

ISRAEL HIGH-TECH & INVESTMENT REPORT

A MONTHLY REPORT COVERING NEWS AND INVESTMENT OPPORTUNITIES
May 2008 Vol. XXIII Issue No. 5

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Israel at 60



Israel's high-technology scene is far from being 60 years old. For nearly 20 years of its existence Israel imported all of its technology needs, mostly from France. Its proudest achievement was drip

irrigation. Israel's exports consisted mainly of citrus fruits. Its universities did not concentrate on sciences and engineering. Everything changed with the end of the Six Day War in 1967. An angry Charles de Gaulle placed an embargo on all arms and weapons sold to Israel. A group of individuals, with Don Tolkowsky, the one time Air Force Chief leading them, made a fateful decision that Israel, from now on will have to create its own technology industries and products.

The Technion Institute of Science created new fields of study that included computer sciences and electronic engineering. The Government moved slowly to put in place a list of incentives. The incubator program was spawned and next to the Weizmann Institute, the first science based industries park was built.

It was a slow process, but by the beginnings of the 1980s a group of companies emerged that included Scitex, Elscint, ECI Telecom, Laser Industries, Elron Electronic, Elbit, InterPharm and BioTechnology General. By and large they had unique products like ECI Telecom that developed a speech multiplication system that multiplied up to 8 times the amount of speech that could be transmitted. Scitex developed cameras and printers that allowed for the adjustment of photos to the specifications of the designer. InterPharm became the world's first producer of interferon drugs, based on Weizmann Institute science. At the institute Prof. Michael Sela partnered with Prof. Ruth Arnon were experimenting in creating a drug that would extend the period between multiple sclerosis attacks. In the event their work resulted in a drug named Copaxone, Last

year Teva Pharmaceutical sold globally \$1.7b. worth of Copaxone.

Ormat Technologies, Inc. (NYSE: «ORA») is a leading vertically integrated company dedicated to providing solutions for geothermal power, recovered energy generation (REG) and remote power. Its geothermal converters capture underground energy and have found an international market. Recently the company signed a contract to build a six-megawatt (MW)

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A rising star to watch

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Remote patrol devices

Amos satellite launched int orbit

waste-heat recovery renewable energy project in the Goodsprings area 35 miles south of Las Vegas. The Charles de Gaulle embargo led to the founding of defense industries. Today it has become the world's fourth largest exporter of defense materiel. Israeli head up display helmets are in the American F-16s and have found buyers in all parts of the world. Raphael's missiles have found buyers internationally and small arms such as the Uzi are used internationally.

Today Israel is considered a high-technology powerhouse. Nearly 40% of exports are technology based.

Approximately 125 companies are public and trade on international stock markets, mostly NASDAQ. In recent years the British AIM market with its generally loose requirements has attracted a slew of Israeli companies to list there.

Over the years we have been studying what are the compelling reasons for Israelis to seek an American listing. All who understand the US markets generally accepts some of the reasons but some are related to internal Israeli considerations. Our list of considerations includes: The US capital market is the biggest/most sophisticated/ most professional/ most efficient and certainly most widely reported market with the exposure provided for these companies helping them to build product images and investment loyalty. These companies are reported on not only on television, in the printed media but also on Internet sites.

The Government's cocktail of financial incentives continue to be a major assist. Nearly every startup can obtain a grant of \$250,000 to determine whether it has a saleable product.

The salaries paid by high-tech companies are way above the national average and create a huge incentive for young men who complete their army service. Many of these, during their period of service, worked in highly technical positions. They learned computers and algorithms. The latter were often enough to start a new company.

Investment capital continues to flow into Israel. Last year of the \$1.7 billion invested in technology enterprise, more than half, had its origin outside of Israel.

With a healthy infrastructure, a supportive Government and an intelligent workforce the outlook continues to be positive.

The early days

The Negev, the southern part of modern day Israel, according to the Old Testament Book of Genesis, in the years 1800-1600 BCE was a favorite watering place of the Jewish Patriarchs Abraham and Isaac. In the Old Testament Book of Numbers Moses is quoted as saying, Go up through the Negev and on, into the hill country».

The modern day Negev includes desert and canyon regions; from Beersheva all the way down to Eilat, on the Red Sea. It covers approximately 5,140 square miles; more than half of Israel's total land area. The Negev receives a scant 2-4 inches of rainfall annually. The climate is hot and dry, typical of a desert.

David Ben-Gurion the first Israeli first Prime Minister was the man credited as the key leader in the establishment of the modern State of Israel in 1948. The Premier called for the establishment of pioneering settlements in outlying areas, especially in the Negev. After leaving the government, he returned to Kibbutz Sde Boker. His retirement to this small agricultural community in the Negev was a testimonial of his philosophy of developing the wilderness. During one of my visits to Sde Boker in the 1960s I heard from the Old Man as Ben-Gurion was called, his detailed dream of a desert based agriculture, converting the hot desert sun into a useful

Israel High-Tech & Investment Report
Published monthly since January 1985

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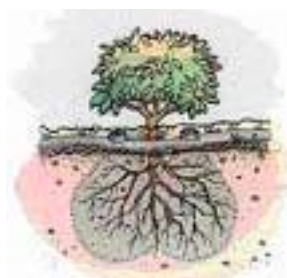
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,Annual subscription \$95.- per year, for 11 issues
Israeli residents add 15.5% VAT

energy source and setting up a major University in Beersheva. Agriculture in the desert was unlikely but Sdeh Boker's farmers raised impressively sized peaches, and adjacent to the Old Man modest shack roses grew in the sand. We succeed growing peaches but the lack of rainfall forces us to bring potatoes from Central Israel, he mused. Ben-Gurion's vision finally appears to be on the track to realization.

The lack of water to meet Israel's growing need for food resulted in the development of the ingenious drip irrigation system. Drip irrigation, is also known as trickle irrigation or microirrigation is an irrigation method that minimizes the use of water and fertilizer, by allowing water to seep slowly to the roots of plants, either onto the soil surface or directly onto the root zone, through a network of valves, pipes, tubing, and emitters.



About 1960, Mr. Symcha Blass an employee of a British Water Agency, immigrated to Israel. There is a «fable» (which could be true, because it came from his own mouth) about Symcha Blass sitting next to a tree, which was near a leaking faucet and Eureka!

But there is also no doubt that he knew about the British greenhouse application of micro-tubes. With the desperate water shortage in Israel, he decided that this technology would be useful for growing crops in the field as well as in greenhouses. The microtube was first wrapped around the feeding tube to keep it out of the way to prevent damage. This was followed by a molded coupling, with the spiral molded in. In turn this developed into the ubiquitous two-piece in-line dripper described in Blass' patent. Blass did his work at Kibbutz Hatzerim and formed the basis of the Netafim, irrigation enterprise, whose annual exports lately exceed \$350m.

Modern drip irrigation has arguably become the most important innovation in agriculture since the invention of the impact sprinkler in the 1930s, which had replaced wasteful flood irrigation. Drip irrigation may also use devices called micro-spray heads, which spray water in a small area, instead of dripping emitters. These are generally used on tree and vine crops with wider root zones. Subsurface drip irrigation or SDI uses a

permanently or temporarily buried dripper line or drip tape located at or below the plant roots. It is becoming more extensively used for row crop irrigation especially in areas where water supplies are limited or recycled water is used for irrigation. Simple in concept and execution water is small amounts directed by small water pipes that aim directly at the root of a plant. Fertigation came next. It allowed fertilizers to be added to the water. These simple systems were exported throughout the world and earned hundreds of millions of dollars in exports for Israel.

In six decades this country has produced six Nobel Prize winners. These world-class individuals are just a part of the nucleus, of a society that participates in globalization and increases the economic standard of the citizens of this country.

Most of Israel's outstanding scientific and technological developments have been mentioned, over the years, in individual issues of our Israel High-Tech & Investment Report. However, on the occasion of the 60th Day of Independence we take the opportunity of listing, some of these achievements together.



In the 1990s, Israel became only the eighth country in the world to develop and launch satellites, beginning with the Amos civilian communications satellite, followed by the

Ofek military satellites and the Eros civilian photoreconnaissance satellite. Israel now partners with NASA, the ESA and the Russian space program, building component and complete satellites for scientific and civilian uses.

With 3,000 start-ups, the Global Competitiveness Report by 2000 ranked Israel second behind the US in the number of start-ups a relative to population. The weight of start-ups of GDP was 3% in 2000.

The comparable figures for the US was 0.3% and 0.1%, respectively. Israel was highly ranked in terms of the number of engineers and

education, but poorly in terms of physical infrastructure, a situation the government is trying to remedy.

Israel was ranked second in civilian R&D expenditure as a percentage of GDP, rising from 2.7% in 1994 to 4.2% in 1999. Total R&D expenditure in 2000 was \$4.2 billion and NIS 23.9 billion in 2001. State expenditure on civilian R&D has been rising faster than GDP through the 1990s, mostly being invested in high-tech, but also agriculture, manufacturing and biotechnology.



Israel developed the Lavie, a single seater jet fighter that proved to be technically successful, but American pressure and the high cost of production led to the cancellation of the program.

Computer technology and telecommunications rank high on the list. We recall that the cell phone was first developed at the Motorola plant in Israel.

Most of the Windows NT and XP operating systems were developed by Microsoft-Israel.

The Pentium MMX Chip technology was designed at Intel Israel.

Both the Pentium-4 microprocessor for desktop computers and the Centrino processor for laptops were entirely designed, developed and produced in Israel.

Computerized billing technology was developed in Israel. The Israeli company Amdocs is the largest company in the world in this field.

Both Microsoft and Cisco built their only foreign-based research and development facilities in Israel.



Four young Israelis developed the program ICQ, which is the technological basis for AOL Instant Messenger, in 1996.

Israeli software company Check Point is the global leader in Virtual Private Network (VPN) and firewall technologies.

In proportion to its population, Israel has the largest number of start-up companies in the world.

In absolute terms, Israel has the largest number of start-up companies, than any other country in the world, second only to the US. With more than 3,000 high-tech companies and start-ups, Israel has the highest concentration of hi-tech companies in the world - with the exception of Silicon Valley.



The Israeli company M-Systems developed Disk on Key - a portable, virtual hard disk. When we travel we never neglect taking vital material on this miniature hard

disk, with us.

Israel is ranked #2 in the world for venture capital funds, right behind the United States. Outside the United States and Canada, Israel has the largest number of companies listed on NASDAQ.

A 12th century physician Moshe ben Maimon-Rambam (Maimonides) is the role model for a generation of Israeli physicians who became active not only in the care of the sick but also in the development of treatments and medical systems.

They developed the first fully computerized, no-radiation diagnostic instrumentation for breast cancer.

An Israeli company developed a computerized system for ensuring the proper administration of medications, thus removing human error from medical treatment. Every year in U.S. hospitals 7,000 patients die from treatment mistakes.



Given Imaging developed the PillCam - the first ingestible video camera, which is so small it fits inside a pill. Used to view the small intestine from the inside, the camera helps doctors diagnose digestive disorders of

the small intestine and esophagus without invasive treatment.

C2Cure is producing disposable miniature imaging medical devices. The viewing systems consist of miniature, disposable video camera and a light source that are assembled on the tip of endoscopes. The technology is suitable for minimally invasive surgery endoscopic market and the intra-vascular segment. The company was eventually acquired by Olympus.

A new acne treatment developed in Israel causes acne bacteria to self-destruct - all without damaging surrounding skin or tissue.

A new arterial implant has been developed in Israel that can lower the risk of stroke, by diverting blood clots away from sensitive areas of the brain.

Primate research at Hebrew University is leading to the development of a robotic arm that can respond to the brain commands of a paralyzed person.

Two Israeli researchers are creating cancer-killing molecules that will recognize cancerous cells and target them aggressively, while not affecting normal cells.

Israeli researchers developed a novel stem cell therapy to treat Parkinson's Disease - using a patient's own bone marrow stem cells to produce the missing chemical that enable the restoration of the motor movement.

Insightec developed an ultrasound system for removing tumors without surgery. Researchers at the Technion have developed an antibiotic that destroys anthrax bacteria as well as the toxins it secretes into the bloodstream of the infected body.

Elta is responsible for equipping the world's first civilian aircraft with technology designed to protect airliners from a missile attack.



The ill fated Columbia space shuttle carried Israel's first astronaut, Col. Ilan Ramon. Israel's space agency was formed in 1983, but its first opportunity to send someone up didn't come until President Bill Clinton offered to have an Israeli astronaut fly aboard the shuttle.

Small, unheralded companies in encryption, electronic closures, and night-vision, have the benefit of bringing to the business personnel, whose experience has been honed through working on advanced defense technologies. This is one key to identifying technology companies as winners well before they make their mark in the business world.

Driven by the fundamental belief in the sanctity of life, Israeli doctors, surgeons, engineers and technologists, have worked together for the past 30 years, turning this country into a center of medical advances. Among the important innovations

is the development of unique medical lasers.



These innovative lasers are now marketed globally, with annual sales of \$350 million in 2002. One individual stands out in the field. Professor Isaac Kaplan, a brilliant surgeon, (whose reconstructive surgery helped to restore the bodies of wounded soldiers), has also been an important researcher and innovator. In the 1970s, early in the

history of the development of medical lasers, he focused his attention on research, which resulted in the development of a broad line of carbon dioxide surgical lasers. This gave birth to an important high-tech industry. After overcoming the technical difficulties, several thousand of the carbon dioxide surgical medical lasers were sold worldwide.

What is it that drives Israelis to reach this level of achievement? The answer is rooted in part in the tradition of intellectual curiosity and analysis, which is an aspect of Jewish culture. It is a tradition that emphasizes education and that has produced, out of all numerical proportion, outstanding scientists and inventors. This age-old reverence for education has found expression in the development of a good Israeli public school system as well as excellent universities and institutes of science and technology.

Even more likely, the technological accomplishments may be a result of the innate stubbornness, resilience, and creative drive of a polyglot people. Because of the multi-national mix of the population, many of the researchers have brought with them a variety of experiences and points of view acquired in different parts of the world. All are joined together by the determination to create a country, which will become strong in spite of a lack of natural resources and of hostility on the part of most of its neighbors. This need for national security has led to the development of new defense technologies.

Ambition for a better quality of life and higher standards of living has led to the creation of an export-driven economy. And most Israelis are aware that the ability to sell and succeed in the international marketplace is dependent on their products being more innovative and better priced than those of the country's competitors.

The adaptation of this concept marked the birth of Israel's high-technology industries, which for the greater part are dedicated to supply the critical needs of a country, which needed to be always ready to defend

itself. It was a slow go at first but once momentum gathered Israelis turned to technology in earnest.

They often are overvalued but continue to maintain their attractiveness for international companies who seek to buy the technology or become strategic venture partners or marketers of the product, and for investors who pay many times the shares earnings so as to own them in their investment portfolio. The they» are the Israeli high technology companies which, when lumped together, are a growing mass containing an expanding base of technological knowledge.

The secret of Joseph's biblical pest control The remains of a burnt beetle found in a grain of wheat about 3,500 years old provided a group of researchers from Bar-Ilan University with a key to a question the Bible left without a definite answer: How did Joseph the Dreamer, who became the viceroy to the king of Egypt, succeed in preserving the grain during the seven lean years and prevent Egypt's population from starving?

According to the description in the book of Genesis, during the seven years of plenty in Egypt, Joseph had all the wheat collected in silos. And he gathered up all the food of the seven years which were in the land of Egypt, and laid up the food in the cities; the food of the field, which was round about every city, laid he up in the same. And Joseph laid up grain as the sand of the sea, very much, until they left off numbering; for it was without number (Genesis 41, 48-49).

The stores of wheat and barley served the inhabitants of Egypt during the period of drought and hunger that followed. But how did Joseph and the people of Egypt succeed in preventing pests from destroying the inventory they had accumulated, without any means of pest control and without being able to completely seal the storehouses? In order to answer that question, Prof. Mordechai Kislev, Dr. Orit Simhoni and Dr. Yoel Melamed from the laboratory for archaeological botany in the Life Sciences department of BIU used the burnt corpse of the beetle from the grain of wheat.

The beetle belongs to the Rhyzopertha dominica species, also known as the Lesser Grain Borer, one of three insects that are among the most important storehouse pests. These insects eat grain, but rather than doing so in the field, they prefer to wait until humans harvest the wheat or barley and store it in a silo.

The lesser grain borer can cause a tremendous amount of damage. Each female lays between 300 and 500 eggs a month. In other words, one female can give birth to thousands of offspring in one year. The larvae of the grain borer eat wheat or barley. The pest can finish off a granary within a very short time.

Fortunately, during the period when Joseph came to power in Egypt, the lesser grain borer was only beginning its migration westward. This insect originated in East Asia, in what is now India. It belongs to a family of insects whose larvae bore into trees. The larvae of the grain borer changed their taste several thousand years ago, when they began migrating westward, and since then they have preferred wheat and barley.

The beetle studied by Dr. Simhoni and her partners was found in one grain of wheat among several tens of thousands that were discovered in a dig at Tel Beit She'an, conducted by Prof. Amihai Mazar of the Hebrew University in Jerusalem. That granary was dated to the Middle Bronze Age II B, about the time when Joseph was in Egypt. Various tests indicated that the beetle from Tel Beit She'an is among the most ancient ever found in the Land of Israel. So far, excavations have revealed only one other beetle from an earlier period. In other words, during that period the lesser grain borer was just beginning to spread in the Middle East.

IBM Confirms Diligent Acquisition

IBM has purchased de-dupe specialist Diligent, which will become part of the System Storage business unit of the IBM Systems and Technology Group.

IBM did not disclose terms of the deal, but reports in the Israeli media, where acquisition rumors first emerged last month, claim IBM paid \$200 million to acquire Diligent.

IBM spokesman Charles Zinkowski says IBM will retain Diligent employees in their present headquarters in Framingham, Mass., as well as in R&D facilities in Tel Aviv. Diligent CEO Doron Kempel will stay on board, reporting directly to Cindy Grossman, VP of tape and archive for System Storage.

Moody's upgrades Israel ratings

International ratings agency Moody's Investors Service has come into line with its peers, Standard & Poor's and Fitch, by upgrading its ratings for Israel. The government foreign and local currency bond ratings have been upgraded to A1 from A2, and the foreign

currency ceiling for bank deposits has been upgraded to A1 from A2 as well. All other sovereign ratings have been affirmed, including the Aa1 country ceiling for long-term foreign currency debt.

In its announcement, Moody's said it had upgraded Israel's key ratings to reflect the country's proven resiliency in the face of repeated economic and political shocks, its firmly established fiscal discipline and its ongoing financial and political support from the United States and the Jewish Diaspora.

Fiscal reforms are paying off in terms of increased economic vibrancy, diversification and competitiveness, and to the benefit of strengthening tax revenues, in spite of tax cuts, said Moody's Analyst Joan Feldbaum-Vidra. These factors have led Israel to post consistent current account surpluses, helping to insulate the economy in the current adverse global conditions.»

She said that while Israel, which has an international economy, is not immune to the current developments. The economy will likely suffer a relatively modest slowdown in growth this year but should still outperform its 1.6% of GDP fiscal deficit target.

Israel has repeatedly exhibited a very strong willingness and ability to pay its debts, said Feldbaum-Vidra, who is Moody's lead sovereign analyst for Israel. Fiscal discipline has been maintained in spite of the many security-related demands on public finances, evidence of its commitment to reducing its large government debt.

The analyst commented that Israel's hefty government debt load continues to be an important credit challenge. She said that substantial further reduction in government debt would be a key driver for any future upgrades, as would national security considerations.

She said Israel's competitive edge in high-tech products, relatively wealthy average living standards, deep capital market, and advanced institutional capacity mean that it has graduated from classification as an emerging market economy.

«This is critical to our analysis of Israel, since advanced economies can handle heftier debt loads without significantly increasing default risk,» said the analyst. «However, the precarious security environment and high defense needs make less public funds available for necessary upgrades of physical and human capital,

which would otherwise firmly situate Israel among the ranks of the advanced industrialized economies.»

Arrow successfully simulates intercept of mock Shihab missile



The Arrow anti-ballistic missile system successfully simulated an interception of a rocket designed to mimic the Iranian Shihab missile on Tuesday.

This was the first successful test involving a Blue Sparrow missile, manufactured by Rafael Advanced Defense Systems. The missile is a newer version of the Black Sparrow, which was built to resemble the ground-to-ground Scud A and B missiles.

During the test, a Blue Sparrow was fired from an Israel Air Force F-15 at a height of 90,000 feet. The missile splits into multiple warheads, making it harder for the Arrow to intercept it. However, the Arrow's radar tracked the missile, simulating an intercept.

Another test is scheduled to take place in six months. In this test, an actual Arrow missile will try to intercept a Blue Sparrow.

Tests, including interceptions, have taken place on average once a year, over the past several years, and have shown good results. Israel Aircraft Industries, which manufactures the Arrow, recently received approval to begin preparing to develop an improved version, the Arrow 3.

Israel is talking with Boeing about manufacturing the new and improved Arrow 3. Israel hopes the U.S. Congress will approve funding for the project.

HP seeks growth engines in Israel

Hewlett Packard Co. (NYSE:HPQ) announced the establishment of an International Technology District, through which the company will support high-tech Israeli companies with potential in fields where HP has relevant technology infrastructures. The ITD will be managed from Israel and the company predicts that it will handle 300 Israeli companies within two years.

HP has been one of the most active international high-tech companies in Israel in recent years. Its biggest acquisition was HP-Mercury Interactive 18 months ago for \$4.5 billion, and it has acquired three Israeli printer

manufacturers: Scitex Digital Printing Ltd., Indigo, and Nur Macroprinters Ltd. (Pink Sheets:NURMF.PK). HP says that the acquisitions have been great successes, and they have whetted its appetite for more big takeovers, especially in Israel.

HP said, Through ITD, HP will locate and develop significant strategic relations with new and promising companies even before they turn into another Mercury.

An executive said: “We’ve done our market research, identifying companies and what they produce. We’ll focus on software companies, but not just on them. We’ll also look at solutions for information systems, telecommunications, and the public sector.

Most companies in the Israeli market touch on these sectors and develop software and solutions, while we can supply HP’s capabilities of technology, services, and collaboration.

Radio antennas under skin could act as remote sensors of humans’ emotional, physiological state

Scientists at the department of Applied Physics of the Hebrew University of Jerusalem have discovered a method for remote sensing of the physiological and emotional state of human beings.

The researchers believe the discovery could theoretically help remotely monitor medical patients, evaluate athletic performance, diagnose disease and remotely sense stress levels – which could have significant implications for technology in the biomedical engineering, anti-terror and security technology fields.

The key is in the surprising shape of human sweat ducts. Professors Yuri Feldman and Aharon Agranat together with Dr. Alexander Puzenko, Dr. Andreas Caduff and PhD student Paul Ben-Ishai have discovered that the human skin is structured as an array of minute antennas that operate in the “Sub Terahertz” frequency range.

This discovery is based on investigations of the internal layers of the skin that were undertaken using a new imaging technique called “Optical Coherent Tomography”. Images produced by this technique revealed that the sweat ducts, which are the tubes that lead the sweat from the sweat gland to the surface of the

skin, are shaped as tiny coils. Similar helical structures with much larger dimensions have been used widely as antennas in wireless communication systems. This made the investigators consider the possibility that the sweat ducts could behave like tiny helical antennas as well.

In a series of experiments, the team measured the electromagnetic radiation reflected from the palm skin at the frequency range between 75GHz and 110GHz. It was found that the level of the reflected intensity depends strongly on the level of activity of the perspiration system. In particular, it was found that the reflected signal is very different if measured in a subject that was relaxed, and if measured in a subject following intense physical activity.

In a second set of measurements it was found that during the period of return to the relaxed state, the reflected signal was strongly correlated with changes in the blood pressure and the pulse rate that were measured simultaneously.

The initial results of the research were published in the prestigious scientific journal The Physical Review Letters. The publication aroused significant interest among scientists, physicians and science writers.

The researchers emphasize however, that the research is still in its initial stages and as they “sail in unsheltered water” it will take some time before the full significance of the research is understood and its technological potential is fully evaluated.

The invention has been patented and commercialized by Yissum, the technology transfer company of the Hebrew University of Jerusalem.

IBM buys Israeli start-up

IBM Corp. (NYSE: IBM) signed a definitive agreement to acquire Israeli data recovery start-up FilesX Inc. IBM did not state the price tag for FilesX, but sources close to the transaction have estimated that it is \$70-90 million.

FilesX develops data recovery and back-up solutions for business continuity. The company’s founders are Jacob Herbst, Irit Many-Meitav, and Assaf Sarfati, none of whom hold management positions. The company has raised \$20 million since it was founded in 2000 from Benchmark Capital, Genesis Partners, and Index Ventures. This is Genesis’s second exit in as many

months, following the acquisition of Kidaro Ltd. by Microsoft Corp. (Nasdaq: MSFT)

IBM intends that the FilesX technology will become part of the Tivoli Storage Manager family of products, IBM's flagship suite of leading data protection and information infrastructure offerings. With its patented technology, FilesX helps IT staff restore data from virtually any type of failure and from nearly any point in time. FilesX offerings may be particularly attractive in environments where IT skills and budgets are limited, as it is considered easy to use and offers self-managing features.

In January, IBM acquired XIV Ltd. (now IBM XIV Israel) for \$300 million. IBM's storage division is reportedly in talks to acquire Israeli start-up Diligent Technologies Corp.

Elbit \$1.1b. Systems in F-16 deal

Elbit Systems Ltd. (Nasdaq: ESLT; TASE: ESLT) unit Electro-Optics Elop Ltd. has won a multi-year contract from Lockheed Martin Aeronautics Company to supply new generation Head-Up Displays (HUDs) for the new F-16 aircraft. Deliveries will begin immediately, with a first \$3.8 million order. The full potential value of the master purchase order depends on future F-16 sales.

Elbit Systems added that the project is a continuation of ongoing cooperation with the Lockheed Martin Corporation (NYSE: LMT) unit for HUDs for F-16s. Elop has supplied more than 3,300 HUDs, in thirteen different models, used on more than 20 aircraft types, to customers around the world.

\$1.1b. capital raised by VCs in 2007

In 2007, Israeli venture capital funds raised a total of \$1.1 billion by vintage year, a twenty-one percent increase from the \$903 million raised in 2006.



Vintage 2007 funds include Pitango's fifth fund – closed at \$330 million; Pontifax II, which raised \$85 million; Health Ventures, a new life sciences fund of \$70 million;

and Wanaka Capital Partners, fund of \$45 million.

In addition, six Israeli venture capital funds announced first closings in 2007. These include two new cleantech funds – AquAgro and Israel Cleantech – and a new

medical device fund, Agate Investments. Included, too, are Aviv Venture's second fund and two funds established by Israeli firms in partnership with foreign investors - SCP Vitalife and DFJ Tamir Fishman. In the past ten years, Israeli VCs attracted a total of \$10.6 billion. According to IVC; \$2 billion in capital is currently available for investment by Israeli VCs, of which \$1.2 billion is intended for First investments in high-tech companies and the remainder reserved for Follow-on investments. \$800 million is expected to be raised in 2008 by Israeli VCs for investment in Israeli high technology over the next few years.

Tech Watch: Israeli software to help protect vital US sites

Israeli software companies continue to provide innovative solutions for varied applications, allowing the country to play an ever-increasing role in some of the most important projects here and worldwide.

Agent Vi is an enterprise video analytics software company that delivers solutions for improved security, business intelligence and operations, with R&D facilities near Tel Aviv. It announced earlier this month that it has partnered with national systems engineering firm Abeo Technical Solutions LLC (AbeoTS) to provide video analytics software for the Potomac Basin Security System (PBSS) project. The area, which includes Ronald Reagan Washington National Airport, Bolling Air Force Base and the Washington Navy Yard, is of strategic importance.

Funded by the Naval Air Systems Command, the PBSS project combines biometrically enabled access control, geospatial technology, radar surveillance, video analytics and other sensor technologies to protect transportation facilities, secure areas and critical infrastructure.

Using IP-based networks, the Agent Vi software can update all cameras on a network from one computer with a single flash of the agents running within the cameras. Competitive solutions require an average of 32 servers to support 150 cameras, while Agent Vi's software allows organizations to utilize a single, existing server to deploy the same number of cameras.

Agent Vi's technology is currently deployed in more than 25 countries and in thousands of cameras and edge devices, seamlessly integrating with existing video equipment and IT infrastructure, making

video analytics feasible, affordable and scalable.

Center analyzes billions of e-mail messages per week to identify new spam and malware outbreaks within minutes of their introduction into the Inter.

IDF Chief of Staff Approves Armored Vehicles

IDF Chief of Staff, Lt. Gen. Gabi Ashkenazi approved the IDF plan for the production of armored vehicles as a part of the IDF multi-year plan. He emphasized the importance of ground maneuvers as part of the multi-year plan. The armored vehicles are a basic building block in the strengthening of ground forces. The plan focuses on the continued manufacturing of the «Merkava» tank and the development and manufacture, in large quantities, of the heavy armored personnel carrier, the Namer.

Development of the Namer began a year ago and is now undergoing operational and technical testing in the Ground Forces Command.

The continued manufacturing of the Merkava and Namer» vehicles, over the long term, will strengthen the ground forces while ensuring the security and safety of combat soldiers in the field. The program provides an operational solution to the different threats faced on today's battlefields.

The development of the Namer has recently been accelerated and deliveries will begin by the beginning of 2009. The commander of the Ground Forces, Major General Avi Mizrahi, noted that the historical decision of the Chief of Staff gives the IDF the capability to maneuver heavy vehicles, using long range vision.

Remote patrol devices

A much improved method of «remote patrol» help managers to implement something like the Web2M system created by Israeli startup Larotec.

Larotec, which has been providing m2m (machine to machine communication and monitoring) systems for several years, now has a system where sensors installed at remote sites can read and communicate data, even for large installations of devices spread over a wide area.

In other words, the gas company would be able to keep tabs on all its valves, communicating with the home office via Larotec's Web2M system, and alert

management when and where a problem arises - enabling it to immediately take corrective steps and ensure that a problem does not turn into a crisis. While there are other systems that do the same thing, said Alon Lumbroso, CEO of Larotec, none do it quite as well - or as efficiently.

We collect data using existing installed communications infrastructure, including the Internet and cell phone networks, meaning that we don't have to build, administer, or charge customers for a new communications system, said Lumbroso.

Remote devices that need to be monitored are equipped with a chip - like a cell phone SIM card - that communicates their status to the home office. If a change occurs, the server is alerted, the database updated, and the customer alerted by SMS, a pop up screen on the computer, or email, said Lumbroso.

Since the monitoring system is Web based, customers can check out the status of their devices anytime and anywhere.

For example, one of Larotec's customers in Israel is Cellcom, the cell phone company, which uses the system to monitor the base stations at its antennas around the country. There are about 2,000 of these stations, and keeping track of them without a system like Web2M would be impractical, to say the least.

The system can be designed to keep track of dozens of parameters, depending on customer need. Cellcom uses the system currently to keep track of the temperature at stations to make sure they don't go into «meltdown.» But the company has bigger plans for its Larotec system.

«We are working with Cellcom to expand the list of factors it monitors, said Lumbroso adding that one of them included detecting the presence of intruders seeking to «invade» the base stations' space via remote video detection, temperature change, or even odor. Larotec has other customers in Israel as well, including Israel Aircraft Industries, as well as a presence in many other countries, especially Argentina.

It's a great way to save money and reduce risk, said Lumbroso, and it can work for customers, large and small.

One of the most prominent features of this technology is its ease of use and system flexibility, which enables the connection of a wide range of devices or sensors in almost any environment to a central control and command system, which adapts itself to the existing communications infrastructure and enables the collection and management of large amounts of information,» said Lumbroso.

Larotec recently got a boost of \$3 million, in an investment round led by Doron Almog's Athlone Global Security Group, which specializes in investing in companies dealing with security. Almog, former head of Israel's Southern Command, is an expert on security.

The fact that Athlone has chosen to invest in Larotec is significant for both companies. Secured wireless communication between sensors and devices is a very important element in all security systems and solutions. In the HLS market, sensor management is a high growth segment, said Almog.

Larotec's technology enables fast deployment, scalability, modularity and flexibility of logistics, which are all essential factors for removal of the barriers for efficiency which other available solutions are facing, he concluded.

Luz II signs deal with California energy giant

Parent company BrightSource's solar power station will provide 2.7% of the utility's electricity supply. Brightsource Energy Inc., the parent company of Israel's Luz II, has signed a power purchase agreement (PPA) with California's Pacific Gas and Electric Company (PG&E) for renewable solar power. The first three contracts are for a total of 500 megawatts (MW) to be supplied from three solar thermal electric generating projects. PG&E also signed two options for an additional 400 MW, which will bring the total amount of power purchased under these five agreements to 900 MW.

Brightsource COO and Luz II president Israel Kroizer predicts that the first 100 MW will come on line in 2011, and that 400 MW more will come on line two years later, and a further 400 MW two years after that, if and when the PPA is expanded. If PG&E exercises the option, BrightSource's solar power station will provide 2.7% of the company's electricity supply.

Now that the PPA has been signed, BrightSource

will have to obtain financing to build the solar power station. Kroizer said that PG&E will pay \$1.5-2 billion for the power station, but declined to say how much BrightSource would have to invest in building it. In other words, Brightsource's revenue from the project is not known.

Luz II is due to launch a commercial pilot of its thermal solar power station at Rotem Industries Ltd. in Dimona in the Negev in a few weeks. The station will generate a few megawatts of thermal power.

Summary of Bank of Israel Annual Report, 2007

Positive developments continued in many spheres in 2007: GDP rose by 5.3 percent; the rapid growth was led once again by the business sector, based on favorable background conditions; the rapid expansion of exports persisted; unemployment plunged to its lowest level in a decade.

The ongoing improvement in the state of the economy was also reflected in decisions by external entities: the OECD organization invited Israel to embark on the procedure for joining it, and Israel's credit rating was raised.

The character of Israel's economic expansion is changing: as the output gap narrows, growth is based to an increasing extent on an increase in factor inputs. Both employment and investment rose sharply in 2007. The expansion of private consumption also accelerated and demand pressures began to emerge, reflected inter alia in the contraction of the surplus on the current account and a surge in imports.

The Consumer Price Index (CPI) rose by 3.4 percent in 2007, so that inflation exceeded the upper limit of the target range. Inflation accelerated in the second half of the year despite marked local-currency appreciation against the dollar. The acceleration was caused by the rise in world prices of fuel and food, especially in the last two months of the year, as well as by the expansion of domestic demand.

Monetary policy acted to return inflation to the target range. In the first half of the year the Bank of Israel continued to reduce the interest rate in view of the low level of inflation and its deviation below the lower limit of the target range. In the second half of the year

the central bank began to raise the interest rate as a result of the rise in inflation and inflation expectations.

Until the end of 2007 the effect of the global financial crisis on Israel's economy in general, and on the financial system in particular, was moderate. But the global financial crisis is not yet over, and there are concerns that at a later date it will have a more significant impact on Israel's economy, impacting directly on the financial system as well as indirectly due to the slowdown in global economic activity.

The government adhered to its growth-sustaining fiscal policy: the budget deficit was eradicated and the public debt/GDP ratio continued to contract. The expenditure target was maintained and tax rates were further reduced. Tax receipts rose as a result of economic growth, and the decline in public expenditure as a share of GDP persisted.

The capital market continued to flourish and the resilience of the financial system improved. However, attention should be paid to the development of various risks in the financial system, inter alia against the backdrop of the boom and rapid structural changes. The regulatory and supervisory bodies should be adapted to these changes.

Policy should persevere with measures that support sustainable growth, price stability and financial stability - also in view of the possible global economic slowdown and increase in risks. There should be a further reduction of the public debt/GDP ratio while steps should be taken to improve the level of the public services and reduce poverty. Policies aimed at allaying poverty should focus on a variety of measures.

Microsoft buys Israeli-founded travel website

Microsoft Corp. (Nasdaq: MSFT) acquired US-based online travel website Farecast for \$115 million. The company was founded by Prof. Oren Etzioni, a lecturer in computer science at the University of Washington in Seattle, and a serial entrepreneur.

Prof. Etzioni says the deal was agreed upon almost two weeks ago. He adds that the talks had lasted three months, with Microsoft beating another prominent competitor. «I can't say who,» he adds, somewhat apologetically, «but you may assume that the company in question is a leading player in the online travel booking sector.»

The Israel High-Tech & Investment Report is a monthly report dealing with news, developments and investment opportunities in the universe of Israeli technology and business. While effort is made to ensure the contents' accuracy, it is not guaranteed. Reports about public companies are not intended as promotion of shares, nor should they be construed as such

Farecast, says Etzioni, has already been integrated into the travel services section on the MSN portal, and there are those who feel that the technology could also be applied in other services. Etzioni himself, however, will no longer be involved in the company's activity. «Microsoft bought the company, the reputation, and the brand, but not me,» he says. He also refuses to be drawn on the size of his holdings in Farecast and the profit he made from the sale.

Farecast, formerly called Hamlet, has raised \$20 million to date. The company's site predicts which airlines offer the cheapest tickets and when they are expected to be offered, and also operates a search engine to find flights. This was recently been expanded to include hotel rooms.

AMOS-3 satellite sent into orbit

The sophisticated AMOS-3 communications satellite was sent into orbit from the Baikonur Cosmodrome launch site in Kazakhstan.

Residence. AMOS-3 is to be placed in the same orbital location as AMOS-1 and AMOS-2, eventually replacing AMOS-1 with enhanced capabilities, including broadband coverage. AMOS-1 has been in orbit since 1996.



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