

# ISRAEL HIGH-TECH & INVESTMENT REPORT

A MONTHLY REPORT COVERING NEWS AND INVESTMENT OPPORTUNITIES  
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## It only looks like a balagan!

There is rarely anything more quintessentially Israeli than Israelis preparing for their annual Day of Independence celebrations.

Already in March, some two months before the day, hawkers are selling flags for motorists to proudly display on their cars. Plans are being made for home and outdoor celebrations.

Since five years after our arrival in Israel, we have had a home celebration. The good spirits were aided by bloody Maries. One tends to remember some of the parties; The one on 1978 was especially memorable as it was marked by a military parade through Jerusalem. It was also the first year that television covered a national event.

However, this year seems to be different. It has been driven into our consciousness that a 60 birthday is special. To mark the day the Government has invited dignitaries and luminaries from all over the world. Heads of State and entertainers alike, will descend on Israel to participate in the planned celebrations. However, in typical Israeli fashion, it is impossible to find a detailed program for the day.

The more optimistic of us believe that we shall be spared of the customary balagan. By the way balagan refers to a balcony in Arabic. As families tended to grow rapidly and room had to be made for the newcomers, belongings were put out on the balagan, or balcony. They were put out there without any special plan or order and essentially were just dumped. That is the origin of the word balagan,

We would like to think that the word balagan will not apply to this celebration.

In keeping with Israel's anniversary, the Israel Ministry of Foreign Affairs has commissioned a commemorative publication entitled: Israel at 60 From Modest Beginnings to a Vibrant State. It is planned to be published in time for Israel's Independence day in

May. However, the deadlines for submitting material for this publication is so tight and close to the date that it is unlikely to be ready for distribution in time for Independence Day.

For the forty five years that we have lived in this country, whether in war or peace we were never sure of how things would work out. Yet in each major instance things not only worked out but did so perfectly. We tend to believe that this will also be the case with Israel at 60.

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## Agassi makes a hit in Denmark



Israeli-American Shai Agassi, CEO of a Project Better Place announced in Copenhagen that he had reached agreement with Denmark's largest utility, DONG Energy, to foster and implement his electric car venture in that country.

The two companies will jointly build the infrastructure for the power supply and recharging points for the cars. The electricity will be generated from renewable energy sources, such as Denmark's wind farms.

DONG Energy provides nearly half of Denmark's electricity and has an annual revenue of 41 billion kroner.

Denmark's deputy prime minister said that the government would support Project Better Place, and announced a tax exemption on electric cars through 2012, at which point it will review the subject.

Agassi is in Denmark to attend the Copenhagen Climate Council, where he was presented as a US businessman. He said that the collaboration with DONG Energy was a model for energy companies worldwide. He added that Israel was the first country in the world to join the electric car venture and that the Renault-Nissan Alliance had undertaken to supply electric cars to meet demand.

## Phoenix Technologies buys Israel's Belnsync

US software house Phoenix Technologies Inc. (Nasdaq: PTEC) has acquired Israeli start-up BelnSync Ltd., and will close the deal in a few weeks. Phoenix Technologies did not disclose the purchase price, but estimates put it at \$25 million.

BelnSync develops software to synchronize data for end-users using secure peer-to-peer technology. The solution makes information available for private users, small businesses, and business people who are not in their office by automatically synchronizing files and e-mails among several computers. The software promises up-to-date, available and easily retrievable information.

In contrast to current solutions on the market, which send e-mails from the office to home computers, transfer data via a USB port, or remote access software, with BelnSync's solution, the user does not have to take any

active action - the information follows him or her around.

Phoenix Technologies said that BelnSync founder and VP R&D Sharon Carmel would become VP and Chief Scientist of Synchronization and Continuity Solutions and Phoenix will continue to maintain operations out of Tel Aviv. The two companies are developing integration plans that build on corporate similarities and the best business and product development practices from each company.

## GE Healthcare buys Versamed



GE Healthcare, recently acquired medical device company Versamed Medical Systems Inc., a maker of portable life-support ventilators for \$40m. Versamed makes software-based smart mechanical life-support ventilators for a range of treatment situations. The company's first product, the iVent 201, is designed for treatment in the field and emergency care. The US Food and Drug Administration (FDA) has approved it for marketing for use in hospitals and patients' homes ambulances, and emergency treatment in the field.

Versamed was founded in Israel in 1995, but is now headquartered in the US. It has 100 employees

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and said that it would post \$30 million revenue this year. The company obtained FDA approval relatively quickly, and began sales in 1999.

The company graduated from Ofakim Hi-Tech Ventures incubator and raised \$17 million from a number of investors, including Aura Investments Ltd. (TASE:AURA), TechnoPlus Ventures Ltd. (TASE:TNPV), FIBI Holdings Ltd. (TASE: FIBI), Technorov Holdings (1993) Ltd., Tripod Investments, Wheatley Partners, and a number of private investors.

## IVC's 2007 Exit Report



The following summarizes the initial public offering and merger and acquisition activity of Israeli and Israel-related high-tech companies in 2007. The information is derived from the IVC Online Database, Israeli high-tech companies raised \$701 million through initial public offerings on US, European and Israeli stock exchanges. IPO

dollar volumes have been relatively stable in the past three years: \$692 million was raised through IPOs in 2006 and \$694 million in 2005.

Noteworthy offerings in 2007 include BigBand, Mellanox and Veraz, which raised \$160 million, \$117 million and \$72 million, respectively. All three companies were listed on NASDAQ.

VC-backed companies raised \$538 million in 13 IPOs, including the three companies mentioned above.

M&A activity involving Israeli companies which were either acquired or merged totaled \$3.2 billion in 2007 in 75 deals – the second highest number of M&A deals in any one year to date. Dollar figures for 2007 show a 67 percent decline from 2006's unusually high \$10 billion, still the third highest dollar amount of M&A activity since 2000.

The most noteworthy M&A deals of 2007 were AOL's \$363 million acquisition of Quigo; IBM's acquisition of XIV, estimated at \$300 million; and NICE Systems' \$280 million acquisition of Actimize.

Mergers and acquisitions of VC-backed Israeli

companies in 2007 totaled \$1.9 billion and consisted of 32 deals.

According to IVC General Manager Guy Holtzman, "In times of uncertainty in capital markets, exits generally take place through M&A transactions rather than IPOs. Global technology firms with operations in Israel may well take advantage of the current economic situation and expand their local activities through acquisitions."

Israeli companies were also on the acquiring side in some 60 deals in 2007, including about 20 where one Israeli company acquired another Israeli company, and nearly 40 acquisitions of foreign companies. Israeli companies spent \$2.15 billion on mergers and acquisitions in 2007, of which \$1.96 billion was for acquisitions of foreign companies.

### Israeli pencil beam X-ray could make flying safer

In a post-9/11 world, the term «airport security is synonymous with long lines, delays, and random suitcase inspections that in one instance led Al Gore's possessions to be dumped out on the tarmac. Jaded passengers already know, and others quickly learn, that arriving at the airport three hours early with a book or magazine in tow is often a good idea.

Now there is a possibility that the notorious delays that make flying such a hassle will be cut shorter. So hopes Ze'ev Harel, CEO of Israeli company Xurity. Harel has developed a new technology that will make security checks at the airport more effective and therefore faster.

Xurity, which Harel founded in 2003, is part of an incubator run by the Technion-Israel Institute of Technology in Haifa. Harel has an extensive background in X-ray technology, with Xurity being the latest in a series of projects, which he developed.

Harel explains that the current security checks at airports are inefficient, because the X-ray machines in use often cannot distinguish between innocent and hazardous materials.

Many innocent materials as well as hazardous materials have the same characteristics,» says Harel. For example, toothpaste emits the same signals to the machine as the explosive RDX. Compact discs have the appearance of explosives to the machines, while other examples of innocuous objects that appear dangerous to current X-rays include cheese, sugar and salt.

The result, says Harel, is that in airport security there is a high rate of false alarms since so many objects appear hazardous. Security officers are constantly confronted with a difficult choice: whether to open many pieces of luggage and cause delays, or to put a piece of luggage onboard the plane while it is still suspicious. Each choice carries a severe disadvantage.

The process is inefficient, takes a long time and is actually dangerous, because security people may put a piece of luggage on the plane which contains hazardous material, Harel comments.

Harel's technology works directly with the existing system, connecting to the screening machines and getting information on which specific areas of the luggage appear suspicious.

The machine then investigates the suspicious material by penetrating the luggage with a pencil beam X-ray, which gives the screeners what Harel calls, an accurate 'fingerprint' of the material.

Each material has its own 'fingerprint' and we actually check the exact material in the luggage, explains Harel. 'We can tell exactly which material it is'.

Harel intends that his technology will be connected directly to existing systems, so that it won't take up extra space in the airport. He also considers it a high priority that it work fast, to keep the process of security efficient. Harel also points out that this technology should not be limited to airports; rather it can be used in any setting where there is a need for security, such as government buildings or crowded areas.

We are currently in the latest stage of demonstrating the prototype,» says Harel, who adds that the technology should go on sale in a year or two. «Our main aim is to become the standard in airports. No other screening system is actually checking the material itself.»

## **Elbit Systems signs UAV deal with France**

Elbit Systems Ltd. (Nasdaq: ESLT; TASE: ESLT) will supply Skylark mini-unmanned aerial vehicle (UAV) systems to France's Special Forces, after winning a tender involving ten top UAV manufacturers worldwide. This is Elbit Systems' first UAV contract with France. Market sources estimate the contract to be worth several million dollars.

Elbit Systems VP and general manager UAV Division Haim Kellerman said that there is a worldwide growing demand for UAVs for Special Forces, counter-terrorism units, border security, and sensitive facilities protection units. He added that France's selection of the Skylark attests to its ability to meet the sophisticated challenges of the modern battle field, and that the company considers the contract as a milestone in entering the French market and that it will be followed by further agreements with European NATO member countries.

The Skylark is a mini-UAV, with a man-pack configuration designed for day and night observation and data collection over-the-hill up to distances of ten kilometers. The Skylark is equipped with an exceptionally quiet electric motor, totally autonomous flight and outstanding observation capabilities allowing for easy operation and orientation. The system can be launched by soldiers after a brief training period.

Elbit System noted that the IDF operated Skylarks during the 2006 Second Lebanon War for combat sorties and that they UAVs supplied valuable intelligence data to the ground forces. Coalition forces are operating the Skylark in Afghanistan and Iraq.

## **Cellular technology Modu gets \$100m in VC commitments**

Cellular technology start-up Modu Ltd., according to venture capital sources, has secured \$100 million in funding commitments from investors, and is expected to close the funding round within the next few weeks. The commitments were made on the basis of valuation for Modu of \$150 million before money. The company is now in the process of completing its presentations to existing and new investors, both locally and overseas.

Modu was founded eighteen months ago by Dov Moran, who founded msystems and managed it through to its sale to SanDisk Corporation (Nasdaq:SNDK) for \$1.6 billion. The company has raised \$20 million to date from Genesis Partners, Gemini Israel Funds, SanDisk



and from Moran himself.

A funding round on this scale is considered extremely large and exceptionally rare in the Israeli venture capital industry. The raising of so large a sum, especially where the company in question is so young, is also connected to Moran's status as an entrepreneur who «has already done it before. Modu originally sought to raise the funding at a valuation of \$200 million before money, and that the «deal» it closed demonstrates the belief that investors, both existing and new, have in the company's potential. The capital will be used to bring Modu's product onto the market as early as the end of 2008.

The device Modu has developed is a cellular handset that can be connected to a USB port on any computing device. It is based, among other things, on flash memory technology, and a unique memory technology that interfaces with any device it is connected to, enabling the uploading all forms of data, from telephone numbers to multimedia files.

The Modu handset will use Jackets - specialized enclosures for electronic devices - to interface with other computing devices. In practice, the modu can connect to differing electronic devices in the same manner as flash memory cards connect with computers. Modu is in advanced negotiations on marketing agreements with leading global cellular operators and handset manufacturers.

Recently, Modu announced it had signed a collaboration agreement with Universal Music Group (UMG) for the development of specialized jackets. UMG will be the first music company to use Modu's mobile phone concept.

## IBM in talks with Israeli start-up Diligent Technologies



IBM Corp. (NYSE: IBM), according to market sources, is in advanced negotiations to buy Israeli storage start-up

Diligent Technologies Corp. for \$200 million. This will be IBM's second acquisition of an Israeli start-up, just two months after it acquired XIV Ltd. for \$300 million.

Both companies provide storage solutions, and both were founded by Moshe Yanai. Diligent is run by chairman and CEO Doron Kempel, while Yanai is a director. The company's technology is focused on de-

duplication technology, meaning a technology which allows changes to be stored on one single file, thereby generating significant savings in storage space.

Diligent was spun off from EMC Israel in 2002. The company's investors include EMC Corp. (NYSE: EMC), which owns 20% of it, as well as Gemini Israel Funds, Accel Partners, Eastward Capital Partners, and Matrix Partners. Diligent raised \$47.5 million in three financing rounds.

## Israeli airliners to get anti-missile systems

Israel to begin outfitting airliners with anti-missile systems within weeks

Defense officials say Israel will begin outfitting some of its passenger aircraft with missile defense systems within weeks.

The plans have been in the works since 2002, when an Arkia passenger jet was targeted after takeoff by militants firing missiles in Mombasa, Kenya. The missiles missed, but the attack spurred Israel to consider equipping passenger aircraft with defense systems similar to those already used by the air force.

The officials say the system fires flares that disrupt an incoming missile's heat-seeking mechanism.

It will be installed first on airplanes flying to destinations considered dangerous, especially in Africa and parts of Asia.

The officials say the plans were held up until this month by arguments between government ministries over who would foot the bill.

## 65% of Rafael products are exported



Rafael Advanced Defense Systems Ltd. announced that it posted a net profit of \$34 million in 2007, 26% more than the \$27 million posted in 2006. Revenue

rose to \$1.3 billion in 2007 from \$1 billion in 2006, and orders placed rose 16% to \$1.4 billion from \$1.2 billion. Orders backlog rose to \$2.1 billion at the end of 2007 from \$2 billion a year earlier.

65% of Rafael's orders are for export, which means that the shekel's appreciation against other currencies is affecting the company's financial results.

Rafael said that it strengthened its core businesses, provided customers with innovative systems solutions, and strengthened Rafael Development Corporation Ltd. (RDC), the company's joint venture with Elron Electronic

Industries Ltd. (Nasdaq: ELRN; TASE: ELRN) for developing civilian applications of Rafael's military technologies.

Rafael president and CEO Yedidia Yaari said, 'The structural-organizational process undergone by Rafael enables the company to continue offering its customers in Israel and worldwide a wide range of high-tech capabilities and products thanks to heavy investment in R&D.'

'I expect further improvement in the company's business results following the entry into new fields, mergers, acquisitions, and international collaborations', he stated..

## UAVs to replace most manned coastal air patrols



Defense News reports that a new fleet of Heron 1 unmanned aerial vehicles (UAV), made by Israel Aerospace Industries Ltd. (IAI) (TASE: ARSP. B1) will soon be deployed

operationally for coastal air patrol by the Israel Air Force (IAF). The UAVs will replace manned air patrols, easing the burden of the flight and ground crews.

The Heron 1 is the first marine patrol UAV developed and built in Israel. It will replace the 30-year old Westwind Seascan patrol planes currently used for the coastal patrol mission. The Westwind Seascan is a military version of the Westwind executive jet.

Defense News adds that the Heron 1 will be equipped with EL/M2022U reconnaissance and surveillance radars made by IAI subsidiary Elta Systems Ltd.

Defense News quotes Ministry of Defense and defense industry sources as saying that the combination of sophisticated radar with the UAV's extended endurance will enable the IAF to monitor Israel's coastline and territorial waters more extensively and efficiently than with the Westwind fleet. The Heron 1 can stay aloft for more than 50 hours, flying at an altitude of 32,000 feet

## Microsoft acquires desktop virtualization firm Kidaro

Microsoft adds to its virtualization tool kit with the acquisition of software developer Kidaro.

Without disclosing a purchase price or when the deal



is expected to close, Microsoft said it plans to acquire Kidaro and integrate its technology into the Microsoft Desktop Optimization Pack for Software Assurance.

Kidaro offers management technology aimed at making it easier for enterprises to deploy, use and manage virtual PCs. The platform includes several components including an element that handles encryption and firewall security and integrates the virtual machine applications into the end-user computer. The management server assigns configurations and security policies for users and compiles information about clients for monitoring and auditing.

Microsoft expects that the software will help accelerate migration to Windows Vista because it can minimize compatibility issues between applications and the OS. In addition, the software makes the use of virtualization less noticeable to end users, which should also speed adoption, Microsoft said.

Microsoft Desktop Optimization Pack for Software Assurance is a package of technologies that enterprises can use to help manage desktops. It includes Application Virtualization, Asset Inventory Service, Advanced Group Policy Management, Diagnostics and Recovery Toolset and System Center Desktop Error Monitoring. Microsoft Software Assurance customers will need to subscribe to an add-on service to access the Kidaro capabilities.

Kidaro has offices in California, New York and Israel. In a blog post, Microsoft said Kidaro's three founders will join the company and that it will keep Kidaro's research and development group in Israel.

Microsoft is working to catch up in the virtualization space. The Kidaro acquisition follows one that Microsoft made earlier this year of Calista Technologies, the developer of graphics technology for people accessing a Windows desktop remotely from a server.

## Virtual reality and computer technology improve stroke rehabilitation

A new computer program, developed in the Department of Computer Science at the University of Haifa, will be able to identify the type of brain damage in a patient, to calculate the probability of recovery and recommend the most effective ways to treat the problem.

Israeli hospitals have recently started to use virtual reality therapy for stroke patients. One commonly used program has the patient watch his virtual image on a screen. For example, tennis balls are virtually thrown at the patient from all directions and the patients' actual hand motions are recorded on screen. In the first stage of development of this new program, computer scientists Dr. Larry Manevitz of the University of Haifa, together with Dr. Uri Feintuch, a neuroscientist from Hebrew University and a research fellow at the Haifa's Caesarea Rothschild Institute for Interdisciplinary Applications of Computer Science, and Eugene Mednikov, a computer science graduate student, fed video sessions of this virtual reality therapy into their newly developed program. With the new program, the computer 'learned' to differentiate between different types of brain injuries: cerebrovascular accident (CVA) and traumatic brain injury (TBI). During further testing, the computer was able to accurately diagnose, between 90%-98% of the time, whether the patient was healthy, or had suffered a traumatic brain injury or a stroke.

Diagnosis, says Dr. Manevitz, is the most basic part of treatment – any doctor and many healthcare workers can correctly diagnose severe brain injuries. While this study is an important advance in the field of computer science, it will not directly help society. What is important, however, is the next phase of development, in which the computer is able to do things that doctors cannot. As soon as the computer identified the injury, we have a model that we can use for further testing and analysis – something that cannot be done on live patients. Using a computer model, we can experiment with different treatment options and decide which will be the most effective. The computer can also define to what extent the patient will be able to rehabilitate. These are things that would take a long time for medicine to accomplish, and some of them cannot be done at all,' explained Dr. Manevitz.

For example, the computer can simulate how the patient will respond if the virtual reality therapy throws more balls to the patient's left side than to the right or if any other change would be beneficial for rehabilitation. The computer can quickly examine tens of different possibilities in a very short time. Using the computer will help avoid spending time on treatments that will not benefit the patient, or worse, cause harm.

Our next step is to find similarities in the behavior of people in sub-groups of brain injuries. The human eye may not be able to see such similarities, but a

computer would easily be able to pick them up. As soon as we are able to identify similarities in different sub-groups, new avenues of effective treatment will open up for doctors,» summarized Dr. Manevitz.

### Itamar: Hearing Heart Disease

The Israeli company's EndoPat device 'listens' to minute vascular function through sensors attached to a patient's index fingers and warns of possible heart attacks. Itamar Medical (ITMR.TA), a startup based in Caesarea, Israel, that has developed a simple, inexpensive, diagnostic test able to spot a little-known indicator of heart disease—the leading cause of death in the U.S. and Western Europe. In the next five years, millions of people may be screened using the company's EndoPat device, by providing early warning of impending heart attacks.



In 1998, three American scientists won the Nobel prize in medicine for showing that cells in the lining of blood vessels, known as endothelial cells, play a vital role in regulating vascular functions. The activity of these cells is a marker of cardiovascular health, but nobody had a way to measure it quickly and cheaply. Itamar's scientists spent five years perfecting the technology, which involves 'listening' to minute vascular functions through sensors attached to a patient's index fingers and interpreting the readings via software. Results are presented on a scale from 1 to 5: Healthy adults score around 3, while a mark below 1.7 raises red flags. The EndoPat received regulatory approval from the U.S. Food & Drug Administration and the European Union in 2003.

The company has sold about 400 of its diagnostic machines, at \$30,000 each, and tests have been administered to nearly 100,000 people. Revenues last year totaled \$10.5 million.

### An underwater video transmission

An Israeli company called Sea-Eye Underwater is developing a system that it claims could transmit real-time video wirelessly in underwater environments. The acoustic modem, based on ultrasound technology, is expected to eventually be able to communicate over distances up to 500 meters, although initial claims are more conservative at 100 meters. The company says that it has already developed algorithms to deal with noise problems inherent to underwater environments,



such as the Doppler effect and multi-path reflection. The system is said to use carrier frequencies from 500 kHz to 1 MHz to transmit data at up to 200 Kbps.

Mobile Phone Technology Combats Credit Card Fraud  
Credit card fraud is rampant in America and across the world. With the advent of the Internet age and online shopping growing it has become easy for criminals to access our credit card information. A company from Israel has a potential answer to the problem called mConfirm.

The technology uses a mobile phone to confirm that the credit card owner and the card are being used in the same location. According to the company the service is being offered to US banks, will cost the customer nothing and doesn't require a GPS enabled cell phone.

Confirm turns any mobile phone into a front-line defense in the war against identity fraud,' says Bryan Ansley, CEO of Secure Identity Systems. The instant a payment card is swiped, Confirm pinpoints the location of the card holder's mobile phone. If they're not in the same place, and the activity doesn't match the consumer's usual buying patterns, we know the transaction is fraudulent, and we stop it. There's never been a faster or more accurate way to put the brakes on credit and debit card fraudsters.'

### Israeli researchers help reveal electronic structure of DNA

Utilizing a technique that combines low temperature measurements and theoretical calculations, Hebrew University of Jerusalem scientists and others have revealed for the first time the electronic structure of single DNA molecules.

The knowledge of the electronic properties of DNA is an important issue in many scientific areas from biochemistry to nanotechnology -- for example in the study of DNA damage by ultraviolet radiation that may cause the generation of free radicals and genetic mutations. In those cases, DNA repair occurs spontaneously via an electronic charge transfer along the DNA helix that restores the damaged molecular bonds.

In nano-bioelectronics, which is the advanced research field devoted to the study of biological molecules (to produce electrical nano-circuits, for example), it has been suggested that DNA, or its derivatives, may

become used as possible conducting molecular wires in the realization of molecular computing networks which are smaller and more efficient than those produced today with silicon technology.

The knowledge that has been acquired in this project, say the researchers, may also be relevant for current attempts to develop new sophisticated, reliable, faster and cheaper ways to decode the sequence of human DNA.

The research, published in 'Nature Materials', is a result of an international collaboration. The research was conducted by Erez Shapir and coordinated by Dr. Danny Porath at the Department of Physical Chemistry and Center for Nanoscience and Nanotechnology at the Hebrew University and by Dr. Rosa Di Felice at the Center of INFN-CNR in Modena, Italy. Also collaborating in the project were Prof. Alexander Kotlyar at Tel Aviv University, who synthesized the molecules, the CINECA super-computing center in Italy, and Prof. Gianarelio Cuniberti at the University of Regensburg, Germany.

In their work, the researchers were able to decode the electronic structure of DNA and to understand how the electrons distribute into the various parts of the double helix, a result that has been pursued by scientists for many years, but was previously hindered by technical problems.

The success of this project was finally achieved thanks to collaboration between experimental and theoretical scientists who worked with long and homogeneous DNA molecules at minus 195 degrees Celsius, using a scanning tunneling microscope (STM) to measure the current that passes across a molecule deposited on a gold substrate. Then, by means of theoretical calculations based on the solution of quantum equations, the electronic structure of DNA corresponding to the measured current has been obtained. These results also suggest an identification of the parts of the double helix that contribute to the charge flow along the molecule.

**Intel's total investment in Israel tops \$5.7b.**  
Intel Corp. (Nasdaq: INTC) estimates that it has invested in Israel more than \$5.75 billion since launching activity in the country, including \$2 billion in building the new Fab 28 in Kiryat Gat. The company has obtained nearly \$1 billion in Israeli government grants and expects the figure to reach \$1.4 billion when Fab 28 is completed. The company has also purchased



\$1.1 billion worth of goods from Israeli vendors.



Intel Israel had \$1.54 billion in exports in 2007, 18.4% more than in 2006, making the company one of Israel's largest exporters.

2007 was a stormy year for Intel Israel. The year included an announcement that it would close the ten-year old Fab 8 in Jerusalem, which is being replaced by Fab 28. Intel, STMicroelectronics NV (NYSE; Euronext: STM), and Francisco Partners have set up a flash memory joint venture, called Numonyx, which will take over Intel's Fab 18 in Kiryat Gat.

The closing of Fab 8 was perceived as muscle-flexing by Intel against the government in an effort to obtain more grants and incentives. It worked; last week, the company reached an agreement with the Investment Promotion Center and the authorities under which Intel will replace Fab 8's production line with a new one in exchange for a \$150 million tax break. The site will be renamed International Die Prep Jerusalem (IDPJ), and become a preparation plant where wafers are protected from handling-induced defects before packaging.

Fab 8, which mostly produced circuit boards for the car industry, will cease production in March. \$650 million was invested in Fab 8, which generated \$4 billion in exports over its life-span

### Microsoft buys Israeli start-up YaData

Microsoft Corp. (Nasdaq: MSFT) has acquired Israeli start-up YaData Ltd., provider of advanced tools for the discovery unique customer segments. The companies did not disclose financial details.

YaData's technology will enable Microsoft to provide its advertisers with richer targeting capabilities so they can connect with their audience in more efficient and engaging ways, at the same time providing its



customers more relevant and focused ads. The YaData team will join Microsoft's R&D center in Herzliya and YaData's solutions will be deployed through Microsoft's Advertiser and

Publisher Solutions group.

Microsoft Israel R&D Center president Moshe Lichtman said, "The purchase of YaData brings the Israeli R&D

center into the field of online advertising, which is undoubtedly one of Microsoft's most strategic fields. This is a great example of how Israeli technology has considerable value that is contributing to our most important areas of development. In recent months, I have become familiar with YaData's top quality personnel, and I am convinced that their contribution to the Israeli R&D center and to Microsoft globally will be significant."

YaData CEO Amir Peleg said, 'YaData fully believes in the potential of behavioral targeting to enhance the value of online advertising for publishers, advertisers and users. Microsoft has the resources to unlock the potential in YaData's technology and create a truly innovative online advertising solution. We're excited to see what the future holds.'

### Ormat 4th-quarter net down

Israeli geothermal energy producer Ormat Industries ORMT.TA on Thursday reported a sharp drop in fourth-quarter net profit as the company garnered much lower one-time gains.

Quarterly net profit slid to \$46.7 million from \$87.3 million a year earlier.

In the 2007 quarter Ormat had one-time gains of \$46.9 million, almost entirely due to capital gains from a

share offering by its subsidiary Ormat Technologies Inc (ORA. N: Quote, Profile, Research).

In the 2006 quarter Ormat had one-time gains of \$97.8

million.

Revenue in the quarter edged up to \$73 million from \$72 million a year



### BEL ties up with three Israeli concerns

Indian Bharat Electronics Ltd. reports that it has entered into joint venture agreements with three Israeli companies during the just-concluded Defexpo in Delhi.

It will form a joint venture with Rafael Armaments Defense Systems to buy missile electronics and guidance technologies. This will enable Rafael to take up offset requirements by transferring technology and have indigenous production, according to a BEL release.

V.V.R. Sastry, BEL's CMD, said the joint venture would enable BEL to expand its portfolio to meet the growing demand for missile electronics. BEL also signed a memorandum of understanding with Israel Aerospace Industries Ltd Malat to jointly work on unmanned aerial vehicle systems for Indian defense requirements.

BEL will undertake the product support function for the UAVs and manufacture and supply designated sub-systems. IAI will provide the technical know-how for maintenance support. A 12-year tie-up with Elisra envisages joint working for various airborne electronic warfare programs for Indian defense requirements.

### New flight regulations

Israel last year began requiring that all pilots who fly to its airports use the Security Code System (SCS), a local invention designed to ensure any plane commandeered for an al Qaida-style ramming attack is spotted and intercepted in time.

On most flights, which approach Israel from the west, pilots equipped with the SCS must enter a personalized, technologically secured code when 290 kilometers out, so that air traffic controllers in Tel Aviv know the cockpit is in the right hands.

Aviation experts have suggested that hijackers could wait for SCS compliance to have been established before striking. Keeping passengers seated until landing would help diminish such a threat, an Israeli security source said.

'The new regulations are definitely linked to our introduction of the SCS,' the source said.

Since the al Qaida attacks of September 11, 2001, the United States has instituted mandatory pre-landing seating regulations for flights to some of its airports. There are also U.S. rules against incoming passengers congregating in plane aisles.

Cell phone-cancer link claimed by Israeli scientist Siegal Sadetzki, a physician, epidemiologist and lecturer at Tel Aviv University, has published a study of heavy users of cell phones and their likelihood of getting a particular form of cancer.

Sadetzki, published the results of the study in the American Journal of Epidemiology, in which she and

her colleagues found that heavy cell phone users were subject to a higher risk of benign and malignant tumors of the salivary gland.

According to the findings, there is an increased risk of about 50 percent for developing a tumor of the main salivary gland (parotid) on the side where subjects hold the cell phone, compared to those who did not use cell phones.

The study was done on an Israeli population. «Unlike people in other countries, Israelis were quick to adopt cell phone technology and have continued to be exceptionally heavy users. Therefore, the amount of exposure to radio frequency radiation found in this study has been higher than in previous cell phone studies,» said Sadetzki.

This unique population has given us an indication that cell phone use is associated with cancer,» added Sadetzki, whose study investigated nearly 500 people who had been diagnosed with benign and malignant tumors of the salivary gland.

Subjects were asked to detail their cell phone use patterns in terms of the frequency and length of calls. They were compared to a sample of about 1,300 healthy control subjects.

The study also found an increased risk of cancer for heavy users who lived in rural areas. One explanation offered is that because there are fewer antennas in rural areas cell phones need to emit more radiation to communicate effectively. Sadetzki said the consistency of the results within her study support an association between cell phone use and these tumors. In past studies the correlation had been hard to prove because of short-term use of cell phones and the long development time of many cancers, she argued. Sadetzki predicted that the largest number of cancers would be found among heavy cell phone users and children.

It is estimated that more than 90 percent of the Western world uses cell phones. While I think this technology is here to stay, I believe precautions should be taken in order to diminish the exposure and lower the risk for health hazards,» said Sadetzki. She recommends that people use hands-free devices at all times, and when talking, hold the phone away from the body.

Sadetzki said parents should consider at what age their children start mobile phones and be vigilant about their use of speakers or hands-free devices, and about the amount of time their children spend on the phone. Sadetzki's main research was carried out at the Gertner Institute for Epidemiology and Health Policy Research at the Sheba Medical Center. Her research is part of the international Interphone Study.

### **Snippets from from the world of high-tech**

Scientists in Israel, found that the brackish water, drilled from underground desert aquifers, hundreds of feet deep, could be used to raise warm-water fish. The geothermal water, less than one-tenth as saline as sea water, free of pollutants, and a toasty 98 degrees on average, proves an ideal environment.

Israeli-developed designer-eyeglasses, promise mobile phone and iPod users, a personalized, high-tech video display. Available to US consumers next year, Lumus-Optical's lightweight and fashionable video eyeglasses, feature a large transparent screen, floating in front of the viewer's face, that projects their choice of movie, TV show, or video Game. When Stephen Hawkins visited Israel recently, he shared his wisdom with scientists, students, and even the Prime Minister. But the world's most renown victim of amyotrophic lateral sclerosis (ALS), or Lou Gehrig's disease, also learned something, due to the Israeli Association for ALS' advanced work in both embryonic and adult stem cell research, as well as its proven track record with neurodegenerative diseases. The Israeli research community is well on its way, to finding a treatment for this fatal disease, which affects 30,000 Americans.

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

The millions of Skype users worldwide, will soon have access to the newly developed KishKish

lie-detector. This free internet service, based on voice stress analysis (a technique, commonly used in criminal investigations), will be able to measure just how truthful that person on the other end of the line, really is.

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

It is common knowledge that dogs have better night vision than humans, and a vastly superior sense of smell and hearing. Israel's Bio-Sense Technologies, recently delved further, and electronically analyzed 350 different barks. Finding that dogs of all breeds and sizes, bark the same alarm when they sense a threat, the firm has designed the dog bark-reader, a sensor that can pick up a dog's alarm bark, and alert the human operators. This is just one of a batch of innovative security systems to emerge from Israel, which Forbes calls «the go-to country for anti-terrorism technologies.

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

### **Concentrated solar power technology**

Zenith Solar, based in Nes Ziona a suburb of Tel Aviv, is a pioneer in a new type of solar energy that uses mirrors and lenses to focus and intensify the sun's light, producing far more electricity at lower cost. Compared with traditional flat photovoltaic panels made of silicon, this so-called concentrated solar power technology has proved in tests to be up to five times more efficient. That puts it on the verge of being competitive with oil and natural gas, even without government subsidies.

Since it was founded in 2006, the startup has raised \$5 million from private investors in Israel and the U.S. Now



it's trying to raise an additional \$10 million to \$15 million to cover the cost of commercializing its technology.

Zenith bought the rights to the solar technology from Ben-Gurion University and Germany's Fraunhofer Institute. A joint Israeli-German research team from the two organizations designed a working prototype, which consists of a 10-sq.-meter dish lined with curved mirrors made from composite materials. The mirrors focus the sun's radiation onto a 15.5-sq.-in.) generator that converts light to electricity. The generator also gives off intense heat, which is captured via a water-cooling system for residential or industry hot-water uses.

Tested over the past few years at Israel's National Solar Center in the Negev desert, the prototype achieved astounding results: A concentration of solar energy that was more than 1,000 times greater than standard flat panels.

One of the biggest advantages of Zenith Solar's approach, especially in today's market, is its limited use of polysilicon. Skyrocketing global demand for traditional photovoltaic panels has led to a worldwide shortage of the material and lifted prices tenfold in the past four years.

After further refining the technology, Zenith plans in the coming months to take its first major steps toward commercialization. Two large-scale test installations are planned for this summer at a kibbutz and a factory. The company will put 86 of its 7-meter-high dishes on an acre of land at Kibbutz Yavne to provide the community of 250 families with more than a quarter of their energy needs. The second project will replace fuel oil used to produce heat at a large chemical plant in central Israel.

Once these projects are operational, Zenith plans to begin commercial sales in Israel in 2009 and then overseas, says CEO Segev, a 46-year-old entrepreneur who is one of the growing number of

**Teva to pay \$360m for Generic maker Bentley Pharma to boost Spain operations**

Israeli generic drug maker Teva Pharmaceutical Industries Ltd. will pay \$360 million in cash for Bentley Pharmaceuticals Inc.

Bentley makes and markets about 130 pharmaceutical products to physicians, pharmacists and hospitals primarily in Spain, as well as certain other parts of the

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European Union. Bentley's generic pharmaceutical operations generated about \$14 million in revenue of the year ended Dec. 31, 2007.

«Spain was identified as one of our target markets in the strategic review we conducted last year,» said Shlomo Yanai, Teva's president and chief executive, in a statement

Teva initially established a presence in Spain in 2004, and is currently the fourth-largest generic company in Spain in the hospital market.



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