# ISRAEL HIGH TECH & INVESTMENT REPORT

A MONTHLY REPORT COVERING NEWS AND INVESTMENT OPPORTUNITIES JOSEPH MORGENSTERN, PUBLISHER September 2007 Vol. XXII Issue No. 8-9 You are invited to visit us at our website: http://ishitech.co.iil

# **Explosive Growth to Continue**

Not since the bubbly days of the dot com boom that peaked in April 2000 has the Israeli high-technology sector experienced such a high level of explosive growth.

Israeli startups financed by venture capital racked up \$2.5 billion in exits (buyouts or share issues) in the first half of 2007. According to figures published by accounting firm Ernst and Young and research firm VentureOne, this amount was almost as much as the entire 2006 total. The value of purchases of Israeli startups for the first six months of 2007, excluding stock issues, was \$1.015 billion, according to figures from IVC-Online. Ernst and Young estimates that for all of 2007, the total will reach \$3.2-3.5 billion. This would be a 25 percent increase over 2006, making it the best year since 2000.

The future appears to be bright. In the second quarter of 2007, 118 Israeli high-tech companies raised \$436 million from venture investors – both local and foreign. 121 companies up 7 percent from \$406 million raised the amount in the previous quarter, and 8 percent ahead of the \$404 million raised by 109 companies in the second quarter of 2006. In the first half of 2007, capital raised was \$842 million, up 10 percent from H1 2006 levels.

Moreover, foreign direct investments in 2007 are expected to grow by 8.0%, reaching \$15.3 billion, as compared to \$14.2 billion in 2006 (2005: \$4.8 billion; 2004.

Israeli exports are also having a banner year and should experience more than \$30b. in exports in 2007. There has been a major jump in defense exports. Defense exports hit an all-time record last year, as signed contracts for defense industry deals with foreign armies reached \$4.18 billion. Defense exports have also led to civilian exports. India has purchased several desalination plants while being major buyers of defense systems. The conditions that have fueled the growth remain constant. Government support for infant companies remains intact. Almost any start-up can qualify for a \$200,000 grant. The incubator program offers support for entrepreneurs who are relieved of many of the administrative chores. Indications are that venture capital investments, from Israel and abroad, are plentiful.

Youngsters are flocking to colleges to earn technical degrees. Demobbed soldiers entering the working place



**Explosive Growth to Continue** California utility to buy power generated by solar array Cisco invests in Israeli start-up OpTier Israeli researchers discover bug that saves eucalyptus aroves Chief Scientist Office awards grant to Brainstorm **Cell Therapeutics** Technion develops world's smallest medical robot \$842m. raised in H1 Israel's economy: Update Website allows phone calls by email Israeli-made device eliminates cellphone background noise Sygenta buys Zeraim Gedera for \$90-\$100m. Spacecom buys Amos 4 satellite from IAI Eitan a high altitude and long enduring UAV

NICE Systems to acquire Actimize for \$280m. ECI Telecom agrees to be acquired for \$1.2b. Technion architects turn dew into clean water Teva invests in start-up Mediwound Israeli investments in India touch \$1.0b. mar Mumbai opts for desalination University produces detailed map of the Internet Memory machine

Anti-jelly fish sting agent

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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

are bringing with them a high kevel of technological know-how,

Under these conditions it is clear that 2007 will be a record year and serve as a solid foundation for 2008.

### Israel grants Vietnam \$150 million credit

Vietnam and Israel signed an agreement in Hanoi Tuesday, under which the two governments would provide loans to companies involved in specific projects.

The Israel government will provide guaranteed credit loans totaling US\$150 million to small-and mediumsized enterprises and projects in Vietnam that use Israeli technology.

The protocol guarantees the transfer of technology from Israel to Vietnam on the basis of export insurance for Israeli exporters.

The Vietnamese companies engaging in projects within the financial protocol will be provided with preferred interest rates and fast procedures for receiving the loans but they must be approved by the Vietnamese Ministry of Finance.

# California utility to buy power generated by solar array

Israeli company Solel, which develops and implements solar thermal technology, has signed a contract with Pacific Gas and Electric Company to build the



world's largest solar plant in California's Mojave Desert.. The utilitiy will purchase 550 megawatts of solar power to be generated by troughlike arrays of mirrors spread over nine square miles in the Mojave Desert.

The purchase, one of the largest ever of solar power, will help the utility meet California's aggressive mandate: namely that utilities have enough renewable sources online or under contract to supply one-fifth of the electricity they sell by 2010. The new solar plant is expected to begin producing energy in 2011 or 2012. This contract, along with similar ones recently signed by Southern California Edison, represents the resurrection of thermal solar arrays, a technology first deployed in the 1980s that failed in the 1990s because of the collapse in the price of natural gas.

But with the price picture shifting and state mandates for renewable energy spreading, an Israeli company, Solel Solar Systems of Beit Shemesh, is betting that this technology will now pay off. The approach may lack the appeal of the more familiar rooftop photovoltaic cells, like the ones used in California's "Million Solar Roofs" campaign, but it costs only around half as much for each unit of energy produced.

P.G.& E. executives said that during peak summer hours, power from the mirrors in the Mojave Solar Park Project would provide electricity to hundreds of thousands of homes. Fong Wan, P.G.& E's vice president for energy procurement, said in an interview on Tuesday that "we view concentrated solar as one of the most promising technologies for us."

While P.G.& E. executives and Solel's president, Avi Brenmiller, would not specify how much the utility will pay, people close to both companies put it at slightly more than 10 cents a kilowatt-hour — roughly what an average kilowatt-hour sells for at retail to American

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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

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Electricity will be produced using a six-foot troughshaped mirror that focuses rays of the desert sun on a pipe less than three inches in diameter, heating a fluid inside to 750 degrees Fahrenheit; the fluid will release steam to drive a turbine. Small motors will tilt the mirrors to keep them facing the sun.

The solar plant, planned to be built in the desert between the Nevada state line and Barstow, Calif., would consist of four modules of 140 megawatts each, Mr. Brenmiller said. "It's going to be similar to existing plants in style," he said, but added, "it will be a little larger than the largest one ever built."

### Cisco invests in Israeli start-up OpTier

Networking equipment giant Cisco (Nasdaq: CSCO) announced that it had made a strategic investment in

# cisco

Israeli start-up company OpTier and that it would collaborate with the Israeli data network management company. The amount of the investment was not disclosed.

The investment is in addition to OpTier's recent \$15 million third round of funding from Gemini Israel Funds, Pitango Venture Capital, Carmel Ventures and Lightspeed Venture Partners. Since it was founded in 2002, OpTier has raised some \$40 million from these funds.

OpTier, which was founded by a group of former Memco employees, provides software solutions for efficient management of enterprise information systems. Its flagship product is CoreFirst, which dynamically links business services to IT infrastructure, assuring service delivery and optimizing IT resources. The company's customers include some of the world's largest financial institutions and industrial and retail companies.

# Israeli researchers discover bug that saves eucalyptus groves

A tiny wasp that has ravaged eucalyptus groves in the Mediterranean Basin, Africa and the Far East, and



which arrived in Israel a few years ago, has proven anew that no organism is eternally dominant.

Israeli researchers have found a predator one millimeter in length called Closterocerus, which thwarts the wasp's

#### advance.

Several nations have already turned to Israel for information about this natural adversary. David Brand, head of the Jewish National Fund's (JNF) Department of Forestry and Development, says, "Six years ago, two species of wasps were discovered to create galls [abnormal swellings of plant tissue], thus damaging eucalyptus leaves: the Leptocybe invasa, which damages new leaves, and the Ophelimus maskelli, which damages mature leaves. Both wasps subject eucalyptus trees to continuous attack."

The wasps reproduce on eucalyptus leaves, blanketing them and causing the leaves to fall. The wasps spread "like wildfire," according to David Brand, halting the trees' growth.

In Israel, the wasps are prevalent from the Southern Golan Heights in the North to the Western Negev Desert in the South. They also attack eucalyptus groves in Italy, Greece, Portugal, Kenya and South Africa, and there are reports of damage to trees in Vietnam, India and Thailand.

Massive damage to eucalyptus trees compelled a team of JNF-funded scientists to launch research three years ago to identify the pest's biological adversaries. Professor Zvi Mendel of the Agriculture Ministry's Agricultural Research Organization (ARO), Dr. Alex Protasov, Dr. Zion Madar, Nitza Sapir and David Brand traveled to Australia to find the wasp's natural enemy. There, they were assisted by Dr. John La Salle and Joe Krycer, a member of JNF-Australia. "It was like finding a needle in a haystack," Brand says, "because there are dozens of pests and dozens of predators."

Nations located farther from Israel requested that the Israeli research team send the predator to them. South Africa, a nation with commercial eucalyptus groves that feed its wood and paper industries, recently turned to Israel for assistance. Professor Mendel also received requests for help from India and Thailand.

### Chief Scientist Office awards grant to BrainStorm Cell Therapeutics

BrainStorm Cell Therapeutics Inc. (OTCBB:BCLI), a developer of adult stem cell technologies and



therapeutics, announced that the company has been awarded a grant from Israel's Chief Scientist Office. The company received the first installment of the grant in the

amount of 594,544 Shekels (approximately \$140,000). The grant was awarded to BrainStorm based on its leading and innovative system to treat Parkinson's disease using adult stem cells.

The 3% royalty-bearing grant is part of the Government's Ministry of Trade and Industry program that offers incentives to high-tech companies for research, and development.

## Technion develops world's mallest medical robot

Israeli scientists at the Technion - Israel Institute



of Technology in Haifa have created a tiny robot which can enter a patient's bloodstream and deliver medical treatment.

The world's smallest robot, with a diameter of one millimeter, was created by Oded Solomon of the mechanical engineering department at the Technion, who teamed up with Dr. Nir Schwalb of the Judea and Samaria College in Ariel.

The robot has the unique ability to "crawl" through the inner walls of blood vessels using tiny arms which allows it to withstand blood pressure in order to progress through veins and arteries. The robot is powered by an external magnetic field allowing it to be controlled for an unlimited amount of time during medical procedures.

Although in its beginning stages, possible application could be used for brachytherapy (short distance radiation therapy) which is commonly used to treat prostate cancer and cancers of the head and neck.

Oded Solomon commented "This accomplishment of miniaturization is without precedent, as is the ability to control the robot's activity for unlimited periods of time, for any medical procedure. We hope this discovery can be used to improve the quality of care for diseases and many other conditions".

Technion scientists propose a new generation computer able to interact with biological system.

Technion scientists, headed by Prof. Ehud Keinan of the Schulich Faculty of Chemistry, have developed a biological computer composed only of DNA molecules and enzymes producing the visual proof of an organism: blue or white bacteria colony. The research has been published online at the beginning of June 2007.

This is an important step on the way for next-generation bio molecular computers that might be able to control and diagnose diseases.

#### \$842m. raised in H1

High-tech companies raise \$842m. in first half. In the second quarter of 2006, 118 Israeli high-tech



companies raised \$436 million from venture investors – both local and foreign. The amount was up 7 percent from \$406 million raised by 121 companies in the previous quarter, and 8 percent ahead of the \$404 million raised by 109 companies in the second quarter of 2006. In the first

half of 2007, capital raised was \$842 million, up 10 percent from H1 2006 levels.

The average high-tech financing round was \$3.7 million, up 9 percent from both the previous quarter and the second quarter of 2006. Eighty-one companies attracted more than \$1 million. Of these, 15 companies raised \$5 million to \$10 million each, and 12 companies raised more than \$10 million each.

In the second quarter of 2007, Israeli VCs invested \$193 million in Israeli companies, an increase of 13 percent from the previous quarter (\$171 million) and 25 percent above Q2 2006 levels of \$154 million. In the first half of 2007, Israeli VCs invested \$364 million in Israeli companies, an increase of 10 percent from H1 2006 (\$331 million).

The Israeli VC share of the total amount invested in Israeli high-tech was 44 percent in the second quarter, with the remainder of capital coming from foreign investors as well as non-VC Israeli investors.

"H1 figures indicate 2007 may set a five-year record with high-tech investments reaching \$1.7 billion," said Zeev Holtzman of Giza Venture Capital. India,

**Israel-India to develop \$2.47b missile system** India and Israel will jointly develop a new generation of medium-range surface-to-air missiles in a \$2.47 billion project that India hopes will secure its strategic assets, according to Indian press reports. The joint venture reportedly was approved by India's Cabinet

Committee.In 2006 India bought \$1.6 billion worth of Israeli military equipment.

The missile system, is expected to take four to five years to develop, It will be capable of detecting and destroying aircraft, missiles and drones at a range of 70 kilometers. Each of the 18 firing units will come equipped with a command and control center, acquisition radar, guidance radar and three launchers with eight missiles each.

The missile system development is an extension of a \$480 million Israel Aerospace Industries project, launched in January 2006, to develop a supersonic 60kilometer missile defense system for the Indian navy.

#### Israel and India in new missile deal

The two countries are to develop an air defense system in a contract worth an estimated \$300 million over four years.

India and Israel have agreed to expand their already considerable missile development cooperation with an even longer-range version of their extended-range Barak ship defense system, this time for the Indian Air Force. The effort would take about four years and a minimum of \$300 million to develop.

The agreement will deepen Israel and India's cooperation on missile development, under which the two countries are currently developing an improved version of the vertically launched Barak-8, or BarakNG (New Generation) missile. The land-based version will reportedly have an even longer range than the Barak 8, reaching up to 150 kilometers instead of the current 70. The agreement will provide a final endorsement of the memorandum of understanding that Israel Aerospace Industries Ltd. (IAI) signed in June with Indian defense research authorities.

#### Israel's economy: Update

The Ministry of Finance has published an updated summary of Israel's economic situation, showing impressive growth in many areas.



Israeli industrial production growth in 2006 was the highest in the world (37.1%), and the Wall Street Journal called Israel "the best initiative economy in the world." After recording a higher GDP growth in 2006 than the OECD countries, the Ministry of Finance reports an annual GDP growth in the 1st quarter of 2007 of 6.3%, and an annual export growth for the same period of 11.1%. The Israel Export Institute reports that the industrial deficit for the first quarter of 2007 was down by 6%.

The expected inflation rate for this year of 2-3%, is the third lowest in the world, according to The Economist. The Bank of Israel has lowered the interest rate to 3.5%. Standard & Poor has recently upgraded Israel's credit rating to "positive," joining a similar action on behalf of Moody's and Fitch in 2006.

Foreign direct investments in 2007 are expected to grow by 8.0%, reaching \$15.3 billion, as compared to \$14.2 billion in 2006 (2005: \$4.8 billion; 2004: \$2.1 billion). Foreign stock investments in January attained an all-time peak of \$460 million. There is also a growing trend of Israeli investments abroad: \$30 billion in 2006 (2005: \$18 billion; 2004: \$13 billion).

#### Website allows phone calls by email



That invitation, counterintuitive as it may seem, is what Israeli start-up Yoomba Ltd. said it will allow consumers to do via an online

service that enables instant-messaging and Webbased calling to anyone with email.

Yoomba says it has made calling a friend as simple as sending an email, with no special registration or phone numbers to recall. One click on a hyperlink invitation from a friend and you can start talking for free.

Underlying the service is a form of peer-to-peer technology that turns personal computers into contributors to a phone network. Users just need a PC and telephone headset.

Computer-to-computer calling works by sharing network bandwidth among users, similar to how existing services like Skype work, said Yoomba chief executive Elad Hemar.

"Up until now, various instant messaging services have been closed systems," said Hemar, who co-founded Yoomba. "We allow you to communicate with all your email contacts by bringing them into one place," he said.

Yoomba software lets users call anyone with an email address that works in Outlook, Outlook Express,

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Microsoft Hotmail, Yahoo Mail or Google Gmail. It soon plans to add other email services and social network mailing lists.

"This is the new Internet. It's not the separate, walledoff Internet of the portals anymore," Hemar said. "We've taken the only universal online network – email – and built our service on top of it."

The 20-employee company, which was started in Herzelia, Israel, is now based in Menlo Park, California, in the offices of one of its venture capital investors.

Yoomba has taken several million dollars in financing from U.S. Venture Partners and Global Catalyst Partners. Exact terms were not disclosed. It is the biggest ever pre-product launch investment in an Israeli Internet company, Hemar said.

The past year has seen the proliferation of dozens of companies offering free or low-cost ways to place Internet calls via computers, regular phones or mobile phones. But virtually all require some level of change in user behavior.

Yoomba asks a caller to type a contact's email address into a box on their site and click a few buttons to initiate a call. Missed calls go to voicemail. Many set-up steps required by similar services are handled automatically by Yoomba.

"If you have my email address, you can call me," Hemar said. "You can call people who aren't even part of Yoomba."

For the first call, there is an initial pause as Yoomba software reaches out to install itself inside the sender's email application. Recipients receive an email with an embedded link. Click on the link and a call begins shortly.

Once a user starts using Yoomba, small buttons appear inside Outlook or Gmail to show when friends are online.

The technology is designed for consumers but also can sneak through corporate firewalls into office networks. Yoomba is working on control features to allow corporate technicians to manage Yoomba traffic inside their networks. Readers can try a trial version of the service at http://www.yoomba.com/. No personal information ever leaves the user's program as Yoomba software is designed to work inside it. Hemar said the company has applied for several patents.

Users cannot import that instant messaging buddy lists into Yoomba's service but since most people have email addresses for their contacts, this is unlikely to be an issue.

Eventually, Yoomba aims to introduce a new form of interactive advertising to support the service.

### China's Hisense and Israel's Metalink tie up



China's Hisense, a consumer electronics, appliance and information technology group, has tied up with Israeli broadband developer Metalink Ltd (NASDAQ: MTLK) to deliver high-definition

multimedia over wireless home networks, the two companies said.

Hisense selected Nasdaq-listed Metalink's chipset technology to enable wireless transmission of multiple high-definition TV streams from digital televisions, personal video recorders and set top boxes to any room in a user's home.

Financial terms of the agreement were not provided.

# Israeli-made device eliminates cellphone background noise



A device that eliminates cellphone background noise - even from a soccer stadium or wedding hall - has been developed by researchers at Haifa's

Technion-Israel Institute of Technology.

The optical microphone eliminates distracting noises by monitoring acoustic signals from the human head.

Prof. Motti Segev of the physics faculty, together with Zvi Katz and Dr. Rami Aharoni, have registered a patent on the device, and three patents have been applied for in the US.

"The basic concept of the microphone, which is called ONFM," is based on the optical identification of acoustic

changes in the skull or other parts of the body while the user is speaking," Segev said. "When we speak, we hear ourselves from the transfer of sound waves in the bones of the head. The ability to identify these tiny acoustical changes in the skull makes possible the differentiation between the voice of the caller - the signal that interests us - and the background noises that come from outside the body."

On the basis of this differentiation, Segev said, one can filter out the background noises much more successfully than with existing noise filters.

A working model showed that it filtered out almost all background noises, leaving only one per 1,000. In principle, the inventors said, it can be improved even more. The microphone also eliminates sudden noises that cannot be filtered out by systems based on computer programs.

The "revolutionary" microphone makes it much easier to understand the caller's words in a noisy environment, and since the surrounding sounds are not heard on the other end, the caller does not leave any hints about where he is.

One could speak from home without a child's crying being heard, and sales agents could do business from a bustling cafe. It could also be used on the battlefield for communications, in factories, at sports events and even at wedding halls where the band is playing at a deafening volume.

### Syngenta buys Zeraim Gedera for \$90-100m.

Sources reveal that Swiss agrochemicals giant Syngenta International AG (NYSE:SVT; SWX;SYNN) is acquiring seed development company Zeraim



Gedera Ltd. from Markstone Capital Partners Group LLC at a valuation of \$90-100 million. Syngenta has a market cap of \$20 billion.

Markstone bought Zeraim Gedera in 2005 for \$48 million and undertook to pay the company's shareholders an additional \$4 million, subject to its performance. The company has paid \$9 million in dividends over the subsequent 18 months, which means that Markstone is making a return of more than 100% on the investment. Markstone will record a profit of \$50-55 million on its investment. Zeraim Gedera was founded by seven families in the 1950s. The company's president and CEO is Ohad Zuckerman. It currently has over 200 employees and operates both in Israel and internationally. The company posted a turnover of \$25 million in 2005, has reportedly passed the \$30 million level, and expects \$40 million this year, giving a growth rate of 20-25% a year.

Zeraim Gedera will reportedly continue as an independent company, even as it will now benefit from Syngenta's business infrastructure in sales, marketing and so forth.

### Spacecom buys Amos 4 satellite from IAI

The company has bought the communications satellite for \$365 million.

Spacecom Satellite Communications Ltd. (TASE:SCC)



will buy the Amos 4 communications satellite from Israel Aerospace Industries Ltd. (IAI) for \$365 million. IAI owns 20.5% of Spacecom. In a second contract, the company will make the satellite available to the Israeli government for \$265

million.

Spacecom will pay IAI \$100 million in six unequal installments, subject to meeting certain milestones. The first payment of \$22.5 million will be made in January 2010, and the last payment of \$6.25 million will be paid when the company receives the satellite. The company will use the payment from the government to pay IAI.

Spacecom offers satellite communications services from the Amos series of satellites, built by IAI. The company paid for the Amos 3 satellite in 2005, but has not yet begun to use it.

# Siberian phone company deploying Gilat technology

Gilat Satellite Networks (Nasdaq: GILT) announced a new deal in Russia, specifically with Sibirtelecom.



The Israeli company will be deploying its SkyEdge broadband satellite network, comprising more than 1,200 terminals, to bring telephone and Internet service to remote communities throughout Siberia.

The network will be developed by Russia's

leading satellite service provider, a public company Global Teleport, Gilat said.

Global Teleport recently added a SkyEdge Hub to its facilities in Novosibirsk to serve the Siberian region.

Over 1,000 SkyEdge VSATs will be deployed in schools, businesses and public call offices in Siberia, Gilat said.

Gilat developed an integrated solution to monitor and prevent un-authorized use of telephony traffic from Sibirtelecom's public payphones.

#### Eitan a high altitude long endurance UAV



Israel ranked fourth in worldwide defense exports, behind the United States Russia and France. Though its defense budget is only just over \$10b. it managed to record \$5.1b. in

export orders while shipments totaled \$3.4b..

Defense News predicts that an ever-growing percentage of sales will be accounted by UAVs.

The Israeli government is funding the development of an advanced HALE UAV named Eitan which will be the largest UAV Israel has ever built. The new system, most probably based on the Turboprop-powered Heron (Heron TP) will be used for strategic long endurance missions (over 50 hours). Eitan's gross takeoff weighs is about four tons and has length of 13 meters a wing span of 26 meters. The overall design is based on a twin-tail concept derived from the proven Heron system. Two prototypes are believed to be flying.

According to Aviation Week Show News, Eitan made its maiden flight Friday, July 15, 2006 in Israel. The new MALE UAV will provide the Israel Air Force persistent, high altitude, long endurance capability well beyond the reach of enemy air defenses, far beyond the Israeli borders.

The new platform will be able to deploy multiple sensors, and fly on extended missions for extended durations, beyond the capabilities of current UAVs. To enable extended operations, Eitan uses new highly redundant avionics suite based on new generation of UAV avionics and controllers developed by RADA.

Another newcomer is Elbit's Hermes 900. The UAV us a medium altitude, long endurance UAV. IT WIGHS

970 Kg. At takeoff and carries a 300kg. payload and the craft can stay aloft for more than 30 hours.

# Nice Systems (Nasdaq: NICE) to acquire Actimize, for \$280m.



Nice Systems announced the transaction to buy Actimize for stock and cash. It will be paying 80% of the consideration, or \$227 million, in cash and the rest in 1.5 million Nice shares.

The transaction should close towards the end of the third quarter of 2007, Nice said. Once the deal is finalized, Actimize will operate as a wholly owned Nice Systems subsidiary and its management will stay in place, the Israeli company says.

Ra'anana-based Nice says that it expects Actimize to bring \$10 million to \$12 million in revenues in the fourth quarter of 2007.

It also admitted that the acquisition should lower its earnings per share by 4-5 cents in the quarter, mainly because it will be making less interest income because of the big cash outlay.

Accordingly, Nice has adjusted its guidance. It now foresees revenues of \$497 million to \$514 million for the year 2007, and sees lower earnings of \$1.31 to \$1.42 per share.

In 2008 though, Nice expects Actimize to generate revenues of \$55 million to \$60 million, which means the buyer is predicting growth of 40% to 50%. The acquisition should be earnings accretive from the third quarter of 2008, Nice predicts.

Actimize had been preparing for an initial public offering on Nasdaq, according to a market cap of \$300 million. It had hoped to raise about \$70 million.

The company's chairman is Avi Ze'evi, managing partner at Carmel Ventures, which is doing well by the exit. As one of Actimize's biggest shareholders with about a quarter of its stock, Carmel is getting about \$70 million.

In fact Carmel had led its first financing round and was then, in fact, the only investor. Since then, others have come on board.

Altogether Actimize has raised about \$24 million, including from FT Ventures, Giza and Vertex, all of which have done well. Giza had owned 13% and is returning \$13.5 million to investors.

During the last five years, Nice Systems has bought five companies, and it ended the first quarter of 2007 with \$335 million in cash nonetheless. A few months back it set its cap at the American company Witness, but found itself outmaneuvered by another Israeli company, Verint Systems (Nasdaq: VRNT) of the Comverse Technologies (Nasdaq: CMVT) group.

#### ECI Telecom agrees to be acquired for \$1.2b.



ECI Telecom Ltd. (ECIL), an Israelbased provider of networking infrastructure equipment, has entered into a definitive merger agreement to be acquired by affiliates of the Swarth Group, an investment company

controlled by telecom businessman Shaul Shani, and certain funds which appointed Ashmore Investment Management Limited as their investment manager. The board of directors of the company approved the transaction and recommended that shareholders vote in favor of the deal, which is valued at approximately \$1.2 billion. ECI is owned 28% by Israeli holding company Koor Industries Ltd., listed previously on the NYSE as "KOR". Holding company IDB Development Corp. and its investment unit Discount Investment Corp. acquired 52% of Koor last year. Clal Industries, another subsidiary of IDB, owns 13% of ECI.

Swarth Group is a privately held investment group active mainly in debt and equity transactions globally with a focus on special situations in emerging markets. Shaul Shani, who has extensive experience and track record in founding, investing and managing telecom and technology companies, controls the company.

For its recent first quarter, ECI reported a five-fold increase in GAAP net income to \$18.7 million or \$0.15 per share from \$3.1 million or \$0.03 per share a year ago. Revenue for the quarter declined to \$155.1 million from \$162 million last year.

#### Technion architects turn dew into clean

#### water



A low-tech way to turn dew into fresh, usable water has been developed by two architects at the Technion-Israel Institute of Technology.

Inspired by the dew-collecting properties of leaves, the invention can extract a minimum of 48 liters of fresh water from the air each day.

Depending on the number of collectors used, an unlimited daily supply of water could be produced even in remote and polluted places. Their invention recently won an international competition seeking to make clean, safe water available to millions around the world.

The brainchild of Technion Architecture and Building Planning grad student Joseph Cory and his colleague Eyal Malka, "WatAir" is an inverted pyramid array of panels that collects dew from the air and turns it into fresh water in almost any climate.

According to Cory, WatAir can be easily incorporated into both rural and urban landscapes because it has a relatively small base. Its vertical and diagonal design utilizes gravity to increase the collection areas. The panels are flexible and easy to collapse when not in use, and provide shelter from rain and heat and play areas for children.

The project was selected from 100 entries from North America, Europe, Africa and Asia as the winner of the "drawing water challenge" sponsored by Arup - a global firm of designers, engineers, planners and business consultants specializing in innovative and sustainable design.

"WatAir is a wonderfully simple concept which draws its inspiration from nature," said competition judge Jo da Silva. "This is a simple and effective idea using tried and tested technology

### Teva invests in a startup - Mediwound

Teva Pharmaceuticals (TASE, Nasdaq: TEVA) is departing from custom and investing in a startup. The Israeli drug company is buying 12.5% of the shares in Mediwound from Clal Biotechnology Industries at a pre-money company value of \$100 million.

Altogether Teva and the other shareholders are investing \$20 million in Mediwound stock.

Mediwound specializes in technology to treat burns. Its



Debrase Gel Dressing uses enzymes to selectively remove the eschar layer from burn tissue, without hurting healthy flesh.

"Deep second and third degree burns result in a thick layer of necrotic tissue which must be removed prior to further treatment, in a process termed "debridement"," the company notes. "This process is usually accomplished only by tangential excision surgery or lengthy mechanical procedures. In most cases following a single application of four hours, the necrotic tissue turns into a gelatinous form and can be wiped away leaving a clean healing or graftable bed."

The company's technique is aimed to replace surgery.

Its product addresses a \$400-500 million a year market, and confers four advantages compared with surgery, that it does no damage to healthy tissue.

The second is that it spares the patient blood loss, and the third is that it's more comfortable for the burn patient. Fourth is that it costs less.

Pursuant to the agreement, Teva receives exclusive rights to market and distribute Mediwound's main product in certain countries.

Upon receiving marketing approval for the European Union, Teva will receive an option to expand its marketing license to the EU.

Once the U.S. Federal Reserve Board approves the product, Teva will also get an option to expand its marketing license to North America. If it decides to exercise that right, the Mediwound shareholders will receive an option to sell Teva 26% more of the company at a company value of \$245 million.

Teva will receive an option to buy the same amount of shares at a company value of \$306 million.

#### Israeli investments in India touch \$1b. mark

Israeli investment in India has touched 1 billion dollar mark in the last four years and it was likely to grow further, Israeli Ambassador in India David Danieli said.

"Israeli investment in India has grown to one billion dollars. Four years back it was almost nil," Danieli who was on a visit to Kolkata said.

Israeli investments, he said, were made in real estate, software, agro business, defense technology, precision tools etc.

Over 1,000 Israeli companies have established their presence in India through joint venture and research and development centers, he said.

The investment also included Rs 1,000 crore for three medical centers to be set up in West Bengal in joint venture with Ambuja Realty. The three centers, included one in Kolkata and another in Siliguri.

The Ambassador said that bilateral trade between India and Israel has touched 2.7 billion dollars last year.

He said that to survive in the global business one could not avoid the fast growing Indian economy. "The business relation between the two countries is steadily moving." Danieli said that his country wanted to have preferential trade agreement with India and it was already discussed at the official level.

### Mumbai opts for desalination

Faced with fresh water crisis, some of the major industries located on sea coast are using Israel's water desalination technology in their plants to meet their requirements.

"Being located near sea shore, some of the major oil refineries, fertilizer plants and power companies opted for Israel's water desalination technology for fresh water needs," Technochem Agencies (Bombay) Pvt Ltd director Sriram Kulkarni told PTI.

"Since 1994, Israeli company IDE Technologies Ltd has installed 20 thermal desalination plants in five major companies costing \$400 million. Together they provide 200 million liters of water per day (MLD)," he said.

Technochem is the sole distributor of IDE in India, catering to oil refineries of Reliance Petroleum Ltd. and Essar Oil Ltd at Jamnagar, cement manufacturer Sanghi Industries Ltd in Kutch, EID Parry Fertilizer near Chennai and Nuclear Power Corporation of India Ltd (NPCIL) in Kanyakumari.

"Reliance has installed the maximum number of plants at Jamnagar, nine of them. It is also world's largest desalination installation. Two more are coming up at

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their Kakinada gas project in Andhra Pradesh. Two each exist in Essar and Sanghi, four in NPCIL, one in EID Parry," he said.

Tata Group has set up an Israeli desalination plant at Kudankulam, the nuclear plant site near Kanyakumari.

The companies using this technology are also supplying the unused recycled water to adjacent townships and villages as part of their corporate social responsibility program, company sources said.

On the other hand the government authorities consider this technology as expensive and cumbersome.

# Israeli University Team Produces Detailed Map of the Internet

A team of Israeli university researchers has finished a project to map the structure of the Internet, which involved some 5,000 volunteers, who downloaded software to help identify Internet nodes and connections between them.

The study, by Bar-Ilan University physicist Shai Carmi, concluded that peer to peer network routing could benefit the Internet by improving efficiency and avoiding congestion, according to a report in the MIT Technology Review. The researchers also found that the Internet comprises about 80 key intersection points, or nodes, in the midst of about 5,000 intermittently linked dependent nodes.

About 15,000 self-sufficient, peer-connected nodes separate the outer and central nodes. Without the core nodes, about 30 percent of the outer nodes are completely isolated, the researchers found. Yet the middle regional has enough peer-connections to keep about 70 percent of the outer nodes online.

Carmi thinks these alternate routes should be exploited to prevent the core nodes from becoming congested, which could significantly boost Internet efficiency.

### Memory Machine

What happens in our brains when we learn and remember? Are memories recorded in a stable physical change, like writing an inscription permanently on a clay tablet? Prof. Yadin Dudai, Head of the Weizmann Institute's Neurobiology Department, and his colleagues are challenging that view. They recently discovered that the process of storing long-term memories is much more dynamic, involving a miniature molecular



machine that must run constantly to keep memories going. They also found that jamming the machine briefly can erase longterm memories. Their findings, which appeared today in the journal Science, may pave the way to future treatments for Dudai and research student

memory problems.

Reut Shema, together with Todd Sacktor of the SUNY Downstate Medical Center, trained rats to avoid certain tastes. They then injected a drug to block a specific protein into the taste cortex - an area of the brain associated with taste memory. They hypothesized, on the basis of earlier research by Sacktor, that this protein, an enzyme called PKMzeta, acts as a miniature memory "machine" that keeps memory up and running. An enzyme causes structural and functional changes in other proteins: PKMzeta, located in the synapses – the functional contact points between nerve cells - changes some facets of the structure of synaptic contacts. It must be persistently active, however, to maintain this change, which is brought about by learning. Silencing PKMzeta, reasoned the scientists, should reverse the change in the synapse. And this is exactly what happened: Regardless of the taste the rats were trained to avoid, they forget their learned aversion after a single application of the drug. The technique worked as successfully a month after the memories were formed (in terms of life span, more or less analogous to years in humans) and all signs so far indicate that the affected unpleasant memories of the taste had indeed disappeared. This is the first time that memories in the brain were shown to be capable of erasure so long after their formation. "This drug is a molecular version of jamming the operation of the machine," says Dudai. "When the machine stops, the memories stop as well." In other words, long-term memory is not a onetime inscription on the nerve network, but an ongoing process which the brain must continuously fuel and maintain. These findings raise the possibility of developing future, drug-based approaches for boosting and stabilizing memory.

### Anti-jelly fish sting agent

Norwegian scientists are currently recruiting for volunteers to take part in studies of an anti-jellyfish sting agent incorporated into a sunscreen - a product which is likely to be in high demand as jellyfish populations are soaring.

The University of Oslo appears to be having difficulties recruiting for volunteers for the study, where a jellyfish sting is an inevitable part of the test.

The study, sponsored by AC Suncare, a Norwegian sun care company and manufacturer of the product, will test the efficacy of an anti-jellyfish sting sunscreen developed by Nidaria an Israeli technology company.

Scientists estimate that there are more than 2,000 species of jellyfish, ranging from those whose sting is not harmful or even perceptible to humans to killers such as the Portuguese Man of War.

However, it seems that jellyfish populations are rising rapidly. This is due to ocean warming, protective structures off the coast and indiscriminate fishing practices that lead to favourable conditions for the polyps.

In this increasingly jellyfish friendly environment, demand for this type of product is likely to increase as worried holidaymakers aim to protect themselves from two holiday dangers.

The sunscreen's anti-jellyfish effect is inspired by the natural protective mechanisms of the clown fish against the poisonous stinging sea anemone; mechanisms that allow for the symbiotic relationship made famous by Disney's Finding Nemo.

The clown fish's defence system relies on a protective layer of mucous that stops the anemone recognising the fish as prev.

The sunscreen is a man made replication of this protective mucous, helping to protect humans from many types of jellyfish sting as well as fire coral, sea lice and other stingers.

A jellyfish tentacle contains large numbers of stinging cells, containing a highly folded needle which unfolds and penetrates the skin as the jellyfish stings.

A square millimetre of human skin will be penetrated by over 2000 needles during a jellyfish sting, leading to the characteristic pain and inflammation.

The stinging mechanism relies on an increase in pressure within the capsule, causing the capsule to open and shooting out the needle with the poison; one of the fastest mechanical events in cellular biology.

The sunscreen provides a multi pronged defence system against the stings: firstly it has a waterproof

slippery texture that makes it difficult for the tentacles to attach to the skin, secondly compounds in the cream mimic the self recognition system of the jellyfish so that is unable to detect the human as prey, and thirdly the cream contains positively charged ions that reduce the osmotic pressure that leads to the stinging

The sun care range is being marketed as perfect for divers, as well as tourists heading to locations where jellyfish stings are common.



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