

# ISRAEL HIGH-TECH & INVESTMENT REPORT

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## Israel: an Emerging Market Opportunity

Emerging-market equities are continuing their strong run. After outperforming developed markets for four years, in 2005 emerging European equities were up by 42%, and Latin America was up by 22%, while Asia has gained a more modest 15%.

The strong performance is all the more impressive given that US interest rates and the dollar have been rising while expectations for global growth have been slowing for most of 2005. In the past, riskier assets have typically under-performed in such conditions.

We have identified several risks which could weigh on emerging markets' performance in 2006. If US growth slows more than we expect, that would be extremely negative for emerging markets. Any slowdown in the Chinese economy would also be a major problem - whether it was caused by decelerating US growth or by Chinese policy-makers taking steps to moderate non-bank credit growth.

Another risk is rising domestic interest rates and falling current-account surpluses. Both threaten to drain liquidity from emerging markets, especially in Asia. Political risks are also likely to re-emerge as a factor in 2006 - with several elections scheduled across Latin America and Eastern Europe.

The large number of risks suggests that emerging markets will see higher volatility in 2006 and may struggle to outpace developed markets.

Having said that, it should be pointed out that valuation levels are extremely strong for the emerging markets asset class and even more so for active, risk-controlled emerging markets portfolios, which have a single-digit price-to-earnings ratio, with attractive earnings growth forecasts. Overall, compared to other asset classes, the emerging markets are the most attractively valued equities available to investors.

In addition, from a timing perspective, the emerging

markets asset class is selling at historically low valuation levels as compared to similar assets in developed markets. Based on price-to-earnings ratios, for example, valuations are currently half of those of developed markets, compared to an average of 0.75 over the past fifteen years. It is hard to imagine that such compellingly strong fundamental value can long be ignored.

Finally, the fundamental case for emerging markets investment remains sound. The two decades since these countries first made forays into the capital

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**Israel an Emerging Market Opportunity**  
**MobileMax's SmartPlug**  
**Supercom announces project in Asia-Pacific**  
**Record \$10b in foreign investments in 2005**  
**Akron, Ohio links with Israeli 'incubator'**  
**WIS researchers suggest that immune cells help to maintain cognition and brain cell renewal**  
**Pluristem develops alternative to bone marrow**  
**InkSure gets order from Turkish bus system**  
**American private equity investments rose in 2005**  
**Summary of Israeli High-Tech Company Capital Raising Q4 2005 and Full Year 2005**  
**Lightspeed Venture closes \$475m fund**  
**InRob Tech Ltd. completes trials of remotely controlled hummer**  
**New venture: Israeli-Chinese investment firm**  
**Foreign investment broke records in 2005**  
**Technion signs with five Chinese universities**  
**EIAI to install six anti-missile systems**  
**De-icing company Microheat raises \$8m**  
**PC World names M-Systems' DiskOnKey' 9th best gadget in the world**  
**Ormat Files \$1.0b Shelf Registration**  
**statsstaementmen\$1.0upto \$1.0b of securities**

markets are only a short period in world economic development. Yet during this period emerging markets have come a long way in establishing sound fiscal and monetary policies, restructuring their economies, addressing corporate governance, and improving their economic fundamentals. Keeping this in mind, the potential for continued rapid, positive change in these economies and markets is still very strong.

Long-term fundamental positives for the emerging markets include:

- Large, rapidly industrializing populations
- Undervalued currencies
- Declining current account deficits
- Improving infrastructures
- Competitive wages
- Increased competition, reform and restructuring
- High savings rates
- Long-term propensity toward growth

Israel is a par excellence example an attractive emerging market. The crippling stroke suffered by Prime Minister Ariel Sharon has had no obvious long-term effect on stock markets in the region, despite the fresh political unknowns emerging from his anticipated departure from public life. Israeli shares fell more than 6 percent on Jan. 5 after Sharon underwent surgery, but they quickly recovered, and since the start of the year the market is up by single digit percent. The Arab stock markets, in Egypt, Morocco and Jordan, all show strong gains for the new year, as much as 16%. Sharon's rapidly deteriorating health heightens political uncertainty in the midst of an election cycle and introduces new risks and challenges for the economy and financial markets.

Israeli shares rose about 29 % in the past year, a restrained performance by recent parameters in this part of the world. Egyptian stocks have risen as much as 144 percent in the same period. The markets are capable of further upward movement, according to Middle East watchers.

We think investors should look past the current market anxiety and make a careful and objective appraisal of the present opportunities in the emerging markets. We believe this asset class will serve investors extremely well in the long term, and that the current valuations and outlook justify an increase now in emerging markets allocations for global fund sponsors. The current uncertainty, while uncomfortable in the near term, provides a classic long-term buying opportunity.

### MobileMax's SmartPlug

MobileMax, a provider of intelligent solutions for the calling card industry, announced that their Smart Plug solution for the mobile consumer market has been chosen as one of the leading technology inventions of 2005. In its annual report on technology leadership, ONLINE – Computers, Hi-tech and Science Magazine of the popular Maariv periodical highlighted MobileMax SmartPlug as one of the 15 most promising inventions of 2005. SmartPlug was chosen for its ease of use, cost savings to consumers and increased revenue potential for international carriers.

SmartPlug enables mobile users to place calling card calls directly from their mobile address book or memory, seamlessly diverting calls through to the calling card service. Subscribers realize reduced-rate calling card service without cumbersome dialling procedures.

In addition to providing simplified dialling, SmartPlug also functions as an "intelligent calling card" that can be recharged with additional credit. It fits most mobile handsets including Nokia, Samsung, LG, Motorola, Sony Ericsson and Siemens.

With SmartPlug, calling card providers now have a solution for one of their top challenges - providing a simple calling card interface for

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mobile phones that directly increases calling card usage and revenue from mobile users.

**Supercom announces project in Asia-Pacific**

SuperCom Ltd. (OTCBB: SPCBF.OB; Euronext: SUP), a provider of smart card and electronic identification (e-ID) solutions, announced that it has been engaged by Green Science International Ltd., a distributor of health

products in Hong Kong, China and Asia Pacific, to customize its e-Living Contactless Smart Card System and integrate it into Green Science's Retailer Customer Relationship Management Membership and Loyalty solution. Implementation began in January and the remainder of the order is expected to be completed by the second quarter of 2006. Green Science's Retailer CRM Membership and Loyalty system is a sophisticated, scalable, sales and marketing infrastructure. It enables the company to track and analyze customer usage patterns, making it economic to implement, manage and measure innovative points-based and other types of marketing initiatives. To enhance customer convenience while automating many of the system's data entry steps, Green Science has chosen to "smart-card-enable" the system, and has selected Supercom's e-Living as the most flexible and appropriate solution.

**Record \$10b in foreign investments in 2005**

The Ministry of Industry and Trade announced that the year 2005 brought a record-breaking \$10 billion in foreign investment, No less than \$6 billion was in the form of direct investments, according to the ministry.

Export of goods from Israel increased by 10% in annualized terms versus 2004 to \$42.2 billion. Total exports to Europe jumped 15.5% to \$15 billion, and exports to Asia increased 7.5% to \$7.6 billion in 2005, the ministry reported

The United States and Canada remain the biggest export markets for Israel, consuming 37.5% of exports, which rose to \$16 billion in 2005, an increase of 8.5% compared with the year before.



**Akron, Ohio links with Israeli 'incubator'**



Akron has a deal to help Israeli companies get off the ground and bring jobs to the city. Akron Mayor Don Plusquellic signed a deal in Israel last month. The greater Akron area will invest at least \$1 million in Targetech, an "incubator" for new high-tech companies in the Israeli city of Natanya. Plusquellic says some of the firms will be invited to set up shop in Akron, and the city will provide technical support and help them market their products. He hopes they will choose to remain in the Akron area and employ local people. The partnership is thought to be the first of its kind between an Israeli incubator and an American city.

**Science Corner**

**WIS researchers suggest that immune cells help to maintain cognition and brain cell renewal**



A team of scientists at the Weizmann Institute of Science, led by Prof. Michal Schwartz of the Neurobiology Department, has come up with new findings that may have implications in delaying and slowing down cognitive deterioration in old age. The basis for these developments is Schwartz's team's observations, published in the February issue of Nature Neuroscience, that immune cells contribute to maintaining the brain's ability to maintain cognitive ability and aid cell renewal throughout life. Until quite recently, it was generally believed that each individual is born with a fixed number of nerve cells in the brain, and that these cells gradually degenerate and die during the person's lifetime and cannot be replaced. This theory was disproved when researchers discovered that certain regions of the adult brain do in fact retain their ability to support and promote cell renewal (neurogenesis) throughout life, especially under conditions of mental stimuli and physical activity. One such brain region is the hippocampus, which subserves certain memory functions. But how the body delivers the message instructing the brain to step up its formation of new cells is yet unknown. The central nervous system (CNS), comprising the brain and spinal cord, has been

considered for a long time as “a forbidden city”, in which the immune system is denied entry as its activity is perceived as a possible threat to the complex and dynamic nerve cell networks. Furthermore, immune cells that recognize the brain’s own components (“autoimmune” cells) are viewed as a real danger as they can induce autoimmune diseases. Thus, although autoimmune cells are often detected in the healthy individual, their presence there was perceived as an outcome of the body’s failure to eliminate them. Schwartz’s group showed that these autoimmune cells have the potential ability – if their levels are controlled – to fight off debilitating degenerative conditions that can afflict the CNS, such as Alzheimer’s and Parkinson’s diseases, glaucoma, amyotrophic lateral sclerosis (ALS), and the nerve degeneration that results from trauma or stroke. In their earlier research, Schwartz and her team provided evidence to suggest that T cells directed against CNS components do not attack the brain but instead, recruit the help of the brain’s own resident immune cells to safely fight off any outflow of toxic substances from damaged nerve tissues.

In the present study, the scientists showed that the same immune cells might also be key players in the body’s maintenance of the normal healthy brain. Their findings led them to suspect that the primary role of the immune system’s T cells (which recognize brain proteins) is to enable the “neurogenic” brain regions (such as the hippocampus) to form new nerve cells, and maintaining the individual’s cognitive capacity. It was reported before that rats kept in an environment rich with mental stimulations and opportunities for physical activity exhibit increased formation of new nerve cells in the hippocampus. In the present work, the scientists showed for the first time that formation of these new nerve cells following environmental enrichment is linked to local immune activity. To find out whether T cells play a role in this process they repeated the experiment using mice with severe combined immune deficiency (scid mice), which lack T cells and other important immune cells. Significantly fewer new cells were formed in those mice. On repeating the same experiment, this time with mice possessing all of the important immune cells except for T cells, they again found impairment of brain-cell renewal, confirming that the missing T cells were an essential requirement for neurogenesis. They observed that the specific T cells that are helping the formation of new neurons are the ones recognizing CNS proteins. To substantiate their observations, the scientists injected T cells into immune-deficient mice with the objective of replenishing their immune systems. The results: cell renewal in the injected mice was

partially restored – a finding that supported their theory.

In another set of experiments, they found that mice possessing the relevant CNS-specific T cells performed better in some memory tasks than mice lacking CNS-specific T cells. Based on these findings, the scientists suggest that the presence of CNS-specific T cells in mice plays a role in maintaining learning and memory abilities in adulthood. Schwartz points out that the role of the autoimmune T cells is not to affect the level of intelligence or motivation, but rather, to allow the organism to achieve the full potential of its brainpower. “These findings,” she says, “give a new meaning to ‘a healthy mind in a healthy body’”. They show that we rely on our immune system to maintain brain functionality, and so they open up exciting new prospects for the treatment of cognitive loss.”

Knowledge that the immune system contributes to nerve cell renewal has potential far-reaching implications for elderly populations, because aging is known to be associated with a decrease in immune system function. It is also accompanied by a decrease in new brain cell formation, as well as in memory skills. Therefore, by manipulating and boosting the immune system, it might be possible to prevent or at least slow down age-related loss of memory and learning abilities.

### Pluristem’s alternative to bone marrow



Israeli biotech Pluristem Life Systems has formulated a cell graft, currently in preclinical development, to provide an alternative to the standard procedure of bone marrow transplantation.

According to Pluristem, the development of this new advanced engineered graft that replenishes the bone marrow of blood cancer patients, has the potential to save the lives of millions of people.

Although the field of stem cell technology holds great promise, the transplantation of hematopoietic stem cells (HSCs) into patients with hematological malignancies remains the only presently FDA-approved clinical procedure. Critical shortfall in the supply of matched tissue for transplantation, creates an urgent need for alternative sources of HSCs.

Therefore, Pluristem has launched an extensive experimental program in a relevant animal model, to prove the superiority of its

technology over standard-of-care protocols.

Pluristem has patented a technology for efficient expansion of HSCs for bone marrow transplantation from umbilical cord blood (UCB). The uniqueness of this expansion technology is its ability to mimic the physiological bone marrow environment by using two independent cell types, mesenchymal and HSCs, that are co-cultured on a 3-D scaffold.

“Our goal of moving from the “research” to the “development” phase is starting to be fulfilled by this breakthrough and previously announced animal model studies which we plan to bring to the clinic as expeditiously as practicable”, stated Zami Aberman, CEO at Pluristem.

### InkSure gets order from Turkish bus system



InkSure Technologies Inc., a provider of covert machine-readable security solutions for the prevention of counterfeiting, fraud and diversion, announced that its subsidiary, InkSure Inc., received an order for 250 additional readers to be supplied to the bus authority in Istanbul,

Turkey. The readers will be installed in new buses that are being added to the customer’s fleet.

InkSure Technologies specializes in comprehensive, covert security solutions designed to protect high profile brands and documents of value from counterfeiting, fraud and diversion. The Istanbul Public Transportation Authority (IETT) has been an InkSure customer for approximately four years, and the company’s electro-optic readers are validating the authenticity of tickets in almost 3,000 buses throughout that city. IETT operates in an area of 900 sq. miles and carries more than 10 million passengers per month. InkSure Technologies CEO Elie Housman said, “We have continued to supply SmartInk on a recurring basis to IETT and the installation of additional readers in new buses reaffirms the value that our covert security solution is providing to InkSure’s oldest customer. To our knowledge, this is the largest brand protection project involving a transportation system in the world. “The new buses will be equipped with an improved version of the readers deployed earlier, which have performed very well in the harsh conditions under which municipal buses must operate in Turkey’s largest city. By expanding the number of buses utilizing our

covert security solution, this order will result in greater recurring revenues from security ink sales in the future.” InkSure Technologies has its corporate headquarters in Ft. Lauderdale, Florida and its R&D center in Rehovot, Israel. R&D activities include the development of chipless RFID technology for affordable item-level secure logistics and track-and-trace applications.

### American private equity investments rose in 2005

U.S. private equity fund-raising rose sharply in 2005, led by the buyout side of the market, which blasted past its previous record. On the venture capital side, fund-raising continued its gradual recovery from the doldrums after the Internet bust.

Overall, private equity firms raised \$151.8 billion last year, a 65% increase from the \$92 billion raised in 2004 but well short of the \$177.9 billion record set in 2000, according to statistics from sister publication Private Equity Analyst.

### Capital raised by Israeli high-tech companies reached \$1.34b

8 percent year-to-year decline due to slow fourth quarter



Capital raised by private Israeli high-tech companies from Israeli venture capital funds and from other investors. The Survey is based on reports from 89 venture investors of which 56 are Israeli management companies and 33 are other – mostly foreign – investment entities.

In 2005, 378 high-tech Israeli companies raised \$1.34 billion from local and foreign venture investors, an 8% decrease from the \$1.46 billion raised in 2004, but 32% above 2003 levels. “The 8% decline in 2005 reflected a slow fourth quarter,” said Efrat Zakai, Director of Research at IVC. “Q4 was the weakest quarter for fund raising in two years. We believe this is only a temporary decrease and project a return to earlier levels in the coming quarters.”

In Q4, 88 Israeli high-tech companies raised \$264 million, a 21% decline from the \$336 million raised by 90 companies in the third quarter and a 28% from the \$366 million raised by 113 companies in the fourth quarter of 2004.

Fifty-eight companies attracted more than \$1 million each in Q4. Of these, six companies raised between \$5 million and \$10 million each, and eight

companies raised more than \$10 million each. The average company financing round was \$3.0 million, compared with \$3.7 million in the previous quarter and \$3.2 million in the fourth quarter of 2004.

Capital raised by private Israeli high-tech companies is from Israeli venture capital funds and from other investors. The Survey is based on reports from 89 venture investors of which 56 are Israeli management companies and 33 are other – mostly foreign – investment entities.

**Israeli VC investment activity**

In 2005, Israeli VCs invested \$655 million in Israeli high-tech companies, about equal to investments made in 2004 (\$665 million). The Israeli VC share of the total amount invested in Israeli high-tech companies was 49%, up sharply from the 42% average of the previous six years.

First investments made by Israeli VCs were 43% of total dollars invested by Israeli VCs in 2005, slightly below the 46% of 2004 and equal to 2003 levels. The average First and Follow-on investments were \$2.42 million and \$0.78 million, respectively, compared to \$2.16 million and \$1.07 million in 2004.

In the fourth quarter, Israeli VCs invested \$131 million, 50% of the total amount invested in Israeli high-tech companies. This amount was 30% below capital invested by local VCs in the third quarter and 17% less than in Q4 2004.

Israeli VC First investments accounted for 40 percent of their total dollar investments in Q4, compared with 41% in Q3 2005, and 46% in the fourth quarter of 2004. According to IVC General Manager, Guy Holtzman “The composition of venture capital investments in Israel is expected to change over 2006, with an increase in foreign investment activity as the number of local players diminishes.”

**Israeli VC Activity in Foreign Companies**

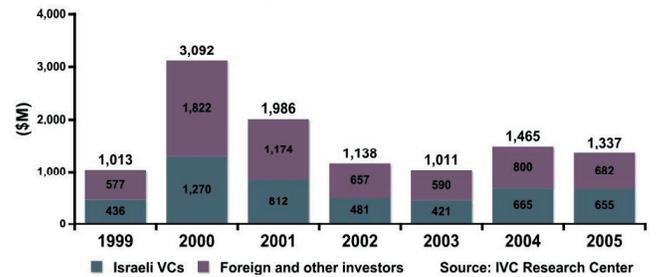
Israeli VCs invested \$95 million in foreign companies during 2005 (in addition to their investments in Israeli high-tech companies), compared to \$107 million in 2004 and \$101 million in 2003.

**Capital Raised by Sector**

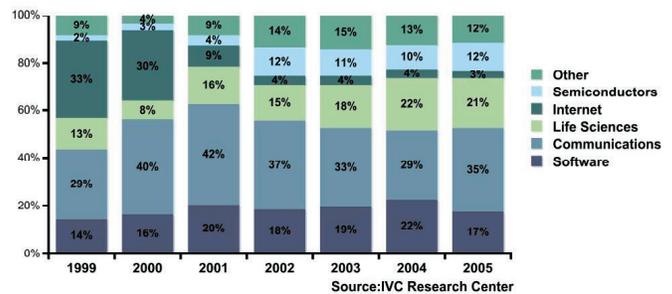
The distribution in capital raised among sectors has not changed markedly in the last four years. 33% was raised by the Communications sector, 20 percent by the Life Sciences, 19 percent by Software, 11% by Semiconductors, four percent by the Internet and 13% by other sectors.

The Communications sector attracted the highest sums in 2005 as in the past six years. One hundred and twelve Communications companies attracted \$469 million, 35 percent of the total amount raised, compared to \$430 million (29 percent) raised in 2004 and \$332 million (33 percent) raised in 2003. In Q4, 26 Communications companies attracted \$101 million (38 percent) with four companies attracting over \$10 million.

**Capital Raised by Israeli High-Tech Companies (\$m)**



**Capital Raised by Israeli High-Tech Companies**



The Life Sciences followed with \$284 million, accounting for 21% of total capital raised, compared to 22% in 2004 and 18% in 2003. In the fourth quarter, 27 Life Sciences companies attracted \$50 million, 19% of the total capital raised. Within the Life Sciences, Medical Device companies attracted 65% of the capital raised in 2005, versus 73% in Q4 2005.

**Capital Raised by Stage**

In 2005, 52 Seed companies attracted \$110 million. Seed companies captured eight percent of the total capital raised, same as in 2004. In the fourth quarter, 12 Seed companies attracted \$22 million, accounting for 9% of Q4 capital raising, compared to \$34 million (10

percent) in Q3 and \$42 million (12 percent) in Q4 2004.

Mid-Stage companies (up to \$10 million in revenues) attracted the most funding in 2005, as 177 companies raised \$702 million, 53 percent of total capital raised. This compares with \$819 million (56 percent) in 2004. In Q4 2005, 44 Mid-Stage firms raised \$164 million (62 percent), a similar amount to the previous quarter but just 49 percent of the total. The amount was 22 percent below the \$210 million (57 percent) raised in Q4 2004.

### Lightspeed Venture closes \$475m fund

Lightspeed Venture Partners, a leading provider of seed and early-stage venture capital to technology companies, announced the closing of Lightspeed VII, capitalized at \$475 million, which was above the firm's target of \$400 million. The fund's closing brings the partnership's total capital under management to \$1.3 billion. The firm's limited partners include established institutional funds, pension funds, university endowments, foundations, and technology entrepreneurs from North America, Europe and Asia. Returning investors include Bessemer Trust, Alfred L. DuPont Trust, Horsley Bridge Partners, Pantheon Ventures, and the Partners Group. New to Lightspeed's investor base are the Regents of the University of California and several international limited partners such as GIC Special Investments of Singapore. Lightspeed VII will continue to emphasize lead investor positions in seed and first-round financings, as did

Lightspeed VI, which made over 80% of its investments in early-stage companies. The partnership plans to invest the new fund in information technology companies in areas including Internet services, digital media, consumer electronics, infrastructure systems and software, semiconductors, and emerging technologies. While the majority of investments will be in US companies, the fund partners stated that Lightspeed VII will also incorporate active investment programs in Israel and Asia. Lightspeed general partner Ravi Mhatre said, "As the technology business becomes more complex and increasingly global, it is important for Lightspeed to continue to extend our international capabilities through placement of Lightspeed resources in other countries, relationship development with international technology leaders, and partnerships with venture firms outside of the US."

Lightspeed Venture Partners manages \$1.3 billion of committed capital and focuses on seed and early-stage information technology investments in the US, Israel and Asia. The firm's partners have invested in

more than 100 technology companies over the past two decades. Israeli companies in which Lightspeed has invested include Electronics for Imaging (Nasdaq: EFIL), Galileo Technology (sold to Marvell Technology Group for \$2.7 billion in shares), Harmonic (Nasdaq: HLIT), OpTier, Personeta, Terayon Communications Systems (Nasdaq: TERN), and Transparency Software.



### InRob Tech Ltd. completes trials of remotely controlled hummer

In Rob Tech Ltd. ("InRob") (OTCBB:IRBL), a leader in the development and production of advanced wireless control systems and integrated solutions for unmanned ground vehicles (UGV), announced that it has successfully completed the development and field trials of a remote control system installed on a Hummer jeep. An operator at distances of up to 1.8 miles can now remotely manage any function that a driver can perform in the vehicle. Moreover, in the same way that a driver can see the dashboard and in-vehicle dials and meters, the operator can see all these parameters on his control unit. This enables operators to manage the vehicle with or without eye contact, depending on field conditions.

In addition, other add-on systems such as observation, transmission or video can be installed on the vehicle and operated by InRob Tech's same remote control system.

Hummers are common vehicles for several different field operations used by military forces around the world. Now, this robust military vehicle can be driven and operated using InRob Tech's highly sophisticated remote control system. InRob Tech's remote control system for the Hummer sells for approximately \$70,000 per unit.

"The Hummer is so versatile that it is used by armies for many different operations," says Ben Tsur Joseph, CEO of InRob Tech. "The Israel Defense Forces (IDF) put our system through the most rigorous of testing and we are very pleased with the results and positive feedback. InRob continues to work closely with the IDF and hopes to use this exemplary relationship to leverage our business development for this system around the world."

The military Hummer is a multi-purpose jeep used by armies as a cargo-troop carrier, armament carrier, missile carrier, ambulance carrier, and a prime mover. There are tens of subtypes to fit the needs of specific military operations.

### New venture: Israeli-Chinese investment firm

Chinese and Israeli investment groups signed this weekend a contract to establish a Chinese-Israeli venture capital fund. The Israeli investors, including main shareholder Polar Investments, will hold 60 percent of the joint venture, while the Shanghai Science and Technology Investment Corporation (SSTI) will hold the remaining 40 percent.

In addition to Polar Investments, the Israeli company includes Amos Lasker, former MED1 CEO, Attorney Yaakov Yisraeli and others.

SSTI runs an investment portfolio of some 50-technology firms, five already went public on the Hong Kong and Singapore stock exchanges.

The joint venture will be called Dragon and focus on investments in Chinese technological enterprises, and particularly on government-owned and export-oriented companies set to undergo privatization.

Dragon has already raised \$10 million for the first stage, and plans to raise another \$90 million in the second phase. The day-to-day management of the firm will be entrusted at the hands of the Israeli partners, who will also have the prerogative to assign the company's chairman and CEO.

Decisions pertaining to investments, however, will be made jointly by both sides.

### Foreign investment broke records in 2005

Foreign investment in Israel soared by 67% in 2005 to a record \$9.7 billion, from \$5.8 billion in 2004.

Investment in shares traded on the Tel Aviv Stock Exchange accounted for \$2.1 billion in 2005 while direct investments totalling \$5.7 billion. The Economist said that the TASE rose by 33% in shekel terms and 25.5% in dollar terms last year.

The Bank of Israel foreign currency activities department said that the business sector sharply cut back repaying foreign currency-denominated loans in December, while previously during the year, the business sector had repaid more than it borrowed as the interest rate gap narrowed.

Israeli institutional investors invested \$128 million outside Israel during December. During the year they invested \$2.5 billion outside Israel.

Israel's economic growth in 2005 fastest in West The year 2005 was a rosy one for Israel's economy, at least judging by the preliminary estimates that the Central Bureau of Statistics released at the start of the new year. The Bureau of Statistics estimates that Israel's gross domestic product increased by 5.2 percent in 2005, compared with 4.4 percent in the preceding year. It estimates that the government ran a deficit of 2.5 percent of GDP, though it had given itself room to overspend by 3.4 percent of the domestic product.

If its figures are accurate, Israel's economic growth was the fastest in the west, the bureau says, and also among the fastest in the Organization for Economic Cooperation and Development (to which it does not belong).

The Central Bureau of Statistics estimates that Israel's population increased by 1.8 percent in 2005, which would mean that GDP per capita increased by 3.3 percent.

Domestic activity and exports were responsible for most of the increase.



### Israeli Technology powers British library system

Thanks to the Israeli-developed technology of Ex Libris, national library and national banking institutions in Britain, have moved from manual to computerized cataloguing systems. The company's Aleph system permits libraries to order and receive stock, set up and control budgets, catalogue and display books, maintain an inventory, conduct searches, locate books and manage circulation. Ex Libris's biggest deal was signed in 2002 with the UK's national library the British Library. It was a major coup for Ex Libris since the British Library is one of the largest libraries in the world, with some 150 million items in most known languages.

There are already 50 libraries in the UK equipped with this system. ranging from the prestigious British Library, to educational establishments that include Nottingham Trent University, Queen's University Belfast and the universities of Salford, Bath, Birmingham, Bristol, and Strathclyde.

Elsewhere around the world, the company's technology is being used at Harvard University, the University of California (with twenty-four million titles), the China National Library and the Historical Department of the French Army, which selected the Aleph 500 integrated

system for its scientific library. Ex Libris technology has also been used to computerize and manage some 18 other national libraries and seven national banks, including the European Central Bank, De Nederlandsche Bank NV, Banco de Espana, Banca d'Italia, the National Bank of Belgium, Banco de Mexico and the Central Bank of Iceland.

Ex Libris was founded in 1983 by a team of librarians, systems analysts and computer programmers at the Hebrew University of Jerusalem who took on the challenge of creating an automated library system for the university that was efficient, user-friendly and multilingual. The result was Aleph, the Automated Library Expandable Program.

Following implementation in most Israeli universities, Yissum, the commercial arm of the Hebrew university, realized the potential and hired a veteran Israeli software expert, Azriel Morag, to translate the concept into commercial reality. Today, several generations of software later and with Morag still in charge, Ex Libris employs 263 employees and has grown into a world leader in library and information management systems. Ex Libris systems are now used by more than three million people at 17,000 sites in 70 countries. Its systems are customized to suit the particular language and culture of each library and information centre that it serves. It offers 20 interface languages that use many character sets. Additional languages and character sets are constantly under implementation to turn new ideas into cutting-edge technologies. It took Ex Libris two years to install the Aleph system, which finally went live as the Online Public Access Catalogue (OPAC) in November 2004 with an integrated catalogue of 30 million bibliographic records loaded, matched and merged from 16 different systems. Ex Libris trained 60 librarians at the British Library to manage the system, and they in turn trained 1,300 staff how to use the new system. Before the system went live, some 16,000 people were using the library's collections every day. Since its launch, the number of users has risen dramatically. The latest deal with Nottingham Trent University, which was signed in April, is also significant for Ex Libris, because the multi-site university library is one of the largest in the UK, with some 330,000 items serving 26,000 students. according to Laura Gilinski, the marcom manager at Ex Libris. Nottingham Trent purchased both the Aleph 500 system and Verde, a new e-resource management system released by Ex Libris this year. Verde is designed to help libraries manage their online content. "Using Verde we will be able to find all the information

we need in one place – information that used to be held on a variety of different systems, databases and spreadsheets and even in staff member's heads," said Mike Berrington, head of electronic information services at Nottingham Trent. "In a few mouse clicks, library staff will be able to find out everything they need to know about a resource - from pre-purchase information such as trials through to renewal and cancellation. It will be easy to find out who to contact at which publishers and interface providers in case of problems with accessing resources, and it will be possible to collate key performance indicators for those resources." The UK office of Ex Libris is run by 16 staff members and is based in Middlesex. In comparison to other regional offices in Germany and the US, which each employs over 50 people, it is relatively small, but Gilinski insists that it highly successful. "Our British office is very strong. We have closed many good deals in the last two years, and have close ties with our customers," she says. "We view the UK market as a very strong one." So strong, in fact, that earlier this year there were plans to take the company public on the Alternative Investment Market (AIM), on the London Stock Exchange. "We viewed it as the perfect exchange for a company of our size," says Lipinski. "We are too small for Nasdaq, and too big for Tel Aviv, so London was perfect." The company planned to raise \$15 million for R&D, marketing, and potential acquisitions, but eventually withdrew its offer. "The valuation was too small," explains Gilinski. "It did not reflect the valuation of the company right now." There are still plans to go public in the future, but nothing is imminent, she adds. Today, Ex Libris remains privately owned. Investors include founders and employees, Walden Venture Capital (20%) and Tamar Technologies (20%), but the Hebrew University remains the single-largest shareholder with 30% of company shares.

The company's headquarters are in Jerusalem where most of the development work is carried out. Among the Ex Libris staff are the original Hebrew University of Jerusalem team, which includes highly qualified librarians and expert software engineers.

In 2004, the company saw sales of \$29.7m., with a net profit of \$2.5m. In 2005, revenues are expected to rise to \$33.5m., with a net profit of \$3m. Morag is not surprised by the widespread success of Ex Libris both in Britain and abroad. "Israelis have a kind of chutzpah," he says. "They will undertake tasks which they might not believe they are able to achieve. Sometimes they fail, but when they succeed they do so in a very big way."

Students may not be aware of Ex Libris or Aleph, but

they would be if they still had to look for that obscure economics book with a card catalogue file.

**The Israeli Internet market**

The relative shares of Bezeq and the cable companies have stabilized.

The Israeli high-speed Internet market grew from 975,000 to 1.22 million subscribers in 2005, a 25% increase, Bezeq (TASE: BZEQ) and the cable companies report.

The number of Bezeq's high-speed Internet subscribers rose 23% to 800,000, while Israel is among the world's leaders in high-speed Internet penetration, with 65% of households. Only South Korea has a higher penetration rate -- 75%.

Bezeq reports that subscribers are switching to higher surfing speeds of 1.5 megabytes per second (Mbps) or more. More than half of its high-speed Internet subscribers have such packages.

The market quadrupled itself in 2002 (from 50,000 to 210,000 subscribers), tripled itself in 2003 (to 640,000), and grew by 52% (to 975,000) in 2004.

The market is now approaching saturation, and the number of dial-up subscribers is minimal, which means that few subscribers are switching from slow to high-speed Internet. Growth was due to attractive prices generated by competition between Bezeq and the cable companies in infrastructure, and between various Internet providers.

Bezeq (TASE: BZEQ) recruited 150,000 users for its fast-Internet service in 2005. altogether the phone company has 800,000 users linked via ADSL, compared with 417,000 linked via cable modem.

Given that Israel's population is 6.9 million, it has one of the highest Internet penetration rates in the world. Some 65% of households surf through fast Internet.

**Technion signs agreements with five Chinese universities**



The Technion Israel Institute of Technology has signed cooperation agreements with five technological universities in China. The main point of the agreements includes joint funding of young Chinese faculty members who will come to the Technion for a sabbatical year. In the second stage, funding will be provided to

Chinese students studying at thTechnioSigning the agreements was the President of the Technion, Prof. Yitzhak Apeloig, who was the guest of seven Chinese technological universities this past summer. He found there a great admiration of Israeli technology and a great desire for cooperation with the Technion, which is considered by the all the universities he visited to be one of the leading universities in the world in engineering and sciences.

"There is no doubt, that in the long run, the connection created will pay off for the Technion and the State of Israel when young faculty members and students who have come to the Technion, will return to their country to hold key positions," says Prof. Apeloig.

The Technion President discovered during his visit that the Chinese government is carrying out a multi-year plan of massive investment in 15 universities, with the clear aim of making them world leaders within 10 to 15 years. Seven out of these 15 were visited by Prof. Apeloig.

"The Chinese put especially great emphasis on developing education in general and higher education in particular," he explains. "This is expressed by mammoth investments in infrastructure and equipment. New campuses are being built from scratch and the building boom is seen everywhere."

The Chinese government is also very active in bringing back outstanding Chinese scientists from abroad, especially from the US, but also from Taiwan. The universities get donations that are also used to build infrastructure. Thus, for example, dormitories have been built on campuses to house most of the students, faculty and workers.

"In all the universities I visited I found a great admiration for the State of Israel and the Technion," says Prof. Apeloig. "I am convinced that the agreements signed between the Technion and these five leading universities will bear fruit in the future."

**EI AI to install anti-missile systems on six passenger jets**



EI AI Israel Airlines will install anti-missile systems on six passenger jets that fly to areas where the Al-Qaida terror network has

been active, according to transportation official. Installation of the \$1 million Flight Guard systems - meant to obstruct a ground-to-air missile fired at an airplane - will begin in the immediate future, said Yitzhak Raz, the project's director at the Transportation Ministry. The decision to install the anti-missile systems on some passenger jets was made in 2002, after militants in Kenya fired two shoulder-launched missiles at an Arkia airplane, narrowly missing their target.

El Al will not install the system on its entire fleet of jets, Raz said, but rather decide which planes require the expensive equipment based on intelligence and whether their destinations include areas that Al-Qaida has been active. Flight Guard, developed 10 years ago by Israel Aircraft Industries for use on military planes, responds automatically to an approaching heat-seeking missile, firing flares to divert the missile from the aircraft.

### De-icing company Microheat raises \$8m

Israeli start-up Microheat has completed an \$8 million private placement from private Israeli and US investors. Solomon Franco founded Microheat seven years ago, and was joined by CTO Vycheslav (Slava) Ivanov, who worked in the Russian Space Agency, and VP legal affairs Gal Golod. President and CEO Gary Pilibosian is currently in charge of the company, with active involvement by chairman Peter Neustadter, a businessman with extensive experience in the auto industry. Neustadter, Microheat's first investor, also invested in MobilEye Vision Technologies. Microheat develops and produces a device that uses washer fluid to de-ice and clean car windshields, mirrors, and headlights. The company has raised \$50 million to date, including the current round, which is aimed at fostering rapid sales growth. Microheat plans to hold its IPO on Nasdaq in late 2006 or early 2007, at a company value of \$500 million. Sources close to the company said that three investment banks are currently bidding to become lead underwriter for the issue. Leon Recanati is one of Microheat's largest investors. Ziv Kop, director of investments at GlenRock Israel, Recanati's investment company, says that the current round will be the last before Microheat's IPO. "According to our plan, the company won't need additional capital before its IPO, although several investment banks are interested in investing a further \$10-15 million as a bridging investment before the public issue," he stated. Arye Rubin, one of the main investors in Microheat, is chairman of the company's finance committee, and leads its financial activity. He says, "It's important for us to say that investors in the company, in

which no venture capital funds have invested, do not regard an IPO as a opportunity for an exit, but as another step in building the company. We believe that Microheat can be a multi-billion dollar company." Microheat has an R&D and testing center in Netanaya, and a manufacturing plant in Michigan. The company has cooperation agreements with a long list of auto manufacturers around the world, including General Motors (NYSE: GM), Hyundai (KSE: 11760), Nissan Motor (Nasdaq: NSANY), Volvo (Nasdaq: VOLVY), Mercedes-Benz, BMW, Kia Motors, DaimlerChrysler AG (NYSE: DCX), Audi, and Fiat (NYSE: FIA).

### PC World names M-Systems' DiskOnKey' 9th best gadget in the world



For 20 years people had been predicting the death of the floppy, but it took a gadget the size of your thumb to actually sound the

death knell. With 8MB to 32MB of flash memory at its introduction in November 2000, the DiskOnKey was easier to use than a diskette, and was the first device of its type that didn't need drivers for your PC. You just plugged it into a USB port, copied files to it, and popped it back into your pocket. Suddenly, moving big files from one computer to another was no longer a hassle. DiskOnKey by M-Systems (Nasdaq: FLSH) was listed in ninth place out of the fifty most successful gadgets of the past 50 years in a list compiled by the PC World magazine. DiskOnKey is a data storage device the size of a key chain, able to store various types of files.

M-Systems introduced it to the market five years ago with a limited capacity of several megabytes; today's models are able to store several gigabytes. This relatively large capacity allows their owners to store vast amounts of data, such as high-resolution digital pictures, presentations, and basically any other file.

DiskOnKey led M-Systems to phenomenal growth over the past several years, and today it represents about 70% of its revenues, which totaled \$ 133 million in the third quarter. Since its introduction, it has had numerous imitators, mainly from the Far East. Nonetheless M-Systems claims that its product's quality is superior to those of its competitors in areas such as the speed of loading files.

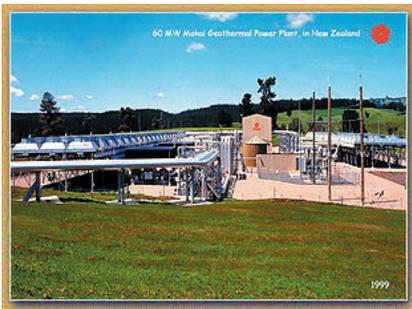
The top spot on the magazine's list of gadgets went to Sony's storied Walkman, which was launched

in 1979. Number two was Apple's iPod, and recording device Tivo rounded out the top three.

M-Systems Flash Disk Pioneers Ltd. (Nasdaq: FLSH), a leader in flash disk data storage products for the Internet appliance and network infrastructure markets, announced that its DiskOnKey™ division has developed a new, universal, portable secured data storage device based on flash memory. The product, an ergonomically designed pocketable, pen-sized device, is based on M-Systems' patented core TrueFFS® technology, as well as on the company's newly developed and patented DiskOnKey technology. The product is compatible with all major operating systems and connects directly into a USB (Universal Serial Bus) port with no driver installation required.

M-Systems Flash Disk Pioneers Ltd. (Nasdaq: FLSH) is a leading developer, manufacturer and marketer of innovative data storage products, known as flash disks, that are primarily used in Internet appliances, network infrastructure equipment and other embedded systems. The Company's flash disk provide the functionality of a mechanical hard drive on a solid-state silicon chip. M-Systems was first to bring to market a complete flash disk in a single die, using breakthrough DiskOnChip Millennium technology. The Company's products are based on its patented TrueFFS technology, and include the DiskOnChip and Fast Flash Disk (FFD) families.

**Ormat Files Shelf Registration statement to sell up to \$1.0b of securities**



Geothermal energy company Ormat Technologies Inc. (NYSE:ORA) said it filed a shelf registration statement to sell up to \$1 billion of securities - including common shares, debt securities, warrants and units of the company.

The company, which builds and operates geothermal and recovered energy power plants, said it plans to use the proceeds for various corporate purposes.

The New York Stock Exchange (ORA:NYSE) (ORMT:TASE) and Tel-Aviv Stock Exchange traded shares as of January 22 have risen more than 22%. Ormat has been listed in these pages as one of the potential bug winners for 2006.

Less than a month ago, US energy giant Calpine filed for chapter 11 bankruptcy. Since then, the analysts that cover Ormat Industries have busied themselves with the question where Ormat might fit into the picture. In a small section of the prospectus, Ormat says that money raised will be used for financing possible acquisition and for repurchase of its own shares. It is very likely that Ormat is arming itself with cash to be ready the moment that Calpine's geothermal assets are offered for sale. The Ormat shares, traded on the New York Stock Exchange as well as on the Tel-Aviv Exchange have been one of our choices for outstanding performance. In the first three and a half weeks of January the TASE traded shares had appreciated by 23%



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