ISRAEL HIGH-TECH & INVESTMENT REPORT

A MONTHLY REPORT COVERING NEWS AND INVESTMENT OPPORTUNITIES JOSEPH MORGENSTERN, PUBLISHER
April 2007 Vol. XXII Issue No. 4 You are invited to visit us at our website: http://ishitech.co.il10

"Breeding Billionaires"

There is an unmatched concentration of engineering and entrepreneurial talent in Israel. A lot of young people come out of military units, from various universities, and the high-tech industry itself, who are very gifted engineers and scientists and also, are by character highly entrepreneurial. While in the west students study fundamental physics the Israeli, when completing his army service has already absorbed the knowledge of algorithms. This know-how forms, in due course, the basis of many start up companies.

This good blend would have never been enough without the most important characteristic - entrepreneurship and innovation.

Vishay chairman Dr. Felix Zandman told the story of his first efforts to set up a company in Israel. He gathered a number of first class engineers. He told them that he wants to build a plant for the same capacitors that he manufactures in the US. He asked them to prepare a list of items needed to build the plant. Two weeks later he met with the engineers once more. To his great surprise, each engineer offered his idea how the product could be best made and what the plant should look like. Dr. Zandman smiled and told the gathered engineers, "We manufacture $250 million of the capacitators in the United States and make a big profit. Do you think that you could build a similar plant and to our specifications?"
The personal history of Steff Wertheimer forms one of the finest examples of how success can be achieved in Israel. Wertheimer was born in Germany and arrived in Israel while still a youth. A product of the Tel-Aviv public school system he became a high school drop out. At 17 he joined the British Air Force and subsequently became a member of the Palmach elite units. In 1952 at the ripe age of 26, he had finished his army career and went about trying to earn a living. He set out to make carbide tipped tools. This became the basis for Iscar, the company for which Warren Buffet paid $4.0 billion, last year.

The nine Israeli billionaires cited in Forbes' list represent wealth accumulated from a variety of activities including industry, diamonds, real estate, banking and software.
Along with the material achievements of these individuals are the six Israeli Nobel prizewinners.
All this was done in less than 60 years in a country of 5.6 million.
It lays the foundation for future achievement.

http://ishitech.co.il

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

Anti-missile exercise tests electronics of Arrow system

Security forces recently successfully tested the 'Arrow' anti-missile defense system. While the experiment, which tested the electronics systems of the missile, wasn't as complex as the test that was carried out a month and a half ago, security forces said that it is an important step in the development of the system.

In the previous test, the Arrow system succeeded in intercepting a test target that simulated the warhead of a long-range Iranian surface-to-surface Shihab-3 missile.

Air Defense Commander Brigadier General Danny Milo said after the most recent test "we have taken another technological jump that is based on the most realistic and relevant threats we can simulate. This is not a theoretical test."

Shamrock to start new Israel fund with $250m.

Shamrock Holdings, the Disney family's investment arm, is planning a $250m. investment fund that targets Israel, exclusively.

The fund will be completed within a year and after Shamrock completes investing the monies in its present fund.
Shamrock began investing in Israel in the mid-1980s and since then has invested about half a billion dollars into Israeli companies.

The fund will operate as a private equity investor, mostly in exporting industrial firms. A number of Shamrock's holdings, such as Koor and Tadiran Communications, were closed out with substantial profits.

Two and a half years ago Shamrock established another fund for continued investments in Israel, with $125 million. It has already invested half of this sum in Teva Naot, Kaman Trade, Orad and other companies.

Stanley Gold, President of Shamrock and the person responsible for its investments, refused to comment on the size of the new fund, saying only that the Disney family would continue to invest in Israel.

"The family is very pleased with its investment portfolio in Israel and believes in the Israeli economy. We have been here for over 20 years, and in that time you make friends, partners and money. You would have to be crazy not to continue," Gold said.

According to Gold, the fund's profits measured by the internal rate of return (IRR) reached 31% on its investments this year.

Shamrock held an investor's meeting in Israel last week, attended by many senior executives and investors from Israel and abroad - though it refused to publish the names of most of those attending.

IHTIR visits the Ashkelon desalination plant

In common with other countries in this water-scarce region, Israel has chronic problems over water resources – which the Desalination Master Plan, launched in 2000, set out to address.

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

Publisher and Editor in Chief
Joseph Morgenstern, B.A. Chem.

Technology Review Board
Prof. S.J. Joel-Cohen, MD, FRCS. FRCOG (1996-2002)
Prof. Hylton Miller, M.B. Ch.B.
Dr. Clive L. Carpel, M.B. Ch.B.

Copy Chief Debbie Mor
Web Master Marty vonBokel
Graphics Consultant
Daniel Morgenstern

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

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

This called for the construction of a series of plants along the Mediterranean coast, to enable an annual total of 400 million m©¯ of desalinated water to be produced by 2005, chiefly for urban consumption. According to the plan, production is intended to rise to 750 million by 2020.

The Ashkelon seawater reverse osmosis (SWRO) plant – the largest in the world – achieved two notable successes in 2006. In March it was voted 'Desalination Plant of the Year' in the Global Water Awards, subsequently passing a major project milestone in October 2006, when, little more than a year after it commenced initial production, it successfully delivered its first 100 million m3 of water.

With a capacity of 320,000m3 per day, the plant produces around 13% of the country's domestic consumer demand – equivalent to 5–6% of Israel's total water needs – at one of the world's lowest ever prices for desalinated water.

Separating the high-pressure pump from the energy recovery device and breaking the link between pump capacity and the RO bank capacity enables the process to be optimized for each of the constituent elements. This brings significant technological flexibility and high efficiency to the system while also reducing overall water cost – in this case to $0.52/m3.

An energy recovery center made up of 40 double work exchanger energy recovery (DWEER) devices, collects pressurized brine from each plant's RO banks and reclaims the energy. The independent nature of this system increases both the flexibility of the system and its overall efficiency.

The whole facility occupies 75,000m2 of industrial site, some 700m north of an existing Israel Electrical Company power station. Using the power station's cooling seawater discharge was one of a number of intake options initially considered, but was ultimately rejected in favor of using an open, submerged type, principally due to site constraints and hydrogeological limitations.
The system comprises three parallel pipes, which safeguard supply and enhance operational reliability by producing non-turbulent feed water flows. High-density plastic piping – simple to clean and relatively resistant to biological growth – has been used to minimize maintenance.

From the pumping station, raw seawater flows to the pre-treatment facilities through two separate lines. This ensures that the plant can at least continue to operate at half-capacity in the event of blockage or failure in one of the pipelines or static mixers. The dosing pumps at the chemical treatment facility are each equipped with real-time flow-rate adjustment and adequate redundant capacity has again been factored in to guard against downtime.

Filtration is performed in two stages, starting with gravity filters containing gravel, quartz sand and anthracite media. The combination of long residence time and a distribution system designed to minimize clogging and preferential channel formation contribute to achieving high filtration efficiency.

The filters, which have an automatic backwash facility, offer a 33% standby overcapacity and have a proven ability to cope with storm turbidity levels. Two parallel batteries of cartridge filters form the second stage, with a built-in spare capacity of 40%.
High boron ion reduction was an important design consideration. The method selected is highly flexible and readily adjustable to feed water temperature fluctuations, being capable of delivering a removal efficiency of more than 92%, when necessary.

These demands, coupled with a number of other key requirements, including high pH tolerance, continuous low pressure operation, low membrane fouling and cost-effective, reliable performance, led to FilmTec elements being selected for the RO operation.

Post treatment with lime adds minerals to the product water, before it enters the national water system.

The Israeli Ministries of National Infrastructure and Finance, on behalf of the Government of Israel, formally awarded the contract. VID, the special-purpose JVC, comprises IDE Technologies (50% and lead partner), Veolia – Vivendi Water (25%) and Dankner-Ellern Infrastructure (25%).

Consortium to set up Israeli Technology Park in China

The Suzhou Industrial Park will allocate $50 million for joint ventures between Israeli and Chinese companies.
The Suzhou Industrial Park (SIP) in China, IDB Holding Corp. Ltd. (TASE:IDBH) and Israel Infinity

Venture Capital will set up a technology park at SIP specifically designed for Israeli high-tech companies. SIP's management has announced a string of benefits for Israeli companies that open offices there, including help in raising capital, and services.
SIP, which focuses on high-tech, is immense. It has $100 billion in commitments from international investors, half of which has already been invested.

Players train with fighter pilot technology

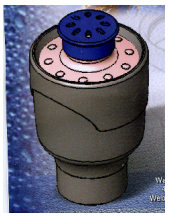
The IntelliGym trains the part of the brain controlling complex basketball-related tasks such as concentration, attention span, team play, fast response time and court sense.

The same technology initially developed to train Israeli fighter pilots in the 1980s is now being used to improve the skills of basketball players.
Basketball IntelliGym is a computer program that looks and plays like a video game. Its maker, Applied Cognitive Engineering (ACE) of Studio City, CA, however, said it was actually a sophisticated training system.

After being tested on players of all levels and age groups, ACE claims that with 30 minutes once or twice a week, for only a few weeks, the program will provide a substantial improvement in skills such as real-time decision making, anticipation, concentration, attention span, team play, fast response time and court sense.
ACE said thousands of basketball players worldwide and players on more than a dozen college basketball teams have already used the software. It was an integral part of the training regimen for both Long Beach State and Purdue, two basketball teams earning their first NCAA tournament chances since 1995 and 2003, respectively.
The system is designed to strengthen the brain, in a similar way that a weight room builds muscles. What it means to players are more assists, blocks and steals, less turnovers and better shot selection, the company said.

Sokol the personal sweet water purification system

A young Israeli company called Watersheer Ltd. has developed a series of products, ranging from a personal purifier in a form of a bottle cap, to up to a 100 litter water processing system. The multi purpose purifying system for large capacity of water, is easy to use and is independent of external energy sources. It



is available in various configurations (20, 50, 100 liters). The system treats organic, biological, and chemical water contaminates. It also serves hospitals, EMS, federal and private institutes.

The Sulis Personal Purification System (PPS) takes all the ingredients needed to transform dirty water into clean water - and has miniaturized the technology to fit into the top of a cork that can be plugged into virtually any size bottle, container or tap.

Tested and certified by authorized labs and approved materials by international standards.

"Above everything else, the product we've developed is going to save lives," explained Yossi Sandak, the CEO of Watersheer. "Over 1.6 million children under the age of five die each year in the undeveloped world from drinking untreated water. What we have is a solution to reduce death in the world that is not a medical solution, but simply providing people with clean drinking water."

The small unit is lightweight and small, 10 grams, 2.7 Inches / 7 cm) and is designed to fit onto most universal bottles. According to Sandak's partner, Ron Shani, the founder, chairman and vice president of Watersheer's R&D division, the Sulis system treats water from upper sources containing organic, biological and chemical contaminates.

Sandak added that the company is looking for investors in order to open a production plant in Sderot once orders start pouring in. While they don't affix an actual price to the system, Shani and Sandak say that the Sulis will cost no more "than a large coffee and cake at Starbucks." Considering one Sulis cork can purify 1,000 liters of water before being replaced, that's quite a bargain.

First Patient Treated With MultiGene Angio Therapy for Blocked Arteries

"He had deteriorated to the point where he couldn't walk for more than five minutes and because the arterial blockage in his leg was diffuse, therapies like a balloon or surgery couldn't help him," says Dr. Moshe Flugelman, CEO of MGVS that developed the therapy that could prevent close to 70,000 amputations in the US alone each year.

Recently at a Michigan hospital, a middle-aged American man, with blocked arteries in his leg that could lead to leg amputation, became the first patient to be treated with a new form of cell therapy that could restore mobility to him and to hundreds of thousands of people suffering from blocked arteries.

"He had deteriorated to the point where he couldn't walk for more than five minutes and because the arterial blockage in his leg was diffuse, therapies like a balloon or surgery couldn't help him," explains Dr. Moshe Flugelman, a cardiologist and the inventor of the new therapy. "Inevitably gangrene sets in and we have no choice but to amputate," he says, noting that in the United States alone close to 70,000 amputations are performed each year as a result of blocked arteries.

The novel therapy, known as MultiGene Angio (MGA) was developed by MultiGene Vascular Systems Ltd. (MGVS) of Haifa, a company founded by Dr. Flugelman and Dr. Basil Lewis in 2000. The technology is named after the conceptual breakthrough that it represents – the use of more than a single gene and cell type.

The procedure harnesses cells taken from the patient's own body, processing them in a lab and then injecting them back into the patient. The empowered cells are designed to trigger a process of angiogenesis whereby small arteries become bigger, enabling a higher blood flow to the leg. The same therapy can be used to improve blood supply to the heart muscle in patients with blocked coronary arteries.

In the case of the Michigan patient, a vein was stripped from his arm in January to serve as an autologous cell source. Then, a team of scientists from MGVS in collaboration with clinicians and researchers at the Medical Center of the University of Michigan at Ann Arbor, isolated the required cells from the vein and processed them. Dr. Blake Roessler who is the head of the Human Application Laboratory, a GMP facility within the medical center, leads the research team in Michigan. In mid-February Dr. Michael Grossman, a Medical Center cardiologist, injected the patented combination of genes and cells into the patient.

Three weeks later the patient was doing well. They are confident that they have passed the important first hurdle – the patient has recovered and all the safety indicators are as they should be.

"It will take several weeks to see if the therapy also demonstrates efficacy though this is not the primary objective at this point – safety is – as the initial patient received only a small dosage in accordance with FDA guidelines," explains Dr. Flugelman.

In the coming few months another 11 patients will undergo the therapy and after a year of follow-up the company will be prepared for Phase II trials involving a larger number of patients. If everything goes as expected the product could be on the market by 2011.

Israeli-made drones in action in Iraq, Afghanistan

Small Israeli-made unmanned planes are collecting intelligence for U.S.-led forces in Iraq and Afghanistan, Elbit, the manufacturer stated.

Elbit Systems, one of Israel's leading defense electronics companies, said the little Skylark can be carried and operated by a single soldier, covering an area within a range of 6 miles day or night, the company said. It did not give details of its exact size or weight.

Skylark is operational and currently deployed in the global war on terror in Israel, Iraq and Afghanistan. The Skylark as suited for close range, beyond-the-next hill, counter-terror missions.

Lt. Col. Matthew McLaughlin of CENTCOM, the American command that handles Iraq and Afghanistan, said the military would not confirm the use of the drone, but is always looking for aircraft with such capabilities.

The Skylark is just one of several items of Israeli defense hardware deployed in Iraq and Afghanistan.

The state-owned arms-maker Rafael said it had won a contract to supply the U.S. Marine Corps with state-of the-art armored vehicles, and military analysts said Israeli firms had long been supplying and maintaining equipment for American ground and naval forces in Iraq, although both buyers and sellers generally preferred to keep a low profile.

EFI and Kornit join to bring digital inkjet technology to textile industry

EFI (Nasdaq:EFII), the leader in color digital print servers, super wide format printers and inks, and print management solutions, and Israeli Kornit Digital, Ltd. today announced a joint partnership to address the growing demands of the printed textile industry as it migrates from analog to digital technologies. As part of the agreement, EFI has made a strategic investment of $3.5 million in Kornit, which develops and sells high-end industrial digital inkjet printers and inks for the textile industry, primarily for the finished garment and apparel printing markets.

"EFI is impressed with Kornit's high-speed, high-quality printers and unique textile inks, their seasoned professionals, and their passion for bringing the benefits of digital inkjet technology to the garment industry," said Guy Gecht, CEO of EFI. "This alliance aims to further Kornit's growth and accelerate the printed textile industry's transformation from analog to digital technologies." Digital inkjet printing of finished garments fulfills the growing need for efficient printing of custom, low-volume, fast-turnaround orders, and is an economical alternative to traditional analog screen-printing.

"We've been seeking a partner that is a proven technology leader with a global reputation," said Ofer Ben-Zur, CEO of Kornit Digital. "With EFI's support and strategic investment, we'll be able to extend our lead as the only digital industrial solution within the direct to garment market. EFI can offer us many sales and marketing opportunities by exposing us to their large customer base."

With more than 100 customers, mostly in North America, Kornit offers digital inkjet printers that specialize in printing high-quality images on t-shirts and other finished garments, with print speeds up to 200 t-shirts per hour. Kornit systems can print on a wide variety of fabrics, including black garments, using proprietary solvent- and water-based CMYK and white inks that provide high image resolution, color vibrancy and wash resistance. Kornit is positioned at the high-end of available offerings in this category due to its performance and reliability.

One of Kornit's largest customers is CafePress.com, the leading online marketplace of custom printed t-shirts and other items. Currently serving a network of over 3 million members and a product catalog containing in excess of 70 million different print-on-demand products, CafePress demands quality and efficiency in its printers. Kornit meets those demands and is their printer of choice in their Louisville, Ky., production facility.

"Less than 2 years ago the print-on-demand garment business relied on aging heat transfer technology," explains CafePress CEO and co-founder Fred Durham. "In this short time Kornit has developed and refined the art of printing directly to the garment with quality levels often matching screen printed t-shirts, a feat thought impossible a short time ago. I trust Kornit and EFI to continue being at the forefront of innovation, enabling us to deliver even higher quality products to our customers."

Israel Develops System to Neutralize Nuclear Waste

Israel has developed a new technology that is supposed to safely dispose of radioactive waste.Environmental Energy Resources (EER), an Israeli company that helped clean up after the Chernobyl nuclear disaster, and is based on plasma gasification melting (PMG) technology, developed the system. The toxic waste is turned into a highly ionized gas, broken down, solidified, melted and vitrified - forming a solid glassy environmentally benign material when cooled.

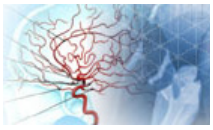
The process was developed together with scientists from Haifa's Technion and the Russian research institute of Kurchatov in Moscow. According to EER, the facility turns radioactive medical and municipal waste into harmless solid substances at a low level of radiation, which leaves no pollution in the soil or water – both above and below ground.

EER says the process is economically and

environmentally superior to all other waste disposal methods such as landfill and incineration, as well as other non-incineration thermal treatments.

The end products of the process can be used to power generators and in the construction industry as non-leeching molds to form tiles and blocks.

Israeli startup tries to measure the intensity of pain



How much does it hurt? It's a simple question, but for doctors it can be one of the most complex in assessing patients.

Algodyne, based in the Tel Aviv suburb of Ramat Hasharon, is targeting pain measurement with a proprietary gauge designed to objectively quantify pain.

The technology's goal: When a patient hurts, the doctor "will be able to see the intensity of that pain scaled on a screen" and more quickly and accurately treat it, said Samuel Cohen, chairman and chief executive of Algodyne.

Doctors can objectively measure traditional vital signs -- pulse, blood pressure, temperature and respiration -- because the efforts of one person's heart and lungs, for example, can be scaled against another's.

But measuring pain is different because doctors don't have a similar objective scale. Rather, they rely on patients to say where they hurt and how severely. Measurement is particularly difficult with a small child, impaired adult or a comatose patient, who can't describe the condition with words or by pointing to pictorial charts.

Measuring pain is critical because it helps a doctor diagnose and treat an ailment -- it is, for example, a factor in deciding whether to prescribe a painkiller, which one, and how large a dosage.

"What might be a serious pain for you might be minor for someone else," says Yehezkel Caine, a surgeon and chief executive of Sarah Herzog Hospital in Jerusalem, who consults to Algodyne.

Another difficulty faced by physicians is how a patient feels over an extended period of time: "How does the patient compare the pain he has now to what he had last week?" the doctor asks.

Pain measurement also becomes an issue in surgery, Caine says: A doctor "can't always tell whether a patient is feeling pain when he's at least theoretically under anesthetic."

Then there's the legal side: When a person is injured in an accident and files a claim, the insurance companies, the lawyers and judges have no objective way of determining how much pain the complainant truly is feeling, Caine notes.

Pain is also expensive. "Production lost to claims related to pain total about $100 billion a year in the U.S.," Algodyne's Cohen said.

"We have identified an electro-physiological signal generated when pain occurs," Cohen said. The technology reads the signal from the body through sensors on the forehead.

"Our hardware picks up the signal. Proprietary algorithms process the signal to produce a result that we have been able to correlate with a high degree of accuracy in a controlled environment with a" visual analog scale report, "Cohen explains.

A visual analog scale is a widely used numerical scale through which a patient indicates the intensity of pain. Establishing the correlation is important, Cohen said, because it validates the use of a physiologically objective measure of what -- up to now -- has been subjective mental evaluations.

Algodyne has been granted six U.S. patents. It has European clearance for a prototype of the system, including the disposable sensors as well as the hardware and software. It hopes to have a first-generation system available to researchers in 2008 and a clinical device available for use by hospitals and pain clinics in 2010.

The company also sees substantial potential for the system among health-maintenance organizations, which it says will benefit "from reductions in over-treatment and under-treatment costs."

It also sees opportunities to cooperate with pharmaceutical companies as new analgesics make their way through clinical trials.

Cohen says he expects the system to cost a few thousands of dollars, with additional revenue generated by sales of the sensors. Algodyne puts the value of its market for the systems and sensors in the billions of dollars. The company is closely held and won't disclose financials.

Technology to make fuel from seaweed

Israeli firm Seambiotic Ltd. announced recently a new technology to produce fuel from seaweed cultivated by carbon dioxide emissions from power plants. The polluting gas, one of the main contributors to global warming, passes through a filtration process and

enters a pool, where it feeds microscopic seaweed. The seaweed is used to produce fuel.

The seaweed, which is used to produce fuel, is found in the Mediterranean in small concentrations, but the carbon dioxide allows it to grow in the pools at a concentration of one million times greater.

The scientists who developed this technology said that it is possible to produce a liter of fuel for every 5 kg. of seaweed. The use of carbon dioxide can also reduce the cost of production radically.

'In scientific literature, it is stated that it is impossible to grow seaweed through the use of carbon dioxide from power plants, because of the large quantities of pollutants released from the smokestacks,'" said Amnon Bachar, director of Seambiotic.

"But it appears that whoever wrote that does not know how to grow seaweed. We have found that seaweed can grow on the basis of the carbon dioxide being emitted from power plants. We get the carbon dioxide for free, and the power plant produces less pollution,' he said.
The technology was developed in the experimental farm set up by Seambiotic three years ago in the compound of the Ashkelon power plant, with the support of the Israel Electric Corporation.

Israel develops futuristic fuel cell powered aircraft

Three aircraft under development by Israel Aerospace Industries (IAI) have the potential to revolutionize civilian and military aviation in the coming decade. The aircraft are: an unmanned cargo plane that can carry a payload of up to 30 tons; a solar-powered Unmanned Aerial Vehicle (UAV) capable of conducting long-range surveillance; and an environmentally friendly inter-city aircraft powered by innovative fuel cells. All three are being developed in conjunction with the European Union and a number of global aerospace companies. The first flight test of the Enfica-FC - Environmentally Friendly Inter-City Aircraft powered by Fuel Cells - will be held in a year and a half; IAI has put up 700,000 of the project's 4.2 million cost. The 10-seater aircraft's fuel cells will reduce noise and damage to the environment. IAI is interested in the innovative use of fuel cells, an alternative energy source that could one day also be applied to military aircraft. The third aircraft with revolutionary potential under development by IAI is the Sun Sailor, a solar-powered UAV that weighs four kilograms and is capable of carrying a small digital camera for military surveillance missions. It was developed in conjunction with students from the Technion-Israel Institute of Technology.

Motorola Invests in High-Def Wireless Technology

Motorola Inc.'s venture capital arm has invested in Amimon Inc., an Israeli company that designs chips for wirelessly transmitting high-definition video.

Amimon -- a fabless semiconductor company -- designs wireless high-definition interface (WHDI) chipsets, modules and reference designs. WHDI enables the transmission of an uncompressed video signal between devices such as a digital set-top box and a high-definition TV.

Motorola, which did not say how much it invested, said Amimon's work fits in with its own strategy of letting consumers share and access stored media on devices around the home.

Motorola said it hopes WHDI, which can be incorporated into other hardware such as wireless projectors, becomes a new industry standard. Amimon said WHDI can project up to 100 feet through walls with a latency of less that one millisecond.

WHDI uses the unlicensed 5GHz band and can send uncompressed HD video streams at up to 3G bps (bits per second) using 40MHz of bandwidth, according to the company's Web site. That complies with the U.S. Federal Communications Commission rules, it said.

A slower rate of 1.5G bps is possible using 20MHz of bandwidth, which conforms to other worldwide spectrum regulations, Amimon said.
Amimon's other investors include Argonaut Partners LLC, Cedar Fund, Evergreen Venture Partners, Star Venture Partners and Walden Israel Venture Capital.

Israeli VCs raised $473m. in 2006

Israel Venture Capital Research Center

In 2006, Israeli venture capital funds raised a total of $473 million, a 67 percent decline from the $1.46 billion raised in 2005. The drop was anticipated since most large Israeli VC funds completed

their efforts in the previous two years, having raised a total of $2.52 billion in the 2004-2006 period.

Funds that raised capital in 2006 included Evergreen V (first closing, $135 million), Magnum II ($105 million) and Greylock Partners's first Israel-focused fund ($150 million), which followed the firm's reopening of its local office. Seven other venture capital funds announced first closings during 2006 for a total of $83 million. These included Infinity III, Peregrine II, Evolution Fund I, (focused on bootstrapped startups, two new cleantech funds – H2Tech and Terra – and a new Web 2.0 fund, Jerusalem Capital.

According to IVC estimates, $1.5 billion in capital is currently available for investment by Israeli VCs, of which $0.9 billion is intended for first investments in high-tech companies. The remainder is reserved for Follow-on investments. An additional $700 million is expected to be raised in 2007 by Israeli VCs for investment in Israeli high technology.

Zeev Holtzman, Chairman of IVC Research Center and Giza Venture Capital, said, "It is expected that the next capital raising cycle of the leading Israeli VC funds – the fifth cycle since 1992 – will start later this year and will reach its peak in 2008. It is expected too that all the remaining VC funds – those that last raised capital in 2000 and 2001 – will also try to raise follow-on funds. Therefore, capital raised in vintage 2007 is most likely to be higher than in 2006. Currently, capital available for investment by Israeli funds equals two years investment, a markedly shorter period than in the US, indicating that there is no oversupply of capital in the Israeli market."

Robot aims to take heat off Israeli infantry

A new, smart Israeli military robot can fight its way down dark alleys, through caves and over rubble, seeking out bombs and booby traps along the way and warning human foot soldiers of enemies and danger ahead, its manufacturer said.

Elbit Systems, one of Israel's leading defense electronics companies, said its robotic point man, designated VIPeR, is small and light enough to be carried into battle on a soldier's back, but the 25 pound, 9 inch tall tough guy packs a full-size punch.

The remote-controlled unit can be fitted with a mini-Uzi automatic pistol, fragmentation, stun and smoke grenades, explosives sniffer and day and night vision cameras, Elbit said.

It can climb stairs and find its way around with preprogrammed mapping software. The company said that the Israeli military was planning to carry out operational trials with the VIPeR with a view to deploying it with infantry units.

After years of Palestinian-Israeli fighting, various kinds of robots are widely used by the Israeli army and police for inspecting suspect objects thought to be bombs, checking buildings for booby traps and sniffing out arms and explosives.
Elbit said the VIPeR is currently making its first public appearance at the winter exhibition of the Association of the United States Army, in Fort Lauderdale, Florida.

Startup offers electronic wound-healing device

Israel-based startup LifeWave has developed a medical device that it claims can treat chronic wounds by electrically stimulating tissues around the wound. The device is aimed at speeding improvements in bed sores which can occur in chronically immobile patients and other types of ulcer.
The company was founded in 2000, and employs 8 workers.

LifeWave BST (Bed Sore Treatment) includes a pair of electrodes that are placed on the skin adjacent to the affected area and are connected to the device. The device delivers an electrical signal that the company claims mimics the electrical activity of a "normal wound" and in turn accelerates the healing rate. LifeWave claimed that BST is positioned to treat severe wounds including pressure ulcers, diabetic ulcers and venous ulcers.

According to the LifeWave website the BST device provides an alternating current of up to 20 milliamps with zero net direct current. The pulse frequency would appear to be 4 kHz with two pulses per second. The nervous system interprets the transmitted pulse from the damaged area initiates healing activity to the necrotic tissue, according to LifeWave.

Trials for the Life Wave BST device are scheduled to begin in February in Italy, Belgium, Austria and Sweden and the company is conducting clinical trials prior to marketing the technology in the United States.

Israel Air Force begins absorbing new "Shoval" drones

The Israel Air Force began absorbing on the new "Shoval" drone, which is the IAF nickname for the "Mahatz" drone manufactured by the Israel Aircraft Industries.

The drone, which is manufactured entirely by Israeli security industries, is considered the largest in the world, with a 16-meter wingspan. It will gradually replace the older Sarcher model.

The new drone has the ability to carry a 250-kilogram payload and fly at altitudes of up to 30,000 feet. The drone also has advanced surveillance and communications systems.

According to the IDF, the drone will be able to provide better assistance to troops on the ground, and also has an improved ability to identify the launch of projectile rockets such as Katyushas and Qassams.

The IAF intends to purchase a series of drones of this model. One of its primary advantages is maximum flight time: roughly 30 hours without refueling.

FDA approves of InSightec's ExAblate 2000

InSightec Ltd. announced that the U.S. Food and Drug Administration has approved software that significantly speeds up the treatment time of the company's ExAblate 2000 Magnetic Resonance guided Focused Ultrasound system. The FDA also approved the ExAblate 2000 to be used with a 3.0 Tesla MRI scanner, in addition to the 1.5 Tesla.

"The newly-approved system allows the incisionless ExAblate procedure to be performed more efficiently than the conventional method," said George A. Holland, MD, director of MRI at the Lahey Clinic in Burlington, MA.

"Using this technique, women with fibroids can be treated faster and women with larger fibroids may now be eligible for the outpatient procedure. The more of the fibroid that a physician can treat, the greater the symptom relief."

The ExAblate 2000 is the first U.S. Food and Drug Administration approved system to use the breakthrough MRgFUS technology that combines MRI -- to visualize tissues in the body, plan the treatment and monitor in real time treatment outcome -- and high intensity focused ultrasound to thermally ablate uterine fibroid tissue. MR thermal feedback, provided uniquely by the system, allows the physician to control and adjust the treatment in real time to ensure that the targeted tumor is fully treated and surrounding tissue is spared.

Uterine fibroids are benign growths in the uterus found in up to 70% of women of childbearing age. Symptomatic women suffer from extensive and prolonged menstrual bleeding, anemia, pain, pressure and often infertility. Existing treatment options include hysterectomy, myomectomy and uterine artery embolization and are invasive, involving hospitalization and several weeks of recovery time. ExAblate is an outpatient procedure and patients return home the same day and to work within one to two days.

Novel raddiology system aims to replace angioplasty

A collaborative effort between researchers from Rambam Health Care Campus headed by Professor Ora Israel and General Electric Healthcare Technologies, two prototype hybrid imaging devices were developed combining hybrid imaging with single-photon emission computed tomography (SPECT) and computed tomography coronary angiography (CTCA). Phillips and Siemens are known to be working on similar devices.

Today cardiologists after getting the result of a CT angiography would do a SPECT radioactive perfusion scan and then assess whether there is significant ischemia and go ahead with a conventional angiogram and angioplasty. The new machine would do this faster in one procedure and integrate the images in one testing modality

The hybrid device was the basis for a comparative study conducted at Rambam over fifty patients with angina pectoris, which was just published in the electronic version of the Journal of the American College of Cardiology . The patients underwent testing using the new imaging device, and by invasive cardiac angiography. It was found that the new imaging device was accurate in diagnosing heart disease in 95% of the cases compared to the invasive procedure.

Prof. Ora Israel – leader of the research group, is Director of Nuclear Medicine at Rambam Health Care Campus, and a world expert in the field of hybrid imaging, and in oncology imaging stated that "

"The development of hybrid imaging of the heart is a natural extension of hybrid imaging in the field of cancer, in which Rambam was one of the leaders and which is now in wide clinical use worldwide. To apply this technology for cardiology, we assembled a team of cardiologists and imaging experts who worked closely together with General Electric to create this innovative new device."

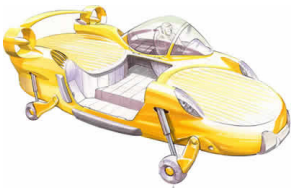
Prof. Rafael Beyar – Chief Executive Officer, Rambam Health Care Campus and a participant in the research project

"This new development represents a breakthrough in the diagnosis of heart disease. As an invasive cardiologist, before performing coronary angiography I can have a much clearer picture of whether the patient has arterial disease and what is the best way to treat it. This decision has profound significance considering the risks involved with drug-eluting stents."

Questions still to be answered relate to the radiation dose to the patient, as well and the dose of contrast material required.

Israeli firm develops flying car

An Israeli firm is developing the prototypes for two flying cars that will make it easier to carry out emergency rescues.



Whereas most designs for new, VTOL aircraft offer incremental improvements in the state of the art, the X-Hawk flying platform presents a revolutionary advance in both the mobility and utility of VTOL aircraft.
X-Hawk is a 'rotorless' Vertical-Take-Off and Landing (VTOL) aircraft. To be more precise, it is an aircraft that has the VTOL capability of a helicopter, but without the exposed rotors that make it dangerous or impossible for helicopters to maneuver in complex urban and natural environments.

Moreover, X-Hawk's modular cargo bay allows for tailor-made, task specific configurations that enable this aircraft to be an all-around workhorse. Some of the most obvious applications include, aerial medical access and evacuation, power-line maintenance, bridge inspection and ship-to-shore taxi service, to name a few.

The larger of the vehicles, the X-Hawk, is roughly the size of a small truck and can seat 12 people while the smaller aircraft, the Mule, is designed to transport the wounded or supplies.

Neither of the vehicles are airborne yet but the company has secured a patent for the technology.

The cars will be able to reach a maximum speed of 155mph and could cost up to £3.1 million.

P&G invests in energy-based anti-aging technology

Procter & Gamble has formed a joint development program with Israeli-based company Syneron to develop and supply its patented, elos home-use technology that combines energy from bi-polar, radio frequency and light sources to combat signs of aging.

P&G said that it had made the investment because the technology was a proven, non-invasive, energy-based solution that consumers can use easily at home.

The device is set to be marketed under the P&G family of skin care products and will be co-branded as Syneron's elos technology.

"This is an example of our corporate open innovation strategy, which we call Connect + Develop," said Shekhar Mitra, P&G's vice president for research and development, Personal Beauty Care "This helps us bring to market faster at better value, products that make a meaningful difference to the lives of the consumer."
Until now Intense Pulse Light (IPL) technology has been widely used in spas, where it has become a popular means of fighting aging, without having to undergo invasive treatments such as plastic surgery or dermal fillers.
In 2006 it was estimated that approximately 60 million non-invasive anti-aging treatments were carried out in the US.
The technology, which was developed by patent-holder Dr. Schimon Eckhouse and physicist Dr. Michael Kreindel, is claimed to simultaneously harness bi-

polar and optical energies to overcome the safety and operating limitations that, until recently, has meant other IPL therapies have had to be carried out by professionals.

The elos technology is said to penetrate the dermal layer deeper than similar IPL technologies, allowing for a more effective means of treating wrinkles and tightening the skin, achieved by stimulating the skin's molecular structure.

IVC: Capital raising by software companies up 59% in 2006

99 software start-ups raised capital. 278 new Israeli software start-ups were founded in 2004-06.

IVC reports a 59% increase in the amount of capital raised by Israeli software start-ups in 2006: 99 start-ups raised $352 million. Software start-ups raised $221 million in 2005.

Software start-ups accounted for 22% of total capital raised, the same proportion as in 2004, compared with 17% in 2005. 45% of investment in software start-ups, $145 million, was in enterprise software start-ups and 31%, or $108 million, was invested in enterprise infrastructure start-ups.
IVC says 278 new software companies were founded in 2004-06.
Giza Venture Capital chairman Zeev Holzman said, "The reason for the sharp increase in software investment is the improvement in revenue and profits of global software companies, the increasing number of mergers and acquisitions and in the size of the deals."

Ormat Technologies doubles 2006 profit

Ormat Industries Ltd. (TASE: ORMT) subsidiary Ormat Technologies Inc. (NYSE: ORA) published its financial reports for the fourth quarter of 2006 and the year as a whole. The company showed growth in both profits and revenue, compared with 2005, and predicts that the trend will continue this year.

The company posted $66.7 million revenue for the fourth quarter, 13.4% more than the $58.8 million for the corresponding quarter of 2005. Net profit was $4.2 million ($0.12 per share), including compensation expenses of $0.5 million, compared with a net loss of $5.1 million ($0.16 per share) for the corresponding quarter.

Ormat Technologies posted $268.9 million revenue in 2006, 13% more than the $238 million in 2005. Net profit more than doubled to $34.4 million ($1 per share) from $15.2 million.

BioLineRx In-Licenses Two Additional Drug Candidates

BioLineRx Ltd. (TASE: BLRX), Israel's leading drug development company, today announced that it has signed in-license agreements to develop and commercialize two new therapeutic candidates: BL-3040, a small molecule for the treatment of estrogen-regulated malignancies and osteoporosis; and BL-3050, a protein complex for the treatment of atherosclerosis. This marks the third and fourth in-licensing agreements signed by BioLineRx since its IPO in February 2007., bringing the total number of drugs under development by the company to fourteen.