmithKline's International Corporate Communications unit. She went on to note that "The potential of the country is undeniable, but for the time being, even sending a sales team is out of the question, never mind the prospect of establishing a permanent manufacturing presence in the country".

GSK continued to supply the Iraqi market under the UN's food-for-oil programme. Post-Saddam, GSK's Dubai office now sells directly to the Iraqi Governing Council.

The key to progress is a stop to the violence – whenever that may be. "No one can predict what will happen", says Dr Salameh. "At the moment, all possibilities are on the table". Iraq's new constitution may not be the answer to everyone's prayers, but it sets the framework from within which the new Iraq will emerge – a Western-style, democratic free-market economy.

In Saddam days, pharmaceutical companies could only deal with the government import monopoly Kimedia. Now they will be free to forge their own deals with Iraqi distributors, and eventually build their own local sales, marketing and manufacturing presence in the market.

Nor is there a shortage of capital for potential ventures. "Once things settle, the Iraqi market will be good – there is a huge pool of potential investors, both at home and abroad", says Dr Salameh.

JONATHAN COBB

tion." But Gross insists there is still a way to go.

IP is also an issue, although a less pressing one, in most other Asian markets with the exception of Singapore and Japan, where IP protection is, says Gross, "very good".

RANKING BY SIZE

At over US$50 billion Japan boasts the largest pharmaceutical sector in the region. China ranks second, at over US$20 billion and growing. Korea ranks a distant third. In all, Asia currently represents about 25% of the world's drug market.

"I think the Asian market will grow slightly while drug investment in Europe should fall slightly and the US market will remain flat," Gross predicts.

He believes the sector will grow in Asia because the middle classes are on the increase and more people can afford Western drugs. "This trend will continue as Asia continues to be the growth area of the world," he said.

Adding: "For drugs that are not produced locally it may be easier to get them in, but regulatory climates are getting tougher."

The main trend in the market is similar to elsewhere: it is getting harder to get reimbursements and in general reimbursements are falling, particularly since the governments cannot afford the rising healthcare costs.

The charts for the cover story were supplied by Belfast-based OCO Consulting through their subscription-based FDI tracking service, LOCOmonitor. Only new greenfield and expansion FDI projects are included. Mergers and acquisitions, privatisation and alliances are not included. Joint ventures are only included when they lead to a new physical operation. The data for LOCOmonitor is based on in-depth research allowing the firm to access thousands of public information sources in multiple languages on a daily basis. The information is checked systematically with IPA and company websites where further details of the FDI projects are sourced.

For further details on the charts contact Dr. Henry Loewendahl **henry.loewendahl@ococonsulting.com** or Ms. Carmel Ferris **carmel.ferris@ococonsulting.com**

OCO CONSULTING


RAIFFEISEN BANK.*
FOCUSED ON
YOUR NEEDS IN
CENTRAL AND
EASTERN EUROPE.
www.rzb.at, www.rzbgroup.com
*) Subsidiaries of RZB-Austria (Raiffeisen Zentralbank) incl. Tatra banka in Slovakia,
Priorbank in Belarus and Banka e Kursimeve e Shqipërisë in Albania.
RZB
Group

Judah Passow/Network

CEO GUIDE

The New Europe

→ No new stars will be added to the flag. No major events are even planned to mark the occasion. But on May 1st, when 10 new nations join the European Union, eight of whom were former communist countries, the battles and horrors of two generations will be consigned permanently to the archives of history. In its place will be a continent joined together in an unrivalled opportunity for business to create the world's most diverse and prosperous single market.

THE BUSINESS OF ENLARGEMENT

Never before has the European Union taken in so many countries in on go, nor has the economic gap between member states and new comers been so stark. DR. HEATHER GRABBE and KATRINKA BARYSCH give an overview of the challenges facing business in the New Europe as well as explain the implications of further expansion.

Ten new members will join the European Union on May 1 2004, eight of which are formerly Communist countries from Central and Eastern Europe. This 'reunification' of Europe will be a political triumph. But in economic terms, enlargement is already a reality. The process of EU accession has guided economic reforms in the candidate countries for more than a decade. The EU has set tough accession criteria relating to macro-economic stability, market liberalisation, industrial restructuring and competitiveness.

Economic reforms have progressed at break-neck speed in the accession countries. The process of privatisation and economic restructuring is virtually complete. A free market business environment has taken hold: regulation is stable (and in 99% of cases is up to EU standards), taxes tend to be low and newly established trust-busters watch over competition rules. Scores of nimble new enterprises have sprung up, creating millions of jobs.

Some 70-80% of the accession countries' GDP is now produced in the private sector – the same share as in the current EU member states. Trade barriers were dismantled early on, unleashing an almost unprecedented export boom. Exports from countries such as the Czech Republic, Hungary and Poland have grown by a staggering 300% since 1993. This has helped to sustain average growth rates of 4% a year or more, allowing Central and Eastern Europe to outperform most other economic regions of the world.

Foreign investors have piled into these exciting new markets, with net inflows of long-term foreign direct investment (FDI) tripling from less than US$8 billion in 1996 to more than US$15.5 billion in 2003 (See Figure on Page 32). Portfolio inflows have also increased, encouraged by the investment-grade ratings now enjoyed by all EU front runners.

Foreign investors have long made a clear distinction between the accession countries and emerging market regions in Latin America and Asia. All accession countries boast low inflation, stable economies, open and democratic political systems, very low debt levels and a highly diversified exports base. Most East European countries started the process of economic transformation with an advanced degree of industrial development and a highly qualified workforce.

They have since upgraded both their industrial specialisation and their skills base. Nevertheless, wage costs have remained low, at perhaps one-fifth of the West European level. Helped by rapid market opening and massive inflows of FDI, the accession countries quickly became an integral part of an increasingly interwoven

CYPRUS

What you need to know

Total Area	9,250 km²
Population '03 (est)	802,500
Unemployment	3.1%
Per Capita GDP '03	US$17,720
Avg. Monthly Salary	US$1,575
GDP Annual Growth '03	2%
Total FDI to date	US$576.3 million
Y/y Inflation, '03	4.1%
Int'l Trade Balance, '03	US$-3.069 billion
Agency Ratings:	S&P A, Fitch A+, Moody's A2

SOURCES: CIA WORLD FACTBOOK, UK TRADE & INVESTMENT, STATISTICAL SERVICE, CYPRUS, CENTRAL BANK OF CYPRUS, CREDIT SUISSE

INTRODUCTION

Cyprus has done relatively well economically despite its political division and dependence on tourist arrivals. A large portion of the island's foreign trade is generated by legally registered International Business Companies with no presence there – only 1,093 are physically present from a total of over 15,000 foreign company registrations which generated US$824.1 million in forex earnings for Cyprus in 2003.

KEY INVESTMENT SECTORS, 2002 (US$ MILLION)

Services	43.90
Trading	31.00
Tourism	2.13
Manufacturing	1.40
Banking & Insurance	0.70
Other	4.80

SOURCE: CENTRAL BANK OF CYPRUS

TOP FOREIGN INVESTORS, 2003 (US$ MILLION)

Kaya Holdings, Turkey	hotels & tourism	45
Starbucks, USA	hotels & tourism	N/A
Obermeyer Planen & Beraten, Germany	business services	N/A
National Bank of Greece	financial services	N/A
Microsoft, USA	IT & software	N/A
Goody's, Greece	hotels & tourism	N/A
GFI, Malta	IT & software	N/A
Bank of Beirut	financial services	N/A

KEY INVESTMENT PLUS POINTS

- Strategically located at the crossroads of three continents
- Efficient tax, legal and banking services
- Good infrastructure and education standards
- Well-established service sector for international business

INVESTMENT INCENTIVES

- Favourable tax regime, including 10% corporate tax rate
- M&A, joint venture feasibility study grants
- Extensive grants and subsidy scheme for SMEs and manufacturing sector

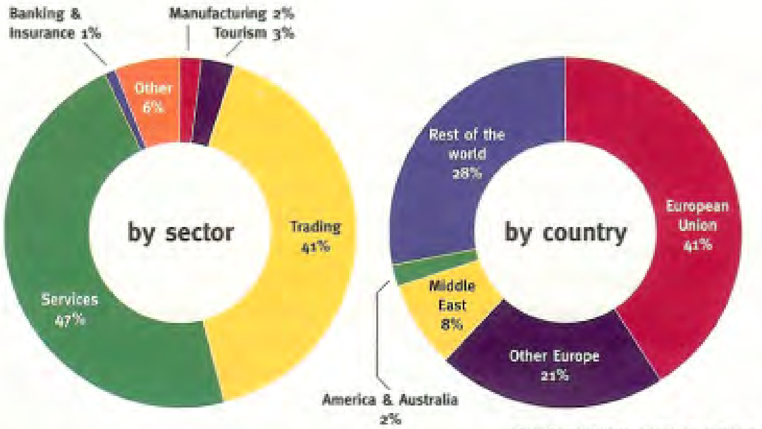
FDI TRENDS 1993-2002 (US$ MILLION)

SOURCE: CENTRAL BANK OF CYPRUS

OBSTACLES TO INVESTMENT

- Restrictions on property purchases
- Small local market
- Salaries well above other New European levels

INWARD FDI, 2003



SOURCE: CENTRAL BANK OF CYPRUS

European economy. Today, most of the accession countries send 70% of their exports to the EU and they take a similar share of their imports from there.

Nevertheless, accession to the EU will bring further exciting opportunities for local and foreign businesses. Only by joining the single European market – which guarantees the free movement of goods, services, capital and people across the enlarged Europe – will the East European countries fully reap the benefit of economic integration. Firms based in Hungary, Poland and elsewhere will get unencumbered access to the largest economic area in the Western world, with almost half a billion consumers and a combined GDP of around US$10 trillion.

Competition will become much fiercer in the new member states. This may drive some smokestack factories into bankruptcy. But it will also accelerate the upgrading towards higher-value added manufacturing and skill-intensive services. High productivity growth will support the ongoing catch-up in incomes and provide consumer goods companies with guaranteed bottom-line growth.

As a result, accession could add another two percentage points to already high GDP growth in the region, according to some studies. Economists also expect inflows of FDI to remain high, with the larger countries receiving US$4-8 billion a year each over the next half decade.

Adoption of the single currency, the Euro, will be another step forwards in economic integration. The evidence from the Euro's first four years suggests that it really was what was needed to complete the single market. Trade and investment between the countries in the Eurozone has picked up significantly. However, the Central and East European countries need to plan their way into Euroland very carefully. There might be an option value of waiting to avoid exchange rate misalignments, volatility and a stifling of catch-up growth. Meanwhile, the new members will be an integral part of the EU's ambitious Lisbon reform process.

FDI Calculator

Facts and figures can tell a tale, but it is the underlying reasons that count. As Corporate Location compiled the FDI fact sheets for each of the 10 accession countries, we talked to a variety of contacts in the business communities and governments to get a grasp of the compelling reasons for investing, or in some cases not, in one of those countries.

KEY FDI ADVANTAGES

- Good access to regional and national markets
- Well-educated, low-cost labour force
- Solid transport infrastructure and utilities
- Good private legal and financial services

KEY FDI OBSTACLES

- Cumbersome bureaucratic processes
- Burdensome taxation, legal or customs processes
- Rising cost of land
- Corruption

KNOWLEDGE-BASED ECONOMY?

The EU may not achieve its stated goal of becoming the world's "most competitive, knowledge-based economy by 2010". But it will certainly make sure that the new members continue to upgrade their infrastructure, reform their labour markets, improve their skill bases, support their small enterprises and open their utilities markets. Meanwhile, some in Eastern Europe worry that their fast-growing markets could be strangled by EU red tape.

That, however, looks unlikely. First, EU rules are not as onerous as many people believe. A country such as Ireland has managed to maintain phenomenal growth rates despite (or rather because of) being a member of the EU. Most EU rules are to the candidate countries' advantage, for example the product standards and trade rules that guarantee them access to the single EU market. And for those EU rules that require major investment outlays, for example in the area of environmental protection, the candidates have negotiated lengthy transition periods.

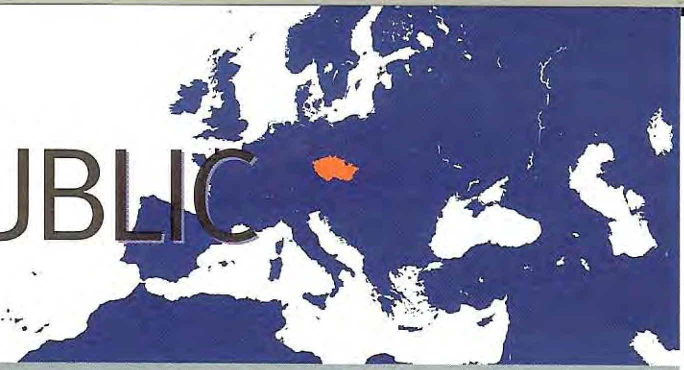
The impact of EU integration will vary from sector to sector. In some areas, for example cars, market opening and improving business environments have already led to a deep and very profitable integration into European supply chains. East European banking sectors are already firmly in the hands of West European financial institutions. But there are multiple further opportunities in both manufacturing (electronics and food processing are booming) and services.

The current enlargement round differs from previous ones in several important respects. Never before has the EU taken in so many countries in one go. And never before has the income gap between the established member-states and the newcomers been so stark. Some people are therefore pessimistic about the impact of enlargement. They fear that the big-bang accession of so many members will overwhelm the EU's creaking policy-making machinery.

At a time when economic reform in Europe is a top priority, this would not bode well for future economic growth on the continent. However, although we discuss the implications for EU decision-making later on, the EU is likely to eventually live up to this challenge. At the time of writing, the EU Convention – a large assembly of EU parliamentarians, politicians and representatives of civil society – is working on a draft EU constitution, which among other things will help to simplify decision-making and prepare the EU to grow from a membership of 15 to one of 25. As we also argue below, there are good reasons to believe that the new member-states will actually be a driving force for accelerated reform under the EU's Lisbon reform process.

EXPLOITING ECONOMIES OF SCALE

Nor is the big income gap between East and West an insurmountable problem. From an economic point of



CZECH REPUBLIC
What you need to know

Total Area	78,864 km²
Population	10.4 million
Unemployment '03	10%
Per Capita GDP '03 (est)	US$12,930
Avg. Monthly Salary	US$408
GDP Annual Growth '02 (est)	3.7%
Total FDI to date	US$37 billion
Y/y Inflation, '02	1.8%
Int'l Trade Balance, '03	US$–2.53 billion
Agency Ratings:	S&P A-, Fitch A-, Moody's Baa1

SOURCES: CZECHINVEST, TRADE PARTNERS UK

INTRODUCTION

Following its 'velvet divorce' from Slovakia in 1993, the Czech Republic has become one of the most prosperous of the former Warsaw Pact states, despite a hard time during the recession of 1999. The country has made steady progress in privatisation and in adapting to a free market economy, and is now heavily dependent on exports to Europe.

KEY INVESTMENT SECTORS, 2002 (US$ MILLION)

Transport & Communications	4,549
Financial Services	1,584
Machinery/Equipment	642
Real Estate	546
Hotels & Restaurants	439

SOURCE: CZECHINVEST

TOP FOREIGN INVESTORS, 2003 (US$ MILLION)

DHL, UK	IT	183.74
Continental AG, Germany	rubber	77.50
Brose, Germany	automotive	42.96
Toyoda Gosei, Japan	automotive	39.66
Daikin, Japan	electronics	33.00

SOURCE: CZECHINVEST

KEY INVESTMENT PLUS POINTS

- Central access to the markets of West & Central Europe
- Well-educated, low-cost labour force
- Many greenfield and brownfield sites available
- Good infrastructure links to Western Europe

INVESTMENT INCENTIVES

- Incentives cover manufacturing, R&D and strategic areas
- 10-year investment subsidies of up to 50%
- Employee training subsidies

SOURCE: TRADE PARTNERS UK

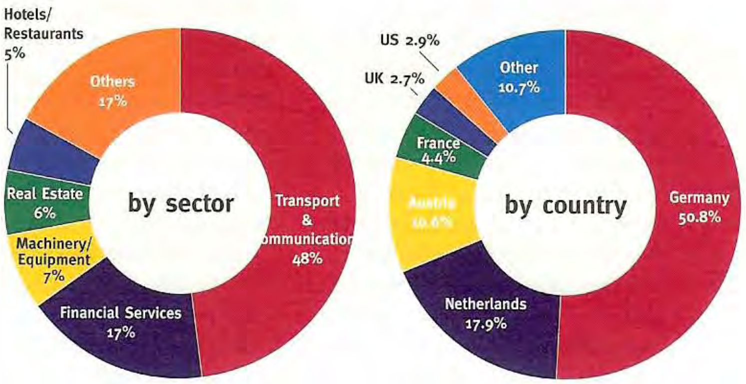
FDI TRENDS, 1993 – 2002 (US$ MILLION)

SOURCE: CZECHINVEST

OBSTACLES TO INVESTMENT

- Cumbersome legal system needs reform
- Lack of transparency can hamper business

INWARD FDI, 2002



SOURCE: CZECHINVEST

CZECHINVEST'S 2002 FDI SURVEY RESPONDENTS SAY:

90% report that profitability equals or exceeds other subsidiaries' in other countries
75% want to increase production capacity in 2003 by up to 25%
52% will increase the number of employees
Average fixed capital expenditure: US$15.2 million
40 % expect a further increase in export share in 2003
Average number of jobs created: 200

view, it is a blessing. Economic theory says that integrating two economic areas is good. It brings about a more efficient division of labour, increases competition and allows companies to exploit economies of scale. If the two economic areas that are integrated are very different – in terms of income levels, factor endowments, etc – even better: the gains for both sides will be greater. The EU will make a certain amount of money available to help the East European countries catch up. The sums, however, will be dwarfed by inflows of private investment. The East Europeans have long understood the lesson behind this: investment-friendly policies are the top priority, jostling for hand-outs comes a distant second.

The current enlargement round is unprecedented in another respect. At the time of the Mediterranean accessions (Greece joined the Union in 1981, Spain and Portugal in 1986), the EU was little more than a customs union. By the time of the next enlargement (Sweden, Finland and Austria acceded in 1995), the EU was well on the way towards creating a single market for goods, services, capital and workers. It had also started preparing for the introduction of a single currency.

Now that the East Europeans are on the verge of joining, both the single market and the Euro are a reality. For the East European accession countries, the hurdles of entry were therefore much higher. They have overcome them masterfully. And while the East Europeans were still putting the finishing touches to their accession bids, the EU continued to move forward. It has certainly kept its applicants on their toes.

For sure, some East European countries have tried foot-dragging, cheating and backsliding along the way. But the EU insisted that they take over almost all 80,000 pages of rules and regulations that make up the whole body of EU legislation (the *acquis*). For the purpose of negotiations, the EU split the *acquis* into 30 chapters (plus one chapter for unfinished business). Soon, the candidate countries were scrambling for top position in the accession talks, trying to 'close' as many chapters as possible. This fierce competition was at least as effective in driving accession preparations forward as the Commission's wagging finger.

→ History & timetable of European enlargement

1957 European Community set up by Belgium, France, Germany, Italy, Luxemburg, Netherlands
1973 Denmark, Ireland and the United Kingdom join
1981 Greece joins
1986 Portugal and Spain joins
FROM 1991 EU signs Europe Agreements with the East Europeans that foresee wide ranging co-operation and gradual dismantling of trade barriers
1993 EU leaders officially accept East Europeans as candidates; set conditions for entry
1995 Austria, Finland and Sweden join
1997 EU's first comprehensive assessment of economics and politics in the candidate countries
1998 The Czech Republic, Estonia, Hungary, Poland and Slovenia start accession talks
2001 Bulgaria, Latvia, Lithuania, Romania start accession talks
DECEMBER 2002 Close of negotiations at the Copenhagen European Council
APRIL 2003 Signature of the accession treaty
MAY-DECEMBER 2003 Ratification of the accession treaty by 15 EU parliaments and the European Parliament, and by the 10 candidates' parliaments following national referenda.
1 MAY 2004 ACCESSION of ten candidate countries
2006 Some of the new members may adopt the Euro
2007 Some of the new members may join the Schengen area of passport-free travel
2007 Target-date of Bulgaria and Romania for accession

While economic integration has continued apace, the EU has worked hard to add a more substantive political dimension to its club rules. It has set up a Common Foreign and Security Policy (CFSP) and it has resolved to integrate some of its defence forces so that it can react better to international challenges such as terrorism. Furthermore, internal security is now high on the European agenda. Under the Schengen agreement, almost all EU members have dismantled border controls and passport checks between themselves.

European travellers love the ease with which they can move around the continent. But so do criminals and other unsavoury elements. The EU is working hard to find common solutions to such problems as securing the EU's external border (soon to shift eastwards to such countries as Belarus and Ukraine) and enhancing cooperation among national police forces and prosecutors in the fight against drug smuggling, human trafficking or terrorism.

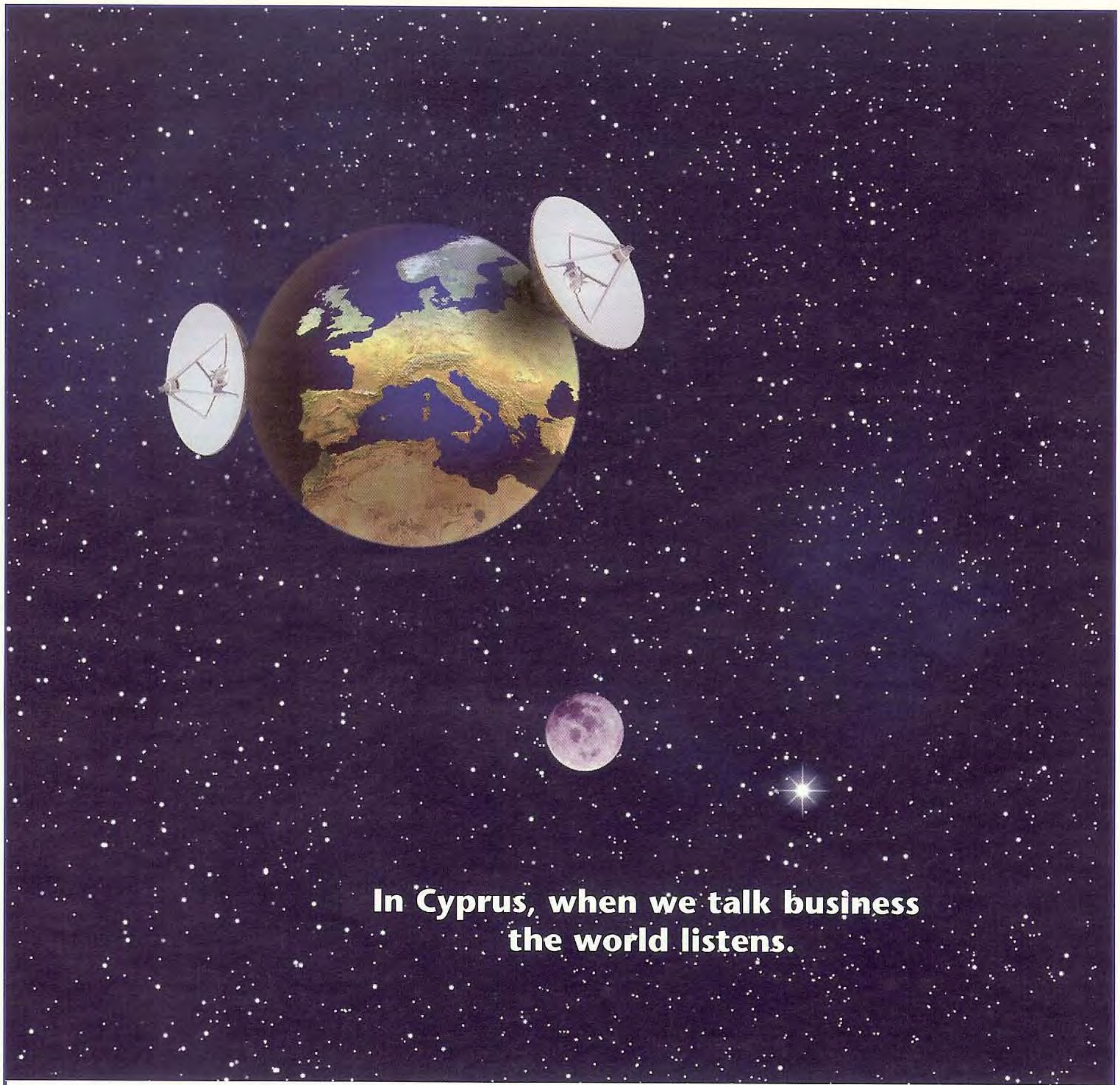
FUTURE ENLARGEMENT

The EU is very likely to enlarge again after 2004, but the precise timing of further accessions is still uncertain. After absorbing 10 new countries, the EU will undergo a period of digestion while it sorts out how to deal with adding two-thirds more countries to its institutions and evaluates the impact of the enlargement. During this digestion period, the remaining applicants for EU membership will find it difficult to persuade the EU to let them in one by one. Much more likely is for groups of countries to join the EU, as has happened in the last few enlargements. At the Copenhagen European Council in December 2002, the EU's leaders agreed that they will aim to welcome Bulgaria and Romania in 2007.

This statement was a significant commitment from the EU to enlarging again after 2004, but it is likely to happen after 2007, because Bulgaria and Romania will struggle to meet the EU's requirements by that date. That date is an ambition rather than a promise from the Union to enlarge again quickly after the first eastern candidates join.

Croatia applied for membership in

Continues on page 32



For the international businessman having the facility to readily communicate with all other global markets is the difference between success and failure. That's why, in Cyprus, we have invested in one of the most advanced telephone and communications systems in the world which enables you to reach 98% of all the world's telephones 24 hours a day, seven days a week, 52 weeks a year.

The island is also served by 38 scheduled airlines and every conceivable service, facility and business support - from specialised legal advice to international banking and accountancy to language skills to land, sea and air transportation facilities - is readily available.

Furthermore, culturally and geographically, Cyprus is perfectly positioned to form a launch platform for trade with the Middle East, Africa, Asia and the Far East. Which means that whatever your business , we have the means to help you do more of it. So, when you are ready to talk business, talk to Cyprus. We guarantee you it will not fall on deaf ears. For further information please contact:

THE MINISTRY OF COMMERCE, INDUSTRY AND TOURISM

1421 NICOSIA, CYPRUS. FAX:00357-22375120 www.cyprus-prof-serve.com

CYPRUS

ESTONIA

What you need to know

Total Area	45,227 km²
Population	1.35 million
Unemployment '03	10%
Per Capita GDP '03	US$4,692
Avg. Monthly Salary	US$468
GDP Annual Growth '03	4.7%
Total FDI to date (as of 12/03)	US$5.8 billion
Y/y Inflation, '03	1.3%
Int'l Trade Balance, '02	US$–1.967 billion
Agency Ratings:	S&P A1, Fitch A–, Moody's A1

SOURCE: ENTERPRISE ESTONIA

INTRODUCTION

Estonia, one of New Europe's most advanced emerging markets, has built itself an enviable basis for sustainable economic growth thanks to effective economic control and a liberal foreign trade regime. As a result, Estonia has advanced fast by stabilising and restructuring the economy, which has allowed it to attract high levels of foreign direct investment.

KEY INVESTMENT SECTORS, 2003 (US$ MILLION)

Financial Intermediation	118
Manufacturing	144
Real Estate, Renting and Business Activities	127
Wholesale, Retail Trade	325

SOURCE: BANK OF ESTONIA

TOP FOREIGN INVESTORS, 2003 (US$ MILLION)

Galvex, USA	galvanised steel	208
Larvic Sell, Norway	wood pulp facility	138
Stora Enso, FIN/SWE	wood industry	113
Swedbank, SWE	banking	78
International Water UU, USA/UK	water company	73

SOURCE: BANK OF ESTONIA

KEY INVESTMENT PLUS POINTS

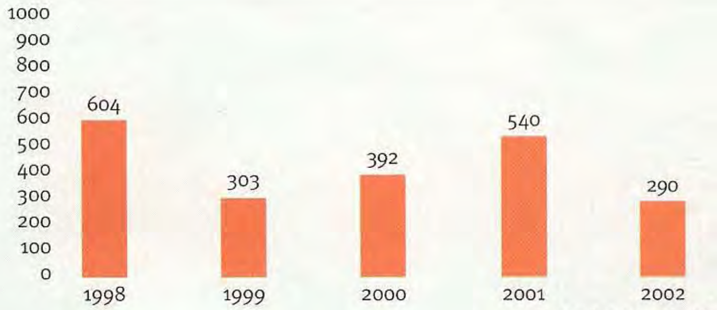
- Access to Baltic markets (90 million consumers)
- Highly skilled, low-cost labour force
- Solid base of established foreign investors
- Integrated into the world economy
- Stable, liberal business environment

INVESTMENT INCENTIVES

- Low tax rates (including 0% tax on reinvested earnings and 26% income tax flat rate)
- Equal treatment for foreign & local investors
- Open, efficient banking and legal systems
- No corporate tax
- Foreigners can buy land both Title and Deed

SOURCE: ENTERPRISE ESTONIA, BRITISH EMBASSY TALLINN

FDI TRENDS, 1998 – 2002 (US$ MILLION)

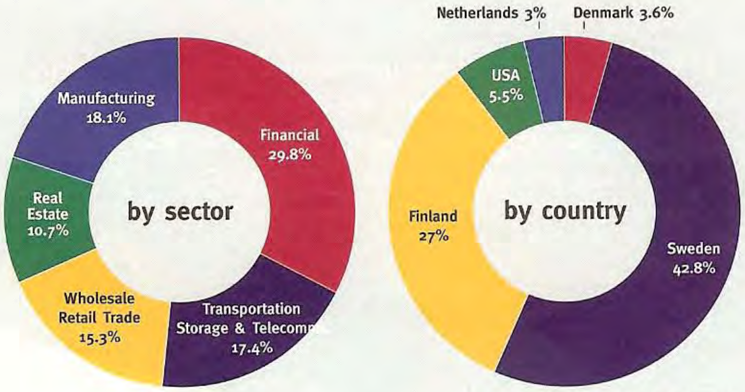


SOURCE: BANK OF ESTONIA

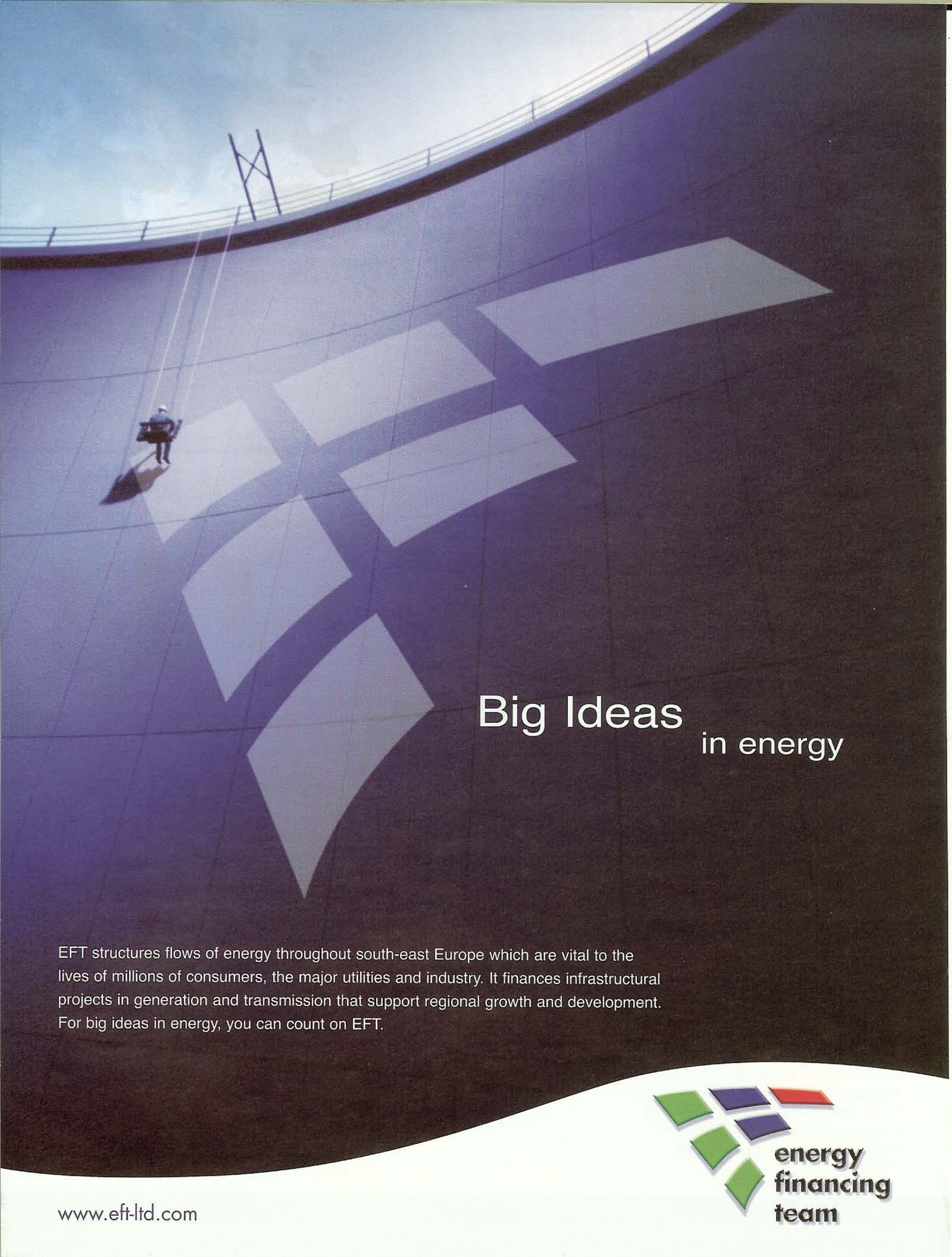
OBSTACLES TO INVESTMENT

- Time-consuming bureaucracy
- Tendency to over-promise & under-deliver
- Volume of applications slowing investment processes
- Increased awareness of value of market potential raising prices

INWARD FDI, 2002



SOURCE: BANK OF ESTONIA


Big Ideas
in energy
EFT structures flows of energy throughout south-east Europe which are vital to the lives of millions of consumers, the major utilities and industry. It finances infrastructural projects in generation and transmission that support regional growth and development. For big ideas in energy, you can count on EFT.
energy financing team
www.eft-ltd.com

HUNGARY

What you need to know

Total Area	93,030 km²
Population '03 (est)	10.15 million
Unemployment '03	6.7%
Per Capita GDP '02	US$6,063
Avg. Monthly Salary	US$329
GDP Annual Growth '03	2.8%
Total FDI to date	US$27.9 billion
Y/y Inflation, '02	5.3%
Int'l Trade Balance, '02	US$-5.086 billion
Agency Ratings:	S&P A3, Fitch A3, Moody's A1

SOURCE: HUNGARIAN INVESTMENT & TRADE DEVELOPMENT AGENCY (ITD), UK TRADE & INVESTMENT, GEOGRAPHYIQ, US DEPARTMENT OF COMMERCE, SCOTIA BANK

INTRODUCTION

Hungary was one of the first Warsaw Pact states to embrace economic liberalisation and has witnessed impressive foreign investment-led growth, which most forecasters predict will continue. But increased competition from neighbours means that FDI is moving from low-cost manufacturing to higher technology value-added activities.

INVESTMENT INCENTIVES

- Extensive tax rebates & grants for investors
- Tax allowances for R&D & other business areas
- Tax allowances & EU funding for staff re-training
- Grants for certain activities
- Local authority tax rebates

SOURCE: ITD

FDI TRENDS, 1993 – 2002 (US$ MILLION)

SOURCE: ITD

KEY INVESTMENT SECTORS, 2002 (US$ MILLION)

Manufacturing	615.0
Real estate	248.4
Wholesale and retail trade, repair of motor vehicles, personal household goods	115.9
Purchase of real estate by foreigners	79.5
Financial intermediation	45.4
Other services	114.5

SOURCE: ITD

OBSTACLES TO INVESTMENT

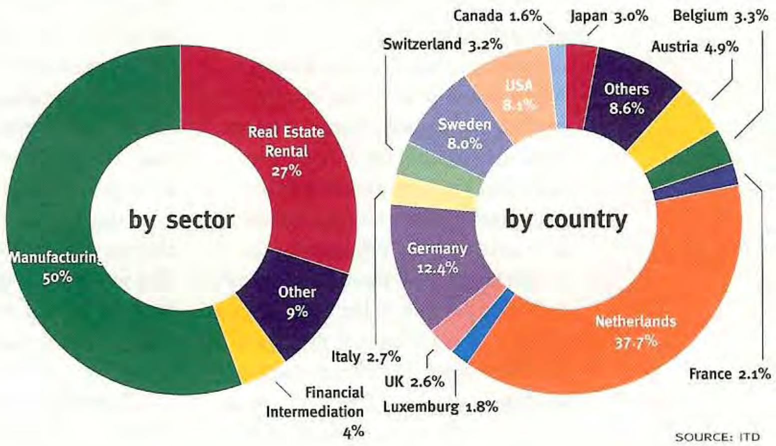
- Bureaucratic obstructions often cause delays; 'one-stop shop' planned but not established
- Civil code-based legal system can be problematic without adequate guidance
- Infrastructure still weak, internet penetration low
- Labour costs are increasing

TOP FOREIGN INVESTORS, CUMULATIVE 2003

Deutsche Telekom AG, Germany	Telecom	N/A
Audi AG, Germany	Automotive	
General Electric, USA	Manufacturing	N/A
Telenor ASA, Norway	Telecom	N/A
RWE AG, Germany	Utility	N/A

SOURCE: ITD

INWARD FDI, 2002



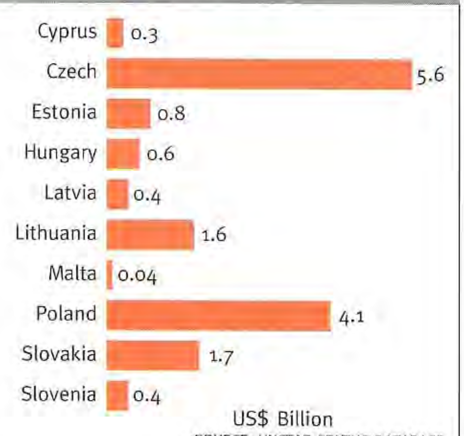
SOURCE: ITD

KEY INVESTMENT PLUS POINTS

- Well-developed financial systems
- OECD's 2nd lowest corporate tax rate (16%)
- Good access to 100 million consumers
- Good potential for higher valued-added industries

February 2003, and the European Commission is now preparing an 'opinion' setting out its assessment of whether the country is ready to begin negotiations. The Commission is likely to conclude that Croatia should begin negotiations soon after the 2004 enlargement, and that will complicate the timetable for Bulgaria and Romania. Croatia's economy and public administration are in a good

FDI INFLOWS TO THE ACCESSION COUNTRIES, 2003



SOURCE: UNCTAD FDI/TNC DATABASE

condition for starting EU accession preparations. If all goes smoothly, Croatia might complete negotiations shortly after Romania does, in which case the EU would try to take in all three countries together. The loser from this scenario is Bulgaria, which will most probably have to wait for Croatia and Romania because the EU is unlikely to undertake a new round of ratifications for just one candidate.

Bulgaria has managed to close significantly more 'chapters' in its EU negotiations than Romania has, and would like to enter earlier. However, opening and closing chapters does not mean very much if the EU's member states and the Commission remain unconvinced that a country can live up to its promises and obligations as a member state. This means not just the economic conditions, but also capacity to implement and enforce the *acquis communautaire*. EU officials want to see more evidence of Bulgaria's capacity to apply EU laws effectively and to deal with problems of corruption before they will conclude negotiations. Croatia and other countries that apply in future will find themselves in the same predicament: they can catch up in negotiations, but they will not be able to join faster if they lack the institutional capacity to enforce EU laws and regulations effectively.

THE TURKISH ISSUE

Turkey would also like to join the EU. But it has not started accession negotiations, and the EU is still citing concerns about democracy and human rights in the country. Turkey has made good progress recently towards meeting the political conditions set by the EU for starting negotiations. In the summer of 2002 the Turkish parliament, amid much controversy, abolished the death penalty in peacetime, extended cultural rights to the Kurdish minority and strengthened the protection of human rights such as the freedom of expression.

Turkey's newly elected government led by the AK Party has vowed to continue EU-conforming reform measures. However, Turkey remains a long way from meeting the EU's political, economic and legal requirements for accession. The Turkish government has been pushing very hard for the EU to set a date to start accession negotiations.

Turkey's recent attempts to implement political reforms have been applauded by EU leaders but several EU members have demanded stricter adherence to the political conditions for starting negotiations – which include human rights and minority protection. Turkey's progress will be reconsidered by the European Council in December 2004 on the basis of a report and recommendation from the Commission. If that report concludes that Turkey meets the criteria, the EU will open accession negotiations "without delay", according to the conclusions of the Copenhagen summit. This wording is a strong commitment from the EU and it is effectively a conditional date for starting accession negotiations with Turkey in 2005.

The EU also recently offered Turkey a revised Accession Partnership (the document in which the EU states what has to be done prior to membership), an extended and deepened Customs Union, plus a substantial increase in pre-accession financial assistance. Significantly, the EU restated in December 2003 that Turkey's candidacy depends on the same criteria as other countries. This was a clear rejection of the claims of EU politicians like Convention President Valéry Giscard d'Estaing, who stated recently that Turkey should never join on the grounds that it is not a European country and would destroy the Union. Giscard's words probably helped the Turks, ironically, by forcing the EU to make a more explicit commitment to Turkey's candidacy.

However, even if Turkey starts accession talks in 2005, the negotiations could last for longer than the other candidates because Turkey is much bigger than other countries that have joined the Union (its population is projected to overtake that of Germany by 2020) and has a lot of complex issues to resolve before it could join – quite apart from the reluctance of many member states to see it join.

Unlike the Eastern European countries, Turkey will also face an uphill struggle to overcome widespread hostility towards its application, not only in political circles but also among the European public. According to the Commission's October 2002 Eurobarometer poll, 47% of EU citizens oppose Turkish membership, while only 31% are in favour – the lowest level of support of any of the applicants.

With a population of 67 million people, a history of political and economic instability, and income levels that are much below the EU's poorest member states, Turkey would be difficult to integrate into the EU. But the concerns of EU politicians and voters go beyond this. Many feel uncomfortable with adding a large Muslim country to the predominantly Christian EU. Others fear that problems with absorbing Turkey could slow EU integration, or that its successful candidacy may encourage North African countries like Morocco to apply.

Continues on page 37

LATVIA

What you need to know

Total Area	64,589 km²
Population	2.34 million
Unemployment	7.6%, 20% in some areas
Per Capita GDP '02	US$3,596
Avg. Monthly Salary '02	US$208
GDP Annual Growth '03	7.5%
Total FDI to date	US$2.86 billion
Y/y Inflation, '03	1.9%
Int'l Trade Balance	US$–1.3 billion
Agency Ratings:	S&P BBB+, Fitch BBB, Moody's A2

SOURCE: LATVIAN DEVELOPMENT AGENCY, CIA WORLD FACT BOOK, UK TRADE & INVESTMENT, MINISTRY OF FOREIGN AFFAIRS, LATVIA

INTRODUCTION

Latvia has made solid progress since independence in 1991, establishing the institutions for a full market economy. With privatisation almost complete and an attractive, stable business environment, the country's continued growth will depend on improving social conditions and tackling the country's gray economy.

KEY INVESTMENT SECTOR, 2002 (US$ MILLION)

Finance	134.6
Manufacturing	93.8
Real Estate	86.3
Trade	72.1
Communications	68.7

SOURCE: LATVIAN EMBASSY LONDON

TOP FOREIGN INVESTORS, 2002 (US$ MILLION)

Tilts Communications, Denmark	telecom	116.7
Tele 2 Aktiebolag, Sweden	telecom	81.4
Hansapank, Estonia	banking	74.8
Linstow Senterutvikling, Norway	real estate	62.5
Skandinaviska Enskilda Banken, Sweden	banking	59.6

SOURCE: LURSOFT

KEY INVESTMENT PLUS POINTS

- Stable, secure business environment
- Gateway between EU and CIS states
- Well-educated workforce

INVESTMENT INCENTIVES

- Foreign firms have same rights as local ones
- Corporate tax to drop to 15% in 2004
- 70% depreciation rate for machinery imports
- Range of incentives for investments in free ports & special economic zone

SOURCE: LATVIAN EMBASSY, LONDON

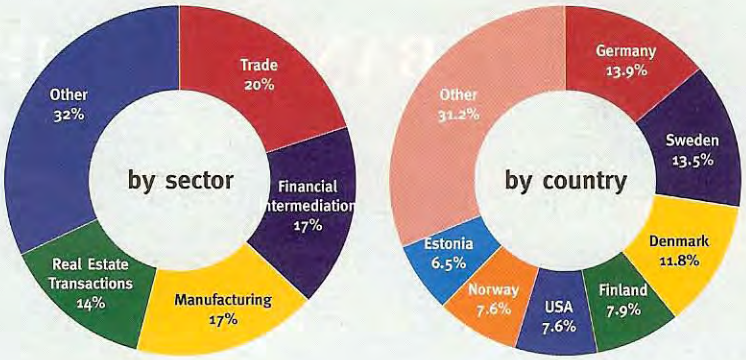
FDI TRENDS, 1995 – 2002 (US$ MILLION)

SOURCE: LATVIAN DEVELOPMENT AGENCY

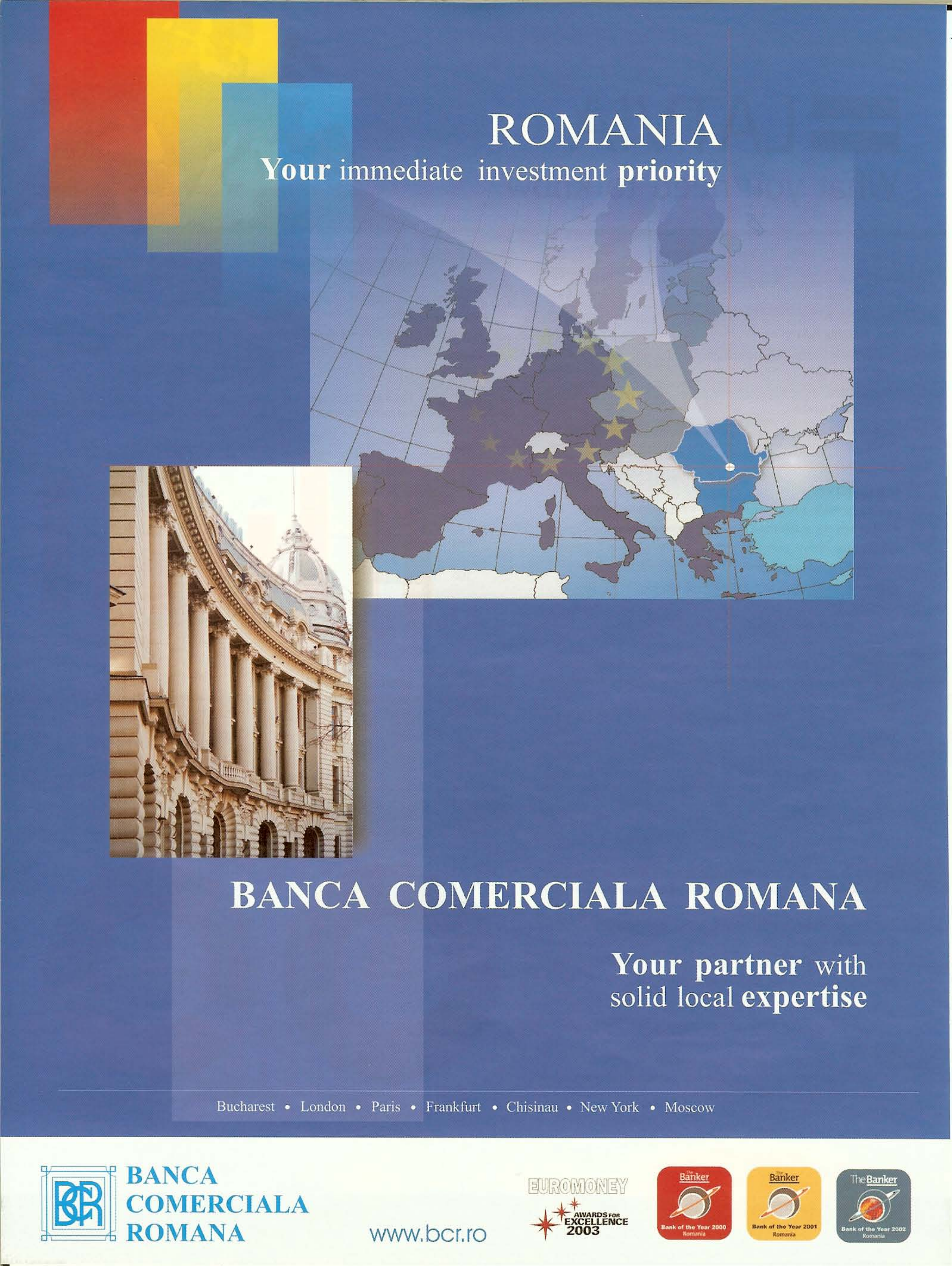
OBSTACLES TO INVESTMENT

- Instability & unpredictability of changes in laws & regulations
- Tax regulations & tax administration
- Cost of infrastructure

INWARD FDI, 2002



SOURCE: MINISTRY OF FOREIGN AFFAIRS, LATVIA


ROMANIA
Your immediate investment priority
BANCA COMERCIALA ROMANA
Your partner with
solid local expertise
Bucharest • London • Paris • Frankfurt • Chisinau • New York • Moscow
BANCA
COMERCIALA
ROMANA
www.bcr.ro
EUROMONEY
AWARDS FOR EXCELLENCE 2003
The Banker
Bank of the Year 2000
The Banker
Bank of the Year 2001
The Banker
Bank of the Year 2002

LITHUANIA

What you need to know

Total Area	65,300 km²
Population	3.46 million
Unemployment '03	9.8%
Per Capita GDP '03	US$5,205
Avg. Monthly Salary '03	US$384
GDP Annual Growth '03 (est)	8.9%
Total FDI to date	US$4.623 billion
Y/y Inflation, '04 (est.)	–1.3%
Int'l Trade Balance '03	US$–2.21 billion
Agency Ratings:	S&P BBB+, Fitch BBB+, Moody's A3

SOURCES: LITHUANIAN DEVELOPMENT AGENCY, UK TRADE & INVESTMENT, STATISTICS DEPT, LITHUANIA

INTRODUCTION

Lithuania is the fastest growing economy in Europe, achieving a GDP growth of 8.9% in 2003. Despite a currently unsettled political scene, the country's outlook is optimistic, and its tough fiscal policy is reaping results: unemployment remains high but is improving while privatisation of state utilities is well underway, although issues over oil & gas and nuclear power have yet to be resolved.

KEY INVESTMENT SECTORS, 2002 (US$ MILLION)

Food Beverages & Tobacco	302.7
Equipment Production	114.9
Textiles & Leather Production	113.5
Wood & Paper Products	63.5
Other	119.2

SOURCE: BALTICDATA, LITHUANIA

TOP FOREIGN INVESTORS, 2003 (US$ MILLION)

Amber Teleholdings, SWE/FIN	Telecomms	658
Skandinaviska Enskilda Banken	Banking	283
TDC, Denmark	Telecomms	171
Yukos, Russia	Oil	169
Philip Morris Int'l, USA	Tobacco	95

SOURCE: LITHUANIAN DEVELOPMENT AGENCY

KEY INVESTMENT PLUS POINTS

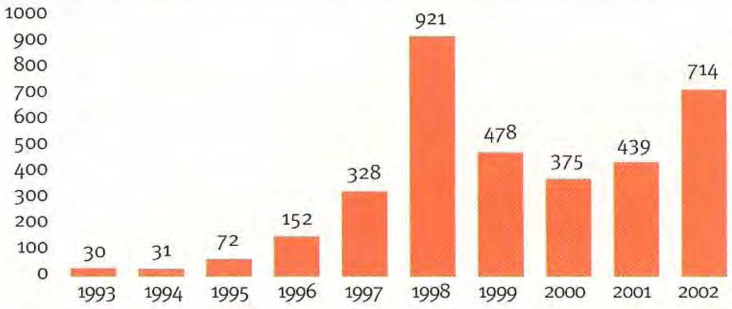
- Good access to Baltic and Russian markets
- Well-educated work force with lowest labour cost in Central Europe
- Good land, air & water transport infrastructure
- No import taxes on products from EU countries
- Comprehensive range of business services available
- Rapid growth of e-business and knowledge economy

INVESTMENT INCENTIVES

- 5-year corporate tax holiday on investments
- 50% tax holiday scheme of up to 10 years
- Special write-offs on machinery/equipment imports
- Municipal land & real estate rebates
- Planned tax incentives for larger investors
- Low corporation tax 15%

SOURCE: LITHUANIAN DEVELOPMENT AGENCY, UK TRADE & INVESTMENT

FDI TRENDS 1993-2002 (US$ MILLION)

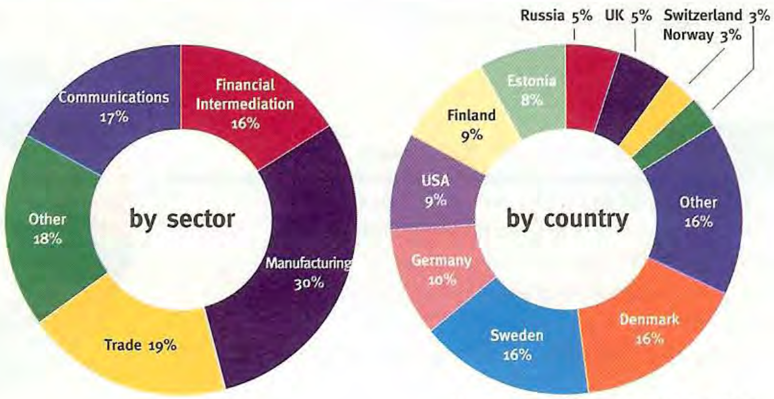


SOURCE: DATABASE FOR BUSINESS & PUBLIC ADMINISTRATION, LITHUANIA

OBSTACLES TO INVESTMENT

- Overly bureaucratic procedures create many micro-level obstacles to business
- Civil legal system can be difficult to navigate
- Grey market amounts for up to 30% of economy
- High income tax (33%, although this may soon be reduced)
- Limited sites/resources for greenfield investment

INWARD FDI, 2002



SOURCE: LITHUANIAN DEVELOPMENT AGENCY

MALTA
What you need to know

Total Area	316 km²
Population '02	385,941
Unemployment '03	5.5%
Per Capita GDP '02	US$9,987
Avg. Monthly Salary	US$1,032
GDP Annual Growth '02	1.7%
Total FDI '93-'03	US$2.338 billion
Y/y Inflation, '02	2.19%
Int'l Trade Balance, '02	US$–680.3 million
Agency Ratings:	S&P A, Fitch A, Moody's A3

SOURCE: CIA WORLD FACT BOOK, NATIONAL STATISTICS OFFICE, MALTA MALTA ENTERPRISE, CREDIT SUISSE

INTRODUCTION

Malta's economy over the last 20 years has metamorphosed from a low-cost labour source for manufacturing industries into a hub for services – primarily banking and tourism. Foreign investment previously played an important role in the country's GDP – 18% in 2000, but the subsequent FDI collapse has meant that the government is keen to attract new investments.

KEY INVESTORS SECTORS, 2001 (US$ MILLION)

hotels & restaurants	50
Consumer electronics	43
Utilities	40
Real estate	36
Telecomms	36
Financial services	34
Other	44

SOURCE: NATIONAL STATISTICS OFFICE, MALTA

TOP FOREIGN INVESTORS, 2003 (US$ MILLION)

Carlson Co, USA	Tourism	30
Microsoft, USA	Software	N/A

SOURCE: OCO CONSULTING

KEY INVESTMENT PLUS POINTS

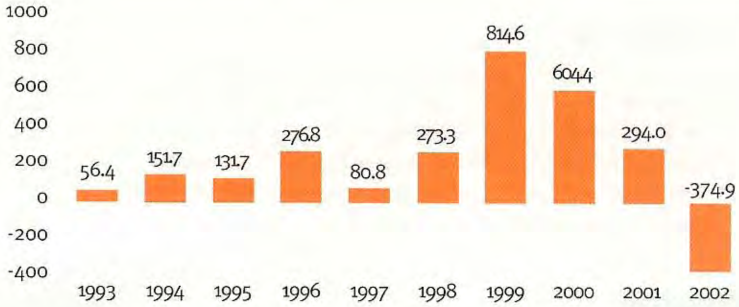
- Multi-lingual and highly skilled workforce
- Strategic location and marketing advantages
- Exceptionally high productivity levels
- Social, economic and political stability
- Excellent telecommunications
- State-of-the-art trans-shipment & logistics facilities

INVESTMENT INCENTIVES

- Competitive corporate tax rates as low as 15.75%
- Investment tax credit (up to 50% of total investment)
- Investment allowances of up to 50% on machinery, 20% on buildings & factories
- Factory space at competitive prices
- Staff training incentives & assistance

SOURCES: MALTA ENTERPRISE, MALTA GENERALE

FDI TRENDS 1993-2002 (US$ MILLION)

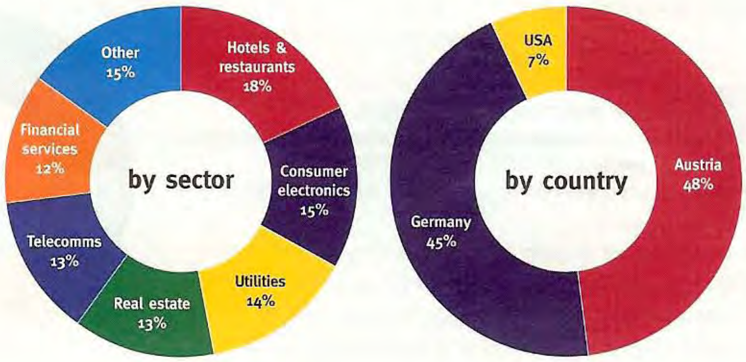


SOURCE: UNCTAD

OBSTACLES TO INVESTMENT

- Island location requires shipment of all raw materials and finished products

INWARD FDI, 2002



The 'Wider Europe' of the countries that will remain outside the enlarged EU is rising up the political agenda in the EU. Enlargement will have a significant impact on the countries that will be left outside the EU – from the Balkans to Russia. The expansion of the EU's visa regime to the new members and reinforced external border controls risk drawing new lines of division across the continent. For the candidates, greater integration with Western Europe has already come at the price of cutting ties with eastern neighbours.

As part of their EU accession preparations, the candidates have tightened controls on the movement of people and goods across their eastern and southern borders. Nevertheless, border checks between the existing EU states and the new members will stay in place for a number of years after enlargement. However, to rely on fences and police forces would create a 'Fortress Europe' surrounded by poor, isolated and possibly unstable countries. The people living in this unstable fringe would have every incentive to move to the EU, whether legally or illegally.

THE NEW BORDER

EU enlargement also risks creating a deepening economic divide in Europe. The objective of EU accession has served as a strong 'external anchor' for economic reforms in the candidate countries. Governments could always argue that painful reforms were necessary for EU membership. Non-applicant countries did not have this option, which may be one of the reasons why their economic reform efforts have generally been less successful. EU candidate countries proceeded much faster with trade integration than other Eastern European countries. They received more assistance from the EU.

Foreign investors have also generally preferred the EU candidate countries, where laws and policies increasingly resemble those of Western Europe and from where access to the EU market is guaranteed. EU accession will reinforce these trends, implying an increasing concentration of foreign investment in the new member states. However, the EU's new neighbours may benefit indirectly if strong economic growth in the new member states provides new opportunities for their workers and businesses.

EU relations with the countries of the former Soviet Union are less well developed than those with the Balkans. The EU has offered structured economic and political relations to Russia and Ukraine, but these have not always lived up to expectations. Russia is of particular importance to the EU since it supplies a large and growing share of the EU's energy. Yet, bilateral relations are fragile, as the recent dispute over EU visas for Russians living in Kaliningrad showed. EU relations with Belarus and Moldova are poorly developed and characterised by frequent tensions.

The European Commission has made a start at tackling these issues through a series of proposals for a 'Wider Europe' strategy. In March 2003, it published a paper containing some principles for a new policy and a range of instruments that EU institutions and member states can use to achieve greater integration with their surrounding region. The EU's stated aim is to surround itself with a 'ring of friends', to ensure social cohesion and economic dynamism for existing and new members, as well as neighbouring states.

The Commission rules out future EU membership for the southern Mediterranean countries, but leaves open the possibility of accession for the East Europeans. Some countries, like Ukraine, have expressed interest in joining eventually, but the Commission argues that the EU first needs a public debate on the ultimate geographic limits of the Union. The countries of the Western Balkans are not covered by these proposals, as they were already offered the prospect of future EU membership through the 'Stabilisation and Association Process'.

Even if they cannot join the EU, the Commission proposes to offer its neighbours access to the EU's internal market if they adopt its common rules, standards, and regulatory structures. It also aims to offer preferential trading relations and market opening, including a timetable and benchmarks for progress towards a free-trade area. In addition, the EU is to develop new instruments for investment promotion and protection. To facilitate this integration, the Commission proposes modification of visa regimes and opening up greater opportunities for legal migration. Finally, the Commission wants the EU to offer more aid through a 'neighbourhood instrument' to support regional and sub-regional cooperation and sustainable development on the eastern border. In addition, new sources of finance are supposed to come from the EBRD and EIB working together with international financial institutions to support projects in infrastructure, education, health and social safety net provisions in neighbouring countries.

THE EU'S STATED AIM IS TO SURROUND ITSELF WITH A 'RING OF FRIENDS', TO ENSURE SOCIAL COHESION AND ECONOMIC DYNAMISM

This agenda for the Wider Europe is fairly ambitious, and it depends critically on the willingness and capacity of neighbouring countries to respond to the opportunities offered by the EU. Moreover, the goals of economic integration are long-term rather than immediate prospects – especially for Belarus, Moldova and Ukraine. However, the development of an EU policy that aims to increase trade and investment with the Wider Europe will gradually extend the size of the single European market.

Dr Heather Grabbe, Research Director, and Katinka Barysch, Chief Economist, Centre for Economic Reform, a London based private sector funded think-tank. This article is based on a report commissioned by Advent International Corporation, London.

POLAND
What you need to know

Total Area	312,685 km²
Population	38.2 million
Unemployment	18%
Per Capita GDP '02	US$4,944
Avg. Monthly Salary '02	US$596
GDP Annual Growth '03	1.3%
Total FDI to date	US$68.3 billion
Y/y Inflation, '03	0.8%
Int'l Trade Balance, '02	US$–13.9 billion
Agency Ratings:	S&P BBB+, Fitch BBB+, Moody's A2

SOURCES: CIA WORLD FACTBOOK, BRITISH-POLISH CHAMBER OF COMMERCE, UK TRADE & INVESTMENT, POLISH INFORMATION & FOREIGN INVESTMENT AGENCY (PAIIIZ)

INTRODUCTION

Poland's economic and political reforms laid the basis for one of Europe's best GDP growth rates in the mid 1990s, and despite a recent slowdown, the economy seems to have picked up again. Poland's firm control of inflation, success in attracting foreign direct investment, low current account deficit and strong export performance have been offset by serious economic problems including high unemployment, large budget deficit and recent weak economic growth.

KEY INVESTMENT SECTORS, 1ST HALF 2003 (US$ MILLION)

Manufacturing	1,296.9
Financial intermediation	661.9
Power, gas and water supply	284.3
Service, municipal and social activities	129.3
Real estate and business activities	119.7
Other	36.10

SOURCE: PAIIIZ

TOP FOREIGN INVESTORS, 1ST HALF 2003 (US$ MILLION)

Fiat-GM Powertrain, Neths	diesel engines	432.2
GE Capital Real Estate/Heitman	real estate	254.7
EUROPOLIS INVEST, Austria	real estate	237.3
Deutsche Bank AG, Germany	banking	183.3
Electrabel S.A., Belgium	utility	145.4

SOURCE: PAIIIZ

KEY INVESTMENT PLUS POINTS

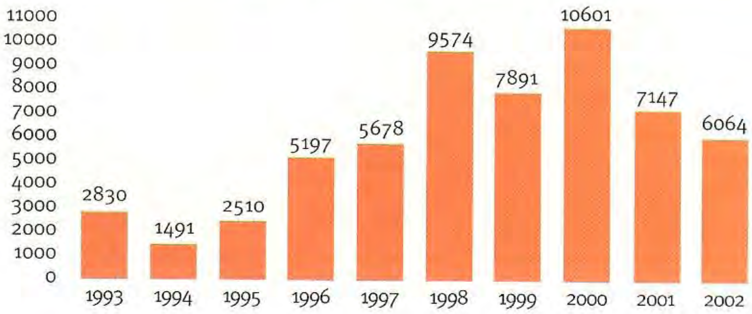
- Large domestic market
- Strategic location between EU & emerging Eastern markets
- Highly skilled, relatively inexpensive labour force
- Impressive scientific and research potential, under-utilised production capacity
- Privatisation under way in energy & water treatment sectors
- Rapidly developing capital markets

INVESTMENT INCENTIVES

- Investment grants of up to 25%
- Employment & training grants for employees
- Grants for infrastructure development
- Income tax exemptions for investments in Special Economic Zones

SOURCE: PAIIIZ

FDI TRENDS 1993-2002 (US$ MILLION)

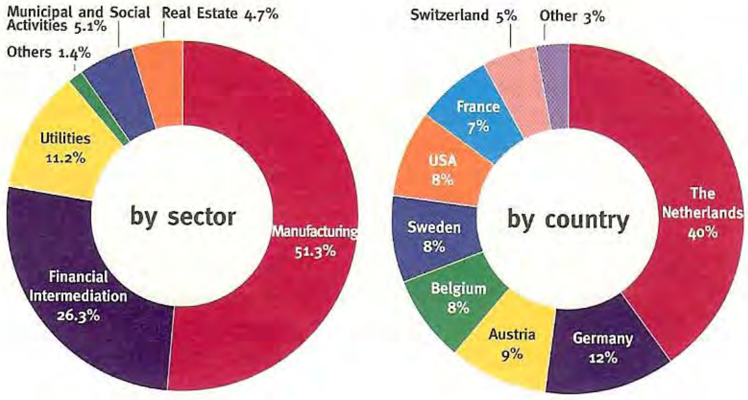


SOURCE: PAIIIZ

OBSTACLES TO INVESTMENT

- Approval processes are slow and bureaucratic
- Weaknesses in infrastructure still hamper business
- Corruption is an issue
- Lack of transparency in legal, tax & customs systems

INWARD FDI, 2002



SOURCE:PAIIIZ

MONEY INTO LIGHT

Energy Financing Team is in the vanguard of the restructuring of Southeast Europe's electricity market. James Nye, EFT's Managing Director, explained to JOHN MUIR how the company goes about it.

James Nye, Managing Director, EFT

In 1999, one of Bosnia & Herzegovina's power authorities faced a crisis. Debt-laden and short of power for electricity to light homes and factories as the country grappled with its economic reform programme, it lacked the money to purchase electricity from any of its neighbours.

At the time, James Nye and Vuk Hamovic were involved in investment bankers GML International's fund management business when the transaction crossed their desk.

"Essentially," says Nye, "the deal involved pre-financing the supply of electricity from Austria and Croatia to Bosnia on 90-day terms. Repayment was to be in the form of energy the following spring when the snows had melted and there was water again for surplus hydro-power production.

"We were debt specialists," says Nye who once ran Kidder Peabody's emerging market business, "so this transaction was intriguing. It was difficult to secure but had a high rate of return." The deal was closed in December 1999 at Vienna airport after Nye had succeeded in on-selling his spring hydropower to Entrade for further delivery to the aluminium smelter in Mostar.

With similar transactions underway and whilst continuing to work at GML International, Nye and Hamovic formed EFT in October 2000 with a brief to be in the vanguard of the development of Southeast Europe's regional electricity market and the refurbishment and expansion of its generation and transmission network.

"As these markets began to de-regulate and develop," says Nye, "we determined to meet the demand for bridge financing between producer and consumer as well as provide the capacity to absorb risk where the capital markets had not yet developed."

Restructuring a regional power sector and at the same time creating a regional electricity market (REM) in Southeast Europe is like renewing the foundations of a building without disrupting its working parts.

Once, there was no market, Bulgaria and Romania were part of the Soviet system, Albania was closed to the outside world and Yugoslavia was a single entity. Now Bulgaria and Romania have tied themselves to the second UCTE* synchronised zone, Albania has opened up and there are nine utilities in place of the former single Yugoslav utility.

"In early 2000," says Nye, "sections of Southeast Europe's energy sector were paralysed. The kind of trade barriers and bad debt that were frustrating in Bosnia were replicated across the countries of the former Yugoslavia. Furthermore, countries like Bosnia, Romania, Bulgaria and Ukraine had energy surpluses but many more had deficits for seasonal reasons. And if they wanted to purchase energy from the surplus countries, they had to pay cash up front" (See Page 41).

This is where EFT comes in. Regional buyers cannot pre-finance their energy imports so EFT finances the purchase of electricity the month preceding delivery and is repaid, in theory, twenty days after delivery. Export and import flows are often difficult to match (as shown in the table on page 41). Bosnia's surplus, for example, may be in different months or times of day to those in which its neighbour Montenegro has a deficit.

With an annual trading volume of €200 million (approximately US$246 million) in 2003 (€300 million or US$ 369 million forecast for 2004) and some customers racking up 90-day payment arrears, EFT needs to maintain a fair chunk of working capital.

Two key strengths, according to Nye, give EFT its competitive advantage in winning tenders in the region. "We have a large pool of available capital so we can fund slow trade cycles in a diverse portfolio of more than 30 customers with some contracts running to more than seven years. And second, we have a team of energy professionals with decades of experience in power management."

As perceived cross-border country risk in Southeast Europe diminishes, however, regional banks will shed their risk aversion to the energy sector and the market will become more competitive for EFT.

"We were initially a key source of liquidity in just the second synchronised zone," says Nye. "We are now expanding our territories of operation to the first UCTE synchronised zone through trading with the utilities and enterprises in Croatia and Slovenia and beyond. And we are licensed on the Austrian Power Exchange so we can play a clear role in intermediating electricity flows across borders in Central Europe. We have a new subsidiary in Hungary – EFT is tendering for a public lighting contract in Budapest – and are developing business with our Ukraine partner and exploring opportunities in Turkey and the Caucasus."

Meanwhile, deregulation across the entire region is creating further opportunities for EFT to expand innovatively. In countries like Greece, industrial customers can now buy energy at the border. EFT

SLOVAKIA

What you need to know

Total Area	48,845 km²
Population	5.4 million
Unemployment	14%, 30% in some areas
Per Capita GDP '02	US$12,200
Avg. Monthly Salary	US$360
GDP Annual Growth '03 (est)	3.9% p.a.
Total FDI to date	US$9.58 billion
Y/y Inflation, '03 (est)	9.5%
Int'l Trade Balance	US$–2.45 billion
Agency Ratings:	S&P BBB, Fitch BBB, Moody's A3

SOURCE: CIA WORLD FACTBOOK, SLOVAK INVESTMENT & TRADE DEVELOPMENT AGENCY (SARIO), BRITISH EMBASSY BRATISLAVA

INTRODUCTION

Slovakia has weathered a difficult transition to a market economy thanks to a successful privatisation programme and a range of attractive investment incentives. FDI in 2002 almost quadruped from the previous year, but dropped again sharply in 2003, while unemployment in 2003 also dropped sharply (to approximately 14%). Slovakia's EU accession should boost the country's attractiveness to foreign investors.

INVESTMENT INCENTIVES

- Duty-free machinery / equipment imports
- Subsidised production site land
- 10-year tax holiday scheme
- Cash grants for creation of new jobs
- Cash grants for employee training
- 2004: 19% corporate, individual & VAT tax rates

SOURCE: SARIO, BRITISH EMBASSY BRATISLAVA

FDI TRENDS, 1993 – 2002 (US$ MILLION)

SOURCE: SARIO

KEY INVESTMENT SECTORS, 2002 (US$ MILLION)

Real estate, leasing & business services	172.7
Wholesale & retail trade	689.8
Transport, storage & telecommunications	708.9
Banking, finance & insurance	1420.3
Industrial production	2237.6

SOURCE: SARIO

TOP FOREIGN INVESTORS, 2003 (US$ MILLION)

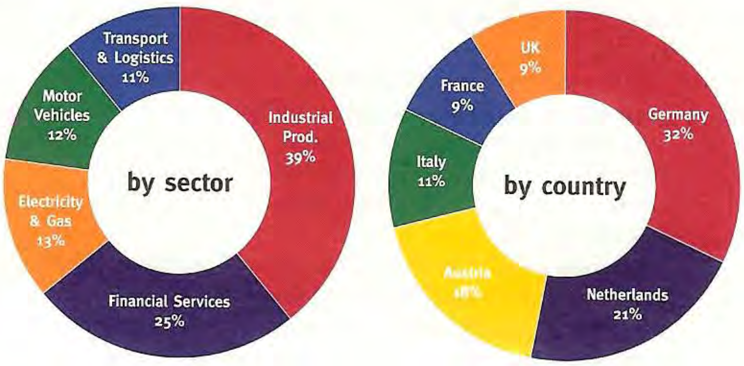
PSA Peugeot Citroen, France	automotive	700.0
Johns Mannville, USA	glass	80.0
Tournigan, Canada	mining	35.0
Hella Light Signals, Germany	automotive	30.0
Leoni, Germany	automotive	14.0

SOURCE: SARIO

OBSTACLES TO INVESTMENT

- The process for setting up a company is bureaucratic and time-consuming
- Road infrastructure, especially national highways, requires upgrading
- Internet access relatively rare (10% access)

INWARD FDI, 2002



SOURCE: SARIO

KEY INVESTMENT PLUS POINTS

- Highly skilled workforce
- Low labour & production costs
- Solid base of established foreign investors
- Integrated into the world economy

A SLOVAK INVESTMENT & TRADE DEVELOPMENT AGENCY (SARIO) SURVEY OF SLOVAKIA'S TOP 250 FOREIGN INVESTORS SHOWS

- Average number of employees: 500
- Average fixed capital expenditure: US$37.4 million
- Over 50% of firms export over 90% of output
- 90% want to expand further in Slovakia

is ahead of its competitors in that it delivers power direct to companies like Pechinet's subsidiary, Aluminium de Grece, Titan Cement and Lafarge's Heracles Cement. EFT is also the major power supplier to Greece's Public Power Corporation. "We have also always had ambitions to break into Italy." says Nye. "So when we wrote our first business there at the end of 2003 to supply €11 million (US$13.5 million) of power to the state sector throughout 2004, we were delighted to have expanded our territory further."

Nye believes a regional approach to Southeast Europe's energy market is crucially important and is sceptical of the benefits that will accrue to the region in its integration into the European Internal Market. Recent rises of up to 40% in energy prices in Northeast Europe will, he thinks, simply suck liquidity away from the poorer regions of Europe. "Southeast Europe just doesn't have net surplus energy at the moment," he says. "Paradoxically there are parts of the region with surpluses where more production units are desperately

THE REGION IS LITTERED WITH UNFINISHED POWER PROJECTS

needed from a strategic point of view. Bosnia and Kosovo are two examples. But the region is littered with unfinished power projects."

The tunnel being constructed at Fatnicko Polje-Bileca in Bosnia is a good example. Here, a project probably 50 years in the making, was abandoned when war broke out in the early 1990s and then brought back to life in 2002 when EFT in partnership with civil engineers Hidrogradnja won a contract to complete the final third of a hydro-electric supply tunnel. When the final six kilometres are completed in late 2004, the tunnel will deliver increased hydropower from the reservoir above the Trebinje power units.

"Ten's of millions have been pumped into this project which would otherwise be wasted unless it is finished," says Nye. "They don't have money to pay for it but they do have surplus energy. So we're providing €26 million (US$32 million)over 30 months to finance construction and receiving in exchange the equivalent in energy drawn from their surplus but spread over seven years."

EFT is proud of its contribution to this project and the part the company is playing in improving the socio-economic landscape of the country. "We're creating new arable land, 400 new jobs and the power company will have an earning asset at a cost of a mere 10% of its surplus over the payment period," he says.

In Kosovo, there is a more tantalising power project which Nye would like EFT to become involved with. "Kosovo has some of the finest reserves of coal," says Nye. "Albania, its neighbour, has the worst energy deficit in the region and imports 40% of its daily power requirements, largely through EFT." Nye believes an ideal solution would be to build new thermal units in Kosovo and deliver across the border to Albania. He thinks this is an even better option than the current EBRD/World Bank proposal to finance a new thermal unit at Vlore on the coast of Albania with fuel landed by boat.

"The Vlore project is definitely laudable," he says, "because Albania is 95% dependent on hydro and therefore the weather. But it is much less efficient than building a thermal plant in Kosovo. We're looking for projects where we can bring investment together with an off-take structure that makes it financeable. This is one of them but clearly nothing is done easily in Kosovo."

Politics are never far away if you're at the cutting edge of financing a commodity as important as electricity in a region moving forward, sometimes painfully, towards a functioning market economy. At year-end 2003, EFT showed its resilience by signing a €40 million (US$49 million) contract with EPBiH, the Sarajevo-based power utility to purchase its entire exports for 2004. And shortly afterwards, Bill Clinton's former Special Envoy to the Balkans, Ambassador Robert Gelbard, joined EFT as a consultant.

As Southeast Europe moves towards a fully functioning regional market, the importance of creating a regional energy market encompassing both electricity and gas becomes paramount. Here EFT's private sector financing and risk mitigation strategies will play a major part. Managed from London and Switzerland and with offices in Albania, Bosnia, Hungary, Macedonia, Serbia and Slovenia, EFT appears ideally placed to apply its financial engineering skills in the creation of a regional market in electricity stretching from Austria in the north to the Caucasus in the east, Albania in the south and Italy in the west.

EFT's vision is turning money into light.

**Union for the Coordination of Transmission of Electricity (UCTE) is the association of transmission system operations in continental Europe.*

LOAD, PRODUCTION AND NET BALANCE IN KEY EFT MARKETS, 2002

	Load (GWh)	Hydro Production (GWh)	Thermal Production (GWh)	Total Production (GWh)	Net Balance (GWh)
Greece	48,245	3,396	41,757	45,153	-3,092
Romania	52,163	16,075	39,117	55,192	3,029
Bulgaria	36,930	2,742	39,907	42,649	5,719
Serbia	34,987	10,533	22,706	33,239	-1,748
Montenegro	4,196	1,082	1,098	2,180	-2,016
FYROM	6,529	857	4,900	5,757	-772
Albania	5,439	3,098	107	3,205	-2,234
BiH	3,505	2,199	3,341	5,540	2,035
Slovenia	11,727	3,001	9,978	12,979	1,252
Croatia	14,829	5,374	5,933	11,307	-3,522
Hungary	37,190	189	32,743	32,932	-4,258

SLOVENIA
What you need to know

Total Area	20,273 km²
Population	2.0 million
Unemployment '02	6.4% (ILO), 11% (Registered)
Per Capita GDP '02	US$11,057
Avg. Monthly Salary '02	US$618
GDP Annual Growth '02	2.9%
Total FDI to date	US$3.7 billion
Y/y Inflation, '03 (est)	5.6%
Int'l Trade Balance, '03	US$330 million
Agency Ratings:	S&P A+, Fitch A+, Moody's Aa3

SOURCE: SLOVENIAN TRADE & INVESTMENT PROMOTION AGENCY (TIPO)

INTRODUCTION

Slovenia is one of Central Europe's most economically advanced countries with a fully open market economy and a wealthy if small domestic market. It is now capitalising on its strengths as a base for regional operations, combining an attractive, stable business environment with good access to the markets of its Southern European neighbours.

KEY INVESTMENT SECTORS, 2002 (US$ MILLION)

Chemical industry	704
Financial intermediation & insurance	698
Business services, real estate & leasing	563
Wholesale & retail trade	538
Paper & pulp industry	235
Engineering industry	147
Transport & telecommunications	131

SOURCE: TIPO

TOP FOREIGN INVESTORS, 2002 (US$ MILLION)

Novartis, Switzerland	pharmaceuticals	828
KBM, Belgium	banking	411
San Paolo IMI, Italy	banking	227
Societe General, France	banking	208
Interbrew, Belgium	brewery	132

SOURCE: TIPO

KEY INVESTMENT PLUS POINTS

- Well-educated, cost-effective workforce
- Good access to regional markets of SE Europe
- Good base for regional operations
- Good infrastructure
- Local market with high disposable income, purchasing power

INVESTMENT INCENTIVES

- 25% corporate tax rate
- 20% tax relief on investments in fixed assets, 20% tax relief on equipment and intangibles
- 10% tax grants for investment reserves to be used within 2 years
- Job creation, staff training & retraining grants
- Local incentives eg access to industrial sites & utilities, local tax relief

SOURCE: TIPO

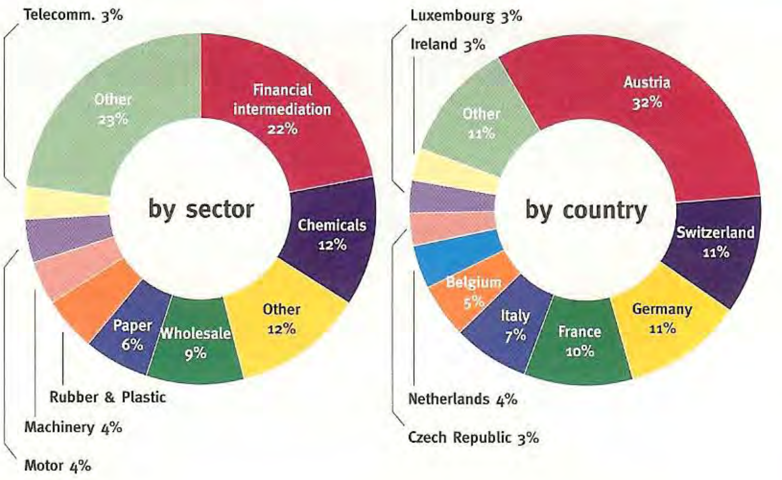
FDI TRENDS, 1994 – 2002 (US$ MILLION)

SOURCE: TIPO

OBSTACLES TO INVESTMENT

- Labour costs uncompetitive with other EU accession countries
- Real estate prices are climbing rapidly

INWARD FDI, 2002



Bill Wassman/Lonely Planet Images

COUNTRY REPORT

Mongolia

→ Rich in human and natural resources, Mongolia is emerging as an important investment location from which to exploit the region's largest markets – those of its neighbours China and Russia.

Which sectors are priorities for investment and what's driving investor enthusiasm in Mongolia today?

Deepening democracy's

Ahead of parliamentary elections in June, Prime Minister Enkhbayar is enhancing Mongolia's growing reputation as a key investment location at the cross roads of Europe and Asia. JOHN MUIR, reports.

For a country sandwiched between two nuclear-powered giants, Mongolia's relations with Russia and China are a priority. And foreign investors looking to access rapidly developing markets in Western Russia and northern China, should consider Mongolia's strategic location.

The greater independence offered to Mongolia by broader economic relations with the US, Korea, Japan and the EU is also significant. "Establishing free-trade agreements with our main trading partners is critically important. This was one of the main issues discussed during my visits to the UK, Korea and Japan last year. Mongolia offers a broad range of minerals and an unusual opportunity to foreign investors to access the enormous markets of its immediate neighbours, Russia and China, where demand for primary materials is growing rapidly," says the Prime Minister. "Mongolia is at a crossroads where the European and Asian cultures blend together".

And as Prime Minister Enkhbayar remarks, EU enlargement adds a particular momentum, as so many new members are Mongolia's traditional trading partners. Over 90% of Mongolia's foreign trade was conducted with the former Soviet Union. Today, Mongolia annually trades more than US$1 billion with 80 countries of which around 48% is with the Russian Federation and People's Republic of China.

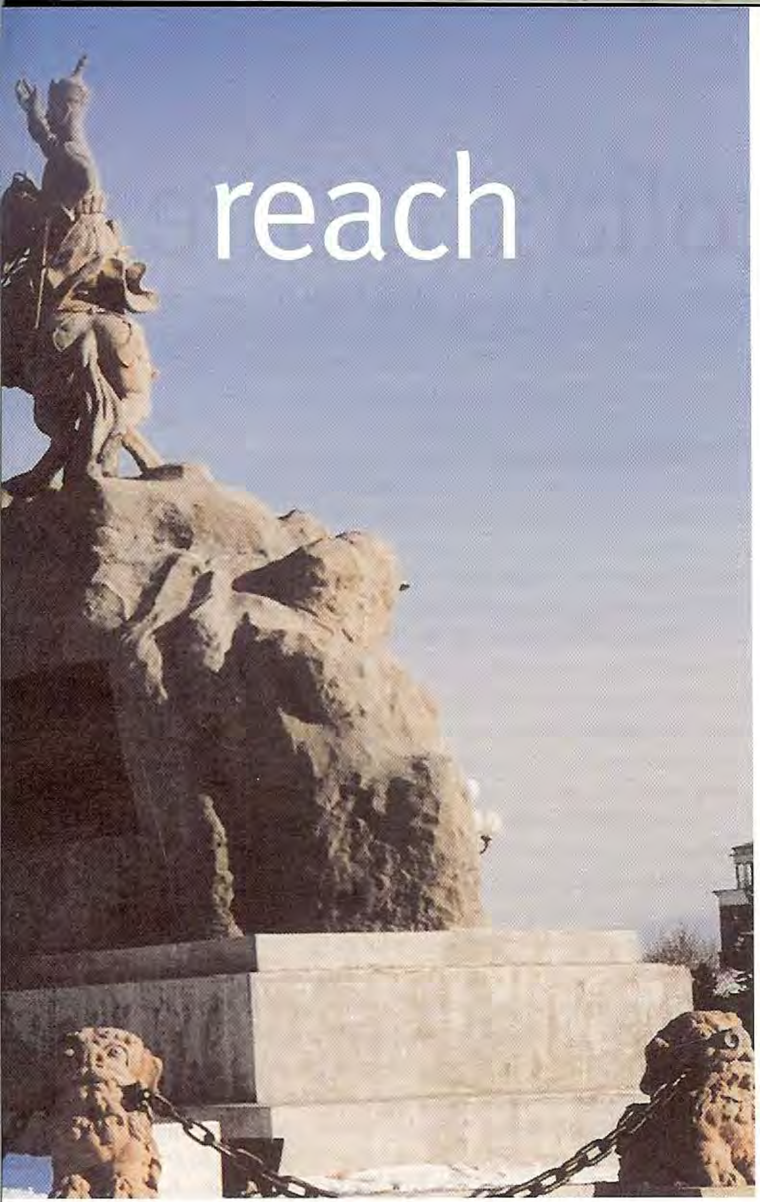
"Transportation costs are a critical issue for a landlocked country like Mongolia. Here, we are negotiating special provisions for transit costs according to the respective WTO agreements," he underscores.

During the 1990s Mongolia suffered a number of severe socio-economic shocks. The collapse of the Soviet command economy, Mongolia's subsequent painful engagement with the full rigours of free enterprise capitalism followed by several severe winters in the late 1990s caused Mongolians to draw deeply on their nomadic tradition and demonstrate their readiness to embrace change.

"The nomads are now becoming farmers," says the Prime Minister, "and are more interested in the quality rather than the quantity of their livestock. Investment, however, is essential for the rural areas to reverse the urban drift we have experienced. So we have adopted the concept of regional development and introduced legislation to create free zones, new infrastructure in the regions and education for the nomads."

It's a all far cry from the past. In 1258 Mongol troops under the command of a grandson of Chinggis Khan are reputed to have sacked Baghdad in a siege so bloody that the Tigris ran red for

reach



Sukhbaatar Square, Ulaanbaatar – named after Mongolia's first Leader and the hero of the 1921 revolution, Damdiny Sukhbaatar.

Prime Minister and Leader of the Mongolian People's Revolutionary Party, Nambaryn Enkhbayar

WHAT YOU NEED TO KNOW

Total Area	1,564,100 km²
Population '03 (est)	2,712,000
Unemployment '02	3.4%
Per Capita GDP '02 (est)	$1,900
Avg. Monthly Salary	$150
GDP Annual Growth '03	5%
Total FDI to date	$1 billion
Y/y Inflation, '03 (est)	3%
Int'l Trade Balance, '03	$-168.2 million
Agency Ratings:	S&P B+

SOURCES: CIA WORLD FACTBOOK, FIFTA, MONGOLIAN STATISTICAL YEAR BOOK

days. More than 700 years later, in February 2004, the first Mongolian contingent of 170 peace keepers arrived back in Mongolia's capital, Ulaanbaatar, having served for five months in Iraq with the US-led Coalition of the Willing.

A country from which fierce Mongol hordes once descended Central Asia's steppes to cut a swath of human destruction as far west as Vienna has since 1999 transformed itself into an international peace keeper. "Just a few years ago, no one could imagine Mongolian soldiers performing in peace keeping with US soldiers," said Major General Bombatar, Vice Chief of Staff for Mongolian Armed Forces. "Now it's a normal event and proof of progress."

MONGOLIA IS AT A CROSSROADS WHERE THE EUROPEAN AND ASIAN CULTURES BLEND

Prime Minister Enkhbayar is preparing for parliamentary elections in June and he sees Mongolia's contribution to the multinational peace keeping effort as an essential element in his campaign to consolidate democracy in Mongolia. Equally important is his commitment to human-centred, sustainable development.

"Our democratic path is irreversible," he says. "Mongolia successfully organised the Fifth Conference of New or Restored Democracies last September. This was attended by representatives of 119 countries and conclusively demonstrated Mongolia's achievements during the past decade and our commitment to intensifying reforms in the future."

With elections on the horizon, the Prime Minister seeks a second four-year term of office. "Each election gives us the opportunity to improve the process of transparency," says the Prime Minister. In former times, Mongolia's media was not much more than a state-controlled propaganda vehicle. Today, at least 20 political parties will compete for attention from a liberalised media now comprising more than 200 newspapers and five television stations.

According to the UN's 2003 National Human Development Report on Mongolia, the country's literacy level reached 98% in 2000. So with 75% of the country's population under 35 years of age, the government's stated mission to inspire bold initiatives and reduce the country's donor dependency addresses a young electorate ready to embrace the challenge of strengthening Mongolia's socio-economic environment and its attractiveness to foreign investors.

Mining Mongolia's future

Ivanhoe Mines is developing in a remote region of the Gobi Desert what may be one of the largest copper and gold finds in the world. Ivanhoe's Chairman, Robert Friedland, explains to JOHN MUIR the project's importance to Mongolia's future as a resource-rich country bordering China, the economic locomotive of the 21st century.

How does a once-remote Soviet satellite transform itself from being a darling of the international aid community into a darling of the international investment community?

To put it bluntly, Mongolia's future economic development is heavily dependent on foreign direct investment. Its small economy is narrowly based on a handful of industries, which do not generate the domestic investment necessary to transform the economy from its traditional commodity trading patterns to one based on added-value.

The answer, says Robert Friedland, Chairman of Ivanhoe Mines and Mongolia's largest foreign investor, is to create a business environment that has a transparent judiciary and attractive long-term fiscal stability. "The judicial system needs more work," he says. "But with three successful democratic elections behind them, abundant natural resources such as coal, copper, zinc, nickel, gold, silver, hydro-carbon, fluorspar, uranium, ferrous metals, phosphate, precious stones, natural gas, a border with China – the economic locomotive of the 21st century – and a population of just 2.4 million in a country twice the size of Texas – well, Mongolia is a little Asian Kuwait in the making."

KEY INVESTMENT SECTORS, 2002 (US$ MILLION)	
Prospecting, Oil & Mining	157.2
Trade & Services	6.9
Light Industry	4.7
Education & Media	2.4
Construction	2.4
Transport	2.3
Other	27.9

SOURCE: FIFTA

Friedland's challenges in Mongolia are daunting. Operating in a remote region of the Gobi Desert 50 miles north of the border with China, he is investing US$5 million a month to develop what may turn out to be one of the largest copper and gold finds in the world. The current independently established estimate, based on a 0.30% copper equivalent cut-off grade, is that the project, known as Oyu Tolgoi or Turquoise Hill, has some 24 million ounces of gold and 21 million tons of copper in indicated and inferred resources. Production could begin as soon as 2006. While the mine development planning is proceeding, Friedland has secured a mining lease on Oyu Tolgoi for up to 100 years and is negotiating a long-term fiscal stability agreement with the government.

"It costs US$529 million to get started on this project," says Friedland, "and a further US$600 million to expand it. So even though there are 500 million people in Southern China who want an air conditioner (of which copper wire is a key component), the tax regime in Mongolia has to be attractive for us."

Meanwhile, Ivanhoe's drilling is expanding reserves and raising resource estimates to higher, measured and indicated levels of confidence. A preliminary assessment released in early February confirmed that Oyu Tolgoi can become one of the world's major copper-gold mines. A feasibility study expected later this year will refine the mining options and timetable open to Ivanhoe for initial open-pit operations on three of the five deposits identified so far.

Ivanhoe's discoveries have sparked a gold rush in Mongolia, with mineral exploration licences having leapt from a handful in 2002 to over 650 today.

"Finding the goods in the ground is one thing," says Friedland, "but the risk/reward profile for mining is similar to the biotech sector. It takes seven to 10 years to develop a project. We hire plenty of excellent local people and unlike some parts of the world where we operate, have no trouble in retaining expatriate staff at Turquoise Hill. So we are ready to add value down the chain and create the necessary infrastructure if the confidence is there."

"Mongolians are Buddhists," he adds philosophically, "and a central tenet of Buddhism is reasonableness. A culture that understands the importance of compromise is very important to us. So I believe government and parliament will pass the necessary laws." Meanwhile reserves are being hardened and a scoping study of Turquoise Hill has just been announced which is expected by year-end to show proven and probable reserves for five years and fifteen years respectively.

"Mongolia has the fundamentals to be great," he enthuses. "It's well on the way to re-branding itself as a peaceful, democratic Buddhist country. But it needs one success story."

Friedland, a recipient of Mongolia's Investor of the Year awards for his accomplishments in 2002 and 2003, is mining for all he is worth to deliver it.

Building an arterial network

Oyu Tolgoi's potential output of US$1 billion may double Mongolia's gross domestic product but without transportation and infrastructure like power and water, Mongolia might as well be in the middle of nowhere.

"Not any longer," says Byamba Jigjid, Minister of Infrastructure, as the government embarks on a series of infrastructure projects for which China's recent US$300 million loan to Mongolia is crucially important, not only to the mining sector but also to the country's sustainable job creation programme.

Central to the government's strategy are four key infrastructure projects recently passed by parliament. "Our nomadic culture once had no need of infrastructure," says the Minister. "Only in 1970 did the idea begin to take root. But it wasn't until 2000 that we were able to set out our four principal projects for creating SME growth, poverty reduction and a diversified economy."

The foremost of these is the Millennium Project which is to create over an eight-year period 7,000 km of highway running east/west across the country and north/south via the capital Ulaanbaatar. This is part of the Asian highway network connecting Russia and China across Mongolia horizontally and vertically. Given the cost associated with such a project, imaginative financing techniques are required. So, for example, 350 km of road are to be built by a Korean contractor in exchange for the granting of an unlimited licence to mine a coal deposit. Mongolia has 3.9 million tons of proven coal and coke reserves.

Mongolia's structural adjustments in the 1990s led to severe unemployment and poverty when industrial production fell by over 40%. A priority, according to a 2003 Human Development Report published by the UNDP, is to establish a balanced regional development policy so as to reverse the urban drift – 40% of the population now lives in Ulaanbaatar – and equip the agricultural sector with the necessary skills to add value to Mongolia's livestock herds which are among the largest in the world.

The Development of Industrial and Technology Parks Decree, approved by the government in December 2003, will contribute to this objective by creating parks in ten centres in the country's five regions so as to promote export-oriented industries.

Foremost among these is the establishment of the Altanbulag free trade zone on the border with Russia, 335 km north of Ulaanbaatar. Offering a range of tax and infrastructure incentives, AFTZ provides investors with the opportunity to locate in northern Mongolia at the heart of the trading route connecting Russia, China and the Far Eastern markets. A further free trade zone at Zamyn-Uud in the south of the country on the border with China will be linked by road with AFTZ via Ulaanbaatar.

DEVELOPING IT NETWORKS

Mongolia's high literacy rate and rapidly developing IT skills mean connecting regional and city centres with a high-speed network for e-commerce and distance learning is another priority. Magicnet, Mongolia's leading Internet Service Provider, is in the vanguard of this process and has already completed a network for the west of the country. Magicnet's new CEO, Ceri Morgan, who joined the company after five years with Cisco Systems, recently announced the launch of Mongolia's first GRID computing platform supported by Sun Microsystems.

"This is an open community project," says Morgan. "As well as

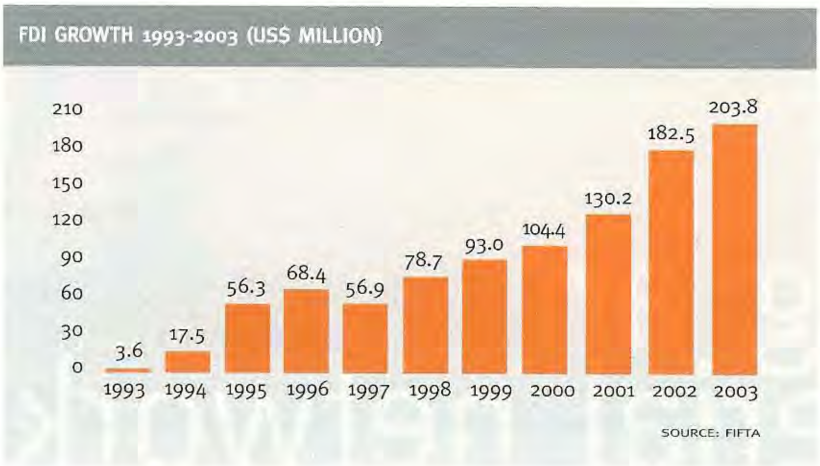
INVESTMENT INCENTIVES

- Tax incentives for investment expansion, staff hiring/training and technological innovation
- Tax rebates for equipment imports, especially for high technology applications
- free trade zones offering corporate tax, import and export duty incentives as well as simplified customs procedures

TOP FOREIGN INVESTORS, 2003

Boroo Gould	Canada	Mining
Soco Tamsag	USA	Oil
Ivanhoe Mines	UK, Canada	Mining
Global Investment & Development	Luxembourg	Banking
Suruga Mongol	Japan	Golf
Baolin Petrochem	China	Oil
Petmongolia	UK	Light Industry
Erdmin	USA	Copper Processing
Mobicom	Japan	Telecoms
Bogda Holdings	China	Construction & Tourism
Donshen Gazryn Tos Mongolia	China	Oil

SOURCE: FIFTA



allowing research and development of GRID computing models, it will supply resources to qualified non-profit activities in health care, academia and other appropriate areas."

Mobicom Corporation, a joint venture with Japanese and Mongolian investors, is Mongolia's leading Cellular Telephone Company. Set up in 1996, Mobicom was the first to bring modern

OUR NOMADIC CULTURE HAD NO NEED OF INFRASTRUCTURE, ONLY IN 1970 DID THE IDEA BEGIN TO TAKE ROOT

technology to Mongolia and has been the leader in developing mobile phone use in urban as well as rural areas. Recent competition from SK Telecom, Korea's first mobile communication provider in Mongolia, has enhanced service quality via centres set up throughout the country. And to strengthen competition still further, the government has recently announced a tender for award of a licence to a third operator in the country.

IMPROVING ENERGY SUPPLY

Mongolia's continental climate makes energy supply a prime condition for survival. So restructuring the energy sector and improving its efficiency are essential. In order to reduce dependency on expensive electricity from Russia, Mongolia's rich resources in coal, hydropower and renewables are to be harnessed to provide sustainable energy through an integrated national grid, says Minister Jigjid.

Although Mongolia" hydrocarbon potential remains unknown, some analysts estimate that the country's geology supports recoverable petroleum reserves of between four and six million barrels. Mongolia's Petroleum Law is recognised as one of the clearest and most tax advantageous in the world, according to Robin Grayson, Managing Director of Electro Silica Oil & Gas Mongolia's Asia Head Office in Ulaanbaatar.

The government has concluded 12 Production Sharing Contracts with companies from Canada, Australia, China, the UK and USA. One of these, SOCO Tamstag Mongolia, a subsidiary of SOCO International plc, has been drilling since 2002 an area of 53,000 km^2 and is trucking crude oil across the Steppes to refineries in China.

Since energy efficiency at the country's coal-fired power stations is low, using cleaner coal technologies is crucially important. This, together with a cut in heat loss in buildings and transmission, will substantially reduce the country's CO_2 emissions.

MCS Group was founded in 1993 and is the first private company to provide engineering and consulting services to Mongolia's energy sector. Today, the Group has sales of US$40 million across the engineering, manufacturing, construction and distribution sectors of the economy.

"We're interested in getting involved in the power sector's privatisation," says J. Odjargal, MCS Group Chairman. "New coal-fired power stations are required and we have the experience and capacity to perform on a turnkey basis." Currently, MCS International is cooperating with AMEC-SMEC, a Canadian-Australian joint venture, in the design of the Taishir Hydropower Station, representing an investment of US$38.9 million from the Mongolian, Kuwaiti and Saudi Governments.

CREATING SUSTAINABLE TOURISM

The creation of a sustainable tourism sector is the fourth lynchpin of the Minister's programme for re-balancing Mongolia's socio-economic framework. A 2003 report jointly prepared by the German Agency for Technical Cooperation and the World Trade Organisation highlights that tourism in Mongolia has enormous potential to generate income and employment opportunities and much-needed foreign exchange.

According to the National Statistics Office, however, Mongolia's tourism sector attracted a mere 2% of total FDI between 1990 and 2001. So, in the face of strong regional competition, Mongolia needs to refine its marketing and services and improve its infrastructure and international access.

"The government has launched "Discover Mongolia – 2004" to build on the sector's recent achievements as well as promote our cultural heritage and the protection of our fragile eco-systems," says the Minister. "We are confident that Mongolia's political stability and rare geopolitical location will serve us well as tourism competition intensifies."

As infrastructure moves to the top of the government's agenda, Mongolia seeks to balance the legacy of a nomadic culture with the demands of the 21st century.

The last best place in the world!

At 20% of GDP, Mongolia's ambitious legislative programme for attracting foreign investors is beginning to pay off. Mining, agribusiness and tourism are now priority sectors, says S. OTGONBAT, Vice Chairman of the Foreign Investment and Foreign Trade Agency, as the government slashes bureaucracy and accelerates company licensing procedures.

As Leader of Mongolia's Opposition Party in 1996, Prime Minister Enkhbayar visited the UK on a study tour. He was asked by a customs officer at Heathrow whether his passport was a fake because she had never heard of Mongolia. From then on, he realised that an essential pre-requisite for attracting foreign direct investment was making Mongolia a great deal better known. If the construction cranes now dominating Ulaanbaatar's skyline – not to mention the surge in traffic volume – are an indication of Mongolia's presence on the map, then he has succeeded.

"Foreign direct investment is at the top of the government's agenda," says S. Otgonbat, Vice Chairman of Mongolia's Foreign Investment and Foreign Trade Agency (FIFTA). "It has spent three years improving the investment climate and is ready to do whatever else is needed to create an attractive environment for foreign investors."

In 2003 alone, according to FIFTA's recently published inaugural FDI Review, 653 companies invested US$203.8 million (representing annual increases of 67% and 11.7% respectively). Small in global terms but at roughly 20% of GDP, this is a significant amount given that the transition economies of Central and Eastern Europe averaged around 6% of GDP during the last decade.

From 1990 to 2004, 3,042 foreign companies from 73 countries have invested over US$1 billion in Mongolia. This, according to UNCTAD's FDI Performance Index of 140 countries, has raised Mongolia's ranking from 79th place in 1993 to 48th in 2001 and created more than 70,000 jobs in the country.

"What's encouraging," says Otgonbat, "is that 69.2% or US$141.1 million was re-invested FDI in 2003, more than twice the level in 2002." In addition to existing tax holidays, recent legislative improvements such as lowering the top corporate tax rate to 30%, tax-free imports of technology equipment and a reduction in the number of business licences from over 600 to 82 have helped.

Legislation allowing private land ownership has also been introduced. This is an important precondition for the development of the agricultural sector's potential for supplying food-stuffs to the Chinese consumer market.

Furthermore, as a member of the World Trade Organisation, Multilateral Investment Guarantee Agency and Washington Convention on Investment Dispute Settlement, Mongolia has concluded more than 30 intergovernmental agreements on promotion and investment protection as well as avoidance of double taxation.

"All proposed legislation is now published on the Internet," adds Otgonbat, "allowing investors to communicate their reaction direct to the government. This way we establish a kind of cooperative committee between public and private sectors and government to agree policy changes".

The government has identified three priority areas for development and for foreign direct investment – mining, agri-business (processing of cashmere, hides, skins and meat) and tourism. Last year, mining represented 47% of cumulative foreign inflows whilst agro-processing and tourism, just 7% and 2% respectively.

Here's where the government's strategy for free trade zone development is crucial for raising foreign investment in the agribusiness sector. Zones are to be established in 10 centres in the country's four regions with the objective of promoting export-oriented industries. Donor assistance is being sought in the implementation of the projects which are aimed specifically at attracting SMEs and entrepreneurs.

Mongolian consumers have benefited from investment in the rapid expanding ICT sector which the government believes offers significant scope for the country's socio-economic development. By developing country standards, Mongolia's per-capita use of computers and mobile phones is already very high.

A government determined to create a friendly investment climate; good skills; cost-effective management; labour and premises – these are the characteristics that make Mongolia an attractive location from which to do business with the burgeoning markets of China and Russia.

"The Last Best Place in the World!" exclaims Otgonbat. "Over the next 50 years, we want to attract half the world's population to Mongolia!"

Outside FIPTA's offices in Ulaanbaatar, a gallery of sculptured 15-foot high ice statues of camels and horses from the Steppes glisten in the morning light. Well before Otgobat's 50 years are up, Mongolia will discover how many steppes it has taken in the right direction.

KEY INVESTMENT PLUS POINTS

- Stable pro-investment political environment
- Low business costs
- Extensive, untapped natural resources
- Excellent access to Russian and Chinese markets
- High literacy levels

Privatisations gather pace

Plans for the privatisation of 14 entities in 2004 have been approved by parliament. Who has been successful in the recent past and which state companies are in the frame for the future? JIM DWYER reports.

The Government of Mongolia has been privatising several of its "highly valued companies" since 2001. As of 2004, approximately 80% of the country's GDP is represented in the private sector.

Momentum picked up when the first privatisation via international tender was completed in December 2002 – the sale of the Trade and Development Bank, the country's largest bank, to the consortium of US-based Gerald Metals and Banco Commerciale Lugano of Switzerland. In March 2003 the Agricultural Bank of Mongolia was sold to H.S. Securities, controlled by H.I.S. Co, a Japanese tourism, airline and stock brokerage entity. In mid-2003 the sale of a controlling stake in APU, the largest liquor producer, was finalised with a Mongolian/Hong Kong consortium. In late 2003 an agreement was reached for the sale of Mongol Datgaal, the country's leading insurer, to a Russian insurance and banking consortium. And in February 2004 it was agreed to sell NIC, formerly the country's largest petroleum importer and distributor, to Petrovis, a Mongolian company in the same sector.

Mongolia's State Property Committee headed by its Chairman, Mr. L. Purevdorj has shown considerable perseverance in overcoming a number of difficult problems in achieving this record. Frequent press releases have become the norm as the government seeks to keep the public informed of all significant developments.

Ambitious plans for 2004 have been approved by the country's Parliament and include the State Property Committee launching the privatisation of another 14 entities including Mongolia's largest land-line telecom entity, Mongolia Telecom, as well as two public power entities. Savings Bank, with the largest number of branch offices in Ulaanbaatar, is the only one of the country's 17 banks still owned by the government. It is being prepared for privatisation to occur at some point after the country's national elections in late June 2004. Several of Mongolia's domestic banks as well as certain international banks should have considerable interest.

There are several government holdings which should also attract interest if the decision to privatise them comes after the election. These include Gobi Cashmere (which has failed to be privatised on two previous attempts), MIAT, the country's national airline which is currently managed by an international airline consulting firm, and Erdenet Copper, one of the world's 10 largest copper mining operations which is 51% owned by the Mongolian government and the balance by the Russian government. Since mining is the country's major business sector and is attracting considerable foreign direct investment, it would appear that Erdenet Copper could be successfully privatised and become controlled by an international mining entity.

Mongolia Telecom is scheduled for privatisation in 2004

Jim Dwyer is President of Dwyer & Associates Inc., an investment banking/financial advisory firm in Ulaabaatar, Mongolia

Banking reform leads the way

Since the banking crisis of the late 1990s, reform of Mongolia's banking sector has been a government priority. Much progress has been achieved and the drive to raise standards continues, says O. CHULUUNBAT, Governor of the Bank of Mongolia.

"This removes an albatross from around Mongolia's neck," exclaimed an Asia-based diplomat late on New Year's Eve 2003 when Mongolia announced the settlement of its US$10 billion foreign debt with Russia for US$245 million. As a result, international investor confidence in Mongolia has been significantly increased and trust between Mongolia and Russia correspondingly enhanced.

Add to this a respectable 5% growth in GDP, low inflation, a stable currency, new donor pledges of US$350 million and Mongolia's macro-economic fortunes in 2003 continued to advance in the right direction. Central to the government's future strategy is 2003's Economic Growth Support and Poverty Reduction Strategy which sets out the government's reform priorities. One of these remains the banking sector where significant progress has already been achieved.

Mr O. Chuluunbat, Governor of the Bank of Mongolia

"50% of loans across the banks were non-performing in 1997," says O. Chuluunbat, Governor of the Bank of Mongolia. "By 2003, this was down to 8%. Loan repayments for the same period have gone up from 65% to 95%. A new banking law has been passed simplifying collateral enforcement and this has reduced the level of recourse to the courts and introduced a much greater level of discipline among the banks."

In a further drive to improve standards, Mongolia's 17 banks will have to double their paid-up capital to Tughriks 4 billion (approximately US$3.6 million) from April 1st and again to Tughriks 8 billion (US$7.1 million) two years later.

For the moment, however, only a handful of Mongolia's banks register on the international radar screen. One of these is Trade & Development Bank of Mongolia, the country's largest commercial bank and winner of numerous national and international awards. Privatised in 2002 when the government sold 76% to Global Investment & Development Inc, a joint consortium of Banco Commerciale Lugano and Gerald Metals Inc, TDBM is managed by ING Bank under a three-year technical agreement signed in August 2003.

"Privatisation of Mongolia's largest bank gave the bank for the first time the authority to manage its own affairs," says CEO Chris Teunissen. "TDBM has had a complete overhaul and is now running services equivalent to any you'd find in the UK."

A key business constraint in Mongolia is the cost of finance. "70% of our customer base is corporate," he says. "We have to pay high rates to attract deposits so that means US$ and Tughrik rates are around 12% and 18% respectively for prime borrowers. This means that SME's can find themselves paying 24-36% for local currency."

Reduced borrowing costs for the country's agricultural sector are essential if the country is to capitalise on the export potential offered by its giant neighbours, Russia and China, where food industry output has been declining.

"Exported frozen Mongolian beef to Russia at US$750 a ton is one third the price of European beef," he says. "So there is great potential to raise the price by value-added processing and selling into different export markets if competitive finance is available to industry.'"

"Sustaining the government's vision of Mongolia as a low-cost, export-oriented economy is essential," he adds. "Here, export processing zones are crucially important so as to expand trade with Russia and China. Corporate tax is still high compared to other Asian economies but if the mining sector takes off then donor dependency can be reduced."

Creating the Euro-Asian look

The Gobi Desert is the world's last stronghold of the two-humped camel. Mongolia also has the finest raw cashmere in the world. A team of innovative young designers in Mongolia is successfully introducing knitted camel and cashmere garments to the top end of the luxury knitwear market.

"GOYO is the name of a plant found in the Gobi Desert on which the camel feeds," explains Tuya, Project Director at MongolAmicale's factory in Ulaanbaatar. "It also means luxury and elegance which we think are synonymous with our products."

MongolAmicale was established in 1993 at the invitation of Mongolia's first democratically elected President. As the first US-Mongolian joint venture and Mongolia's premier producer of de-haired camel and cashmere for export throughout Europe and the US, the company has successfully diversified into the manufacture of machine-knitted garments with a high-quality colour and design under the brand name GOYO. In 2001, the company engaged a London designer and in just twelve months branded sales rose from US$2,000 in October 2002 to US$80,000 last October.

Ranked behind China as the world's second largest producer of cashmere, Mongolia has around 10 million cashmere goats – or 25% of the world stock – but processes only one third as finished garments. There is therefore a significant investment opportunity for exploiting cashmere's full potential for downstream development.

"Our research tells us we now have the opportunity to reach US$5 million in sales of cashmere and camel knitwear based on our current capacity', says Tuya. "Russia alone is an enormous market for our knitwear and semi-processed products."

For this to be reached, Tuya admits some significant improvements in MongolAmicale's operating climate have to be achieved. "We need a controlled breeding programme to improve the quality of cashmere. And illegal exports of raw cashmere to China have to be stopped."

Cashmere is sold to China mainly by so-called changers who are un-registered and therefore pay no tax. When a ban on the export of Mongolia's raw cashmere was lifted in the 1990s, the Chinese stepped in with subsidised funds to buy more than 50% of Mongolia's production at artificially high prices. As a result, many Mongolian processors went bankrupt.

The Chinese have since been quick to take advantage of the US quota for Mongolia which allows for unlimited Mongolian cashmere imports into the US until 2007. Over 90% of Mongolian factories involved in primary processing of raw cashmere are now Chinese owned.

Working capital is critically important to us," says Tuya. "Without sufficient bank finance at substantially lower interest rates, we will have trouble purchasing raw materials this season."

Cashmere contributes directly or indirectly to the livelihood of one third of the country's population and no other export activity has the potential to provide cash income to the poorest families.

WE NEED A CONTROLLED BREEDING PROGRAMME TO IMPROVE THE QUALITY OF CASHMERE

Meanwhile, while Mongolia's cashmere industry comes to terms with globalisation, world prices have been falling. Since 9/11, the world price for combed cashmere, the industry's major output, has halved to approximately US$42 per kg.

World demand for cashmere, however, appears largely income-elastic. So if Mongolia can enhance collaboration among herders, agents, and government and secure the free trade agreements the country is seeking, conditions for herdsmen will substantially improve and the economy surely thrive.

Cashmere contributes directly or indirectly to the livelihood of one third of the country's population and no other export activity has the potential to provide cash income to the poorest families.

Renewed tannery captures new markets

In 1984, Darkhan Nekhii was Mongolia's largest tannery, processing 1.5 million sheepskins per year with 1,000 employees. When the Soviet Union collapsed it was unable to adjust to the harsh realities of the post-communist era and ceased production in 1996.

New management took over the shell of the company in early 1999. They recognised external assistance would be required and in July 1999, Darkhan Nekhii became one of the first companies to join the Enterprise Restructuring Project (ERP) which is funded by the Dutch Government.

Despite severe problems, production began again in November 1999. Costs and adverse environmental impact have been significantly reduced and investment and quality increased year by year. New products, new colours and modern surface finishes have enabled the company to capture export customers in Korea, UK, Germany, Poland, USA, and most recently Hungary.

Ariunaa, the ERP consultant that works with Darkhan Nekhii explains: "The key to success was spending time initially to help the management to develop an effective strategic vision, then ensuring that technical, managerial and organisational changes were introduced gradually and implemented effectively."

DRIVE AND ENTREPRENEURSHIP BOOST REVENUES AND PROFIT

	1999	2000	2001	2002	2003
Revenues (US$)	64,884	314,120	669,025	722,450	992,880
Net Profit (US$)	(334,976)	60,231	121,255	122,740	220,143
Employees	59	159	180	202	220

The drive and entrepreneurship of Darkhan Nekhii's management have enabled it to use its new products and quality to increase turnover and profits every year since operations re-started. And with increased profitability has come new employment, a major benefit to the local economy.

"Darkhan Nekhii's remarkable rebirth demonstrates just what a committed, receptive management team with a clear strategic vision can achieve in Mongolia," says ERP's Director in Ulaanbaatar, Jonathon Simon. "ERP is proud to be involved with companies of this calibre and looks forward to working with Darkhan Nekhii in the future."

Preparing the ground for EBRD investments

Mongolia joined the European Bank for Reconstruction and Development (EBRD) as a member in October 2000. In January 2004 the EBRD's Board of Directors and Governors agreed to admit Mongolia as one of the Bank's countries of operation so that it can benefit from EBRD investments. This requires an amendment to the Agreement establishing the EBRD.

Meanwhile, the Mongolia Cooperation Fund, comprising €10.3 million (approximately US$12.7 million) of grant contributions from Japan, the Netherlands, Luxembourg, and Taiwan, is using EBRD expertise to support Mongolia in implementing economic and legal reforms to create an attractive investment climate. Some 25 projects across a range of sectors including aviation, financial institutions and the power sector have received a total of €6.1 million (US$7.5 million) in grants from the Fund.

One of these projects aims to improve corporate governance law and practice in Mongolia. The work is being carried out by GBRW Limited, a London based financial sector consulting firm, as lead for a consortium which also includes two law firms – Denton Wilde Sapte, London and Moscow, and Lynch & Mahoney, Ulaanbaatar. The Mongolian counterpart is a Working Group of the Economic Standing Committee of the State Great Hural (Parliament).

Hsianmin Chen, EBRD's Operations Leader for the project, says: "The consultants" terms of reference require them to evaluate the adequacy of current Mongolian legislation. In addition, they will assist the State Great Hural Working Group to develop a prioritised action plan to bring Mongolia's legal framework and practice in line with international best practice."

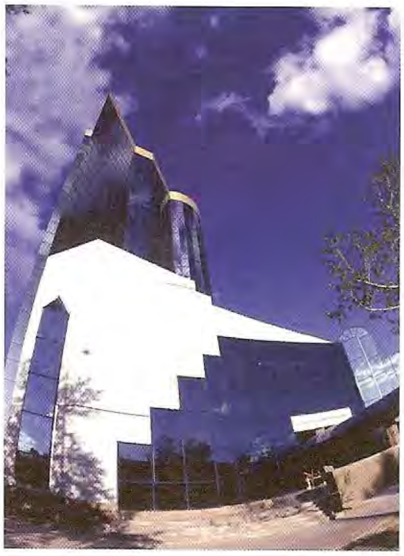
An Action Plan presented in Mongolia in March 2004 proposed seven main initiatives, one of which deals with the current problems of the Mongolian Stock Exchange.

As Paul Rex, GBRW's Project Director, says: "The number of companies currently listed on the MSE is disproportionate to the size of the Mongolian economy. The aggregate capitalisation of the MSE is approximately US$40 million and there are 400 or so quoted companies. The 30 largest make up more than 90% of market capitalisation and all have a small group of dominant shareholders controlling the companies" capital. Ownership of the remaining shares is widely spread amongst the public, many of whom hold only a few shares. Revitalisation of the MSE requires a drastic reduction in the number of the smaller companies."

Three steppes to heaven

Mongolia, Land of the Blue Sky, is one of the highest countries in the world. At around 1.5 inhabitants per square kilometre, the country has the lowest population density in the world and a landscape that justifies its reputation as the last untouched destination for adventurers. Throw in deserts, numerous salt and fresh-water lakes and a unique ecosystem and you have a richly diverse heritage dominated by Tibetan Buddhism and nomadism and crowned by the mystery of Chinggis Khan.

It's 25° below on a sparkling morning in mid-February and Ulaanbaatar is living up to its reputation as the coldest capital on earth. The streets are bustling with sharply dressed men and women clad in leather and fur and clutching mobile phones. In the sedate Ulaanbaatar Hotel close to the city's opera house, a small group of tourists is heading south to the majestic Gobi Desert. Devising strategies for boosting winter-based tourism in Mongolia represents one of the biggest challenges for the industry. Tourists visiting Mongolia – 198,500 in 2003 – are still principally concentrated in the 100 days of summer.



Increased foreign investment is crucial for the sector, which the government has identified as a priority for the country's development. 480 private companies currently run the country's tourism sector, 52 of which are foreign and represent a total investment of US$5.6 million in 2003.

Simon Moyle and his son Ben visited Mongolia in 1999 on a mountain bike trip and decided there and then to establish 4th World Adventures catering for year-round expeditions and tours based around Lake Hovsgol, a 100-mile long pristine lake in the north of Mongolia, close to the Siberian border. "We're unique in Mongolia," says Ben. "We have constructed our own fully equipped camps with accommodation designed by a British architect and self-sufficient in power, communications and transport".

Last year's opening was handicapped by the SARS outbreak but this year promises to produce a better return on the £500,000 (approximately US$922,000) so far invested by the Moyles in the project.

"Beijing has 28,000 ex-pats so we shall concentrate our marketing there. As for the winter season," he adds, leafing through "Welcome to the Freezer", his winter sales brochure, "there is no reason why Mongolia should not establish a year-round appeal if the industry can define its position in its main markets and upgrade its marketing and services".

When he's not promoting 4th World Adventures, Ben manages ARIGU a communications company in Ulaanbaatar which he launched with a Mongolian partner. Operating a cable television channel, video production unit and marketing consultancy for the country's NGOs and blossoming private sector, the business was up and running in two weeks from inception, illustrating the speed with which a business can be incorporated nowadays in Ulaanbaatar.

An analysis in September 2003 by GTZ, the German Technical Cooperation Programme, emphasises the key challenges the Mongolian government faces in its drive to create year-round sustainable tourism. These are to enhance the country's infrastructure and the sector's professionalism and create a coordinated marketing campaign for the country's unique combination of untouched natural wilderness and fabled Mongolian hospitality. Add a shot of CHINGGIS Vodka – soon to be on sale in London's Harrods Store – and a dash of GOYO and the branding challenge may be well on the way to being solved.

SPONSORED BY
The Bank of Mongolia
International Department
Baga toiruu – 9
Ulaanbaatar – 46
Mongolia

Tel: 976 11 327 087
Fax: 976 11 311 471
Email: ider_E@mongolbank.mn

PUBLISHED BY
Corporate Location Magazine,
Euromoney Institutional Investor PLC,
London

Supplement Editor
John Muir

Designer
Ray Heath

COMPETING FOR KNOWLEDGE-BASED BUSINESS

by Dr. Robert Huggins

The global nature of Foreign Direct Investment is changing in terms of both location and sectors of activity. In particular, developing countries are increasingly embracing FDI as a passport to economic growth, raising the level of competition, and requiring more established hosts to think innovatively in terms of attracting and embedding overseas investors.

This has been coupled with fundamental economic and industrial changes occurring, through the emergence of knowledge – its creation, transformation and utilisation – as one of the primary factors upon which sustained economic prosperity is reliant. As the World Knowledge Competitiveness Index 2004 highlights, the knowledge economy encompasses those industries and sectors where knowledge, as opposed to capital or tangible products, is the key source of competitiveness.

Figure 1 highlights the key inputs to a successful knowledge economy, emphasising the fundamental difference in wealth creation in this approach i.e. transforming knowledge to innovation and then wealth. In contrast to the traditional economy's requirement for capital and land, the knowledge economy relies upon less tangible inputs: namely those of education; networks and innovation infrastructure. The role of the 'new' knowledge economy is radically altering the very landscape of FDI, and requires new policies and new thinking from those who wish to remain or become major players in the global knowledge investment game. Knowledge intensive industries offer a strong basis for economic growth, potential spill over effects, and provide a basis for linkages across sectors.

It is important to outline the different approaches required to attract and embed knowledge-focused investment compared with those associated with investment in more traditional sectors of activity. For instance, traditional areas of inward investment such as utilities and mineral extraction have declined within most OECD nations, and been replaced by knowledge-based activities such as financial services and pharmaceuticals. Facilitated by privatisation and the deregulation of financial services, these knowledge-based sectors have resulted in the establishment of a buoyant knowledge economy-based FDI market. For example, cross-border mergers and acquisitions of high-technology industrial companies domiciled in OECD countries more than trebled over the second half of the 1990s.

The general size of initial FDI investments has fallen in recent years, with the switch towards attracting smaller and growing knowledge-intensive businesses, as mainstream and large-scale manufacturing operations relocate to developing nations in Eastern Europe and Asia. The requirement for most nations and regions is to formulate the correct investment conditions for both retaining home-grown companies and for encouraging foreign investors to choose the nation and/or region as the home for knowledge-intensive industries.

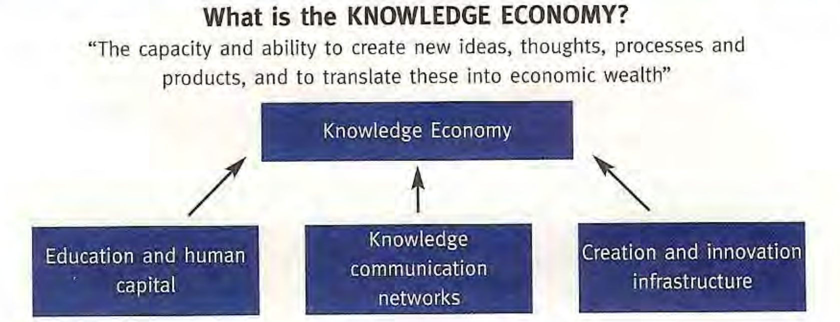
In the past, the traditional rules of attraction in the battle for FDI have involved the provision of an adequate infrastructure, a relatively low-cost labour force, and incentives – chiefly in the form of subsidised land and tax incentives . The primary aim for the host location was heightened job creation. In essence, many of the traditional methods of attracting FDI are cost-based, and this has been particularly relevant and effective where investment has been of a large-scale manufacturing nature, which is now shifting to lower labour cost developing nations.

Under the new rules of attraction, investments focus more on creating knowledge spill overs, i.e. a transfer of new skills, science and management techniques and a means of stimulating local competition and innovation, as knowledge-based FDI becomes the focus of attention in developed nations and regions. Where knowledge is the key competitive component of investment attraction, land or plant-based policy incentives become less relevant, exchanged instead for networking opportunities and technology transfer.

Previously, the tendency for investing businesses has been to control the majority of high-technology and knowledge-intensive resources within their indigenous home location. Under the new rules there is a trend emerging where providing a research presence within the host location is seen to provide additional knowledge transfer benefits, in terms of access to new sources of technological, organisational and marketing expertise, and to overseas innovation systems. Knowledge spill overs are now seen to move more equitably between the home and host location for FDI.

The arrival of FDI may also signal an environment of increased competition, whereby incumbent firms are 'forced' to improve efficiencies and develop innovations if they are to enter the supply chains and knowledge networks of the new investors. Indirect benefits in terms of productivity and innovative production and management can, therefore, accrue as a result

FIGURE 1: WHAT IS THE KNOWLEDGE ECONOMY?



of increased FDI within a region or cluster. By attracting and embedding knowledge economy-based FDI, regions and nations can access these new benefit accruals, which are key to creating a sustainable and competitive economic environment.

THE RISE OF THE KNOWLEDGE ECONOMY

FDI policy – in its traditional form – has followed a series of fairly well-trodden and rehearsed rules, encompassing pragmatic intervention, attractions such as high levels of financial incentives, ample land availability and a sound infrastructure with competitively priced labour. In more recent times, FDI policy has become increasingly sophisticated, focusing on embeddedness, aftercare and retention, chiefly in the form of fostering local and global relationships and networks between indigenous businesses and inward investors.

In general, the emergence of the knowledge economy means that the provision of tax incentives is no longer enough to secure an inward investment, with the emphasis shifting towards the provision of knowledge entrepreneurs and workers. It is important to emphasise that knowledge is a relatively intangible form of capital that does not require large land mass or tax incentives. Instead it requires the transformers and vehicles of knowledge – knowledge networks and knowledge workers.

It has been estimated that within OECD nations more than 50% of the GDP is now knowledge-based. As the American pop geographer Joel Kotkin has argued, the emergence of the knowledge economy is leading to the establishment of a social order in which information becomes more important than energy and conventional manufacturing as the critical source of wealth. Fundamentally different from the manufacturing economy that preceded it, leading management guru Peter Drucker has stated that the new or knowledge economy rests upon access to knowledge and creativity, more so than physical capital or natural resources. In relationship to FDI this is neatly summed up by a quote from Hewlett-Packard CEO Carly Fioina, "keep your tax incentives and highway interchanges – we will go where the highly skilled people are".

KEEP YOUR TAX INCENTIVES AND HIGHWAY INTERCHANGES – WE WILL GO WHERE THE HIGHLY SKILLED PEOPLE ARE

CARLY FIOINA, CEO, HEWLETT-PACKARD

In the knowledge economy people do not follow jobs, jobs follow people, fundamentally altering the rules of FDI attraction. Within the traditional model the firm is the key unit of attraction, where securing its presence leads to an influx of workers. The new model puts people at the centre of attraction, with their businesses following them in due course.

Knowledge-focused FDI attraction policies necessarily revolve around the movement and requirements of key knowledge entrepreneurs and workers, rather than those MNCs in search of tax incentives and large premises. Whilst one can envisage a situation where workers follow firms, it is characteristic of the knowledge economy that knowledge workers spur knowledge networks, which subsequently lead to firm creation. The starting point of the new equation is therefore fundamentally transformed.

Some commentators have argued that the knowledge economy renders location increasingly insignificant. The Internet and growth in telecommunications, they argue, make geography redundant, allowing knowledge workers to interact wherever they may be in the globe. I consider that far from becoming redundant, location, in the knowledge economy era, is actually becoming more important. One need only look at London's financial district (now home to more American Banks than New York) or Silicon Valley to understand that geography is alive and kicking. As Kotkin argues, 'if people, companies or industries can truly live anywhere, the question of where to locate becomes increasingly contingent on the peculiar attributes of any given location'.

In other words, the choice of location has become more elastic, resulting in competition becoming more intense. To quote Kotkin,"to them (knowledge economy workers), the world is essentially a vast smorgasbord in which various locales compete for their affections and attention". According to Richard Florida, in his book *The Creative Class*, location decisions are increasingly a complex interplay of lifestyle interests, stretching beyond the cursory 'air quality' and other standard quality of life amenities thought to be important.

The attraction of knowledge workers is not solely concerned with 'techies' but also with high-level – and often like-minded - professional and managerial occupational workers. This broader band of knowledge workers requires a strong mix of an appealing living and working environment – in cultural, physical and business terms – as well as a clustered environment of stimulating ideas, people and businesses across a broad cultural spectrum from art to high-technology endeavours. The successful regions of the

FIGURE 2: ATTRACTING KNOWLEDGE-BASED INVESTMENT

future will be those that build a creative economy attracting knowledge entrepreneurs and workers and the businesses that follow.

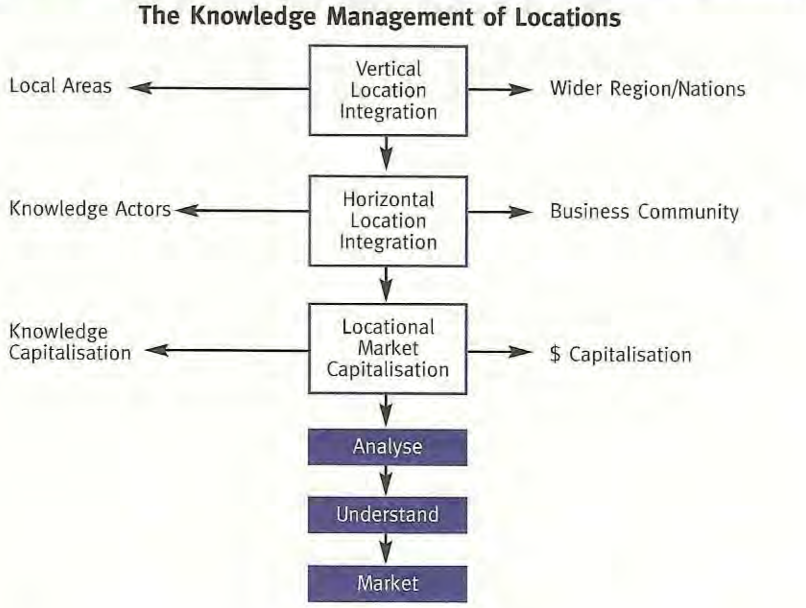
In fundamental terms, knowledge workers require opportunities for diversity and cultural openness. Interestingly, there are a number of US-derived indices that track the link between high-technology regions and diversity, and find the existence of strong concentrations of social and cultural diversity in the most successful regions. This indicates that not only are inclusive communities and regions the most productive and attractive, but that FDI intervention should be formulated so as to create and market a socio-economic and cultural environment that is 'inclusive,' 'transparent' and 'open'.

FDI policies across the globe have increasingly focused upon the importance of embedding firms within their host environment largely as a means of reducing the likelihood of closure or relocation. Many agencies have taken considerable steps and have encouraged training courses – (often operated by the inward investors) to ensure that local suppliers match investor needs, as well as the establishment of bespoke vocational training qualifications and the development of local supply chains specifically designed to equip the local labour force for work with the inward investors.

Such advances have been positive and innovative within the regional surroundings in which they are set. However, as we have seen, a knowledge economy environment requires a deeper form of embedding, through which knowledge entrepreneurs/workers are facilitated in seeking and accessing new opportunities for creative and knowledge advancement. More so than linkages with suppliers, interaction with universities and research establishments must be encouraged.

Since an existing concentration of well-qualified knowledge workers is a crucial cog in the building of successful knowledge-focused FDI, I consider that if the correct mix of skills are present a knowledge-based company will gravitate towards a particular region, be it foreign or domestic and whether there are tax incentives on offer or not. As Ross DeVol of the Milken Institute states, "you attract these people (knowledge workers) and you attract the industries that employ them, and the investors who put money into the companies". The virtuous circle is clear. By attracting knowledge workers, companies and investors will follow, allowing further start-up investment, further attraction activity and embryonic cluster development.

FIGURE 3: COMPONENTS OF A MANAGEMENT STRATEGY FOR KNOWLEDGE ATTRACTION



I am not seeking to suggest that the traditional cornerstones of FDI attraction policies are totally cast aside. What I am suggesting is that within the knowledge economy, location decisions made by individuals are subject to fundamental lifestyle issues which were not always given priority when formulating more traditional FDI attraction policies. A sound economic development policy of high R&D and education investment, together with thoughtful planning in terms of cultural attraction, access to open spaces and diversity of residential accommodation will play a more substantial role in the attraction of FDI within the knowledge economy.

> WITHIN THE KNOWLEDGE ECONOMY, LOCATION DECISIONS MADE BY INDIVIDUALS ARE SUBJECT TO FUNDAMENTAL LIFESTYLE ISSUES WHICH WERE NOT ALWAYS GIVEN PRIORITY WHEN FORMULATING MORE TRADITIONAL FDI ATTRACTION POLICIES

IMPLICATIONS FOR IPAS AND OTHER STAKEHOLDERS

Knowledge-focused FDI, as with all other types of FDI, hinges on the successful development and implementation of the three core pillars of the process – namely attraction, aftercare and embedding. In addressing these components, Figure 2 offers one perspective by which to view the long-term process of continuous attraction and retention of knowledge-based investment in Switzerland. Knowledge economy development fundamentally commences with addressing the needs of the knowledge worker, which includes their ability to access knowledge and turn this knowledge into innovation, as well as the quality-of-place and environment in which they reside. However, the stock of knowledge, particularly over the long-term, is dependent on the quality of education. Attracting knowledge-based investment rests, therefore, not upon excelling in one component, but upon the ability to engage all facets.

Turning to the structure and image of a knowledge-attracting FDI agency, multiple layers portray a complex picture and imply

Continues on page 63

US CITIES DOMINATE KNOWLEDGE BASES

San Francisco (including Silicon Valley) tops our 2004 list of the world's most knowledge-competitive regions. The region continues to combine sustainable economic development with high productivity. San Francisco is one of the wealthiest US regions and continues to invest in technology and human capital for future gains.

Boston moves into second place from third in 2003 mainly due to a fall in the fortunes for Austin-San Marcos – sliding from 2nd position to 9th. The top 14 positions on the World Knowledge Competitiveness Index are taken by US regions and they continue to dominate its composition. Only 10 non-US regions make it into the top 50. The lowest ranked US region is New Orleans, which comes in at 70th.

The success of San Francisco reflects an economy within which knowledge is an integral part of production. An important cluster of high-technology industries is found in the Silicon Valley area of the San Francisco Bay Area. As a result the region's performance is boosted by a high proportion of employment in the IT and instrumentation manufacturing industries. Allied to a significant high-technology service sector, it can be seen that San Francisco's economy is grounded in knowledge.

These sectors feed off a high level of innovation within their businesses. San Francisco is ranked seventh for private sector research and development expenditure and fourth in terms of patent registration. Such activity is financed by reserves of private equity capital within firms. These are high value-added clusters and are the drivers behind the highest mean level of earnings and the fourth highest level of GDP per capita.

If there is a criticism to be made of San Francisco, it is that the region is too heavily dependent on its cluster of IT industries. However, the region is diversifying around the increasingly fuzzy boundaries between ICT and biotechnology/life sciences. The San Francisco Bay Area is ranked seventh in terms of higher education spending and includes educational establishments such as the University of Stanford and the University of California at Berkeley.

Second-placed Boston thrives on high levels of intellectual and financial capital. In recent times Boston has been in a period of uncertainty due to increased competition, the market value decline of many of its largest companies, and a state-level fiscal crisis. Despite such uncertainties, the region continues to perform well on most indicators. The Boston economy remains strong and has fundamental advantages that limit its vulnerability to economic shocks.

Boston is built around its higher education sector and is home to eight research universities including Harvard and the Massachusetts Institute of Technology. It is estimated that the direct impact of these universities adds an extra US$7.4 billion to regional economic output. The indirect impacts in terms of skills, innovation and interaction with business is less easy to quantify, but is evident in the region's high ranking for research and development activity and patent registration. High skill levels combine with significant equity capital to produce the third highest level of labour productivity amongst the WKCI regions.

There are two regions in the top ten that are notable for having suffered this year, following periods of significant rises in the rankings in previous years. Austin-San Marcos has fallen from second place in 2003 to ninth by 2004, and Rochester in New York State has fallen three places in 2004 – having risen fifteen places between 2002 and 2003. Both have suffered significant increases in unemployment recently resulting in a worsening of performance, and this seems to be indicative of the high level of competition throughout the US. Rochester in particular is experiencing a large number of job losses in the so-called 'telecomm alley', while Eastman Kodak has also significantly downsized its operations.

Scandinavian regions perform well in 2004. Norway has improved its ranking (from 59th to 54th), while the two best performing non-US regions, Stockholm (15th) in Sweden and Uusimaa (Helsinki) (19th) in Finland, have risen by 3 and 18 places respectively. Stockholm combines low unemployment rates with high levels of technological investment. The continued increase in Uusimaa's knowledge competitiveness remains phenomenal, with it maintaining very high levels of knowledge-based employment and high levels of research and innovation. All four UK regions have improved their rankings considerably, benefiting from increases in research and development expenditure and the addition of private equity variable to the index in 2004.

With the exception of the above European regions and a few others, Europe as a whole continues to struggle to bridge the knowledge gap to compete with the US regions. The location of high technology clusters in Europe continues to be concentrated in a few regions. Many regions suffer from a lack of knowledge economy-specific government policies, and therefore investment in knowledge capital is limited.

Tokyo (38th) continues to be the highest ranked region outside North America and Europe. On the whole, the performance of the Japanese regions is disappointing, with only two of its regions – Shiga (39th) and Shizuoka (57th) – making any progress

TOP 5 – N. AMERICA

	REGION	WORLD RANK
1	SAN FRANCISCO	1
2	BOSTON	2
3	GRAND RAPIDS – MUSKEGON	3
4	SEATTLE	4
5	HARTFORD	5

TOP 5 – EUROPE

	REGION	WORLD RANK
1	STOCKHOLM, SWEDEN	15
2	UUSIMAA, FINLAND	19
3	ÎLE DE FRANCE, FRANCE	34
4	SOUTH EAST, UK	40
5	WEST, SWEDEN	44

TOP 5 – ASIA PACIFIC

	REGION	WORLD RANK
1	TOKYO, JAPAN	38
2	SHIGA, JAPAN	39
3	SHIZUOKA, JAPAN	57
4	TOCHIGI, JAPAN	58
5	AICHI, JAPAN	60

up the rankings. Tokyo's ranking (38th) is on the surface surprisingly low, as is perhaps London (46th), compared with their reputations. Regions such as London thrive on a combination of historical factors and the gravitational pull of a large, highly urbanised city-region. As global city-regions, they have distinctive business activity characteristics and advantages in areas of employment away from core knowledge-based activities. They benefit from a natural in-migration of human capital as centres of capital movement and political decision-making. While knowledge factors are certainly not irrelevant within these city-regions, it is important to note that they do possess certain advantages beyond overall knowledge competitiveness.

At the bottom of the WKCI rankings we continue to find the Chinese, Indian and Eastern European regions – the lowest ranked being Bangalore (125th), Mumbai (124th) and Hyderabad (123rd). However, it is worth noting that Bangalore's index score, although still very low, has increased by almost 300% since 2003. Overall, the WKCI demonstrates that while catch-up in terms of GDP per capita within emerging regions and nations is being achieved through the use of liberal economic policies, the transfer from a labour-intensive to a knowledge-intensive economy is a much more long-term process.

Asia Pacific leads the world in the human capital inputs with a score 6% higher than North America which, in turn, is marginally higher than Europe. High-technology industries have seen fast growth in Asia in recent years. For example, Taiwan and Singapore have become major IT manufacturing bases while most precision instruments are made in Japan.

Asia Pacific also dominates the knowledge capital input components, which coincides with the fact that a rich human resource of scientists and engineers and cheaper labour costs has attracted many multinational companies to relocate their R&D centres in Asia. Europe on the other hand lags behind the other two groups in terms of knowledge capital. In fact, it is 14% lower than North America, which may indicate that Europe's R&D and patent activities are not as active as its counterparts.

North America is by far the strongest continent for private equity finance, which is essential for the growth of high-technology firms. In comparison, financial capital is much more scarce in Europe and Asia Pacific.

As far as regional economic outputs are concerned, North America and Europe show no significant differences, while Asia Pacific lags behind both. Finally, Europe and Asia Pacific gain less than half of the scores of North America in terms of the knowledge sustainability link.

→ How the index works

The World Knowledge Competitiveness Index (WKCI) is an integrated and overall benchmark of the knowledge capacity, capability and sustainability of each region and the extent to which this knowledge is translated into economic value, and into the wealth of the citizens of each region. We define the knowledge-base of an economy as:

'THE CAPACITY AND CAPABILITY TO CREATE NEW IDEAS, THOUGHTS, PROCESSES AND PRODUCTS, AND TO TRANSLATE THESE INTO ECONOMIC VALUE AND WEALTH.'

The WKCI compares 125 regions across 19 knowledge economy benchmarks. Of the 125 regions, 55 are from North America, 45 from Europe and 25 from Asia Pacific. The key factor underlying the selection of the regions for benchmarking is their relative gross domestic product (GDP) per capita.

The results of this research are combined to produce a composite index of knowledge competitiveness. The model consists of four key components: (1) Capital Inputs; (2) Knowledge Economy Production; (3) Regional Economy Outputs (including Knowledge Economy Outputs); and (4) the Sustainability Link. Each of these components, with the exception of Knowledge Economy Production, has representative variables (See Figure on page 62), while Knowledge Economy Production is regarded as a production function that transforms Capital Inputs into Regional Economy Outputs.

The full report and analysis of the WKCI 2004 is available on the research projects section of the Corporate Location home page at **www.corporatelocation.com**

The variables selected for analysis are as follows:

HUMAN CAPITAL COMPONENTS
- Economic Activity Rate
- Number of Managers per 1,000 inhabitants
- Employment in IT and Computer Manufacturing per 1,000 inhabitants
- Employment in Biotechnology and Chemicals per 1,000 inhabitants
- Employment in Automotive and Mechanical Engineering per 1,000 inhabitants
- Employment in Instrumentation and Electrical Machinery per 1,000 inhabitants
- Employment in High-Tech Services per 1,000 inhabitants

FINANCIAL CAPITAL COMPONENTS
- Per Capita Private Equity Investment

KNOWLEDGE CAPITAL COMPONENTS
- Per Capita Expenditures on R&D performed by Government
- Per Capita Expenditures on R&D performed by business
- Number of Patents Registered per one million inhabitants

REGIONAL ECONOMY OUTPUTS
- Labour Productivity
- Mean Gross Monthly Earnings
- Unemployment Rates

KNOWLEDGE SUSTAINABILITY
- Per Capita Public Expenditures on Primary and Secondary Education
- Per Capita Public Expenditures on Higher Education
- Secure Servers per one million inhabitants
- Internet Hosts per 1,000 inhabitants
- Broadband Access per 1,000 inhabitants

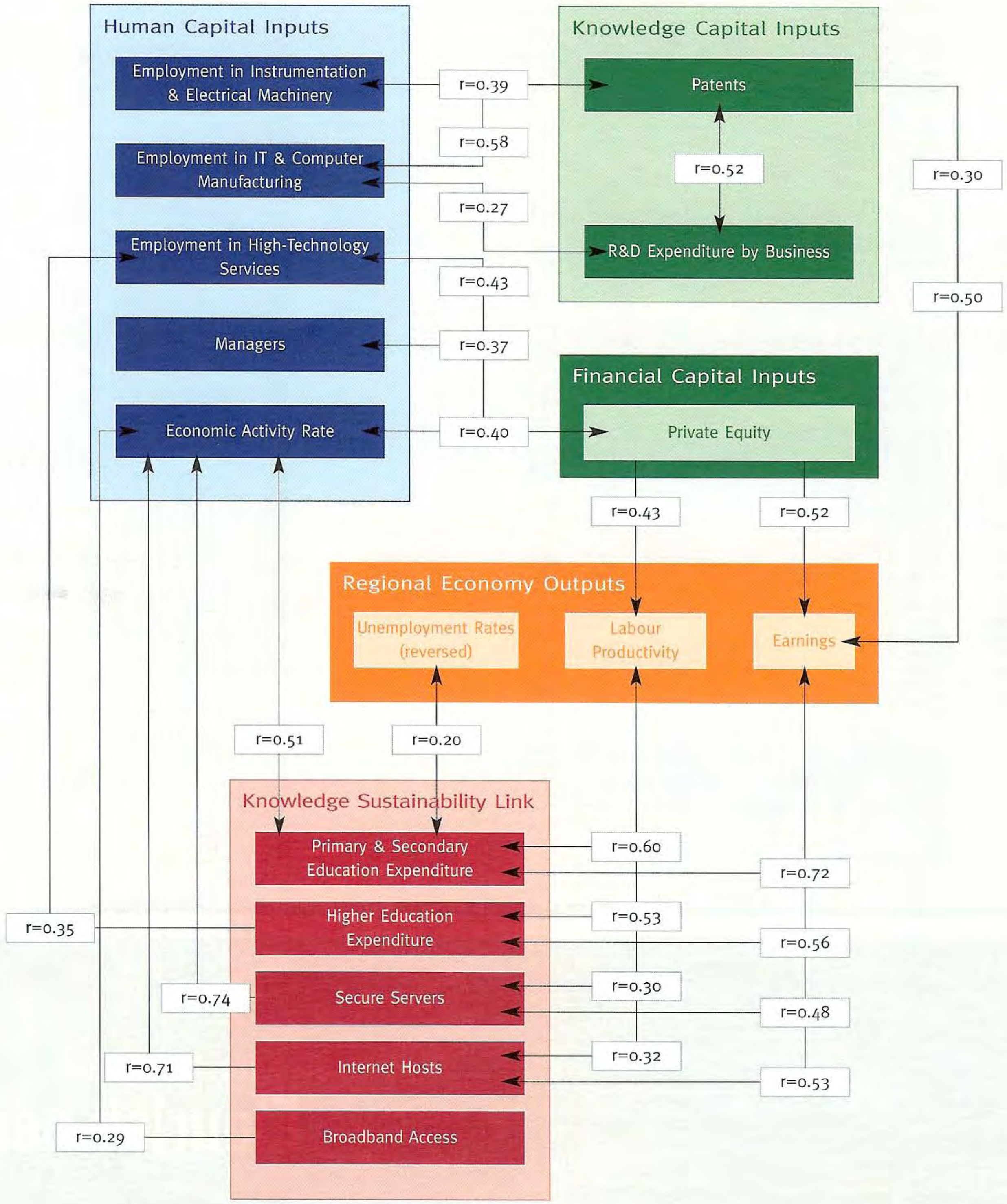
WORLD KNOWLEDGE COMPETITIVENESS INDEX 2004

Rank	Region	Knowledge Competitiveness Index 2004	Rank in 2003	Change in rank
1	San Francisco, US	259.0	1	0
2	Boston, US	230.4	3	+1
3	Grand Rapids–Muskegon–Holland, US	197.3	9	+6
4	Seattle, US	196.3	12	+8
5	Hartford, US	195.4	7	+2
6	San Diego, US	192.5	10	+4
7	Rochester, US	191.8	4	-3
8	Sacramento-Yolo, US	183.0	17	+9
9	Austin-San Marcos, US	183.1	2	-7
10	Minneapolis-St. Paul, US	180.5	5	-5
11	Los Angeles, US	179.8	21	+10
12	Detroit-Ann Arbor-Flint, US	176.7	14	+2
13	New York, US	175.6	11	-2
14	Denver-Boulder-Greeley, US	175.3	6	-8
15	Stockholm, Sweden	170.7	18	+3
16	Philadelphia, US	160.2	26	+10
17	Chicago, US	159.3	19	+2
18	Cincinnati-Hamilton, US	155.1	28	+10
19	Uusimaa, Finland	154.7	37	+18
20	Portland-Salem, US	153.1	16	-4
21	Dallas-Fort Worth, US	152.6	13	-8
22	Raleigh-Durham, US	151.9	8	-14
23	Washington, US	149.7	20	-3
24	Salt Lake City-Ogden, US	141.6	23	-1
25	Houston-Galveston-Brazoria, US	141.0	32	+7
26	Indianapolis, US	140.6	24	-2
27	Milwaukee-Racine, US	140.3	27	0
28	Buffalo-Niagara Falls, US	138.1	33	+5
29	Columbus, US	137.2	29	0
30	Phoenix-Mesa, US	135.8	36	+6
31	Atlanta, US	135.3	22	-9
32	Kansas City, US	135.2	25	-7
33	Cleveland-Akron, US	134.9	34	+1
34	Île de France, France	133.5	54	+20
35	Pittsburgh, US	131.5	38	+3
36	Charlotte-Gastonia-Rock Hill, US	131.6	30	-6
37	Richmond-Petersburg, US	129.5	31	-6
38	Tokyo, Japan	123.8	15	-23
39	Shiga, Japan	123.1	46	+7
40	South East, UK	119.8	77	+37
41	Greensboro–Winston-Salem–High Point, US	118.5	35	-6
42	St Louis, US	118.3	41	-1
43	San Antonio, US	117.0	43	0
44	West, Sweden	115.9	69	+25
45	Switzerland	114.1	49	+4
46	London, UK	111.4	68	+22
47	Nashville, US	109.9	42	-5
48	Norfolk-Virginia Beach-Newport Beach, US	109.8	48	0
49	Louisville, US	109.4	39	-10
50	Eastern, UK	108.5	84	+34
51	Brussels, Belgium	106.2	56	5
52	South, Sweden	105.6	72	20
53	Memphis, US	105.2	52	-1
54	Norway	104.8	59	+5
55	Baden-Württemberg, Germany	103.9	67	+12
56	Orlando, US	103.6	40	-16
57	Shizuoka, Japan	102.1	60	+3
58	Tochigi, Japan	101.6	50	-8
59	Jacksonville, US	101.2	47	-12
60	Aichi, Japan	99.6	58	-2
61	Tampa-St. Petersburg-Clearwater, US	98.0	45	-16
62	Denmark	97.7	71	+9

FOR DETAILS OF THESE RANKINGS CHECK www.corporatelocation.com

Rank	Region	Knowledge Competitiveness Index 2004	Rank in 2003	Change in rank
64	West Palm Beach-Boca Raton, US	94.8	57	-7
65	Luxembourg	94.6	44	-21
66	Toyama, Japan	93.3	64	-2
67	Miami-Fort Lauderdale, US	93.4	62	-5
68	South Netherlands	92.6	75	+7
69	Oklahoma City, US	92.0	51	-18
70	Bayern, Germany	91.8	73	+3
71	Hessen, Germany	90.1	76	+5
72	Las Vegas, US	90.0	53	-19
73	New Orleans, US	85.8	70	-3
74	Singapore	83.2	90	+16
75	Hamburg, Germany	81.6	55	-20
76	East, Austria	79.2	78	+2
77	Kanagawa, Japan	78.4	63	-14
78	Quebec, Canada	75.0	81	+3
79	Victoria, Australia	73.6	97	+18
80	Alberta, Canada	73.5	61	-19
81	Osaka, Japan	73.1	66	-15
82	Centre-est, France	71.6	105	+23
83	New South Wales, Australia	71.3	96	+13
84	West, Netherlands	70.1	80	-4
85	Western Australia	69.7	94	+9
86	Israel	69.8	119	+33
87	Berlin, Germany	67.8	92	+5
88	Smaland Medoarna, Sweden	67.0	83	-5
89	Scotland, UK	66.6	104	+15
90	Vlaams Gewest, Belgium	65.7	101	+11
91	Ireland	65.3	91	0
92	Manitoba, Canada	65.0	82	-10
93	Lombardia, Italy	64.9	89	-4
94	Kyoto, Japan	63.7	74	-20
95	West, Austria	63.8	87	-8
96	British Columbia, Canada	63.3	88	-8
97	Nordrhein-Westfalen, Germany	63.4	95	-2
98	Bremen, Germany	62.9	79	-19
99	Comunidad de Madrid, Spain	61.3	99	0
100	Saskatchewan, Canada	59.2	86	-14
101	Ulsan, Korea	59.1	109	+8
102	Taiwan	57.4	103	+1
103	North, Netherlands	54.9	100	-3
104	North West, Italy	54.7	110	+6
105	Niedersachsen, Germany	53.8	107	+2
106	Hong Kong	52.2	102	-4
107	Emilia-Romagna, Italy	49.5	98	-9
108	New Zealand	48.3	108	0
109	Seoul, Korea	48.1	117	+8
110	Lazio, Italy	47.1	113	+3
111	Schleswig-Holstein, Germany	45.1	112	+1
112	Prague, Czech Republic	43.5	93	-19
113	Saarland, Germany	42.6	111	-2
114	North East, Italy	41.4	106	-8
115	Noreste, Spain	36.3	118	+3
116	Central, Italy	29.4	116	0
117	Beijing, China	27.4	120	+3
118	Pearl River Delta, China	23.8	85	-33
119	Shanghai, China	17.5	121	+2
120	Bratislavska, Slovak Republic	13.8	114	-6
121	Tianjin, China	10.3	122	+1
122	Budapest, Hungary	9.7	115	-7
123	Hyderabad, India	7.9	123	0
124	Mumbai, India	7.1	124	0
125	Bangalore, India	5.8	125	0

INTER-RELATIONSHIPS BETWEEN KEY COMPONENTS OF THE WORLD KNOWLEDGE COMPETITIVENESS INDEX 2004 (r = correlation coefficient)



Continued from page 57

slow delivery and bureaucracy. Whilst we do not advocate denying each organisation a role in promotion, a single contact point alone should be highlighted, with signposting to other supporting organisations and bodies undertaken 'behind the scenes'. A consistency in approach is therefore conveyed, together with clear lines of communication and transparency.

AFTERCARE AND EMBEDDING

Insufficient long-term commitment or integration of knowledge-focused FDI is often caused by a lack of embeddedness, primarily as a result of a deficiency of network contacts and awareness regarding the skills and supply chains existing within the region. Initiatives aimed at remedying this situation can include 'collective learning' events between host and foreign firms. In general, traditional policy boundaries between FDI and indigenous development are becoming redundant (with the exception of headquarter functions). For instance, retention and aftercare services are the same for FDI and indigenous knowledge-based businesses, since they often form part of the same value chain.

This is a development that is mirrored within most knowledge progressive regions throughout the world and is itself an indication of positive embeddedness intervention. However, such intervention often suffers from the contradiction of matching long-term cluster building with the requirements of meeting other goals within volatile economic conditions.

In terms of FDI, poor current trading conditions make certain investments highly vulnerable to an exit from the host nation. However, such investment is often repatriated to the country of origin in order to bolster local employment and income. This is less often the case with knowledge-focused FDI if it is truly embedded within the host region and nation. Indeed, such might be the FDI's dependency on the regional cluster with which it operates, it might actually be unable to relocate without an expense potentially greater than the cost of continuing to reside within the host region.

Embedding is one key area where inward investment agencies must take a proactive approach. A systematic approach to aftercare and embedding is needed together with a formal means of examining current and future FDI company requirements. Increased effort must be made to understand the requirements of existing FDIs, ensuring that opportunities for further investment and expansion are not missed. Encouraging networking events with local venture capitalists, universities and knowledge entrepreneurs and workers will aid in encouraging embedding activity and ensure that existing and potential inward investors are fully aware of the range of advantages that a region has to offer.

Although a commonly held belief is that all strategic decisions for FDI are made in the home rather than host nation, in reality there is often a substantial degree of local initiative in the process of reinvestment. There is therefore considerable opportunity and potential for local development agencies to support and nurture this process by careful and strategic embedding on the part of the inward investment agency. As the inward investing firm becomes part of the local knowledge network, it makes sense for the local firm to undertake local strategic and reinvestment decisions as opposed to home nation headquarters. Similarly, the potential for cross-regional knowledge investment or spin-out must not be ignored, and a systematic and consistent gathering of information and intelligence will aid in this quest (see Figure 4).

THE KNOWLEDGE MANAGEMENT OF LOCATIONS

Figure 3 illustrates the key components of a knowledge-based environment. Factor inputs such as capital, markets, support industries and public policies are all integral to the process. However, the success and level of development of each key factor hinges upon access to, and integration with, both a local and global environment of activity. The complex local and global environment within which knowledge-based firms operate gives rise to two schools of thought regarding proximity and technology. The first school argues that proximity is a significant mechanism for generating collaborative innovation. The second suggests that connectivity through global spaces is a more important stimulant of technological advancement.

These two positions introduce an

unnecessary split of global and local forces when the reality suggests that in successful growth economies both operate in an overlapping and complementary manner. Furthermore, it is also the case that successful connectivity in global spaces is often the outcome of an initial system of localised interaction. This reinforces the fact that a relatively strong localised knowledge economy should act as an important lever for attracting external knowledge-based investment.

If regions and nations are to take knowledge-based FDI seriously they should be working towards establishing a management strategy for knowledge attraction along the lines highlighted by Figure 4. The key features are:

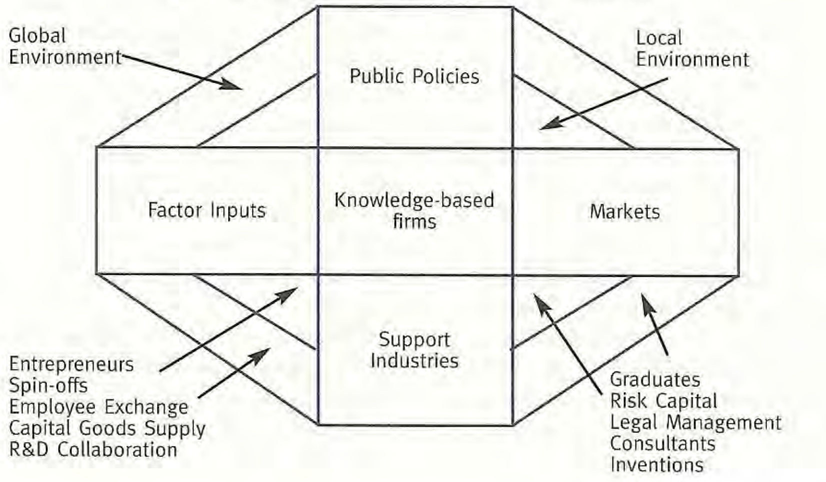
(1) An understanding of the role for strategic integration of locational development models between national, regional and local players;
(2) An understanding of the role for strategic integration between the business community and knowledge actors in the form of universities and other public and private sector research establishments;
(3) An understanding of the importance of knowledge economy activities to the overall size and performance of national and regional economies. Once these factors are analysed and understood, it is then possible to proceed towards the establishment of an integrated marketing strategy.

If Joel Kotkin is correct in his assertion that knowledge workers view the world as a 'vast smorgasbord' of choices, then creating the most hospitable and appealing environment for such workers becomes imperative. The most successful, award-winning, and experienced FDI attractors have combined proactive approaches with bottom-up approaches that stem from co-working with educational planners in designing appropriate science and technology training courses, and incentives for study and work for the best graduates.

Many of the leading regions on the World Knowledge Competitiveness Index 2004 score highly in terms of their quality of life attributes as well as with the amount and quality of research institutes and science technology networks they possess. These regions are not exclusive to their sectors of attraction, and thrive in being homes of the

FIGURE 4: CREATING A KNOWLEDGE-BASED ENVIRONMENT

Creating a Knowledge-Based Environment



knowledge economy as a whole. This knowledge cluster approach has resulted in plentiful opportunities for cross-sector networking, and acts as a magnet to all important venture capitalists. Most importantly, these regions usually recognise the need for transparency in their approach to FDI and often adopt public-private partnerships in the design and implementation of FDI policy.

Traditional FDI policy should not be left by the wayside. The core aspects of aftercare and embedding in the shape of tailored solutions and care, single-contact consistency and rapid response to queries regarding supply chains, housing, education and labour sourcing must continue to operate in an efficient and consistent manner. However, in order to attract FDI in the knowledge economy, value must be added to these policies, including conveying a sense of limited bureaucracy (often achieved through streamlining contact points and creating public private partnerships), high quality of life, and plentiful opportunities for the advancement of learning, university-business collaboration, and an open 'cluster approach' where a diversity of entrepreneurs, businesses and workers seek to flock.

WAIPA Annual Conference

14-16 June 2004
Sao Paulo - Brazil

WORLD ASSOCIATION OF INVESTMENT PROMOTION AGENCIES

Topics to be Debated

- Leveraging FDI to Increase Export Competitiveness
- Aligning IPA's Strategy & Government Development Goals
- FDI Trends and Predictions 2005 - 2007
- Helping Companies Move Abroad
- ITC/UNTACD World Investment Map
- FDI: Creating or Stealing Jobs?
- Developing Your Economy as Part of the Global Supply Chain: Focus on Tourism and Automotive Industries
- FDI in a Bad News Environment

Some Confirmed Speakers to date:

- **H.E. Mr. Luiz Fernando Furlan**
  (Minister of Development, Industry and Trade of Brazil)
- **H.E. Mr. Walfrido Mares Guia**
  (Minister of Tourism of Brazil)
- **Professor Jeffrey Sachs**
  (Director, The Earth Institute, Columbia University, USA)
- **Mr. Rubens Ricupero**
  (General Secretary, UNCTAD)
- **Mr. Saeed Al Muntafiq**
  (Director General, Dubai Development and Investment Authority Chairman of the Board for Dubai Media City and Chairman of the Board for Dubai Healthcare City)
- **Mr. Francesco Frangialli**
  (Secretary General, World Tourism Organisation)
- **Ms. Maria Livanos Cattaui**
  (Secretary General, The International Chamber of Commerce)
- **Mrs. Clara Gaymard**
  (President, Invest in France)
- **Dr. Martens-Jeebe**
  (Director, Invest in Germany)
- **Mr. Kai Hammerich**
  (Director General, Invest in Sweden Agency)
- **Mr. Guy de Jonquieres**
  (Chief Editor, Financial Times)
- **Mr. Dan O'Brien**
  (Senior Europe Editor, The Economic Intelligence Unit)

Who Attended the last WAIPA Annual Conference?

266 delegates from 88 countries attended the three-day event. 46 participants were heads of IPAs. Numerous officials of international and multilateral organizations, NGOs as well as an increasing number of representatives of the private sector, the press and the academia, participated in what is generally acknowledged as the world's largest annual gathering of senior investment promotion professionals.

WAIPA Annual Conference is more than one Event

WAIPA Annual Conference is one parallel events in the Sao Paulo Conference of UNCTAD XI organised every 4 years. The Conference will gather 3,000 participants from over 190 countries including many heads of State.
Other Related events include:

- ITC Competitiveness Tools Fair
- NGOs Solidarity Market Fair
- EMPRETEC/SEBRAE Business Fair
- UNIDO Technology Fair of the Future

www.waipa.org/conferences.htm

IEP International Event Partners

Sponsorship Opportunities and Registration Details:

Tel: +44 (0) 208 815 9570	Tel: +41 (0)22 907 5911
Fax: +44 (0) 208 815 9571	Fax: +41 (0)22 907 0197
E-mail: waipa@i-ep.com	E-mail: celia.ortega@waipa.org

WAIPA

INTERNATIONAL EVENT PARTNERS Ltd. www.i-ep.com