

Technology Market Scan

INTERNATIONAL

World energy investment

In order to meet the increasing energy demands over the next three decades, there needs to be an investment of US\$ 16,000 trillion in the sector, according to the Paris-based International Energy Agency (IEA). "Without new policy actions, world energy demands will rise by two-thirds, between now and 2030, and the world economy will falter if these energy supplies are not made available," said Claude Mandil, Executive Director of the IEA.

This is the first attempt to build such a comprehensive picture of future energy investment, said Mandil. The project included collaboration with groups such as OPEC, the World Bank and major energy companies and financial institutions. Findings include the prediction that transmission and distribution will account for more than half the global electricity sector investment, and that 51 per cent of investments will be needed simply to maintain production capacity, including the replacement of obsolescent facilities.

The biggest and most pressing challenge will be in financing investments in developing and transition countries. Their financial needs are biggest, both in absolute terms and in relation to the sizes of their economies, according to the IEA. For instance, Russia will require investments amounting to 5 per cent of GDP, and the African continent will require funding to 4 per cent of GDP. This is compared to only 0.5 per cent in the OECD. Investment risks outside the OECD are also higher, notes the IEA.

The current projected rate of investment will still leave 1.4 billion people without access to electricity by 2030, only 200 million fewer than now, says the IEA. Boosting global electricity investment by just 7 per cent would be sufficient to bring a minimal level of supply to these marginalized people. However, this would equate to US\$ 665 billion that needs to be raised in the poorest regions that are already struggling to raise capital.

Mr. Mandil noted that there is a duty to work towards raising the funds necessary to bring electricity to all citizens by

2030, and that if circumstances continue as they are, the finance will not be found. "If not someone, somewhere in the world, will go without the energy he, or more likely she, needs," he said. Of the funding, 14 per cent needs to be spent in China; 7.5 per cent in Africa; 6 per cent in the Middle East; 10 per cent in Russia; 41 per cent in the OECD; and the remainder in the rest of Asia.

<http://www.edie.net>

Biotechnology in healthcare

According to a soon-to-be-released review, "RDBC03 Biotechnology in Healthcare: Product and Market Review" from Business Communications Company, Inc. (www.bccresearch.com), the market for biotech-based biologics and new chemical entities was estimated at \$ 24 billion in 2002. The total market grew at an average annual growth rate of about 15.4 per cent from 2000 to 2002.

Protein-based therapeutics have led to the emergence of the biotechnology industry and should drive rapid growth in the industry over the next decade. In 2002 alone, the FDA approved 35 biotechnology-based drugs. According to our analysis, there are over 40 biologic products (antibodies and non-antibody recombinant proteins) that are currently in Phase III clinical testing, and about 60 in Phase II testing, which we estimate could lead to over 35 new products on the market in the next four to six years. By our estimates, such a new product outpouring would lead to more than a doubling of the number of profitable biopharmaceutical companies by mid-decade. While we are quite bullish on the sector's new product flow over the next several years, we believe it is prudent for investors to begin evaluating company assets beyond product pipelines.

We believe that the biotechnology industry is in the growth phase of its industry life cycle, and that this phase will be marked by rapid sales growth due to a bevy of new products entering the marketplace over the next several years. Biotech companies are well financed, having raised capital from public and private financings, as well as from partnership agreements with cash-rich pharmaceutical companies. Moreover, rapidly evolving science has led to a richer and more robust drug pipeline than at any time in the industry's history. The discovery of new targets and scientific platforms gives biotech companies new pathways to combat diseases that have not been addressed by traditional small-molecule drugs. The expanding geriatric population is likely to increase the prevalence of poorly addressed serious illnesses such as cancer, blood disorders and viral infections, suggesting that the demand for effective biologic drugs will remain strong in the coming years.

The oncology and niche disorder markets will generate a combined pipeline income. Other key foci of the biotechnology industry are the inflammatory disease and immune disorder markets, particularly rheumatoid arthritis, psoriasis and Crohn's disease. Notably, the major therapeutic areas targeted by the pharmaceutical industry, such as CNS and cardiovascular disease, are relatively underserved by the biotechnology players. In part, this reflects both the lack of relative unmet need in many of these diseases, and the competitive difficulties for an emerging player up against the established pharmaceutical giants.

Advances in genomics are certain to lead to more effective and more targeted drugs related to genomics in the exciting and fast growing field of bioinformatics. Bioinformatics probably represents the biggest opportunity for the IT industry.

Global market for biotech healthcare products, 2000-2002 (\$ millions)

	2000	2001	2002	Average Annual Growth Rate (AAGR) % 2000-2002
Biologics	15,702	19,330	20,382	13.9
New chemical entities	2,425	3,705	3,755	24.4
Total	18,127	23,035	24,137	15.4

Source: BCC, Inc.

Technology Market Scan

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Chip sales increase by 17.5 per cent

The Semiconductor Industry Association (SIA) reports that semiconductor sales increased by 6.5 per cent to \$ 14.4 billion in September 2003, up from \$ 13.6 billion in August. According to SIA, September's performance had the strongest percentage change since 1990, which propelled quarterly revenue to \$ 43.3 billion - a 17.5 per cent increase over the third quarter of 2002, and a 13.7 per cent sequential rise over the second quarter of 2003. "September and third quarter data confirm that demand in the global semiconductor market is rising briskly," stated SIA President George Scalise. "Performance is strong in all major market sectors - computation, communications and consumer, indicating a solid, continuing and broad-based growth cycle."

PCs, 30 per cent of the end-market, drove growth in the third quarter, producing a 33.2 per cent rise in DRAMs and a 23.9 per cent rise in MPUs. Scalise said that the better than expected 7.2 per cent rise in GDP for the third quarter was driven by a combination of a record 6.6 per cent increase in consumer outlays, and strong business spending, as investment in computers and software rose 15.4 per cent, after an 8.3 per cent gain in the year's second quarter.

Meanwhile, Flash grew 27.2 per cent and DSPs were up 20.3 per cent in the third quarter, driven by strong growth in cell phones, which account for 12 per cent of end-market demand. The consumer sector, some 17 per cent of the market, is expanding across the globe with new applications and multi-functional devices. Optoelectronics were up 14.6 per cent and ASSPs were up 17.2 per cent this quarter.

Sales in the Asia-Pacific region rose 19.1 per cent in the September quarter,

while Europe's was up 12.0 per cent, Japan up 11.0 per cent and the Americas 8.6 per cent over the July quarter this year. "Solid growth across all four geographic markets positions the industry for revenue growth exceeding 10 per cent in 2003, followed by stronger double-digit growth in 2004," said Scalise.

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<http://www.electroniccomponents.globalsources.com>

ASIA-PACIFIC

Help to catalyze energy efficiency markets

The Asian Development Bank (ADB) is backing a fund to help small and medium sized firms in Asia invest in energy efficiency and renewable energy employing clean technologies, through an equity investment of US\$ 20 million. The fund will provide capital, project expertise, and international and emerging market experience to catalyze energy efficiency and renewable energy markets in Asia.

The fund aims to provide equity capital, financial engineering, technical and carbon-related skills, and training to energy services companies (ESCOs) on a project-by-project basis. It will also partner with Asian-based ESCOs to deliver energy-efficiency services and renewable energy to selected industrial, commercial, and public sector customers. The fund, together with its Asian ESCO partners, will be in a position to offer a complete energy efficiency solution, i.e., technical expertise to develop an energy savings plan, the ability to source the best equipment and implement the plan, and provide financing to make the whole plan happen.

Initially, the fund will focus on India, Malaysia, the Philippines, and Thailand, whose governments are encouraging energy efficiency. As it generates momentum, the fund will evaluate opportunities in Bangladesh, the People's Republic of China, Indonesia, Sri Lanka, and Viet Nam, where opportunities and incentives for energy efficiency are just starting to evolve.

The fund will target investments that increase energy efficiency or promote clean generation, pursuing small investments that can be replicated within the region. It will prioritize deals that enhance efficiency and increase the value of existing assets and infrastructure through demand-and supply-side projects. It will invest alongside key players with proven records in the region. Potential partners include utilities, energy companies, vendors, financial institutions, and multilateral banks.

The fund will preserve the option of claiming carbon credits from its projects by entering into contracts to have the energy savings and resultant greenhouse gas emissions reductions certified by recognized and qualified agents. However, the potential value of the credits will not be included in the financial assessment of any project.

The fund will have a 10-year life, extendable for up to two years. Its target size is \$ 120 million, with an initial closing planned at \$ 50 million. It will be composed of a Master Fund, an Asian sub-fund and a European sub-fund. Of the resources, 60 per cent will be invested in Asia, with ADB subscribing only to the Asian sub-fund, and its stake not to exceed one quarter of the total funds committed to Asia.

The founding investors of the fund are the Japanese industrial giant, Mitsubishi Corporation, and Japan's third largest electric utility, Chubu Electric Power Company, each of whom will invest \$ 10 million in the Master Fund and also provide technical and strategic advice on project origination and development.

The fund will be managed by FE Global Asia Clean Energy Services Management Corporation, an affiliate of FE Clean Energy. Founded in 1992 as Fonelec Group Inc., the private equity firm, with offices in Connecticut, USA, specializes in utility and energy services investments in emerging markets.

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Asia-Pacific broadband users

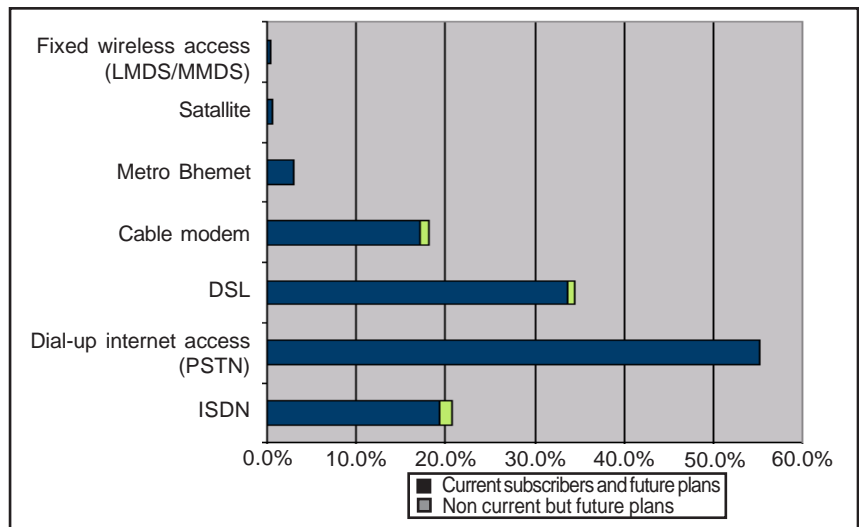
According to IDC's latest annual survey of small and medium-sized businesses (SMBs) in the Asia-Pacific (excluding Japan) region, *SMB 2003*, broadband Internet access is a widely used service, with over 50 per cent of survey respondents saying that they currently use this service. Although broadband services were being used by a majority of the companies surveyed, there exists a large segment in this space that currently do not and have no plans to utilize such services. Over 40 per cent of respondents currently do not use, nor have plans in the future to use a broadband Internet access service. However, about 2 per cent of non-current broadband users expressed an interest in subscribing to the service in the future.

"Broadband has shown a strong uptake and demand in the region, evidenced by the number of enterprises that are using the service. However, there exists a substantial minority of SMBs that have not migrated to the service," said Tim Crowley, Senior Analyst, Broadband Markets and Technologies, IDC Asia/Pacific. "Within this minority, there still exists demand for broadband services, but service providers need to have a more granular understanding of the needs of particular SMB segments to target this market more effectively."

Based on the survey, it appears that some SMBs utilize both the dial-up and broadband services, and a majority of the respondents surveyed currently have a dial-up account and they plan on continuing to use the service. While broadband Internet access services were popular across all enterprises, regardless of company size, larger SMBs (those enterprises with between 101 and 240 employees) showed the highest use of the service.

The Taiwanese and Korean markets showed the highest percentage of SMB broadband penetration. In Taiwan, a survey showed that a large majority of

Means of internet access (percentage of respondents)



Source: IDC, 2003

SMBs currently use, and will continue to use the service. Korea also showed a fairly large percentage of SMBs adopting the broadband Internet access service. However, of those SMBs who were not subscribing to broadband Internet access, the survey found that there was an overwhelming preference for leased lines, citing this as the reason for not subscribing to broadband. Of the 1,823 survey respondents, 100 per cent of the Korean respondents and 79.1 per cent of the Taiwanese respondents cited leased lines as the reason for not subscribing to broadband. Comparatively, only 54.8 per cent of SMBs in Singapore cited this as the main reason.

The most commonly cited reasons among those respondents in the region who did not have a broadband Internet access service were that "leased lines are able to offer a desired and consistent quality of service", followed by "content with dial-up services - only used for messaging/email". From observation, the majority of SMBs who do not currently have any plans to subscribe to broadband services, were satisfied with their existing Internet access solution, as existing services had met their Internet access needs.

Overall, satisfaction with dial-up services was strong in Hong Kong, India, and the PRC, but was relatively lower in Taiwan, the Philippines and Singapore. However, many SMBs cited the high cost of broadband services as the primary deterrent to subscribing to broadband

in the Philippines, Australia, the PRC and Malaysia.

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Market growth for IT spending

According to new IDC data compiled for the first half of 2003, total IT spending in Asia-Pacific, excluding Japan, indicates a market growth of 8.6 per cent in current dollar terms over the same period last year, attaining a value of US\$ 79.3 billion. Although the impact of SARS has affected the revenues for the retail, travel and transportation segments, it appears to have had less effect on IT purchasing timeliness overall.

"As this data is presented in current dollars, the recent weakness in the US currency will create an uplift to the markets in US\$ terms," said Gary Koch, Director of IT Spending, IDC Asia-Pacific. "Growth for 2003 over the same period last year would be nearly 4 per cent if the exchange rates were kept constant between 2002 and 2003, a figure comparable to the growth in the same period for 2002." IDC expects IT spending in the region to pick up in 2004, with the market expected to grow by 11.0 per cent to US\$ 88

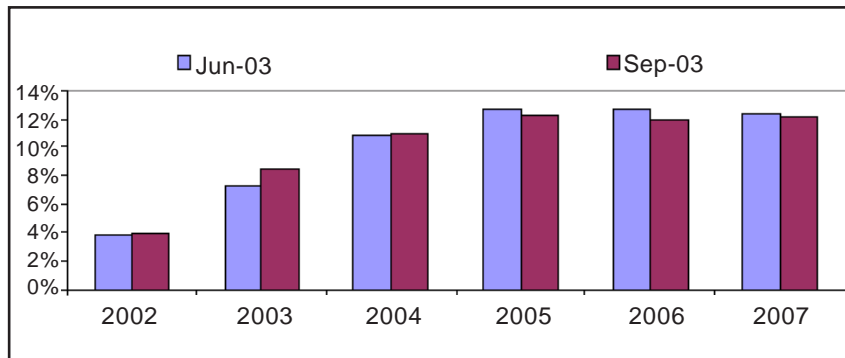
Technology Market Scan

Asia-Pacific (excluding Japan) IT market (US \$ billion)

	2002	2003	2004	2005
Hardware	45.1	47.2	51.6	56.9
Packaged software	9.0	10.0	11.2	12.8
IT services	19.0	22.1	25.2	29.0
Total IT	73.1	79.3	88.0	98.7
Growth at current		8.6%	11.0%	12.2%

Source: IDC, September 2003

Asia-Pacific (ex-Japan) annual IT spending



Source: IDC, 2003

billion. Much of this growth will be seen in the China and India markets.

"Although enterprises continue to focus on improvements in infrastructure management and better utilization of existing IT resources given the lack of investment on new equipment, there are still several large initiatives driving spending. These include the Golden Tax Project in China, the new Bangkok Airport, and further telecom build-out in India and China, as well as progress in eGovernment initiatives throughout the region," said Mr. Koch. "The SMB segment is also gaining momentum as attractive product and service offerings brought to the market by many vendors are now focused on this segment. We anticipate this factor to be instrumental in a stronger 2004," he noted.

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CHINA

High-tech businesses

2003 marks the 15th anniversary of the establishment of China's National Torch Program. Since its establishment, 24,000

projects have been implemented under the Programme, with 90 per cent focusing on industrial proprietary technologies or domestic technology development and 40 per cent of them being derived from other national or regional development programmes. The projects like Shuguang high performance computer, Beida Fangzheng laser printing system, Qinghua Tongfang mobile large container examination system, the high resolution TV of Xiixin Electronics Co. Ltd. were for instances financed by the Programme.

So far there have been 430 and odd S&T industrial incubators available in the country for supporting S&T personnel creating their own S&T businesses. These S&T incubators have admitted 23,000 and more businesses for the incubation, from which 6,900 were graduated with 30 of them eventually becoming listed public companies. As of the end of last year, there were 14,000 graduates with doctorates and 80,000 graduates with masters degrees working for the national high-tech parks and many of them have become young S&T businessmen. Of the high-tech businesses supporting the development of national high-tech development parks, 80 per cent are privately owned businesses.

<http://www.most.gov.cn>

Export boom for proprietary products

In the first half of 2003, China had enjoyed a high-tech product export of US\$ 44.01 billion, or 56.6 per cent up, compared with the same period of the preceding year, or 21 per cent higher than the growth of China's foreign trade export in the same period with a weight of 23.1 per cent of the total export made in the same period.

Since 1999, the Chinese Ministry of Science and Technology has adopted varieties of measures to support the export of China's high-tech products. Strengthening the outputs of research institutes and universities has meant converting more findings and results into high-tech products for export. It has also stimulated more high-tech businesses to produce internationally competitive high-tech products, and accelerated the pace of high-tech industrial integration with international norms. As a result, high-tech businesses will become better informed of dynamic changes in the international market and associated demands, as well as the gaps between China and international markets.

Such knowledge will, in turn, further stimulate Chinese high-tech businesses to strive for better international competitiveness. As briefed by the Torch Technology Industrial Development Center under the Ministry of Science and Technology, China has, in recent years, established S&T parks in USA and Germany respectively, for the purpose of opening outlet windows for China's products, and allowing more people to know China's high-tech development. Such activities have, in the meanwhile, created an equal competing environment for foreign made high-tech products into the Chinese market.

<http://www.most.gov.cn>

100 campus S&T Parks in 2005

The Chinese Ministry of Education recently published the Outlines of National Development Planning for Campus S&T Parks, in which it is proposed that by 2005, China will complete the con-

struction of 100 standardized campus S&T parks with full functions, nurture out 50 high-tech industrial businesses of international competitiveness and a great number of S&T entrepreneurs and inventors. According to the Outlines, the priorities will be placed on the construction of 100 standardized campus S&T parks with full functions, of which 50 will be built into national role model campus S&T parks and 20 into class-one domestic campus S&T parks, with distinguished features and strength, and several into the campus S&T parks of major international influence, making them a major component of the national technical innovation system and the most active new innovation sources in developing China's high-tech industries.

The Outlines has also asked to nurture out a group of high-tech industrial businesses of strong market competitiveness, of which 50 shall become the businesses of strong international competitiveness in major high-tech fields, such as information, biology and new materials. By 2005, the total number of high-tech businesses incubated by the campus S&T parks will reach 5,000 in number or above, with some share of proprietary high-tech products in both domestic and international markets. Priority will be given to nurturing high calibre personnel who are innovative and have a capacity for, and knowledge of, economics, management and modern S&T development. Priority will also be given to developing a management contingent to serve the national S&T parks. These parks will produce a continuous flow of capable S&T entrepreneurs and inventors through the industrial incubation and market economic practice.

<http://www.most.gov.cn>

Export of hi-tech products

Chinese export of hi-tech products will be out of the SARS (severe acute respiratory syndrome) shadow and back to high growth in three months, said a senior trade official. China exported US\$ 35.75 billion worth of hi-tech products in the first five months of 2003, soaring 55.1 per cent year-on-year, said Wei Jianguo, vice-minister of commerce, at a news conference for the fifth China Hi-Tech Fair 2003.

The export of such products was affected by the SARS epidemic to some extent, but the negative impact would be eliminated in two or three months, Wei said. As opposed to other commodities, Wei said, high-tech products, including computers, mobile phones, video and audio facilities, were less reliant on exhibitions, attendance at which had been severely affected by the SARS disease. Such products could survive the damage of SARS.

China's strategy of promoting trade through enhancing science and technology also facilitated the export growth of such products, he said. China exported US\$ 67.8 billion worth of high-tech products in 2002, up 40.6 per cent year-on-year, and such products had become the second most valuable export sector in the country, he said. In the coming months, the export of such products would maintain high growth, although the rate of growth would be lower than in the first five months, Wei said.

<http://english.peopledaily.com.cn>

INDIA Bioinformatics market

According to a recent Report on the bioinformatics sector, by Avendus Advisors, the Indian bioinformatics market is estimated to grow to approximately US\$ 15-20 million in 2006. The Report states that the worldwide bioinformatics market was pegged at US\$ 697 million in 2001 and projected to increase at a compounded annual growth rate (CAGR) of 20 per cent between 2001 and 2006, reaching an overall market size of US\$ 1.7 billion by 2006.

Avendus, an investment bank, focuses on IT-enabled services and technology, as well as high-growth areas like fast-moving consumer goods (FMCG), pharmaceuticals and the media. Bioinformatics, explains the Report, is the use of computer technology to store, organize, generate, retrieve, analyse and share genomic, biological and chemical data to support the drug discovery process. India has the potential to become a key player in the bioinformatics market due to its large, trained pool of IT manpower.

According to Avendus, Indian companies can play a significant role in areas such as data handling, data-mining,

genotyping and fingerprinting, DNA sequencing, etc. The Report estimates that currently up to 10 per cent of investment in R&D is IT-related, and there is huge potential for Indian biotech and IT companies to enter into collaborative bioinformatics research with global pharma majors in the near future. The Report further indicates that despite India's IT capabilities, it may be difficult to replicate this success in biotechnology, as biotechnology differs from IT in many ways. Avendus suggests Indian players should leverage the lower costs of infrastructure and human resources. The cost of setting up and running a bioinformatics company in India is a fraction of the cost in the USA. Indian companies will have to target pharmaceutical and biotechnological companies, as well as agribiotech and industrial biotech companies.

According to Avendus, a major challenge for new players is standardization of services (as there are hundreds of vendors in the informatics space), combined with varying standards and platforms. Vendors, explained the Report, will have to offer more modular systems or well-documented APIs (application programme interface) in an effort to garner a bigger chunk of this market. The challenge also includes finding the right team, as a lack of biological understanding can result in sophisticated computational methods being applied naively.

Technology Exports

Auto component exports

As the outsourcing story gains momentum, exports of auto components are set to reach US\$ 2 billion mark by 2005-06, up from US\$ 800 million during the last fiscal year. There is a wave among the OEMs in North America and Western Europe to outsource components from India. India offers the best mix of low-cost and high-quality engineering skills, and global tier-I and OEMs have no option but to outsource from India.

The auto component exports from the country have grown from US\$ 300 million in 1998-99, to US\$ 800 million in 2002-03, registering an increase by 30 per cent. While in the past, the export

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growth came mainly from aftermarket sales, the future growth is expected to come from global OEMs and tier-I suppliers. The last fiscal year saw global tier-I suppliers such as Visteon and Mico Bosch emerging as the largest exporters of components from the country, together accounting for 15 per cent exports. During the current year, they are expected to be joined by Cummins and Delphi.

Meanwhile, large Indian companies, including Bharat Forge, Ricoh Industries, Motherson Sumi Systems, Sundaram Fasteners and Hi-tech Gears, have started landing multi-million dollar outsourcing deals from companies in North America and Western Europe. Bharat Forge has reported an over-150 per cent jump in its export sales during 2002-03 to Rs. 2.71 billion (US\$ 59 m) against Rs. 1.10 billion (US\$ 24 m) during the previous fiscal year. The company expected a repeat of last fiscal year's export performance during the current year as well. In the last five years, auto component exporters have gradually reduced their dependence on the aftermarket in favour of OEM exports.

Technology Exports

Expected boom in India tech outsourcing

The technology outsourcing business in India is expected to boom despite global job cuts in the information-technology industry. The international consulting group Gartner says India will continue to witness huge growth in technology outsourcing, despite an outcry in countries such as Britain and the United States about job losses.

In recent years, scores of multi-national corporations have moved software development and back-office work to developing countries such as India. That has prompted huge protests from labour unions in Britain and proposals to ban outsourcing in the United States.

But in its latest predictions for the IT industry for 2004, the Gartner group says the process of moving jobs from the developed world to countries like India is irreversible. "Overwhelmingly, companies are moving ahead with their plans regardless of the backlash, it is just too

compelling an opportunity for them with the cost pressures and profitability pressures they are under," said Gartner, vice president Partha Iyengar.

The outsourcing business took off in India when multi-nationals started moving work, such as help calls to payroll and insurance claims, to Indian cities. This year, outsourcing services accounted for \$ 14 billion in India and is expected to quadruple in the next few years. But Partha Iyengar said the area of what is called IT services is growing more rapidly. "IT services space, which is really where all of the current success of India is, is when companies want to develop new application systems or applications for internal use, whether it is to handle their business systems, shipping systems or client relationship management systems, etc.," he said. "A lot of that development activity has been outsourced to India."

As result, nearly 20 per cent of jobs in information-technology services are expected to move from developed countries to developing ones. Not only is India known for the skill of its computer and software engineers, but the average professional wage is less than one-quarter of what it is in the developed world. India's outsourcing sector grew by about 60 per cent in the past financial year and is expected to grow at nearly the same pace this year. The sector accounts for about 20 per cent of India's foreign exchange earnings.

<http://www.voanews.com>

Silicon Valley bank bullish

India is truly the flavour of the season - the investment destination of 2003. With the proverbial alchemist Dr. Feelgood weaving a magical spell on the Indian economy, it is not just portfolio investors who are headed for India in droves.

A 25-member-strong venture capitalist team was brought to India on a hush-hush visit by Silicon Valley Bank. The premier bank for emerging global technology companies, based in Santa Clara, California, reinforced its commitment to global entrepreneurship and innovation by bringing in its high profile VC clients to parade Indian brain-

power. In June 2002, the bank had tied up with The Indus Entrepreneurs. The bank has also established an alliance with the Indian Venture Capital Association in order to pave the way for companies interested in expanding into India or leveraging its resources. The week-long visit saw the VCs visit three campuses - Reliance Infocomm, outside Mumbai, and Infosys and Intel, in Bangalore.

What is more significant is that various companies are reported to have showcased their business models to this team as well. Moschip Technologies, HelloSoft, July Systems, Cradle Technologies, Tejas Networks, PaceSoft-Silicon strutted their stuff on the product side, while MindTree, Celetron, Infotech Enterprises and Aztec Software did the same on the service side. The entire exercise sponsored by Silicon Valley Bank was essentially to initiate an interface with these Indian companies, focus on the offshoring model and the cutting edge core product development work being done.

With a perspective that Indian infotech companies are in fine fettle, the VCs went back with a view that investment opportunities will be a by-product of the visit. This visit saw the VCs interact only with tech companies. Incidentally, Silicon Valley Bank is supporting TiE as its global sponsor. The bank serves emerging growth and middle market companies in targeted niches, focusing on technology and life sciences, while also addressing other specific industries in which it can provide a higher level of service and better manage credit through specialization and focus.

The bank has 11 offices throughout California and regional offices in Arizona, Colorado, Florida, Georgia, Texas, New York and other states. With assets to the tune of \$ 4 billion and close to 10,000 clients, the bank has been constantly looking at India as an engine of growth. It is reported that the team's takeaway was that India's tech community was booming and stable. In fact, some of them have realized that India doesn't merely offer a cost competitive advantage but is a veritable treasure trove of intellectual horse-power.

The Hindustan Times

MALAYSIA

Optical-fibre cable

According to Malaysian Cable Manufacturers Association, the optical-fibre cable industry is projected to record a growth of about 20 per cent over the next 5 years, depending on the growth of the information technology (IT) industry. The market size of optical-fiber cables currently stands at RM 120 million (\$ 31.6 million) annually, and is equally shared by three optical-fiber cable makers in the country, namely Leader Universal Holdings Bhd, Fujikura Federal Cables Sdn Bhd and Opcom Cables Sdn Bhd.

The demand for optical-fiber cables, used for long-distance transmission, is increasing due to their higher speed. Optical-fiber cables will gradually take the market share of copper cables. The market size of copper cables, which currently stands between RM 80 million (\$ 21.5 million) and RM 100 million (\$ 26.3 million) annually, is expected to be stagnant in the next five years due to the growth in demand for optical-fiber cables.

<http://www.pwc.com>

THE PHILIPPINES

Telecom investments

Continued investments in telecommunications facilities is an encouraging sign that the Philippines is strengthening its hold in information technology (IT) services, Trade and Industry Secretary Mar Roxas observed. "We need to continuously upgrade our telecommunications facilities if we intend to be a major player in growing the knowledge-based economy," Secretary Roxas explained.

Imports of telecommunications equipment and machinery from January to August in 2003 rose by 16.4 per cent to \$ 5.5 billion from \$ 4.7 billion in the same period in 2002.

Many telecom firms, even in the provinces, have upgraded their equipment, enabling urban centres outside Metro Manila to grab some share of IT investments. Earlier, Secretary Roxas urged call centre operators considering loca-

tions outside Metro Manila to take advantage of available regional resources. "Some regions offer the same advantages in manpower, educational facilities and telecom infrastructure as Metro Manila. IT hubs in these regions also disperse high-value jobs for knowledge workers in those areas," Roxas added. The Board of Investments (BOI) has identified four other location options for call centres - Cebu, Dumaguete City, Clark in Pampanga, and Subic in Zambales.

<http://www.dti.gov.ph>

SOUTH KOREA

Investment in IT industries

The Ministry of Planning and Budget (MOPB) has announced that it plans to invest 150.8 billion won in the 2004 fiscal year for technology development projects in 9 strategic IT industries. The funding will be made available from the Information Technology Promotion Fund.

The nine sectors will include a home network system (10.8 billion won), which would electronically link home information appliances, built-in embedded software (16.3 billion) in digital products for value-added functions, home robots (26.7 billion), next-generation mobile telecommunication (31.8 billion), digital TV (26.5 billion), digital contents (600 million) and telematics (600 million won) which connects automobiles with telecommunication systems.

In a separate project, the ministry said it would earmark 120 billion won to finance infrastructure-building projects for the home network system. The ministry aims to introduce the new network system to 10,000 local households by 2007.

There will be additional funding, 30.2 billion won for home network system standardization projects and 130 billion won for programmes to foster IT experts and specialists, the ministry added.

<http://www.korea.net>

THAILAND

Auto parts exports

The export value of auto parts from Thailand is expected to jump to \$ 5 billion in the next three years from the projected \$ 1.2 billion for 2003, driven by rising production of vehicles with greater local content and free-trade agreements with major markets. In particular, Thailand's free-trade area (FTA) agreements to be signed with the United States and Australia would help boost exports of auto parts, said Sookjai Leungmekul, vice-president of the Thai Auto-Parts Manufacturers Association.

Australia is currently the second largest market for vehicles, parts, and accessories exports from Thailand, after Japan, with shipments valued at \$ 466.5 million in the first nine months of this year. Shipments to the US in the same period were worth \$ 244.5 million. When taking into account just auto parts and accessories, the United States imported shipments worth \$ 173 million from Thailand during that period, ranking just below Japan.

The overall export value of vehicles and related items is targeted to exceed \$ 4 billion by year-end, after \$ 3.7 billion was recorded in the period from January to September, Mr Sookjai said.

"We've targeted total car production of over one million units in 2006, with local content making up more than 60 per cent of each vehicle compared with 40 per cent in 2002," he said.

Vehicle production totalled 634,400 units in the first nine months of the year, of which 239,000 units were shipped overseas, up from 180,554 units in 2002. To achieve the export target, Mr Sookjai said the industry needed to establish an auto parts cluster and an automotive research and testing centre. As well, the overall tax structure on finished products and raw materials must be revamped to benefit Thai parts makers, he added. For example, there will be no tariffs on tail lights imported from India under the Thai-India FTA while at the same time duties will be assessed on imported raw materials such as plastic.

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