

# ISRAEL HIGH-TECH & INVESTMENT REPORT

A MONTHLY REPORT COVERING NEWS AND INVESTMENT OPPORTUNITIES  
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## High-techie yes Prime Minister no!

Ask an Israeli youngster "what do you want to be when you grow up?" it is unlikely that becoming a prime minister will be the top of the list. By and large, Israelis show indifference to politics. They are among the world's most voracious readers of newspapers but are not prepared to enter politics. No one has done a study of Israeli politicians but it is likely that their educational level is below that of other professionals. Perhaps the public's indifference and willingness to maintain a government, whose war goals have not been reached, plays some part. The hijacked soldiers are still in captivity and rockets are still slamming into this country.

Notwithstanding the political situation it is almost incongruous when we note that predictions point out that in next year, Israel's economic growth will exceed 5%. Moreover, foreign investment is flowing at record levels. Merger and acquisition deals are the order of the day and Israel's stock market is at record highs, attracting foreign investors.

How does one explain this dichotomy? It brings us back to profession preferences. The same youngster who does not rate politics high on his list, will place high-technology at the top. In Israel, military service is compulsory. It offers the capable youngster a chance to serve in elite units. They learn algorithms that later on are used in establishing young companies. The youngster who have older brothers or sisters who are already in the world of high-tech, are aware of the economic rewards. Many of today's startups are managed by second generation managers. With their accumulated experience they are more likely to succeed the second time around. "There are those who claim that the government contributed to Israel's high rate of economic growth. They're mistaken. The growth is thanks to 100,000 high-tech people. Others say that we have a brilliant government. I say it is not the government that is brilliant, but the people, said Vice Premier Shimon Peres."

Israel's universities cannot keep up with the demand for technical education. The Technion – Israel's Institute of Technology is compared to the prestigious American MIT. The Weizmann Institute of Science, ranks high among global scientific institutions. Institutes of higher learning have established research and development authorities that patent scientific work and offer them for industrial development. The income from these R&D authorities represent an ever growing percentage of the universities' income.

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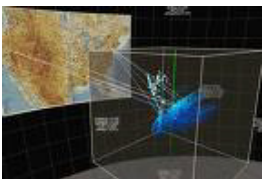
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The Government provides a broad program of grants that accelerate the development of young companies.

The program of technological incubators has attracted more than \$1.0 billion in investments in young companies graduating from the incubation program.

In due course the political situation will be sorted out. It is more than likely that a new Government will come into power in the not too distant future, One thing that is certain that Israel's high-tech based economy will continue to thrive.

### Night vision equipment to be acquired by Indian Army



The Israeli firm, Starnight Technologies has won a \$25m. order to provide night vision devices to the Indian Army. The company will provide the equipment over a two-year period ending August 2009.

The order suffices to equip two infantry mountain divisions.

This is the second major order for night vision devices secured by the Israeli firm. In November, it secured an order valued at \$38m.

"This is a follow up order," an Israeli official said Indian Army Chief Gen. J J Singh had recently said that as part of infantry modernization, Army planned to equip all its battalions with night vision equipment.

Though almost all the front line units and those engaged in counter-insurgency have been equipped with night vision devices, Army estimates are that equipment worth over \$500m. was still needed to arm the remaining units. The Israel Defense Ministry had recently announced that India is its largest single importer of defense equipment with orders running as high as \$1.5 billion last year. This amounts to about 50% of Israeli defense exports and about 30 per cent of India armament imports.

Israeli firms have already supplied India with front line weapons systems like Unmanned Aerial Vehicles for the Army, Navy and Air force, night vision devices for army, Tavor range of hand weapons for special forces, close battlefield radars like Loros.

### Israel to train one million Nigerians in agrotechnology

Israel will collaborate with a center in Minna, Nigeria to train one million Nigerians on agriculture extension and technology between now and 2010.

The Ambassador of Israel to Nigeria, Mr Noam Katze, said that his government would collaborate with Maizube/Abu Turab International Training Center.

Katz said his country was appreciative of the collaboration in the development of agriculture.

According to him, Israel has approved the posting of an Israeli Academic Director to coordinate the activities of MAITC so that it can attract more international participation in its programmes.

With the vast arable land, water and market, Nigeria, he said, had all it would take to assume an enviable position.

### Intel invests in software company Ceedo

Intel investment arm, Intel Capital, will invest an undisclosed sum in Ceedo Technologies, a privately held software company.

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The Israel-based company said it said it would use the investment to ‘further establish its position as a leader in personal working environment software for consumer portable storage devices and accelerate its growth into the corporate and business market segments’.

Its Ceedo Personal technology enables PCs to run Windows applications from physical or network drives without installation on the host PC.

### Israel up three places in World Competitiveness rankings

Israel has risen from 40th to 25th place in the international investment category. The US remains overall number one.

Israel's economy has climbed three places to 21st place in the World Competitiveness Yearbook rankings, published by the International Institute for Management Development (IMD), which is based in Lausanne, Switzerland.

The survey, which was published in May, ranks 55 countries according a variety of economic criteria, and is based on data collated from business entities worldwide. Israel is ranked in 20th place for economic strength, unchanged from last year. Federation of Israeli Chambers of Commerce president and IMD Israel representative Uriel Lynn said, “The ratings components clearly show a rise in the economy’s service and personal entrepreneurship components, leveraging the relative advantages that Israel’s economy has.”

The survey assesses each country’s performance according to four main measures: economic efficiency, government efficiency, business efficiency, and infrastructure. Israel dropped two places to 33rd in the economic efficiency rankings. It rose two places to 25th place in the government efficiency rankings, and climbed to 16th from 24th place in the rankings for business efficiency. It rose by just one place to 14th place in the infrastructure rankings.

### The 2007 Wolf prizes in sciences and arts

Scientists from five countries, will receive the Wolf Prizes in Agriculture, Chemistry, Mathematics, and Physics, \$100,000 in each field.

Hillel Furstenberg, of the

Hebrew University of Jerusalem, shares the Wolf Prize in Mathematics

The Wolf Prize in chemistry will be jointly awarded to Professor Ada Yonath (born 1939, Israel), of the Weizmann Institute of Science, Israel, and to Professor George Feher (born 1924, Czechoslovakia), of the University of California, San Diego, USA, for ingenious structural discoveries of the ribosomal machinery of peptide-bond formation and the light-driven primary processes in photosynthesis.

The Wolf Prize in mathematics will be will be jointly awarded to Professor Harry Furstenberg (born 1935, Germany), of the Hebrew University of Jerusalem, Israel, for his profound contributions to ergodic theory, probability, topological dynamics, analysis on symmetric spaces and homogenous flows, and to Professor Stephen Smale (born 1930, USA), of the University of California, Berkeley, USA, for groundbreaking contributions that have played a fundamental role in shaping differential topology, dynamical systems, mathematical economics, and other subjects in mathematics.

### Veolia to invest \$1b in Israel by 2013



The company will invest in natural gas-driven power stations, land decontamination facilities, light railways, privatized water and sewage systems.

Veolia Environment SA (NYSE: VE; Paris: VIEG) plans to invest \$1 billion in Israel according to its Israel chairman Uri Starkman, thus doubling its investment in Israel.

Veolia Environment Israel will be organized into four units: water, environmental quality services, energy, and public transports (Connex Israel). Starkman said that the company’s workforce would expand from the current 1,700 to 8,000 by 2013.

Starkman said that Veolia plans to invest in the construction and running of natural gas-driven power stations, land decontamination and water purification facilities, light railways, privatized water and sewage systems, and other environmental projects.

Starkman said, “Veolia Environment Israel has a current turnover of NIS 1 billion, which it plans to increase to NIS 5 billion in 2010-13. Veolia believes



in Israeli technological know-how, and is seriously examining the adoption of these technologies for its own use for renewable energy, water and other projects.”

Veolia Environment Israel and Israel Electric Corporation (IEC) recently signed a cooperation agreement to jointly bid in the Israel Railways \$300 million electrification tender. Veolia will also build a hot water supply system for the Ashdod desalination facility and run it for 23 years.

### Israeli investors establish \$155m. China fund



Infinity Fund has raised \$155 million in the initial closing of the new Infinity Israel-China Fund. In a statement, Infinity said it will increase the target size of the fund by \$100 million to \$250 million.

Participants in the first closing include investors in Infinity's previous funds as well as new investors, including private investors, fund of funds and large institutional investors from the United States, the United Kingdom, Canada, Switzerland, South Africa and Israel. The fund's sponsors include Clal Industries and Investments from the IDB Group as well as Glenrock Israel owned by Leon Recanati.

The Infinity Israel-China Fund is Infinity's second fund operating under its Israel-China business model. In January 2007, Infinity invested in Mate Intelligent Video, marking the first investment of the new fund. Mate develops and sells video surveillance, content analysis and transmission as well as management products for security, safety and retail applications. In this investment, led by Infinity and joined by its Chinese partner, CSVC/SIP, Infinity restructured Mate. Concurrently, Infinity and CSVC/SIP are also structuring and investing in a Chinese company which will serve as the marketing platform for Mate technology in China.

CSVC/SIP, Infinity's Chinese partners, will also invest alongside Infinity in future investments. The fund's core strategy is to make large investments in later-stage Israeli technology companies and established Chinese businesses that license, develop and market Israeli technologies for the Chinese market.

According to Infinity, its first fund operating under the Israel-China model was the first on-shore fund ever

to be approved by the Chinese government (00001 registration number in China). Infinity has invested in six companies and has had two exits, NanoMotion and Shellcase.

Infinity, founded by Clal Industries and Investments from the IDB Group has more than \$400 million under management and has had 13 exits since June 2005. The company's offices are located in Tel-Aviv, New York, and China. Strategic partners include The IDB Group, I-CSVC/SIP in China, FBR (Friedman, Billings, Ramsey) and GE Investments in the United States.

### Congressional committee revives Rafael's "Trophy"

AUS Congressional appointed committee of experts has breathed new life into Rafael Armament Development Authority Ltd.'s "Trophy Active Protection System" for armored fighting vehicles. The move comes more than a year after the US Army rejected the system in favor of the "Quick Kill" system being developed by Raytheon Inc. (NYSE: RTN), though it is still far from operational deployment.

The Trophy provides 360-degree protection for armored vehicles from anti-tank rockets and missiles by detecting, tracking, classifying, and neutralizing the threat at a distance using a countermeasure. "Globes" reported last year that the US Army rejected the Trophy despite successful tests at the US Naval Surface Warfare Center in Virginia in March 2006.

Rafael is a government owned company and it does not report contracts. However, according to Defense News "Rafael, in recent years, has delivered more than 1,000 sets of reactive armor for the U.S. Bradley fighting vehicle through its partnership with General Dynamics". According to Defense News Rafael represents an important supplier to various units of the American army.

### Broadcom buying Octalica for \$35m.-\$40m.

Broadcom Corporation, which produces semiconductors for wired and wireless communications, announced it signed a definitive agreement to acquire the Israeli startup, Octalica.

The price will be in the range of \$35m. and \$40m., though the official statement placed the deal at \$31m.

Yehud-based Octalica is a privately held fabless



semiconductor company, that specializes in the design and development of networking technologies based on the MoCA (Multimedia over Coax Alliance) standard.

This standard enables distribution of high quality digital multimedia content throughout the home over existing coaxial cable. Broadcom claims over 70 percent of U.S. homes already have coaxial cable installed in their homes.

Octalica also designs and produces a complex, cost effective System-on-a-Chip for cable systems allowing for the creation of inexpensive broadband home networks. According to IVC-Online, Octalica raised over \$12 million from a host of investors, including the Fishman Group, ZOOM IT, and the Genesis Partners and Stage One Ventures funds.

David Cohen, founded Octalica as TMT Coaxial Networks in 2001. Cohen was also the co-founder of GADLine, which was sold in 2000 for \$100 million. He stands to gain \$6 million from the deal.

### **Shire signs letter of intent to invest \$50m. in oil drilling project**

Givot Olam Oil Ltd., an Israeli petroleum exploration company, has signed a binding letter of intent with Shire International Ltd. who will invest in Givot Olam's Meged project.

In the first stage of the project, Shire will invest \$50 million for five wells (including the Meged 5 well). In the second stage, development of the Meged field will continue until drilling and production are completed. The two companies will operate the project jointly.

Interaction between the two companies began with a meeting between Lou Shire, president of Shire International, and geologist Tovia Luskin from Givot Olam at a petroleum exploration conference.



Shire specializes in horizontal drilling that, according to experts, is the most efficient method for the reservoir discovered in the Meged field.

Every year, 30,000 horizontal drilling projects take

place in USA and Canada.

Givot Olam is the only company that is licensed in Israel for oil drilling after it was described as a "commercial discovery."

Findings from Meged confirm the existence of an oil field spanning over 200 square kilometers (50,000 acres).

### **Completion of ballistic testing**

Security Devices International, Inc. a defense technology company specializing in the creation of non-lethal ammunition solutions -- announced that during the first quarter of 2007 the company briefed the US Army RDECOM-ARDEC in Picatinny, New Jersey, about its new Lektrox ammunition.

The team presented the patent-pending Lektrox as a solution compliant with Department of Defense specifications for both accuracy and non-lethality -- the latter is judged according to a projectile's penetration into a simulated human body.

Designed for accuracy up to a range of 60 yards, Lektrox is a unique 3rd generation solution that is being developed to instantly incapacitate targets. It does so without causing serious injury or lethality from either the built- in Wireless Electro-Muscular Disruption Technology (W-EMDT) or from the impact of the projectiles kinetic energy.

The team reported that both the 37/38mm and 40mm versions of its ammunition -- designed for use with standard riot guns and M203 grenade launchers -- were found to comply with the DoD requirements.

"We are pleased with the results of the latest briefing. As far as we are aware, Lektrox is the only projectile of its kind that complies with both these parameters," says SDI's CEO Sheldon Kales. "The conclusions confirm the success of our latest development period that resolved the final details of design -- the ballistics and aerodynamic stability needed to ensure the bullet's accurate delivery, and the mechanisms that guarantee non-injurious impact."

Mr. Kales went on to describe the unique triple mechanism that the Lektrox employs to reduce the projectile's kinetic energy levels. First is the use of a collapsible head, whose materials enlarge the contact surface to absorb part of the impact. Further potentially

dangerous energy is transferred to other mechanisms one that releases a Multiple Mini-Harpoon to a bullet to the target, the second that activates the bullet's built-in electrical system.

Clinical tests will be performed in June. SDI is now moving towards a full production file and preparations for the production of both the 37/38mm and 40mm versions of the Lektrox.

R&D is being conducted in Israel by Elad Engineering Ltd. Elad's founders, Haim Danon and Ilan Shalev, previously held positions at Israeli Aircraft Industries (IAI) and Israeli Military Industries (IMI) leading such development projects as the Negev machine gun currently deployed by the IDF -- and the legendary Desert Eagle pistol, as well as other weapon systems.

### **Gadot forges Chinese joint venture for citric acid**

Gadot is taking its first ever step outside Israel with a joint venture to build a new citric acid plant in China a project which it expects to yield significant cost advantages thanks to the fermentation technology of partner Jiangsu Nuobei Biochemical, as well as doubling its existing capacity.

Gadot is in a relatively strong strategic position in Israel, with citric acid forming a small but significant part of its business alongside crystalline fructose and a variety of minerals.

However the company is looking outside the borders of its home country to secure a competitive advantage in citric acid supply for the future, establishing the \$30m plant in Jiangsu Province in a joint venture with Jiangsu Nuobei Biochemical.

"Looking at the market for the last five years, we saw that suppliers are losing their advantages over the Chinese," said Hacham. "It is important in our business to go where the advantage is - and today the advantage is in China."

Specifically, Gadot's project will use Jiangsu Nuobei's technology, which uses a non-processed carbohydrate source for fermentation be it potato, cassava, or corn. In Israel, the process uses white sugar, which is considerably more expensive as it has already gone through the purification process.

For its part, Gadot brings to the joint venture its purification technology, applied after fermentation. This, Hacham said, will yield a product of the same quality as presently supplied by Gadot.

The result, Hacham said, will be a cost advantage for the final product. Moreover the companies have expressed adherence to environmental protection principles, which are factored into the plant's design.

The joint venture - in which Gadot holds a 51 per cent stake and Jiang Nuobei 49 per cent - will see the Israeli company's citric acid capacity double to 60,000 tons. Hacham said that this is seen as the minimum capacity for economies of scale; he said that several stand-alone citric acid plants in Ireland, the UK, the Czech Republic and Mexico have closed their doors in recent years since such smaller scale operations are not commercially viable.

The plant will produce anhydrous citric acid and citric acid monohydrate - forms of the acid with different water content (0 and 10 per cent respectively), and the salt tri-sodium citrate.

The company will be going after the same market as at present - the food and drinks industries, which currently use 80 per cent of the world's citric acid for flavoring and preservative purposes; detergents (10 per cent); pharmaceuticals (five per cent); and industrial uses (five per cent).

Most of the product from the JV will be destined for export, primarily to Gadot's biggest markets in Europe and North America. The company is also looking to develop new markets. A part of the product will also be earmarked for the domestic Chinese market.

The plant is expected to be online within a year of the start of construction.

### **Israel: OptiTex to computerize Colombia's National Training Organization**

Israel based OptiTex, a provider of software for the fashion and textile industry, recently announced that it has been chosen to take a major part in a comprehensive project designated towards the computerization of Colombia's largest National Training Organization.

The project was put together by a leading Israeli

technology company that specializes in technological training systems and e-learning solutions and where OptiTex was selected as one of the suppliers and integrators and within this framework, provided the training institution with design systems to train and professionally integrate employees into the fashion and textile sector.

Implementation of the software has already begun and is expected to last for few months while the software is installed in various locations around the country.

This translates into low cost software at hundreds of workstations, one example of is the WIZO College of Design in Haifa, one of Israel's professional training institutions that has been using OptiTex software for many years and is currently upgrading its OptiTex stations to incorporate the most updated versions. According to Machtinger, participating in the project will enable OptiTex to drastically expand its presence in Latin America.

### Reuters buying ClearForest

The Reuters news agency has acquired the Israeli startup ClearForest for \$25m..

Its Israeli shareholders include Walden, Plenus, Greylock and Kadima Hi-tech. Foreign investors include ABS Ventures, Booz Allen Hamilton, Dow Venture Capital, HarbourVest and JPMorgan.

ClearForest, founded in 1998, developed technology to analyze, read and understand large amounts of content originating from diverse documents. Reuters is one of the clients for its technology, which tags content by the principles of artificial intelligence

### Seaweed a raw material for biofuel

Israeli company Seambiotic is using a new environmentally friendly technology to create a product contingent on the color green.

Seaweed, that slimy organism that wraps sushi and coats fish tanks, is being brewed by Seambiotic in eight open pools on property belonging to the Israeli Electric Company (IEC). The company's smokestack emissions, otherwise polluting carbon dioxide, are being redirected to "feed" Seambiotic's algae, a product which goes on to feed animals, humans, and – when used as biofuel – car motors.

While the CO2 might be dirty, the seaweed certainly doesn't seem to mind. In fact, Seambiotic's chief technical officer, Herman Weiss, says using CO2

emissions from the electrical power plant not only prevents the pollutant from being released into the atmosphere, but it has proved two to three times more effective than using "clean" CO2, the primary element needed for algae growth.

Seambiotic, founded in 2003, grows marine micro-algae primarily for livestock feed and nutritional supplements for humans, an estimated \$5-6-million-a-year industry. It can also use algae to create biofuel, a renewable energy source produced from biological resources such as plant biomass. Biofuel includes ethanol made from corn, sugar cane, wheat and other crops, in addition to biodiesel made from vegetable oil.

By using recycled CO2 emissions and focusing on a few unicellular algae that contain high-value products, Weiss says Seambiotic's pilot system, located on a quarter acre of IEC land in the central city of Ashkelon, is both low-cost and highly productive.

**Seambiotic**

Seambiotic is not the only company that has turned what would otherwise be considered pollution into potential energy.

Producing algae for biofuel is very innovative, but not yet economically viable, with research and development project being pursued worldwide. Increasing demands for oil and growing pressure to cut the harmful environmental impact of conventional fuel burning, has boosted biofuel use in recent years.

The challenge, however, is creating a new alternative – and economical – biofuel, one that can both supplement dwindling global supplies of petroleum and replace already commercially available biofuels that are based on in-demand agricultural products.

Algae has been dubbed a promising alternative: it does not compete as a global food source like corn and it can grow quickly in diverse conditions with minimal maintenance – requiring basically just sun, water and CO2.

### Technology identifies explosives at airports

An Israeli start-up company recently wrapped up testing of a new automated checkpoint particle trace detector at Israel's primary airport, and the Transportation Security Administration wants to investigate the merits of the technology for identifying traces of explosive materials at U.S. airports.



"We are talking with TSA following what we are doing with the Israeli Airports Authority and the Israeli Security Agency, and I believe that TSA has already expressed an interest in that capability," said TraceGuard Technologies Inc. CEO Ehud Ganani. "We hope that before the end of the year, we will be able to test our machine in the U.S."

The CompactSafe device is designed to test bags and difficult-to-screen carry-on items, such as laptops, medical equipment, cameras and other electronic devices, for traces of explosive material.

TSA screeners working at airport checkpoints currently use small pieces of carbon to wipe the inside and outside of these items and then deposit the sampled material in a chemical analyzer to get a reading.

The current methodology is effective at capturing traces of explosives, but many passengers complain that the process is an invasion of their privacy, Ganani said. That is where the CompactSafe offers something different.

The device's apparatus resembles an outdoor propane grill with screened items placed underneath the hood, which is then sealed.

The CompactSafe uses a combination of air jetting, pressurization and vibrations to extract particles from the tested items without opening them up. The extracted particles are captured by a filter, which is deposited in the chemical analyzer.

In addition to sparing passengers the embarrassment of having their belongings opened up in public, the technology has the potential to save time.

The CompactSafe requires approximately 30 seconds to extract particles from a screened item, whereas rummaging through a bag can take several minutes, Ganani said.

The technology completed a three-week operational pilot program at Ben Gurion International Airport last month to test the performance and durability of the machine in a major airport.

Detection capabilities were tested separately at TraceGuard's research and development center in Petach Tikva, Israel. Out of roughly 1,800 items sent through the CompactSafe, 65 contained small

amounts of explosive materials and 62 were detected (95 percent), Ganani said..

The technology is designed to work in unison with already-deployed X-ray and CT machines.

### **The CompactSafe costs roughly \$50,000**

Trace Guard also has a couple more products in the pipeline designed to apply the same automated trace sampling technology for screening larger baggage and air cargo.

The CarrySafe, which is a larger conveyor belt-enabled baggage-screening device, could be out by the end of the year, Ganani said.

The company is also working on CargoSafe, a product that would screen air cargo pallets using the same technology.

Twenty-two percent of all air cargo in the United States is carried on passenger flights, but only a tiny percentage of it is inspected. The Transportation Security Administration also has a number of screening programs, including the "Known Shipper" program, which requires the vetting of shippers before they are certified.

### **Kreos Capital to invest \$360m. in Israeli high-tech**

Kreos Capital (formerly European Venture Partners) closed its \$260 million third fund. The firm manages \$600 million, and invests a third of its capital in Israeli technology companies. Kreos general partner Raoul Stein, who is responsible for activity in Israel, said that the fund would invest \$360 million in Israel over the next three years.

Merrill Lynch led the investment in the Kreos III fund, and was joined by a dozen international investment institutions, including Deutsche Bank and the European Investment Fund. Kreos offers a unique financing package of up to \$26 million through venture capital loans (secured loans) to start-ups in Europe and Israel.

### **Defense exports up 25% in 2006 to over \$3b.**

Israel's defense exports exceeded \$3 billion in 2006, says SIBAT - Foreign Defense Assistance and Defense Export Organization. Defense exports were 25% greater than in 2005.



For the first time, defense contracts signed in a single year exceeded \$5 billion in 2006, 10% more than in 2005. Defense exports and contracts have doubled within a decade. SIBAT director general Maj.-Gen. (res.) Yossi Ben-Hanan said these were record numbers for Israel's defense industry.

The Ministry of Defense said that the boom in defense exports strengthened Israel's position as one of the world's top six defense exporters, after the US, Russia, France, UK, and Germany.

### **Ernst & Young: Life sciences investment down**

Nine life science companies received just 11% of total VC investment in the first quarter.

The first quarter of 2007 has seen a sharp drop in the value and number of investments in life science fields in Israel compared with the corresponding quarter in 2006, reveals Ernst & Young in its quarterly Venture One survey. The survey points out that the nine life science companies that received investment accounted for just 11% (\$47 million) of total investment in the first quarter, compared with 32% (\$152 million) in 19 life science companies in the corresponding quarter last year.

The survey also revealed that \$392 million was invested in 56 venture capital firms in Israel in the first quarter of 2007. This is the highest volume of investment since the first quarter of 2006, when \$466 million was invested in 71 venture capital firms.

IT field was especially prominent in the first quarter, with nine investments in Web 2.0 companies. These amount to more than half the number of investments in the US and a record number of investments in the field in Israel. A total of \$42 million was invested in IT, 10% of the capital raised in the first quarter, compared with \$7 million, or just 1.5% of capital raised for IT in the corresponding quarter last year.

### **YOGGIE**

Yoggie separates your machine from security threats  
The Yoggie - the brainchild of Israeli-based Yoggie Security Systems - is being billed as the ultimate laptop bodyguard.

The miniaturized security computer that fits into the palm of your hand packs quite a punch with its 13 tiny security appliances, including anti-spam, anti-phishing,

anti-spy ware and anti-virus.

When the device is plugged into the USB port of a laptop it physically separates the machine from malware threats.

The battle between such threats is moved to the device itself, freeing up the laptop from the need for any added software, which in turn will improve the performance of the machine.

Since the device went on sale - with a retail price of £113 - at the beginning of the year, it has shifted "thousands" according to the company.

At InfoSec the product - which has already picked up a couple of awards - will go into the Lion's Den, a feature of the show which pits a series of new products against a panel of experts.

### **Capital raised at \$406m. in Q1 2007**

In the first quarter of 2007, 121 Israeli high-tech companies raised \$406 million from venture investors - both local and foreign. The amount was up 13% from the \$360 million raised by 101 companies in the first quarter of 2006, but was 15% below the previous quarter's \$477 million (highest in five years) raised by 105 companies.

Eighty-three companies attracted more than \$1 million each. Of these, 17 companies raised between \$5 million and \$10 million each, seven companies raised between \$10 million and \$20 million each, and two companies raised more than \$20 million each. The average company financing round was \$3.4 million, compared with \$3.6 million in the first quarter of 2006 and \$4.5 million in the previous quarter.

#### **Israeli VC Investment Activity**

In the first quarter of 2007, Israeli VCs invested \$171 million in Israeli companies, 42 percent of the capital invested. This amount was very close to Q1/06 and Q4/06 levels of \$177 million (49 percent) and \$178 million (37 percent), respectively.

The 42 percent Israeli VC share of the total amount invested in Israeli high-tech compared with an annual average of 49 percent for the 1999-2006 period. The remainder of capital was from foreign investors as well as non-VC Israeli investors.

"Q1 results show the continuation of the strong investment level that we saw last year - around \$1.5

-1.6 billion,” said Zeev Holtzman, Chairman of IVC Research Center and Giza Venture Capital. “The Israeli VC fund investment level is almost the same as in previous quarters, but the relative Israel VC share is less. This indicates a shortage of capital and a very cautious pace of investments by the Israeli VC funds. Other investors – mostly foreign VC funds – have increased their investments. Interestingly, many of these investments were made without the involvement of the Israeli VCs, effectively increasing competition for good deals.”

First investments accounted for 51 percent of total dollar investments by Israeli VCs in Q1, compared with 37 percent in the first quarter of 2006 and 55 percent in Q4 2006. The average First investment by Israeli VCs was \$2.1 million, while the average Follow-on investment was \$0.8 million.

#### Israeli VC Activity in Foreign Companies

In Q1, Israeli VCs invested \$9 million in nine foreign companies in addition to their investments in Israeli high-tech companies. This compares to \$16 million invested in foreign companies in the previous quarter and \$24 million invested in the first quarter of 2006. Two of the investments were First investments, and the remainder were Follow-ons.

In the first quarter of 2007, 33 Communications companies attracted \$124 million or 30 percent of the total capital raised, followed by 20 companies in the Life Sciences sector with \$68 million or 16 percent.

Seventeen Internet companies raised \$64 million or 16 percent of the capital, which compared with \$21 million or just 6 percent in the first quarter of 2006 and \$22 million or 4 percent in the previous quarter. “The Internet sector is gaining momentum just as in the US,” said Efrat Zakai, Director of Research at IVC. “First quarter Internet figures – the highest in five years – surged due to an increase in the number of deals and one particularly large financing round of over \$20 million.”

Q1 was another successful quarter for Seed companies with 29 Seed firms attracting \$54 million, 13 percent of the total capital raised. This amount showed little variance from Q1/06 and Q4/06 when \$50 million (14 percent) and \$54 million (13 percent) were raised, respectively. From among the Seed investments, Internet companies attracted the largest share of capital – 37 percent – followed by Cleantech firms with 18 percent.

Early Stage (R&D) companies captured 40 percent of capital raised, Mid-Stage companies (up to \$10 million in revenues) 30 percent, while Late Stage companies attracted only 17 percent of investments.

### Way to Keep Precious Water Resources Clean Developed by Researchers at Ben-Gurion U.

A new and valuable tool for fighting soil and ground water pollution has been developed by Dr. Ofer Dahan, a researcher at the Zuckerberg Institute for Water Research (ZIWR) at the Jacob Blaustein Institutes for Desert Research, Ben-Gurion University of the Negev. The information was made public as part of the 30th Anniversary celebrations of the Jacob Blaustein Institutes for Desert Research as part of the University’s 37th Annual Board of Governors meeting. At the same event, the new building for the Zuckerberg Institute for Water Research was dedicated.

The Water & Contaminants Monitoring System (W&CMS) provides, for the first time, a simple, fast and cost-effective monitoring system that providing real time data on water and contaminate transport in the areas above the level of ground water, known as the vadose zone. The vadose zone includes the upper soil and rock layers which lies between the land surface and the aquifer water table beneath. Both water and contaminants must pass through the vadose zone prior to entering the water aquifer.

According to Dahan, most sources of man-made pollution originate on land surface right above the vadose zone, including industry, intensive agriculture, landfills and waste lagoons. Unfortunately, vadose zones are not hydraulically isolated – and as a result water and contaminants may rapidly migrate through downward towards the water table and pollute the groundwater. There is evidence that even the thickest vadose zones have limited ability to buffer against the contaminants.

Monitoring programs for ground water protection from pollution hazards were traditionally based on information pulled from groundwater. This monitoring method is well-established around the world, and there are even laws in several countries requiring this type of groundwater monitoring for potential polluters. But the method is flawed. The penetration into the groundwater for monitoring may turn out to cause irreversible damage and cleaning of the contaminated ground water in complicated and extremely expensive.

Moreover, this could not provide any protection to groundwater since identification of contamination in groundwater is by definition too late as groundwater is already contaminated. Note, the so far no groundwater remediation anywhere around the globe has been successful, and no aquifer has ever been fully remediate, in spite of the multi-billion dollar investment in remediation actions. Therefore, monitoring of contaminate transport in the vadose zone, long before it reached the groundwater is the key to groundwater protection, and removing contaminants from vadose zones is a logical approach to preserving the quality, and therefore, the quantity of groundwater resources. Yet, accurate and affordable monitoring technology hasn't been available -- until now.

The newly developed BGU system is designed to provide continuous measurements of soil water content and water potential in the vadose zones. "The W&CMS has been successfully installed in several places Israel, as well as in other countries where it has demonstrated that it can enhance the overall protection of human the environment and particularly groundwater," explains Dahan, "by providing earlier and better control of downward water flow and contaminant migration towards the groundwater."

Fighting groundwater pollution is critically important to many activities, including those associated with agriculture, forestry, hydrology, pollution abatement and engineering.

In recent years, there has been increased environmental awareness and as a result, a greater demand for this kind of pollution monitoring. Solid waste dumps, petroleum stations, waste water treatment plants, chemical industries and many more other activities that might pollute soil and groundwater all need close and careful inspection. The availability of W&CMS system will give governments as well as environmental protection organization more power to demand that potential polluters stay within guidelines and better protect the quality of water and as a result, the quality of life.

### **Merger and acquisitions at high pitch**

Mergers and acquisitions activity involving Israeli companies that were either acquired or merged totaled \$10.58 billion in 76 deals in 2006, the Israel Venture Capital research center said. Notable technologies

that were wholly or mainly originated in Israel include VoIP, Disk-On-Key, instant messaging ((ICQ), Intel's Centrino and multicore concepts, to name just a few.

Israel's Association of Electronics and Software Industries has recently said that the local electronics and software industries output reached \$18.7 billion in 2006, out of which \$16 billion was exported. This is some 13 percent rise compared to the year before, in which the output totaled \$16.6 billion, out of which \$14.2 billion was exported. The association claimed that Israel has one of the world's highest rates of engineers and scientists 140 per 10,000 in the population, compared to about 80 in the US and Japan, 60 in Germany, and around 40 in the UK.

During 2006, the Israeli government approved 592 research projects of 371 companies with a combined budget of \$517 million, of which the government covered \$216 million, an increase of 22 percent over 2005. Israel's expenditure on civilian R&D reached \$6.3 billion in 2005, 4.7 percent of the country's GDP. According to IVC, 67 venture capital management companies operate in Israel, managing a total of 140 VC funds.

According to IVC's 2007 Yearbook, the total number of portfolio companies - 590 - represents a 20 percent increase in VC-backed high-tech companies from the 490 companies in 2005. In 2006, "angel" investment activity in Israel grew markedly. According to Zeev Holtzman, Chairman of IVC Research Center and Giza Venture Capital, 2007 and 2008 will be critical years for the future of Israeli high-tech. "Competition from Asia China, India and South Korea in particular is fast increasing. As investor attention and capital moves towards Asia, Israeli high-tech will have to prove its advantages and its ability to develop innovative technologies in order to continue to attract investors. "VC funds will have to do their part as well," says Holtzman, "Israeli VC funds must adapt and find new approaches to address shifting market requirements, particularly in the Internet, new media and digital consumer sectors." A new survey conducted by Deloitte Brightman Almagor during March and April 2007 strengthens Holtzman's thesis. The VC Indicator Survey reveals that 30 percent of the venture



capitalists respondents fear that foreign venture capital funds will divert investment away from Israel into Asian countries like China and India, and as a result of that a great deal of investment in Israel would be lost. Nevertheless, 40 percent of the respondents predict that only a small amount of investment money would be lost to Asia. The remaining 30 percent think that Asian investments are not likely to affect Israel.

### CellMax Systems enters Panama

Voice biometrics start-up CellMax Systems, Ltd. of Tel Aviv, and Multitek Corp., S.A., of Panama City, announced today that they have signed a Memorandum of Understanding for a five-year distribution agreement to supply CellMax Systems' identification and verification technology to the region's growing call center sector. The value of the deal was not disclosed.

CellMax Systems specializes in identification and verification of the human voice for access control. The company's product suite includes a range of ID management and security applications for the telecom, financial, and security markets, tailored to individual client needs. CellMax Systems' technology enables higher levels of identification and verification, but keeps costs low by increasing process automation, raising quality of service and reducing wait time to provide a rapid return on investment.

Eran Singer, VP of Sales for CellMax Systems, Ltd., today said, "Multitek is a major force in intelligent solutions provision, telephony, Internet and retail in Latin America and their active involvement in the Panama Canal Free Zone empowers our partnership with the potential to access regional markets easily."

Daniel Bettsak, Director General of Multitek Corp., stated, "Adding CellMax Systems' voice biometrics solution to our range of intelligent solutions means added value for our customers, raising their levels of security and controlling access to sensitive customer data at the most reasonable cost. We're looking forward to making this solution commonplace in the Latin American contact center space, the fastest growing in the world, serving both the Spanish and English language commercial and financial markets as well as the security agencies that protect the Panama Canal region."

### Rafael undertakes anti-ballistic missile r&d project

During a recent discussion with one of the company's executives the Israel High-Tech & Investment report has learned that Rafael the Armament Development Authority has obtained an order from Israel's Ministry of Defense to develop anti-ballistics missile systems. The project will deal with long and short range rockets.



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