ISRAEL HIGH-TECH
& INVESTMENT REPORT

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Small is Beautiful

There are more than 100 Israeli companies trading on the American stock exchanges. Of these only Teva Pharmaceuticals and CheckPoint Software are billion dollar companies. The overwhelming number of relatively small companies raises the question why do Israelis limit their efforts to raising small companies. They have not given birth to a Nokia or Volvo.

One generally accepted view is that Israelis are impatient by nature. This is probably true and is evident in all aspects of Israeli life. Israelis hate to stand on lines.

Impatience is considered to be a career stopper for many major corporations. Impatient people are not considered to be good managers or leaders for a company.
However, this probably is an oversimplification. More likely is the fact that there is a shortage of managers who have experienced the process of nurturing firms from startups to large companies.

There is a lack of experience in managing large companies. In the case of CheckPoint's Gil Schwed, its founder, grew with the company. Teva also nurtured its own management team.

Another explanation may be that Israelis tend to be problem solvers. They develop inhalable substances for specific viruses or DiskOnKey, a data storage device the size of a key chain, able to store various types of computer files. Cbyond's miniature medical camera found success in urological applications. The company was bought by a Canadian medical concern, at a fraction of today's value.

Adding the trend for keeping companies small is the constant parade of foreign companies that are searching to buy the smaller companies whose products fill a specific need. 2007 has already been marked a record year for merger and acquisition activity.

Eye surgery made simpler

IOoptima, an Israeli specialist in complex eye surgery for glaucoma patients, has developed a new laser technology that promises to transform the difficult and rarely done surgery, into a commonplace procedure that can be carried out by regular eye surgeons all over the world.
Glaucoma, like hearing loss, is one of those terrible inevitabilities of ageing. Nicknamed "the silent sight thief", glaucoma is the second leading cause of

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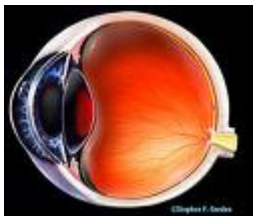

blindness in the US, afflicting an estimated three million Americans aged 40 and over. Over 15 million more are at risk - especially those of African and Mexican-American descent.

There is no easy cure for the condition; current medical and surgical treatments are either risky or inadequate. But a breakthrough treatment for glaucoma may be waiting at the end of the tunnel, courtesy of Israeli startup IOPtima.

The company's technology comes in the form of a laser known as the OT134, a medical device based on carbon dioxide laser technology - similar to the laser technology used on the skin.

According to its developers, the OT134 device enables an eye surgeon with little expertise to easily operate on the eyes of a glaucoma patient, making the formerly complex operation as simple as going for a cataract operation.

While eye surgeons today are using laser treatment extensively, they apply it to correcting vision and not for treating physical abnormalities of the eye, explains IOPtima's CEO Joshua Degani.

"Our application for treating the envelope of the eye itself is very original," he said.

The idea of a carbon dioxide laser for treating glaucoma was originally devised by Prof. Ehud Assia, a professor at the Sackler Faculty of Medicine at Tel Aviv University, and director of the Ophthalmology Department at the Meir Medical Center in Kfar Saba.

Glaucoma is caused by excessive pressure in the eye, often brought on with age. The clear liquid that bathes the eye's optic nerves flows through a meshwork, like a drain, in order to pass out of the eye. But as we get older, the fluid gets clogged in the meshwork and a pressure builds up. It can be so strong that it presses on the optic nerve causing extensive damage over time.
Only a small percentage of eye surgeons around the world have obtained the painstaking know-how required to relieve pressure from the eye with a surgical approach. The most efficient surgical technique is known as Trabeculectomy Non-Penetrating Deep Sclerectomy (TNPDS).
Assia is one of the few eye surgeons in the world who can perform the procedure. It requires a surgeon to scrape off a thin layer of the wall of the eye, leaving only a razor thin layer (5%) intact. This layer has to be thin enough for the excess liquid to drain out of the eye and thick enough that the eye remains protected.

Performing such a surgery is like balancing on a tightrope: It is both difficult and extremely risky if something should go wrong. Eyes collapse, infections, cataract formations and more. That is why few choose to operate and opt to prescribe a long-term, but less-effective, drug alternative instead.

That's where IOPtima's lasers come in. Assia's device will make it possible for eye-surgeons everywhere to become instant experts in a surgical technique that was once performed by a select few. It enables surgeons who aren't trained in performing TSPDS to perform the procedure with ease.

Using the IOPtima device, the laser switches off the moment before the eye membrane is perforated - at exactly the same time when the liquid is able to pass

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through the membrane, but when the membrane is thick enough to keep the eye protected.
"It occurred to me that this would be a perfect fit for non-penetrating surgery, because the moment the CO2 laser came in contact with the intra-ocular liquid of the eye it would automatically shut off, and therefore prevent any serious damage," says Assia.

After having his 'Eureka' moment, Assia developed the device and then took it to the boardroom, where he partnered with Bio-Light Life Science Investments to form IOPtima.
Now the company's chief scientist, Assia and his team have conducted successful pre-clinical trials on 23 human patients in Israel. The initial results have been the talk of the town among eye surgeons worldwide, and some are using their clout to help organize human clinical trials in the United States, Canada and Europe. Among the collaborators are Prof. Mark Sherwoods from the University of Florida, and Prof. Graham Trope from the University of Toronto.

On a more local level, IOPtima has consulted with such Israeli experts as medical laser specialist Prof. Abraham Katzir from the School of Physics and Astronomy at Tel Aviv University.

"Our system offers better efficacy and safety advantages, as well as the risk of far fewer complications over traditional drug and surgery therapies for glaucoma," says CEO Degani, who brings with him personal insight on laser technology through extensive work in the field and a PhD in the area from Jerusalem's Hebrew University.

Healthcare providers are likely to also welcome the IOPtima treatment. Medication against glaucoma amounts to $2-3 billion spent globally each year; it often fails because of low patient compliance and because in many cases it has limited long-term efficacy.

IOPtima's treatment will also open up possibilities for glaucoma surgery not only in the US but in developing countries as well, especially where the costly prolonged treatments of eye drops are not possible.

"For them, yes, this would be a major achievement," said Degani. "I think that the nicest thing about this is that it is going to make eye surgeries an appealing procedure both for patients and eye surgeons.

FTSE grants Israel "developed" status

FTSE Group has granted Israel "developed'' status, which will enable the Tel Aviv Stock Exchange (TASE) to attract more from the estimated $2-2.5 trillion in funds that track the FTSE indices.

"Bloomberg" quotes Citigroup Israel head of trading Neil Corney as saying, "This is a positive. It's going to mean that more international investors will be able to invest in Israel.''

"Bloomberg" adds that shares including Teva Pharmaceutical Industries Ltd. (Nasdaq: TEVA; TASE: TEVA) may be affected as investors who benchmark against the indexes, buy or sell to reflect today's announced changes, which take effect from June 2008. Most funds are restricted to investing in developed markets because of their perceived lower risk.

FTSE Group said that the FTSE Policy Group found that "Israel meets all quality of markets criteria for a developed market and has done so since being included on the Watch List in 2006. A new FTSE Index for developed markets in Europe, Middle East and Africa will be introduced for those investors wishing to integrate Israel within their existing Developed Europe portfolios.

"Bloomberg" says, "Israel took steps in the past two years to raise its profile among foreign investors and increase the perception that its $140 billion economy was ready for upgrade to developed status."

"Bloomberg" adds, "The Tel Aviv index has almost tripled in the last four years, as the economy marks its fifth year of growth. New foreign investment in exchange-listed securities in the first half of this year reached $967 million, compared with $2.1 billion for all of 2006, according to the Bank of Israel.

"FTSE's requirements also include a wealth test, which Israel met as gross national income per capita rose to $18,620 in 2005. The World Bank classifies any country with ``high'' income to have Gross National Income of at least $11,116."

Commenting on FTSE's upgrade of Israel to developed market status, Merrill Lynch reports that

the Israeli market can expect a large inflow from investors in developed markets, while outflows should be small.

"We learned at our meeting with FTSE that they expect net inflows of US$2-3 billion from developed market investors into the Israeli market," according to Merrill Lynch analysts.

Tower Semiconductor inks Motorola deal

Tower Semiconductor (Nasdaq: TSEM; TASE: TSEM) announced that it had won a multi-million dollar per month manufacturing deal for its Fab2 at the 0.13-micron technology generation.

Tower described the customer as "a first-tier, US integrated device manufacturer." It is believed that the manufacturer is in fact Motorola Inc. (NYSE: MOT). The deal is the second largest in Tower's history.

Under the deal, technology will be transferred during the coming several quarters, after which Tower expects to manufacture between five and eight thousand wafers-per-month, utilizing the new tools it is purchasing from companies such as AMD and Intel.

The high-volume production shipments are expected to commence towards the end of 2008. Tower says it expects that the customer, could become one of its top three customers.

Portable explosive sniffer

Scent Detection Technologies has developed the Mini-Nose portable explosive sniffer under specifications set by Israel and the United States.

Mini-Nose is based on a technology called High-Frequency Quartz Crystal Microbalance. HF-QCM, which includes an array of sensors and coating, was designed to trace levels of explosive chemicals at a lower cost and greater accuracy than existing explosive trace detection technologies.

"When you go through security checkpoints in some locations you see equipment that may have performed well in the lab but once deployed on the front lines loses much of its sensitivity and reliability," company vice president Doron Shalom said.

Shalom said Mini-Nose, which won awards in 2006 and 2007, could detect IEDs, including suicide bomber belts. He said the company, established in 2004, has adopted a concept by his father Lev Dayan and former Israeli chief scientist, to identify substances by algorithms.

"On the surface of each sensor is a chemical coating which is sensitive to different families of molecules of both explosive and non-explosive material," Shalom said. "When the sensors are exposed to the material, there's a change in the resonating frequency which is measured."

Executives said Mini-Nose was tested in the laboratories of the state-owned Israel Military Industries. They said SDT was also working with the U.S. government, including the Transportation Security Administration, which has deployed Mini-Nose throughout the United States and Europe.

"I am very familiar with current IMS technology and have witnessed first hand the pains and discomfort of TSA screeners working with this outdated ETD equipment," SDT operations manager in the United States Tom Neugebauer, said. "SDT has virtually eliminated most if not all the problems that front line security personnel face around the globe."

Novel medical capsule

Israeli start-up Veterix has developed an innovative new electronic Capsule that sits in the stomach of a cow, sheep, or goat, sending out real-time information on the health of the herd to the farmer via Email or cellphone. The e-capsule, which also sends out alerts if Animals are distressed, injured, or lost, is now being tested on a herd of cows in the hope that the device will lead to tastier and healthier meat and milk supplies.

Skype lie detector

The millions of Skype users worldwide will soon have access to the Newly developed KishKish lie-detector. This free Internet service, Based on voice stress analysis (a technique commonly used in criminal Investigations), will be able to measure just how truthful that person on the other end of the line really is!

Beating cardiac tissue has been created in a lab from human Embryonic stem cells by researchers at the Rappaport Medical Faculty And the Technion-Israel Institute of Technology's biomedical Engineering faculty. The work of Dr. Shulamit Levenberg and Prof. Lior Gepstein has also led to the creation of tiny blood vessels within the tissue, making its implantation possible in a human heart.

DreamBox

Israel's Magal Security Systems (Nasdaq:MAGAL) is a worldwide leader in Computerized security systems with products used in more than 70 countries around the world protecting anything from national borders To nuclear facilities, refineries, and airports. The company's latest product, DreamBox, a state-of-the-art security system, that includes intelligent video, audio and sensor management, is now being used by a major water authority on the US East Coast to safeguard the utility's Sites.

Electrical stimulator treats urinary incontinence

Israeli company BioControl Medical sold its first electrical stimulator that treats urinary incontinence to a US company for $50 Million. Now it is working on CardioFit, which uses electrical nerve stimulation to treat congestive heart failure. With nearly five Million Americans presently affected by heart failure and more than 400,000 new cases diagnosed yearly, the CardioFit is already Generating a great deal of excitement as the first device with the potential to alleviate this deadly disease.

Interior Ministry adopting biometric passports

Interior Minister Meir Sheetrit recently declared that as Israel's passports and identity cards are easily counterfeited, he will push to replace all of them to increase security and meet the increasingly stringent requirements of other countries admitting Israeli visitors.

The Israeli branch of the 3M company was surely pleased to hear the news. The mother company is one of the world's leaders in the production of electronic and biometric documents. Biometric refers to the scanning of parts of the body, from fingerprints to the internal structure of the eye. No two people have the same biometric characteristics - a fact that makes this the perfect system for identification in the wake of terror threats.

So far, 40 countries - including Germany, France and England - have changed their passport system to a biometric one that includes information about the bearer encrypted into a chip. The US is in the process of the changeover.

According to Amit Hayut, director of the security and government sector for 3M-Israel, the electronic passport is in effect a "book" whose first page contains a chip with all the relevant data about its holder. There is a digital photo, plus the possibility of crossmatching the holder with biometric information from his eye or fingerprint. In the future, voice identification and even DNA records might be included. When the holder reaches airport security, the passport and individual will be scanned to see if the data match, and whether the person is permitted to pass. Such a system is expected to be operating in all European airports and the US by 2009, so all Israeli citizens will need electronic documentation if they want to travel to these destinations.

Amit says e-passports will shorten queues and even eliminate visa applications. The cost of producing a biometric passport is $10 to $20, compared to $3 today. Of course, countries will also have to invest in electronic "readers." Amit maintains that his firm offers more comprehensive solutions, and is ready to start producing e-passports in less than a year.

YouTube takes lead in user-generated content in Israel

The number of web users in Israel is approaching 4 million.

Video sharing site YouTube has overtaken local portal Tapuz as the most popular user-generated content site, reveals a survey by TNS/Teleseker for August. The survey found that YouTube came seventh with a weekly exposure rate of 26.9% compared with 25.4% in July. Tapuz fell to eighth place with 26.6% weekly exposure rate compared with 26.6% in July. However, Tapuz's video sharing site, Tapuz Flix, rose from 9.5% in July to 10.5% in August. Most sites saw an increase in surfers compared with September 2006. The TNS survey attributes this to the increasing popularity of surfing itself. The number of people aged 13 and over who used the Internet

in September 2006 totaled an estimated 3.7 million, compared with the current 3.9 million.

The top three sites in Israel remained unchanged. Google Inc. (Nasdaq: GOOG) came top with an exposure rate of 87.8%, followed by Walla Communications Ltd. (TASE: WALA), down slightly to 71% from 72.8% in July, and Ynet in third place with 55.7%, down from 60.2%.

Blue planet

Blue Planet, a curriculum package for middle school students, written by Weizmann Institute scientists on the link between man and the environment, has won recognition by UNESCO as a worldwide model in environmental studies. This international organization is promoting and financing the translation of this program into various different languages, as well as its distribution throughout schools worldwide.

The book Blue Planet was launched by UNESCO's Deputy Assistant Prof. Andras Szollosi-Nagy, Director of the Division of Water Sciences; Weizmann Institute Vice President of Resource Development Prof. Israel Bar-Joseph; Prof. Nir Orion from the Science Education Department, developed the program. \The program focuses particularly on the water cycle in the Earth's ecosystems, and is intended for use as an effective learning tool through its wide and systematic approach, including various activities, experiments and field work that will help develop students' cognitive thinking skills and understanding.

The ceremony was held in the EcoSphere - a unique educational glass-enclosed geodesic dome located at the Weizmann Institute's Clore Garden of Science, where a Spanish version of the book was presented to the UNESCO representative. In the near future, the authors of the book plan to visit Latin America where they will help teachers implement this educational program into their own curriculums. The book will then get translated into Chinese and three other languages.

Beduin R&D center opens in Negev

A regional research and development center for Beduin researchers opened recently at Hura in the Negev.

Work will be conducted in the fields of desert agriculture, technology, health, education, culture and economics.

Science and Technology Minister Ghaleb Majadle attended the dedication ceremony at the center, which is the third in the Arab sector after those at Shfaram and Kafr Kara in the North.

The new R&D center was established with ministry funding and will be run by Ahad - Academics for the Advancement of Arab Society in the Negev, with academic supervision by Ben-Gurion University of the Negev in Beersheba.

Medical research will include work on genetic and chronic diseases common in the Beduin community. Agricultural research will focus on the raising of sheep and cultivation of medicinal herbs in the desert; and technological research will include solar energy production. The ministry will finance the center's operations for a year, after which its achievements will be assessed.

Earlier, Minister Majadle attended the closing ceremony of the Sci-Tech summer camp for teenagers at the Technion-Israel Institute of Technology in Haifa. The camp, now marking its 15th year, was attended by 66 youths, Jewish and Arab, from Israel and abroad. It had been canceled last year due to the Second Lebanon War.

Majadle praised the camp for bringing youths from diverse backgrounds together to speak in the language of science. He also said he had set up a special team to fight the brain drain of Israeli scientists to other countries.

Sweet smell

Weizmann Institute Scientists discover. The pleasantness of an odor can be predicted from its molecular structure . What makes one smell pleasant and another odious? Is there something in the chemistry of a substance that can serve to predict how we will perceive its smell? Scientists at the Weizmann Institute of Science and the University of California at Berkeley have now discovered that there is, indeed, such a link, and knowing the molecular structure of a substance can help predict whether we will find its smell heavenly or malodorous. In sight and hearing, for instance, our perceptions are determined by the physical properties of waves – the length of light waves in sight, and the frequency of sound waves in hearing. But until now,

there was no known physical factor that could explain how our brains sense odors.

The new study, conducted by Prof. Noam Sobel of the Institute's Neurobiology Department and his colleagues, represents a first step in understanding the physical laws that underlie our perception of smell. Their results appeared last week in the Journal of Neuroscience. To identify the general principles by which our sense of smell is organized, the researchers began with a database of 160 different odors that had been ranked by 150 perfume and smell experts according to a set of 146 characteristics (sweetish, smoky, musty, etc.). These data were then analyzed with a statistical program that analyzed the variance in perception among the smell experts. The scientists found that the data fell along an axis that describes the "pleasantness rating" of the odors – running from "sweet" and "flowery" at one end to "rancid" and "sickening" at the other.

The same distribution along this axis, they discovered to their surprise, closely describes the variation in chemical and physical properties from one substance to another. From this, the researchers found they could build a model to predict, from the molecular structure of a substance, how pleasing its smell would be perceived.

To double check their model, Sobel and his team tested how experimental subjects assessed 50 odors they had never smelled before for pleasantness. They found that the ratings of their test subjects fit closely with the ranking shown by their model. In other words, they were able to predict the level of pleasantness quite well, even for unfamiliar smells. They noted that, although preferences for smells are commonly supposed to be culturally learned, their study showed that the responses of American subjects, Jewish Israelis and Muslim-Arab Israelis all fit the model's predictions to the same extent. Sobel:

"Our findings show that the way we perceive smells is at least partially hard-wired in the brain. Although there is a certain amount of flexibility, and our life experience certainly influences our perception of smell, a large part of our sense of whether an odor is pleasant or unpleasant is due to a real order in the physical world. Thus, we can now use chemistry to predict the perception of the smells of new substances."

Orpak to equip network of 580 stations and 65,000 vehicles

Orpak Systems Ltd, a provider of card-free secure fuel payment systems based on vehicle identification and end-to-end solutions for the automation of fuel stations, has announced that the company has signed a contract with a major global oil Co to equip a network of 580 stations in Turkey with the supply of station automation and of fuel payment system, based on vehicle identification to 65000 vehicles.

Under the terms of the agreement, Orpak will commence the supply, installation and commissioning of its management system in the petrol stations in Q4 this year and complete by end of February 2008. Orpak will be paid $5m in stages for fulfilling the terms of the contract starting in Q4 2007.

Orpak develops, manufactures and markets end-to-end solutions for the automation of fuel stations and fleet management. Orpak is a market leader in automated refuelling systems that incorporate fuel payment based on vehicle identification. Using advanced technologies to meet customer requirements, Orpak's solutions integrate forecourt automation and management, convenience-store management systems, commercial and retail sales solutions, and fuel delivery systems.
The Group's products are deployed in more than 9,100 fuel stations and 1.7 million vehicles in 30 countries across the globe and are distributed through an international network of subsidiaries and partners.

Orpak has been ISO-9001 certified since 1995, and the Company's products meet appropriate local safety standards and regulations in markets in which it operates.

Sweden's Hexagon buys Israeli 3D optics start-up CogniTens

Swedish technology group Hexagon AB (SWX: HEXN) has acquired Israeli industrial device start-up CogniTens Ltd.
CogniTens was founded in 1995 and, according to IVC Online, it has raised a total of $39 million from Pitango Venture Capital, Vertex Venture Capital, Walden Israel, Israel Infinity Venture Capital, Morgan Stanley, and others.

CogniTens provides manufacturers with measurement tools based on 3D optical technology. The company's dimensional measurement solutions are especially designed for use in demanding engineering and shop floor environments of automotive and other manufacturing industries. CogniTens is headquartered in Israel and employs about 50 people, with sales in the US and Japan. The company's sales for 2007 are likely to reach around $8 million and are expected to grow by double digits.

Hexagon president and CEO Ola Rolen said, "The acquisition of CogniTens gives Hexagon a new technology in the high speed, non contact, shop floor measurement and scanning segment of the metrology market."

Hexagon is a global technology group with around 8,200 employees in 30 countries and net sales of about $2 billion for 2006.

Rafael unveils upgraded armor

Rafael Armament Development Authority recently unveiled its next-generation "add-on armor technology" for combat vehicles: the Multi-Threat Armor Protection System.

"We anticipate the successful integration of M-TAPS in the MRAP II (Mine Resistant Ambush Protected Vehicles) and MPV programs," said a spokesman.

He added that the installed system can deflect rocket-propelled grenades, improvised explosive devices, explosively formed projectiles, high-speed fragments from artillery bombs and armor-piercing projectiles from heavy machine guns.

These make up the majority of threats to troop vehicles in Iraq, Afghanistan and in other current conflicts.
Shachar said that the company expects to sell the system, which is integrated into the combat vehicle itself, to "everyone," especially "coalition forces in Iraq and Afghanistan."

"The earlier (armor) product offered a lower level of protection," Shachar said, so the company worked to upgrade the system, which provides protection for trucks as well as combat vehicles.

The M-TAPS armor is the only product of its kind currently on the market, Shachar said.

As early as 2004, RPG attacks plagued soldiers and diplomats stationed in Iraq: "Attacks have become so frequent that the U.S. Embassy ordered the road off-limits to American Embassy personnel.
"The 7-mile stretch of road has become the most dangerous road in Iraq, despite 19 months and millions of dollars spent on security," the report continued.

Earlier this year U.S. Army Lt. Gen. Raymond Odierno, the No. 2 general in Iraq at the time, told the newspaper that Iran has been funneling RPGs, Katyusha rockets and EFPs to Iraqi insurgents.

According to the company, M-TAPS has undergone extensive testing at the firm's facilities and by the Israel Defense Forces.

"M-TAPS ... is an upgrade of Rafael's ... Insensitive Reactive Armor system that has been successfully applied to the U.S. Bradleys (armored fighting vehicles), IDF vehicles and a variety of NATO APCs (armored personnel carriers)," according to Rafael.

Another Israeli company announced a new combat technology development earlier this month: Israel Military Industries said it had "completed the development of the Urban Fighter -- an upgraded, up-armored M113 armored personnel carrier designed for urban warfare and low-intensity conflict scenarios."

"Unlike the previous version of the upgraded M113, the Urban Fighter requires only a minor automotive upgrade, which significantly reduces its cost and is designed as a kit that could be installed on an M113 within a few days," according to IMI.

"In 2004, IMI and Rafael developed a heavier version of an upgraded M113, dubbed Maoz, which required a full automotive replacement. The IDF initially considered procuring it but eventually rejected the project for budgetary reasons," IMI said. Maoz is Hebrew for "refuge," or a military stronghold.

Like Rafael's M-TAPS armor, IMI's Urban Fighter features hybrid armor developed from the company's Iron Wall technology.

"It is designed to protect (against) heavy machine guns and most forms of improvised explosive device, such as explosively formed projectiles and explosively formed fragments," according to a company statement.

"In addition, the Urban Fighter uses improved slat armor to protect from rocket-propelled grenades."

IMI said the raised area for the vehicle driver gives him or her 360-degree visibility and provides for safer driving in urban areas -- "features hitherto unavailable in APCs."

The IDF recently received a prototype for testing.

Rafael and IMI were both recently named among the Top 100 defense companies in the world by the American industry publication Defense News. Rafael's sales, according to the rankings, were nearly $1.1 billion, while IMI made the rankings with sales of $481.6 million.

Fischer predicts`very rapid' expansion for economy
"We don't have signs yet that our banks are exposed to sub-prime markets.''

Governor of the Bank of Israel Prof. Stanley Fischer said that he "expects the country's economic growth will accelerate".
Fischer said, "All the signals we have are for very rapid growth. Gross domestic product grew at a 6.6% annual pace in the first half of the year, the most since the Israeli economy pulled out of recession in 2003. Unemployment has dropped to the lowest in a decade. The nation's banks don't show any signs of suffering from the collapse in demand for securities backed by sub-prime US mortgages.

S.G.D Engineering Ltd.

The nearly three decade old company produces a suite of producta that include Airborne pods – Recce, SAR, Chaff and Flares and EW Long Range Oblique Photography (LOROP) Reconnaissance Pod (Recce Pod) design and manufacture for F-16 and F-4. The pods are fully equipped ready for the integration of specific sensor suites. Israel's Elisra is a major supplier of reconnaissance cameras and other electronic hardware.
It also manufactures chaff and flares dispensing pods for fighter aircraft. Some of its projects include F-16 carried reconnaissance pods, already delivered to four air forces.

A recent contract was the CASA CN-235 Conversion to "Open Sky Treaty" special mission (observation) aircraft for the Turkish Air Force.

S.G.D. cooperates with Israel Aircraft Industries in its upgrading programs.

Open Skies (OS) is an international treaty between NATO and former Warsaw Pact Nations which allows all to overfly one another, within certain limitations.

The Treaty on Open Skies entered into force on January 1, 2002, and currently has 30 states as parties. The Treaty establishes a regime of unarmed aerial observation flights over the entire territory of its participants. The Treaty is designed to enhance mutual understanding and confidence by giving all participants, regardless of size, a direct role in gathering information about military forces and activities of concern to them. Open Skies is one of the most wide-ranging international efforts to date to promote openness and transparency of military forces and activities.The Treaty specifies that the entire territory of a State Party is open to observation. Observation flights may only be restricted for reasons of flight safety; not for reasons of national security. Imagery collected from Open Skies missions is available to any State Party upon request for the cost of reproduction.

Open Skies aircraft may have video, optical, panoramic and framing cameras for daylight photography, infra-red line scanners for a day/night capability, and synthetic aperture radar for a day/night, all weather capability. Photographic image quality will permit recognition of major military equipment (e.g., permit a State Party to distinguish between a tank and a truck), thus allowing

significant transparency of military forces and activities. Sensor categories may be added and capabilities improved by agreement among States Parties.

S.G.D., under direct prime contract with the Turkish Air Force (TuAF), converted a CN-235 for the OS mission. This specific conversion is possibly the most advanced aircraft for the mission as it features 8 camera sensors aboard, all meeting (and certified) the

Treaty's requirements, except for the IRLS which is yet to be defined by the Treaty. The member states will be meeting in Turkey in early July to further define the IRLS specification, based on the IRLS that is currently carried on board the TuAF's aircraft.

Switching goals

Is heading straight for a goal the quickest way there? If the name of the game is evolution, suggests new research at the Weizmann Institute of Science, the pace might speed up if the goals themselves change continuously.

Nadav Kashtan, Elad Noor and Prof. Uri Alon of the Institute's Molecular Cell Biology and Physics of Complex Systems Departments create computer simulations that mimic natural evolution, allowing them to investigate processes that, in nature, take place over millions of years. In these simulations, a population of digital genomes evolves over time towards a given goal: to maximize fitness under certain conditions. Like living organisms, genomes that are better adapted to their environment may survive to the next generation or reproduce more prolifically. But such computer simulations, though sophisticated, don't yet have all the answers. Achieving even simple goals may take thousands of generations, raising the question of whether the three-or-so billion years since life first appeared on the planet is long enough to evolve the diversity and complexity that exist today,

Evolution takes place under changing environmental conditions, forcing organisms to continually readapt. Intuitively, this would slow things down even further, as successive generations must switch tack again and again in the struggle to survive. But when Kashtan, Noor and Alon created a simulation in which the goals changed repeatedly, they found that its evolution actually speeded up. They even found that the more complex the goal – i.e., the more generations needed reach it under fixed conditions – the faster evolution accelerated in response to changes in that goal.

Computerized evolution ran fastest, the scientists found, when the changes followed a pattern they believe may be pervasive in nature. In previous research, Kashtan and Alon had shown that evolution may often be modular – involving adjustments to standard parts, rather than wholesale remodeling. They theorized that the forces acting on evolution may be modular as well, and for each goal, they defined subgoals that could each change in relation to the others. "In an organism, for example, you might classify these subgoals as the need to eat, the need to keep from being eaten, and the need to reproduce. The same subgoals must be fulfilled in each new environment, but there are differences in nuance and combination," says Kashtan. "We saw a large speedup, for instance, when we repeatedly exchanged an "OR" for an "AND" in the computer code defining our goals, thus changing the relationship between subgoals."

Although the main aim of this research, which appeared recently in the Proceedings of the National Academy of Sciences (PNAS), was to shed light on theoretical questions of evolution, it may have some practical implications, particularly in engineering fields in which evolutionary tools are commonly used for systems design; and in computer science, by providing a possible way to accelerate optimization algorithms.

Shrinking giants, exploding dwarfs

When white dwarf stars explode, they leave behind a rapidly expanding cloud of "stardust" known as a Type Ia supernova. These exploding events, which shine billions of times brighter than our sun, are all presumed to be extremely similar, and thus have been used extensively as cosmological reference beacons to trace distance and the evolution of the Universe.

Astronomers have now for the first time ever provided a unique set of observations obtained with the ESO Very Large Telescope in Chile and the 10-meter Keck telescope in Hawaii, enabling them to find traces of the material that had surrounded a white dwarf star before it exploded. Their data set is unique in that no Type Ia supernova event has ever been observed at this level of detail over a several-month period following the explosion.

These observations support a widely accepted model proposing that a white dwarf star interacts with a companion star – a red giant. Due to the white dwarf's strong gravitational pull, this companion star continuously loses mass through 'force feeding' its gases to the white dwarf. When the mass of the white dwarf grows past a critical value, it explodes.

Through their observations, which took place over the course of four months, and combined with archival data, the astronomers detected the presence of a number of expanding shells surrounding a Type Ia super-nova event. The make-up of these shells suggests they are the remnants of the red giant star that fed the white dwarf.

These results were recently published in the journal Science.

Israel's GDP growth

GDP growth is above the 5% predictions of both the Finance Ministry and the Bank of Israel.
Israel's GDP rose by an annualized 6.6% in the first half of the year, after rising by 3.4% in the second half of 2006 and 6% in the first half, the Central Bureau of Statistics reports. The growth is above the 5% predictions of both the Ministry of Finance and the Bank of Israel.

The present growth rate is higher than in 2003-06, and the highest since the 8.7% growth rate in 2000. The economy has now recorded five years of continuous growth, the longest period in Israel's history. GDP has grown 21% since 2003, an increase of NIS 135 billion. GDP is now at an all-time high of NIS 660 billion, and GDP per capita is NIS 92,338, or $21,500.

The rapid growth in the first half was driven by an 8.3% annualized growth in exports, 5.9% annualized growth in investment, and an annualized growth of 7.5% in private consumption. Business product rose by an annualized 7.9%, above expectations.

EMC buys Israeli start-up Illuminator's IP

EMC Corp. (NYSE:EMC) acquired the technology (intellectual property) of Israeli start-up Illuminator Inc. for just under $10 million.
Illuminator raised $10 million from Evergreen Venture Partners and Greylock Partners. The company developed enterprise application recovery software solutions. The company's products help organizations meet strict external and internal regulatory requirements for recovery of applications and servers. EMC will market the company's solution.

Illuminator CEO Yoav Boaz and VP R&D Rami Katz co-founded the company in 2004. Boaz previously founded and ran Integrity Systems Ltd.; Illuminator is a spin-off of Integrity, a supplier of enterprise data recovery systems.
Illuminator has 16 employees in Israel and California. The company and its employees will join EMC's Israeli development center. The company's website was closed following the acquisition.

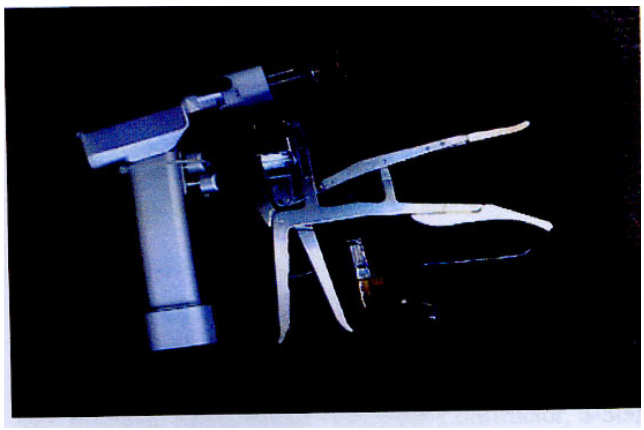
EMC has acquired five Israeli start-ups in the past two years, including Kashya, nLayers, and proActivity in 2006.

Advances in vascular surgery

Vascular surgery is an important and fast growing sub-speciality in medicine. Its techniques are changing rapidly. Russian born Israeli vascular surgeon Prof. Edward Shifrin has developed innovative` solutions for facilitating procedures in vascular surgery.

Vascular surgery, a subspecialty of general surgery, consists of procedures or techniques to repair or bypass blood vessels, arteries and veins, that may be narrowed, blocked or dilated. Arteries and veins are the hollow pipes that carry blood away from and back to the heart. The arteries carry blood which is under a higher pressure than that of the veins. With increased aging of the population, the incidence of abdominal aneurysm (swelling of the abdominal portion of the aorta, carrying blood to the legs), has dramatically increased. Aneurysms above 5-6 cm in diameter tend to rupture, a fatal complication if untreated.

Traditionally vascular surgery was performed as an open procedure, with large surgical incisions. Over the last 25 years, less invasive methods of treatment have been developed, employing catheters, balloons and stents, which have been increasingly used when appropriate. Stent grafting of the abdominal aortic aneurysm is a common procedure, often in patients in poor condition with other diseases, who are not candidates for the traditional open surgical approach.



ES Vascular Ltd. developed an innovative vascular stapling technology for either open, laparoscopic or endovascular aortic grafting procedures. The company's staplers are aimed at replacing current lengthy, complicated and/or hazardous vascular grafting with a rapid, simple and safe attachment

method for synthetic vascular grafts. Use of the company's revolutionary staplers is intended to significantly reduce vascular clamping and total operating time, and consequently mortality, morbidity, hospitalization and ICU time for such patients. It is hoped that ES Vascular's technology will revolutionize surgical practice by transforming many open vascular aneurysm surgical cases into laparoscopic procedures, as well as significantly expanding the number of endo-vascular procedures. This method will result in shorter arterial cross clamping times, less bleeding, improved quality of vascular connections, improved long term graft patency, improved patient safety and decreased costs.

ES Vascular anticipates commencing pivotal clinical trials of its devices in Europe and the US imminently.

In patients undergoing cardiac surgery, the chest is opened via a midline incision of the sternum, and closed with heavy wire sutures to keep the sternum apposed and stable until healing is completed, a process taking up to three months. Prof. Eddie Shifrin has devised a novel device for rapid and secure semi-automatic stable reapproximation of the sternal halves of a patient's severed or separated sternum following the sternotomy. The system comprises several pairs of anchor screws, with an inner axial passage, as well as staples for rigid, tight connection of these anchors. The anchors and staples are made from FDA approved material - stainless steel, titanium and alloys, or from biodegradable material.

Another invention is the venous valve corrector for patients with venous ulcers. About eight million Americans suffer from Chronic Venous Insufficiency. The Venous Valve Connector provides a controlled correction of the venous junction of an insufficient valve. It is made of stainless steel. The physician spirals the "legs" of the VVC around the vein until sufficient support is provided and the venous vein valve is competent relieving the elevate pressure in the area of the venous ulcer and facilitating healing. .

The company is making progress and is expecting presently C mark approval in Germany and expects sales are to begin shortly afterwards.

The company has recently raised $3.0 m. and is currently seeking additional funds.

Evogene signs Monsanto development deal

Evogene Ltd. (TASE:EVGN) will collaborate with Monsanto Company (NYSE:MON) to improve nitrogen use efficiency in corn, soybeans, canola and cotton. The deal comes one day after the company reported a collaboration with Ormat Industries Ltd. (TASE: ORMT) subsidiary Orfuel Inc. to develop oil-rich plants for the production of biodiesel. Evogene rose another 11.5% in morning trading today.

Monsanto received the exclusive right to a number of genes discovered by Evogene that help plants maintain yield with lower applications of nitrogen. Monsanto will examine the effect of the genes on the improved absorption of nitrogen in the seeds. The genes have potential features that complement Monsanto's R&D programs for improving nitrogen absorption and could be an opportunity for improving products in this field.

The companies note that nitrogen fertilizer represents one of the largest input costs in agriculture; it accounts for approximately one-fifth of the operating costs for a corn producer. In the US alone, farmers spend more than $3 billion annually on nitrogen fertilizer application of corn fields, with plants typically absorbing less than half of the nitrogen fertilizer applied.