ISRAEL HIGH-TECH
& INVESTMENT REPORT

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High-Tech Thrives as Politics Boil

A short three months ago we wrote "that a state commission of inquiry, to determine the responsibility of the poor performance of the Israel Defense Forces, and the management of the war by the government has not been put into place, as yet. Bickering among the top echelons of the army is prevalent and getting considerable exposure in the local media".

Investigators are questioning the Prime Minister's purchase and sale of real estate. Moreover the president, whose role is mainly ceremonial, is facing criminal charges related to sexual harassment. The former Minister of Justice is facing criminal charges related to charges of rape and another Member of Knesset is facing charges for improper political appointments".

Since then the Winograd Committee has been put into place and is expected to announce its findings next month. There are calls for the findings to be made public. Ahead of its publication the Chief of Staff Dan Halutz has resigned, yet leaks from the interrogations by the Winograd Committee indicate that Halutz has put most of the blame on the Prime Minister and the Defense Minister.

The trial of the Minister of Justice is coming to an end and its findings will be made public.

Few days ago, in a public speech Israeli President Moshe Katsav asked parliament to relieve him temporarily of his duties to fight a rape charge.

Israeli President Moshe Katsav asked parliament to relieve him temporarily of his duties to fight a rape charge, President Katsav stated that if Attorney General Mazuz decides to indict him, he would step down.

While Israelis bemoan the current state of affairs and level charges of corruption at its ministers and legislators it should be pointed out that the wheels of justice are grinding and efforts are being made to redress the wrongs.

Economies, if they are to function effectively, require political stability. The current political rumblings would be expected to have a negative effect on Israel's economy. Many countries have seen economies crash while their political echelons tottered. Israel appears to be the exception, especially in light of the experience of a war whose aims were not realized.

Having lived through the aftermath of the Yom Kippur War in 1973 we felt confident that the

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Foreign investment reached record $23.7 billion in 2006

Editorial Offices: P.O.Box 33633, Tel- Aviv 61336, Israel Tel-: +972-3-5235279 Fax: +972-3-5227799 E-mail: htir_1@netvision.net.il

troubled house of Israel would be put in order.

Yet throughout this traumatic period, Israel's economy continues to boom. Expectations are that in 2007 the economy will grow by a robust 5%. $1.6 billion of venture capital money was injected into the Israeli high tech sector. Twenty companies succeeded in initial public offerings. The number of merger and acquisition deals has set a new record. Israel's high tech universe appears to have a life of its own and is undeterred by political turmoil.

By late spring we should see all inquiries to be concluded and undoubtedly changes will be made at the highest echelons of Government. However, we continue to be confident that Israel's economy spearheaded by its high-tech will continue to thrive. The demand for personnel is strong and there is no indication that the flow of investment capital will cease.

Laboratory equipment maker BioView Ltd. (TASE: BIOV) announced that it had received US Food and Drug Administration (FDA) approval to market its "Duet" automated scanning imaging workstation in the US for a further indication on top of those that have already been approved. The automated system will now also be used to detect the Her2/neu gene, which is expressed in abnormally high levels among some breast cancer patients.

Studies have shown that metastatic breast cancer, in which the Her2/neu gene has a substantial presence, is an exceptionally aggressive form of cancer but also one, which will respond to treatment with Herceptin. A cancer in which this gene is not overtly expressed will not respond to this drug. Testing is therefore of key importance in the process of treating breast cancer patients, and the company says its new procedure will enable her2/neu levels to be measured more accurately, and it will also serve as a complementary procedure to the manual testing methods that laboratories currently use.

Israeli IT company wins Chilean bid

Ex Libris, an Israeli developer of information management technology Ex Libris has signed a deal with the Chilean Department of Public Libraries and Office of Libraries, Archives, and Museums to implement its library management system ALEPH 500 in over 400 of Chile's libraries, archives and museums. After the system is integrated the citizens of Chile will be able to use the national grid for bibliographic searches on an extraordinarily wide scale.

The upgrade was made possible by BiblioRedes , an innovative program providing free access to computers, the Internet, and technological training funded by the Bill and Melinda Gates Foundation.

"Ex Libris' penetration of the Chilean market continues the process of deepening the social and academic connection with South America.," said Matti Shem Tov, president and CEO of Ex Libris Ltd.Ricardo Lopez, assistant director of the Department of Public Libraries in Chile said that "the implementation of ALEPH 500 for the management and provision of services at all public libraries will help create a nationwide bibliographic network."

"We see the public library as the means best suited to meet the needs of our communities in respect to books and culture. We place special emphasis on the most needy and geographically isolated sectors, in that way providing equal opportunity for all peoples of Chile," he added.

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Subscription Inquiries
Tel-. +972-3-5235279 Fax. +972 3-5227799
E-mail: htir_1@netvision.net.il

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Brain Cleaner

A new method developed at the Weizmann Institute of Science holds promise for treating brain injuries An injury to the brain can be devastating. When brain cells die, whether from head trauma, stroke or disease, a substance called glutamate floods the surrounding areas, overloading the cells in its path and setting off a chain reaction that damages whole swathes of tissue. Glutamate is always present in the brain, where it carries nerve impulses across the gaps between cells. But when this chemical is released by damaged or dying brain cells, the result is a flood that overexcites nearby cells and kills them. A new method for ridding the brain of excess glutamate has been developed at the Weizmann Institute of Science. This method takes a completely new approach to the problem, compared with previous attempts based on drugs that must enter the brain to prevent the deleterious action of glutamate. Many drugs, however, can't cross the blood-brain barrier into the brain, while other promising treatments have proved ineffective in clinical trials. Prof. Vivian Teichberg, of the Institute's Neurobiology Department, has shown that in rats, an enzyme in the blood can be activated to "mop up" toxic glutamate spills in the brain and prevent much of the damage. This method may soon be entering clinical trials to see if it can do the same for humans. Though the brain has its own means of recycling glutamate, injury causes the system to malfunction, leading to glutamate build-up. Prof Teichberg reasoned that passing glutamate from the fluid surrounding brain cells into the bloodstream could circumvent this problem. But first, he had to have a clear understanding of the mechanism for moving glutamate from the brain to the blood. Glutamate concentrations are several times higher in the blood than in the brain, and the body must be able to pump the chemical "upstream." Glutamate pumps, called transporters, are found on the outsides of blood vessels, on cells that come into contact with the brain. These collect glutamate, creating small zones of high concentration from which the glutamate can then be released into the bloodstream. Yeda, the technology transfer arm of the Weizmann Institute now holds a patent for this method, and a new company based on this patent, called "Braintact Ltd." has been set up in Kiryat Shmona in northern Israel and is currently operating within the framework of Meytav's Technological Incubator based. The US FDA has assured the company of a fast track to approval. If all goes well, stage I clinical trials are planned for the near future. The method could potentially be used to treat such acute brain insults as head traumas and stroke, and prevent brain and nerve damage from bacterial meningitis or nerve gas. It may also have an impact on chronic diseases such as glaucoma, amyotrophic lateral sclerosis (ALS) or HIV dementia. Teichberg: "Our method may work where others have failed, because rather than temporarily blocking the glutamate's toxic action with drugs inside the brain, it clears the chemical away from the brain into the blood, where it can't do harm anymore."

A genetic risk factor for smoking-linked head and neck cancer

A simple blood test may be able to identify those most at risk for developing head and neck cancer as a result of smoking. This was the finding of a recent study by Prof. Zvi Livneh, Head of the Weizmann Institute's Biological Chemistry Department. Dr

Livneh's research deals with repair mechanisms for DNA, the material of genes. Cells maintain sophisticated repair systems to prevent the accumulation of mutations that might lead to cancer. In these systems, molecular detectors scan the DNA for injury. A sort of local operation is then performed to cut out and dispose of the damaged segment and replace it with a new one.

In their study, which appeared in Cancer Research, the scientists asked whether a reduced individual ability (non-inherited) to repair DNA damage increases chances of getting head and neck cancer. Smoking damages DNA and is known to be a major cause of this disease, which can affect the throat, mouth and larynx. The researchers focused on a DNA repair enzyme called OGG1, for which they had previously developed a blood test to measure activity levels. By comparing OGG activity in healthy people with those in head and neck cancer patients, the research team found that the test was able to single out those with a heightened risk of this type of cancer: Weak levels were correlated with greater risk. According to Prof. Livneh, a smoker with low OGG activity

is 70 times more likely to develop head and neck cancer than a non-smoker with normal OGG levels.

These findings join a previous study by the group in which they found that low OGG activity is an indicator of elevated risk for lung cancer, a disease also caused by smoking. Together, these studies show that a combination of low OGG activity and smoking can skyrocket a person's chances of becoming ill with a smoking-related cancer

The OGG blood test might be used, in the future, to identify those most at risk for lung and head and neck cancers, hopefully giving added incentive to those with the risk factor to quit smoking. In addition, drugs might be developed to reduce this risk, similar to those prescribed today to reduce the risk of heart disease.

Complex Channels

The messages passed in a neuronal network can target something like 100 billion nerve cells in the brain alone. These, in turn communicate with millions of other cells and organs in the body. How, then, do whole cascades of events trigger responses that are highly specific, quick and precisely timed? A team at the Weizmann Institute of Science has now shed light on this mysterious mechanism. Their discovery could have important implications for the future development of drugs for epilepsy and other nervous system diseases. These findings were recently published in the journal Neuron.

The secret is in the control over electrical signals generated by cells. These signals depend on ion channels – membrane proteins found in excitable cells, such as nerve cells – that allow them to generate electrical signals, depending on whether the channels are opened or closed. Prof. Eitan Reuveny, studied channels that work on potassium ions and are coupled to a protein called the G protein, which when activated, causes the channel to open. Opening the channel inhibits the conductance of electrical signals, a fact that might be relevant, for example, in the control of seizures.

The G protein itself is activated by another protein, a receptor, which gets its cue to carry out its task from chemical messengers known as neurotransmitters. But neurotransmitters are general messengers – they can inhibit as well as excite, and the receptors can respond to either message. How, the scientists wanted to know, is the G protein targeted so quickly and precisely to activate the channel?

Reuveny and his team found that the receptor and G protein are physically bound together in a complex, allowing the process to be finely tuned. When the receptor receives a chemical message from the neurotransmitter, it is already hooked up to the correct G protein. After being activated by the receptor, the G protein changes shape, opening the ion channel. The evidence for this complex structure came from special technique called FRET (Fluorescence Resonance Energy Transfer) that can measure the distance between two molecules. The scientists observed that even without stimulation, there is a lot of energy transfer between the G protein and the potassium channel, suggesting that they are very close together.

Mutations in ion channels are likely to be involved in epilepsy, chronic pain, neurodegenerative diseases and muscular diseases, and ion channels are the target of many drugs. Understanding the basic biological phenomena behind the way proteins organize themselves and orchestrate biological processes may allow scientists to design better or more efficient drugs.

The first molecular keypad lock

Keypad locks, such as those for preventing auto theft, allow an action to take place only when the right password is entered: a series of numbers punched in a pre-set sequence. Now, a team of scientists at the Weizmann Institute of Science has created a molecule that can function as an ultra-miniaturized version of a keypad locking mechanism. Their work appeared in the Journal of the American Chemical Society (JACS).

The molecule, synthesized in the lab of Prof. Abraham Shanzer of the Organic Chemistry Department, is composed of two smaller linked units – fluorescent probes – separated by a molecular chain to which iron can bind. One of these probes can shine bright fluorescent blue and the other fluorescent green, but only if the surrounding conditions are right. These conditions are the keypad inputs: Rather than the electric pulses of an electronic keypad, they consist of iron ions, acids, bases, and ultraviolet light.

Shanzer and his group have demonstrated in the past that such molecules can be used as logic gates, such as those that form the basis of computer operations. As opposed to electronic logic gates, in which electrical switches flip ON and OFF, the team's

molecules, with various combinations of chemical and light inputs, can switch between colors and light intensities to perform arithmetic calculations.

The challenge in creating a keypad lock was in generating sequences that can be distinguished one from another. Entering the sequence 2+3+4 will yield the same result as 3+4+2 on a calculator, but a keypad lock set to one password (234) won't open for the other (342).

The scientists found that by controlling the opening rate of the logic gate within the reaction time frame, they were able to produce different, distinguishable outputs, depending on the input order. By adding light energy, which also influences the molecules' glow, they were able to produce a molecule-size device that lights up only when the correct chemical 'passwords' are introduced. "It's just like a tiny ATM banking machine," says Shanzer.

Although these minuscule keypads are not likely to become a practical alternative to today's anti-theft devices, Shanzer believes this example of a molecular keypad lock – the first of its kind – will lead to new ideas and inventions in other areas such as information security and even medicine. "Faster and more powerful molecular locks could serve as the smallest ID tags, providing the ultimate defense against forgery." In the future, molecular keypads might prove valuable, as well, in designing 'smart' diagnostic equipment to detect the release of biological molecules or changes in conditions that indicate disease.

Intel expects $3b. exports from Israeli Fab

Intel's next fab in Israel, Fab 28, being built at Kiryat Gat, is expected to generate exports worth $3 billion a year stated Alex Kornhauser, Intel VP and head of the company's activity in Israel, at a press conference organized by the company, made the estimate.

Fab 28 is due to start operations in March 2008 and reach volume production of 7,500 wafers a month in mid-2009.

"We hope to build a third fab here, for which we have already allocated enough space," said Kornhauser.

The lines at Fab 28, using 300-mm wafers and a 45-nm process, will manufacture various processors, including Intel s Santa Rosa processor, which is due to launched later this year.

According to Maxine Fassberg, vice president of the Technology and Manufacturing Group and Fab 28 plant manager for Intel, there are now 3,000 construction workers on the site and around 150 capital equipment companies are involved in the project.

The total investment is expected to reach $4 billion, including $1.1 billion in construction. Fab 28 will represent Israel s largest construction project, and have an area of 130,000 square meters in four buildings, including 20,000 square meters of class 10 clean rooms.

Kornhauser declined to comment on these reports, but said that the company is investing $600 million in Fab 18. Most of the money is going to help the plant convert to from the current 90-nm to the company's 65-nm process.

Intel Israel s exports reached $1.3 billion in 2006, up 9.2 percent from 2005. The company expects this to increase to $2 billion for this year. Exports from Israel between 1999 and 2006 reached $11 billion and the company has received $800 million in government grants.

The chip giant, which has been operating in Israel since 1974, had 6,820 workers in Israel in 2006, including 3,000 at its four research and development centers.

Silicom Ventures Fund Invests in Yoggie Security Systems

Silicom Ventures FUND LLC announced that it has invested in Yoggie Security Systems, developer of a new network security solution, which provides protection to mobile computers in a corporate or individual setting. The company was selected from hundreds of applicant companies that submitted their requests to Silicom Ventures Fund. The Fund, along with Silicom Ventures members, co-invested a total of $750,000 in the past two rounds. The company has completed its production line and has begun its sales campaign. The funding will be used for expanding the company's distribution of marketing and sales channels in the US and Europe.

"We believe that security for mobile devices is an increasingly important and unsolved problem. Yoggie's highly experienced management team and

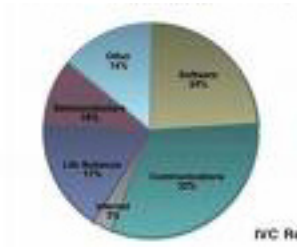
the elegant solution presented us with a compelling investment opportunity," said Eli Sternheim, lead investor and director of Silicom Ventures FUND.

"Israel has the second largest concentration of high tech startups after Silicon Valley, and in particular, security related companies are extremely prominent," said Gadi Behar, managing director of Silicom Ventures. "Investing in Israeli technology is always an attractive proposition to Silicom Ventures members, many of whom emigrated from Israel and have strong family and business ties to the country. In the past year, we also held an international summit which brought US and European investors to Israel, and we plan to continue building connections between the US and Israel."

Yoggie Security Systems, established in 2005 by Shlomo Touboul, former founder and CEO of Finjan Software, and the inventor of Behavior Based Blocking Technology, has developed a unique hardware/software security appliance, the Yoggie Gatekeeper. The robust, credit-card size Gatekeeper combines best-of-breed security applications with proprietary technologies, to protect traveling laptop users from large enterprises, SMBs, and SOHO, as well as individual consumers, against a variety of malicious code attacks by simply plugging it into a laptop, home computer or home network. Yoggie is headquartered in Israel and has several patents pending.

Israeli high-tech capital raising in 2006 reaches $1.62b.

The following are the findings of the Quarterly Survey conducted by the IVC Research Center, provider of venture capital and private equity research in Israel. This Survey reviews capital raised by private Israeli high-tech companies from Israeli venture capital funds and from other investors. The Survey is based on reports from 80 venture investors of which 45 are Israeli management companies and 35 are other – mostly foreign – investment entities



In 2006, 402 Israeli high-tech companies raised $1.62 billion from local and foreign venture investors, 21 percent above the $1.34 billion raised in 2005 and 11 percent above 2004 levels.

In the fourth quarter, 105 Israeli high-tech companies raised $477 million, a 25 percent increase from the $381 million raised by 87 companies in the third quarter and an 80 percent jump from the $264 million raised in Q4 2005.

Seventy-three companies attracted more than $1 million each in Q4. Of these, 11 companies raised between $5 million and $10 million each, 8 companies raised between $10 million and $20 million each, and 5 companies raised more than $20 million each. The average company-financing round was $4.5 million, compared with $4.4 million in the previous quarter and $3.0 million in the fourth quarter of 2005.

In 2006, Israeli VCs invested $651 million in Israeli high-tech companies, about equal to investments made in 2005 ($655 million) and 2004 ($665 million). The Israeli VC share of the total amount invested in Israeli high-tech companies was 40 percent, compared to an average of 43 percent in the previous seven years and 49 percent in 2005. The remainder came from other investment entities, mostly foreign.

"Capital raised by Israeli high-tech companies in 2006 was the highest in five years," said Zeev Holtzman, Chairman of IVC Research Center and Giza Venture Capital. "Foreign participation in investments in Israeli companies increased in 2006 and we expect foreign investment in 2007 to remain similarly high."

First investments made by Israeli VCs were 43 percent of the total amount invested by Israeli VCs in 2006, equal to 2005 levels. The average First and Follow-on investments were $2.32 million and $0.87 million, respectively.

In the fourth quarter, Israeli VCs invested $178 million, 37 percent of the total amount invested in Israeli high-tech companies. This was 25 percent above the capital invested by local VCs in the third quarter and 36 percent above the capital invested in Q4 2005. First investments by Israeli VC funds were 55 percent of their total investments in Q4, versus 44 percent in the corresponding period in 2005.

Israeli VCs invested $60 million in foreign companies during 2006 (in addition to their investments in Israeli high-tech companies), compared to $95 million in 2005 and $107 million in 2004. Two (totaling $10 million) of the 33 investments were first time investments, and the remainder were follow-ons.

In the three major sectors, capital raising was nearly

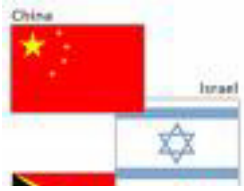
even in 2006 as 24 percent was raised by the Communications sector, 23 percent by the Life Sciences and 22 percent by Software companies. Semiconductor firms accounted for 10 percent of capital raised, the Internet for 5 percent and other sectors for 16 percent.

One hundred and seven Communications companies attracted $393 million, compared to $469 million (35 percent of the total) raised in 2005 and $430 million (29 percent) raised in 2004. While the Communications sector attracted the highest sums, as in the past seven years, its 24 percent share of total capital raised was at its lowest level, well below its seven-year average of 35 percent. In Q4, 25 Communications companies attracted $106 million (22 percent) with 4 companies attracting over $10 million.

Life Science companies, with $369 million raised, accounted for 23 percent of the total raised in 2006. This compared to 21 percent in 2005 and 22 percent in 2004In the fourth quarter, 24 Life Sciences companies attracted $117 million, 25 percent of the total capital raised.

In the fourth quarter, 22 Seed companies attracted $54 million, accounting for 11 percent of Q4 capital raising, compared to $20 million (5 percent) in Q3 and $22 million (9 percent) in Q4 2005.

The China-Israel connection



Israel-China trade climbed nearly 30% in 2006, to $3.8 billion, and is expected to reach $5 billion this year, catapulting China to the position of Israel's No. 2 trading partner, second only to the U.S.

Prime Minister Ehud Olmert, during a recent visit to China, announced the establishment of China-Israel Binational Fund for Investment in High-Tech R&D. "The establishment of this fund, together with the establishment of the joint committee for R&D investment is of extreme importance. These funds will be the catalyst for deepening cooperation," he said.

Olmert predicted that bilateral trade would triple by 2010 to $10 billion a year. Israel-China trade totaled $3.8 billion in 2006, 27% more than in 2005. "China is crying out for Israeli know-how and technology, for example in water," he said. "For China, water is as important as oil, and Israel is the leader in water desalination and recycling technologies. The hydro-technology agreement we signed will be the foundation for fruitful economic cooperation."

But official statistics don't tell the whole story. The China trade figures exclude business with Hong Kong, even though much of it is redirected to the mainland. The numbers also would be higher if Israel's lucrative arms sales to China hadn't come to an abrupt end in 2005 under heavy pressure from the Bush administration.

The Chinese are interested in more than just military hardware. As with many countries, Israel has been flooded with imports of Chinese consumer goods and textiles in recent years. But moving in the other direction, hundreds of Israeli high-tech, chemical, and agricultural technology companies have seen exports to China boom.

China also is becoming a big buyer of Israeli agro-technology. Companies like Netafim, a world leader in drip irrigation systems, have seen steady growth in demand in the past decade. Netafim has opened a factory in China. "With water shortages becoming more acute we expect China to become one of our major markets in the coming years" according to Rami Levy, managing director of Netafim Asia Pacific.

Recently, Israel's Global Environmental Services (GES) announced a $5 million water purification project in Inner Mongolia. The company also said it is discussing a huge desalination project in another region of China.

Perhaps Israel's biggest export to China is high tech. Established companies like ECI Telecom (ECIL), a producer of telecommunications equipment, initially followed the joint venture route. The company, based in Petah Tikva, Israel, entered China eight years ago through a venture with Eastern Communications Company (Eastcom), a leading Chinese manufacturer of cellular technology.

But in 2006 ECI took over full control of the joint venture, which produces components for ECI products and more recently has started doing research and development work for its Israeli parent company. "Now nearly 10% of our 3,000 employees are located in China," says ECI Chief Executive Rafi Maor.

Entry into the Chinese market hasn't always been easy. Security software developer Aladdin Knowledge Systems (ALDN) first tried seven years ago

through a local representative. “This strategy didn’t work for us and after a year or so we just dropped out of the Chinese market,” says Yanki Margalit, founder and CEO of Tel Aviv-based Aladdin.

After a four-year interruption Aladdin decided the try a new approach and opened up its own office in Hong Kong, and last year moved to Shanghai with an Israeli overseeing the operations. “Sales doubled in 2006 and we’re looking for an even bigger increase this year, making China our fastest growing market,” says Margalit.

In 2004 Infinity Venture Capital and Clal Industries and Investments joined with Suzhou Industrial Park and China Singapore Venture Capital and established a novel fund to invest in start-up companies whose research and development are to be in Israel and production in China.

The joint fund has already invested $40 million in six semiconductor and communications startups. A second $150 million fund is currently being raised. Two of the funded companies already have been sold, and there is talk of two others going public on the Shanghai and Shenzhen stock markets.

Israeli software company in NASA deal

The Israeli software and consulting firm Advanced Logistics Developments (ALD) has won a tender from NASA to install its software which can locate and prevent hitches in NASA’s space shuttles.

The contract is for three years and estimated at $5 million. The Israeli company is traded at the Tel Aviv stock market, and specializes in locating and analyzing problems in complicated and critical systems.

The contract states that ALD will install the software, perform analysis and report malfunctions regularly and will allocate professionals from the company’s daughter company in the United States to work on the project for NASA.

The program is supposed to be capable of locating and collecting malfunctions and contributes to the industries in which security and maintenance in the stages of development, production, operation and maintenance are critical.

ALD’s research and development center is located in Tel Aviv, with sales and support centers in the United States, France, England and Italy. The company has been working on large military and defense projects for over 20 years, both in Israel and abroad. The company’s founder and President is Dr. Zigmund Bluvband.

The company had recently won Lockheed Martin’s most prestigious project of future fighter jet F-35 in a tender and will be installing a program which locates and prevents malfunctions.

Some of the company’s clients include: Boeing, Lockheed Martin, the Israel Aerospace Industries, ELTA Systems, Dimona’s Nuclear Research Center, the Italian company Marconi-Selenia, the Israeli Defense Force’s Technology and Logistics Branch and more.

Ben-Zvi is top Israeli CEO

Wintegra, Inc., a semiconductor company enabling the next generation of access networks, announced that Kobi Ben-Zvi, CEO, President, Founder and Chairman of the Board at Wintegra has received the CEO Manager of the Year Award from the Israel Management Center.

This prestigious award is a measure of merit given to exemplary company leaders of the Israel high-technology community, and the criteria for winning it are based on measurable company metrics such as profitability, growth and market share.

Selected from a number of impressive entries, Kobi was one of five award winners who received this accolade at a ceremony held in Tel Aviv this week.

Kobi co-founded Wintegra in 2000, and has guided its growth to profitability throughout one of the most challenging periods in the semiconductor industry. In July 2005, Wintegra announced it had become operationally profitable and has been so for every quarter since that date. Today, Wintegra has over 120 employees with offices in the US, Israel, Scotland, and Canada, and is a leader in the Access Processor marketplace.

Company with a camera that sees through walls gets $14 million

Camero, an Israeli company has developed a camera that can “see” things through solid walls, has raised $14 million, bringing the total it has raised to $20 million.

The investment comes about four months after it showed off a prototype of the Xaver800 and began to sell systems to customers. Investors include Greylock Partners, Motorola Ventures and Walden.

The Xaver800 doesn't technically capture images directly. Instead, it issues ultra wideband signals and the data harvested is then used to create 3D models of things the signals bounced off of. The trick is that the camera can capture the signals in cluttered environments or through solid objects.

The camera is only sold to military and police agencies.

Rafael wins huge anti-tank missile order from Spain

The $425 million contract is part of collaboration with General Dynamics subsidiary Santa Barbara Sistemas.

Rafael Armament Development Authority Ltd. will supply its Spike LR anti-tank missile to Spain in a $425 million order. The contract to supply 2,600 Spike missiles and 260 launchers is part of collaboration between Rafael and Santa Barbara Sistemas of Spain, a subsidiary of General Dynamics Corp. (NYSE:GD).

Spain held a long and complex process for equipping the Spanish Army with anti-tank missiles. The Spanish Army tested the Spike LR against missiles made by US and French contractors, before deciding on the Spanish-made missile. Rafael has undertaken to transfer to the Spike LR production know-how to Santa Barbara Sistemas.

Stock Exchange introduces Israeli index

The Philadelphia Stock Exchange (PHLX) has announced recently that it is launching a trade index of leading Israeli companies traded in the United States. The announcement came with a special opening bell ceremony held at the Philadelphia Stock Exchange earlier in December.

The index, called the "Hapoalim American Israeli Index" (HAI) is an equal dollar weighted index consisting of 15 of the leading Israeli companies that trade significant volumes of ordinary shares or American Depository Receipts (ADR) in the US

HAI contains companies that have significant market capitalization and are actively traded and include technology and bio-pharmaceutical companies which account for a major portion of international trade. These companies include pharmaceutical giant Teva, Internet security specialists Check Point, NICE Systems, ORMAT Technologies, ECI Telecom, Orbotech, Syneron, Given Imaging, RADvision, Alvarion, Audiocodes, Taro Pharmaceuticals, Radware, Aladdin, and Orckit.

The index was launched by Israeli Consul General in Philadelphia Uriel Palti and by representatives of Hapoalim Securities USA, a subsidiary of Bank Hapoalim, Israel's largest bank, whose assets exceed $60 billion.

Consul Palti said during the launching ceremony, that there is no doubt that the index will provide investors with a new and exciting way to take part in the ongoing success of the Israeli high-tech, bio-tech, and pharmaceutical industries.

Palti thanked the Philadelphia Stock Exchange and the investors who gathered for the launching ceremony, which was sponsored by the America-Israel Chamber of Commerce for their confidence and support of Israel and its economy.

Weizmann research promises antibiotics revolution

Scientists at the Weizmann Institute of Science have developed novel antibiotics that are more effective than conventional drugs in fighting bacteria. The substance they developed dissolves the germ's cell surface rapidly, preventing it from producing a new generation of bugs that have adapted to the medicine. But it may be a decade before the discovery is put into use.

In recent decades scientists have warned of bacteria's increasingly stubborn resistance to most kinds of antibiotics.

Few scientific discoveries have had as profound an effect on humanity as the discovery of penicillin 81 years ago. In the world before antibiotics, the infection of a small wound was potentially fatal, and pneumonia killed millions of people. But at the present rate of germs becoming immune to antibiotics, current medications may become ineffective within 20 years. The implications are disastrous. Medicine could stand by helplessly in conquering illnesses considered relatively easy to cure today.

The reason for growing bacterial resistance is that

existing antibiotic strains attack only certain "targets" in the germ, leaving active remnants. The next generation of germs receives the information from the injured ones and mutates, rendering the antibiotic ineffective. The main damage is caused by the wrong use of antibiotics. If the entire dose is not consumed, germs remain in the body and quickly learn how to become resistant to the substance.

Now Weizmann Institute scientists, headed by Professor Yehiel Shai, have designed a more powerful antibiotic. The system causes massive destruction of germs and completely melts their cell surface. The germ is destroyed too rapidly to enable it to study the medicine's characteristics and thus it cannot transfer information to the next generation.

Shai's team succeeded in combining the properties of a natural antibiotic produced by all organisms. Because these antimicrobial peptides (AMPs) are positively charged, they are attracted to the bacteria's negatively charged surface like a magnet, where they can then destroy them. "These methods have worked for natural organisms for millions of years, so they should be effective for a very long time," Shai says.

As reported in the Proceedings of the National Academy of Sciences (PNAS), the team succeeded in combining the properties of AMPs with lipopeptides, resulting in a synthetic lipopeptide that has both a positive charge and the soap-like ability to dissolve oils.

"It's a sort of sophisticated soap, which melts the fatty part of the germ cover, compared to ordinary antibiotics, which penetrate the cell and then paralyze specific systems," says Shai.

Shai says the technology he and his team have developed is still in a preliminary stage and could t ake 10 years until it is put into use.

The graver the problem of germs becoming immune becomes, the more resources I assume they'll invest in it," he says.

Ceragon inks deal with US army

Israeli high-tech company Ceragon Networks Ltd. announced that it has signed an agreement to provide wireless broadband technology to the US Air Force in cooperation with General Dynamics, a leading defense industry contractor based in the United States.

The technology, Ceragons' FibeAir 1500P Advanced Encryption Standard modules, is designed to protect voice and data transmitted across wireless broadband networks. The information security modules will be integrated into communication systems already in use by the US military and government agencies.

Deliveries for the contract, valued at $7 million, will be completed during the second quarter of 2007.

"This contract is an important validation of Ceragons' technology and leadership in secure wireless communication," said Ira Palti, President and CEO of Ceragon, "Ceragon is ideally positioned to capitalize on the major opportunities presented by the growing defense market."

Ceragon is traded on the NASDAQ and TASE at an average turnover of $120 million. The company is a leading provider of high capacity wireless backhaul solutions and operates 17 sales offices throughout the world, with more than 150 customers in 70 countries.

IAI signed over $4b in contracts in 2006

For the first time in its history, Israel Aerospace Industries Ltd. (IAI) has exceeded $4 billion in new contracts signed in a single year. The company signed contracts worth an aggregate $4.09 billion in 2006, 22% more than the $3.4 billion signed in 2005. IAI predicts that the momentum in its contracts, as well as its profits, will continue in 2007.

IAI will reportedly post a net profit of $110-150 million in 2006, with the exact amount dependent on severance payments to early retirees.

IAI's management disclosed that the company's exports rose strongly in 2006, compared with the year before. The company signed $3.6 billion in export contracts, 88% of total contracts, compared with $2.7 billion in exports contracts in 2005, 80% of total contracts for that year.

The proportion of IAI's civilian business grew strong-

ly in 2006 at the expense of its military business. Civilian contracts totaled $1.8 billion, 45% of total contracts, 26% more than the $1.45 billion in 2005. Important contracts last year included a $300-400 million contract with the Indian Defense Research and Development Laboratories (DRDL) to develop an advanced version of the Barak Ship Point Defense Missile System, the Barak 8. IAI also signed a $230 million unmanned aerial vehicle (UAV) deal with India and a $45 million UAV contract with Australia.

US company Nextwave buys Go-Networks

US technology company Nextwave Wireless inc. (Nasdaq:WAVEV) announced the signature of an acquisition agreement with Israeli technology company Go-Networks. Under the agreement Nextwave would pay $13.3 million in cash at signature, and another $25.7 million in shares would be paid in 18 months upon completion of milestones. Nextwave will cover the debts of the Israeli company valued at $7.46 million. The total value of the deal is $46.46 million.

Go-Next has already raised $20 million, so this is not an exit of which investors are very proud. Investors in the company included Pitango Venture Capital, Accel Partners, Apax Partners and Benhamou Global Ventures the venture capital fund of Go-Networks' current chairman Eric Benhamou, formerly chairman of 3Com Corporation (Nasdaq: COMS) and Palm (Nasdaq:PALM)

The company developed mobile wireless solutions for broadband data transfer enabling 3G applications including voice, data and video. The company utilizes the WiFi and WiMax wireless communications standards. The company has not made any sales at the time of its acquisition.

Nextwave was founded in 2005 and registered for trading on the Nasdaq in mid-January. The company develops a number of products for wireless communications providers in the field of broadband, multimedia and services for mobile devices.

Israeli company develops dog-based security system

An Israeli firm has designed a security system to ensure jail breakers or intrudersl Harnessing technology that interprets barking—to see if an animal is responding to a threat instead of just routinely woofing—the company aims to replace or supplement expensive electronic surveillance systems.

"There is currently very little utilization of the watchdog's early warning capabilities," says privately owned manufacturer Bio-Sense Technologies, based in the Israeli town of Petah Tikva, on its Web site.

The company, BioSense Rechnologies, says dogs have better night vision than humans and a vastly superior sense of smell and hearing—used computers to analyze 350 barks and found dogs of all breeds and sizes barked the same alarm when they sensed a threat.

If the dogs sense an intruder or attempted security breach, dozens of sensors around the facility pick up their "alarm bark" and alert the human operators in the control room.

Dubbed "Doguard", the Dog Bio Security system is in place in high-security Eshel Prison as well as Israeli military bases, water installations, farms, ranches, garages and in Jewish settlements in the occupied West Bank.

The Israeli Eshel Prison installed the system last year to supplement its existing network of electric fences and human guards.

Now Rex, a brown American Staffordshire Terrier, Emmy, a white Caanan, and 27 other dogs guarding the prison are tracked by sensors to alert guards to any attempted breakout at the jail, which houses about 3,000 prisoners including Israelis and Palestinians.

There have been no escape attempts since the system was installed, but Moris is convinced it works. He said prisoners at other facilities had been able to escape "because dogs barked but no alert was sent to the guards".

During a demonstration an alarm wailed as Rex and Emmy raced, growling and snarling, alongside one of the facility's metal fences, which a man in a brown uniform was trying to scale the fence from the other side.

Officers in a small basement office nearby watched on a surveillance video and spoke into their walkie-talkies as a wall of computer screens flashed in red: "Dog alarm in Sector 12".

Seconds later, several prison guards, wielding clubs, raced to the scene and tackled the man to the ground.

By monitoring not just the dogs' barks, but also their physiological responses—like heart rates—it joins a trend for computer systems building on animal knowledge that humans also share.

However, Doguard is not foolproof. When first set up at Eshel Prison and at a water installation and farm in central Israel, the dogs triggered several false alarms, officials said.

"The dogs need two to three weeks to adapt—they must get to know their territory," said Daniel Low, chief executive officer of Meniv Rishon, the municipal water system of the Israeli town of Rishon Lezion. Low said he had installed the system in several places to replace guards.

Galia Alon, an official at Modi'in Ezrahi, a large Israeli security company that supplies private guards and equipment, cautioned against relying on dogs as a first line of defense.

."Dogs are excellent at spotting intruders—they are well trained and have a more sharpened sense of smell than humans," she said. "But people can identify people by looking at them and talking to them, and they are more inclined to catch them."

Yossi Brami, manager of a dairy at Kibbutz Gezer, a communal farm, had the system installed two months ago. He said he was told dogs work better in pairs because one signals to the other if an intruder appears, so two were placed to guard his calves.

Eshel Prison's dogs live in individual kennels. Several times a day, they are let out to patrol buildings, where they are unleashed in a fenced-in compound. At Kibbutz Gezer, dogs Chief and Lola are kept on a long chain and are released to run around the farm several times a day. The dogs guarding Meniv Rishon are also chained

Foreign investment reached record $23.7 billion in 2006

Foreign investment in Israel reached an all-time high of $23.7 billion in the year 2006, the Central Bureau of Statistics announced recetly

The figure is notably 80% higher than foreign investment in 2005, the stats source said.

In the other direction, Israelis invested $28.6 billion abroad, says the bureau, which is another all-time high. During the year 2005, Israelis invested $17.6 billion overseas.

In the year 2001, for comparison, Israelis invested $5.1 billion outside the country.