

ISRAEL HIGH-TECH & INVESTMENT REPORT

A MONTHLY REPORT COVERING NEWS AND INVESTMENT OPPORTUNITIES
April 2006 Vol. XXI Issue No. 3

JOSEPH MORGENSTERN, PUBLISHER
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When Money Grew on Trees



Bonsai growing is the art of dwarfing trees or plants and developing them into an aesthetically appealing shape by growing, pruning and training them in containers.

True Bonsai take years to grow... and are usually priced accordingly and therein lies the rub.

Israelis by nature are impatient and it would never occur to them to initiate an enterprise that might take several years before achieving a saleable product. They love flowers and will travel to greenhouses to buy flowers and seedlings for their gardens.

The Israeli bonsai industry, and mind you, at one time there was a bonsai industry in this country, is now defunct. I remember seeing, no fewer than one million bonsai plants in various forms and shapes, sitting neatly on shelves at a growing area just outside of Tel-Aviv. Their elegant shapes were beautiful. They were being prepared for shipment to England to be sold at Marks & Spencer. No further proof of the industry's existence was needed.

The origin of the Israeli bonsai industry goes back to the period when a demobbed Israeli soldier decided to take a post army service trip to the Far East. In Japan he worked at various jobs, mostly physical labor. His life took a major turn when he came across a bonsai farm. The one time soldier was taken back to his childhood days when he lived on a kibbutz farm. He loved trees and flowers. By then he knew some Japanese and asked whether he could be hired. It was there that he learned the art of bonsai growing. He also fell in love with a Japanese girl who agreed to move with him to Israel.

Back in Israel a friend, when hearing the story and

having some idea of the value of bonsais, suggested that they establish a bonsai growing farm.

It was a miracle of modern Israel. The seedlings grew to bonsai plants in a matter of weeks. Father time had been conquered and only a few insiders knew how it was done. The shaping, the twisting of the roots were done quite openly in the daytime. However, only a few were aware that the Israelis were taking advantage of modern science and technology to enhance the

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Brits buy CornerShot the Israeli 'James Bond' rifle
South Korea to launch satellite from northern Russia cosmodrome
IDC: Israel's computer market is growing
Moody's ratifies A2 rating for Israel, says outlook is stable
Google to set up first Middle East R&D center in Haifa
Medical device co Sightline sold to Stryker for \$150m
Technion and American Researchers, Solve Mystery of the Dolphin "Dance"
J & J buys ColBar for \$140m
Chinese chip companies on shopping spree
Israeli VCs raise \$1.2b in 2005
\$200m invested in Israeli life sciences in 2005
There's water under the desert
Technion researchers develop device that improves walking for Multiple Sclerosis sufferers
Israelis bring high-tech food to Angola
A first-hand lesson in fighting terror
Alma Lasers acquired by TA Associates
Omrix files for Nasdaq IPO

growing progress. The size of a bonsai plant can range anywhere, from six inches to approximately 36 inches in height. To reach the appropriate size in record time the grower turned to the Agricultural Research Institute of a major Israel university. They were happy to comply and told him which accelerator he must spray on the seedling to set it on its way to adulthood. But that was not all. When the plant reached its desired height, the growing process had to be arrested. The scientists at the Agricultural Research Institute were happy to comply. They supplied a growth retardant and with the help of these two substances one million bonsai came into being in record time

However, the business partner of the enterprise walked away with a major money investment, spelling the death of the bonsai enterprise.

What further proof was needed to show how modern agricultural science with its accelerators and growth suppressants could help Mother Nature and enhance the ancient art of bonsai growing.

Brits buy CornerShot the Israeli ‘James Bond’ rifle



One high-tech weapon already being used by special forces is the Corner Shot, a gun with a camera and a special barrel that swings on a hinge, allowing the shooter to observe and engage the enemy from around a corner. Developed by two former officers in the Israeli Defense Forces, the Corner Shot of Item 2 +graphic

fers sniping and assault capabilities in one weapon, all while keeping the shooter out of the line of fire. The British Defense Ministry is to purchase the unique rifle from the Israeli “Corner Shot” company, for use in urban and terror warfare. The British Defense Ministry announced that British soldiers will be equipped with the brand new firearm called “Corner Shot.” The firearm, an Israeli invention, was described as “a deadly device taken from James Bond’s films.”

The unique firearm was developed by the Israeli company Corner Shot from Yahud. It is designated for use in urban warfare and for anti-terror warfare.

The fighter can also observe the conditions around the corner using a video camera mounted on the front part of the barrel, which transmits the picture to a display installed next to the rifle’s butt. The camera can be exchanged with night vision equipment and can transmit pictures of the battlefield to a command center. The camera attached to the gun barrel can focus on targets up to 400 metres away and can be used with any military pistol.

It can also be adapted to fit an M-16 rifle or a tear gas launcher.

In Israel the weapon is used by the Police and the Border Guard.

The IHTIR interviewed Rami Shaul, vice-president of developments at Corner Shot would neither confirm nor deny that the company’s product was being successfully used in the for for urban activity in Iraq. He did confirm that the company’s next product would be a handgrenade launcher.

South Korea to launch satellite from northern Russia cosmodrome

South Korea plans to launch a satellite on a Russian rocket in July 2006, a state-funded science institute has reported.

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

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Annual subscription \$95.- per year, for 11 issues,
Israeli residents add 17% VAT

The satellite, Arirang 2, will be launched from the Plesetsk cosmodrome in Northern Russia. on the Rocket launcher, the Korea Aerospace Research Institute has reported.

South Korea hopes to use the Arirang 2 satellite for mapmaking and oceanography as well as for atmospheric studies.

South Korea has already signed a contract with Spot Image of France for the sale of images taken by the satellite.

The satellite was built by a consortium of South Korean aerospace firms with technological support from Israeli Electro-optics firm ELOP. Since 1992, South Korea has launched eight satellites, all of them aboard foreign rockets.

IDC: Israel's computer market is growing

The Israeli computer market, experienced healthy growth in 2005. IDC Israel Ltd., the leading computer data consulting company, released data on Israel's PC market in 2005, showing substantial across-the board growth in all segments. PC sales grew by 11.2%, mobile computer sales rose by a third, and server sales increased by 37.7%.

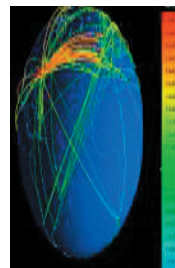


Israel's PC market totalled \$507 million in 2005. Hewlett-Packard Company (NYSE:HPQ) had the largest market share, with 14% of all units sold, and 17.3% of the market in dollar terms. IBM (NYSE:IBM), including Lenovo Group Ltd. (Nasdaq:LNVGY.PK; HKSE:992), was in second place, accounting for 11.5% of all units sold, and 13.8% of the market in dollar terms. Dell Computer (Nasdaq:DELL) was in third place, with 7% of all units sold, and 9.1% of the market in dollar terms.

Israel's laptop market totalled \$209.1 million in 2005. IBM, including Lenovo, had the largest market share, with 18.1% of all units sold, and 27.6% of the market in dollar terms. HP was in second place, with 16.8% of all units sold, and 21.8% of the market in dollar terms. Dell was in third place, with 7.7% of all units sold, and 8.7% of the market in dollar terms.

IDC Israel is predicting an 18.9% growth in laptop sales.

1.2m Israeli households connected to Internet



1.2 million Israeli households had an Internet hook-up at the end of 2005, 9% more than the 1.1 million hooked up at the end of 2004, according to a Business Data Israel survey.

Internet hook-ups expanded more slowly in 2005 than in 2004, which saw 22% growth compared with 2003.

BDI also found that the proportion of households with a high-speed Internet hook-up is one of the highest in the world - 45% of all households in 2005.

BDI found that at the end of 2005, Bezeq Ltd. (TASE:BEZQ) had 700,000-720,000 high-speed Internet subscribers, a market share of 63-67%. Combined cable brand HOT had 360,000-390,000 subscribers, a market share of 33-37%.

At the end of 2005, over 90% of household Internet hook-ups were high-speed Internet. The proportion of Internet subscribers with high-speed Internet hook-ups has thus grown greatly in recent years.



Moody's ratifies A2 rating for Israel, says outlook is stable

Moody's in its annual review of Israel confirmed its A2 credit rating and the outlook for Israel is stable.

Israel's government and economy have proven resilient to significant concurrent external shocks, Moody's writes.

The agency feels that the resilience Israel demonstrated proves the strength of its institutional infrastructure, of the civilian population, and of the economic and political echelons.

In recent years, structural reforms distanced the economy from its overly centralized past, transforming its structure into a more modern, competitive and market-oriented one. The rating agency predicts a continuation of these trends, and institutional changes that developed starting in 2003, should stimulate long run growth while depressing inflation, unemployment and income inequality.

Combined with responsible fiscal policy that encourages reduction of the public sector and lower national debt, Israel can maintain low interest rates and encourage private-sector investments, thus creating inducements to raise its sovereign credit rating. In recent years Israel has run a surplus in its current account, the

agency adds, and it also has a comfortable level of foreign currency reserves to service its foreign debt.

Intel To Use New Micro-Architecture In 2006

Reuters reported that Intel Corp. said on it would implement an Israeli-designed new micro-architecture in all segments of the computer market around the world beginning in the second half of 2006.

Intel said the 64-bit microprocessor at the heart of the new architecture was code-named "Megrim" would be implemented in desktop computers, laptops and servers, to be manufactured with Intel's 65 nanometre chip-making technology.

It also noted that its dual-core Conroe processor for desktop computers, and the Woodcrest processor for servers, are based on Intel's new micro-architecture and were developed at Intel's two main development centers in Israel, where the Centrino mobile processor was designed.



Recently, Intel broke ground for an additional \$4 billion chip plant in the southern Israeli city of Kiryat Gat.

Intel is investing \$3.5 billion in the plant, the largest investment ever by a foreign industrial firm in the

country. That investment will be augmented by \$525 million of government funding.

Intel is one of Israel's largest exporters, with \$1.19 billion in 2005, after \$1.16 billion in 2004.

Intel's exports, which peaked at \$2.02 billion in 2002, account for 14 percent of

Israel's electronics and information sectors. The U.S. chip giant is also one of Israel's largest employers, with 6,700 people on its books.

The new plant, named FAB 28, will be Intel's second 45 nanometre factory in the world. The first is being built in Arizona in the southwest United States. It is expected to come on line in late 2007.

Intel, which has operated in Israel for more than 30 years, will also carry out a \$600 million upgrade of its existing plant and receive government tax incentives for doing so.

The new plant will produce 300 mm wafers using 45 nanometre process technology starting in the second half of 2008. Manufacturing with 300 mm wafers (about 12 inches in diameter) significantly increases the ability to produce semiconductors at a lower cost than with the more commonly used 200 mm wafers.

Google to set up first Middle East R&D center in Haifa

Google (Nasdaq:GOOG) announced the appointment of Dr. Yoelle S. Maarek as head of the company's R&D center to be opened Israel during the second quarter of 2006.

Google did not specify on an opening date, but it might be remembered that Google Israel CEO Meir Brand, who handles the company's sales activities in Israel, was appointed to his post six months before the official launch of Google Israel.

Google said Maarek had 17 years engineering experience at IBM Research, which she joined after completing her PhD at the Technion, Israel Institute of Technology.

The Google Israel R&D center will be the first of its kind in the Middle East.

Google VP engineering and research Alan Eustace said, "Israel's highly skilled engineering base makes it the ideal place to establish an R&D center. Engineering is at the very heart of what we do at Google - we use innovative technology to help solve complex problems."

Outside the US Google currently has R&D centers in Tokyo, Zurich, and Bangalore, India. Its R&D centers in the US are in New York, Santa Monica and Mountain View, California, as well as in Kirkwood, Washington.

Google has 5,680 employees worldwide, including 1,000 in Europe. The company did not say how many employees it would hire in Israel

Setting up an R&D center in Israel is part of Google's rapid expansion in the US and international markets. The company hired 2,659 persons last year, doubling its workforce. The rapid expansion is especially marked at its Silicon Valley headquarters.

In interviews with the US media this week, Eustace commented on the fields in which Google is currently interested in, and for which it is hiring. He said the company was seeking electronics and mechanical engineers, as well as creative persons able to look differently at complex problems and come up with the most interesting solutions.

Medical device co Sightline sold to Stryker for \$150m

Sightline Technologies Ltd., which developed an endoscopic system for early diagnosis of tumors in the



digestive tract, is about to be acquired by US medical device company Stryker Corporation (NYSE:SYK)

for \$150 million in cash and shares. A deal was closed after six months of negotiations. The sale contract is due to be signed shortly. Inventech Investment Co. (TASE: IVTC), an investor in Sightline, notified the Tel Aviv Stock Exchange (TASE) that Stryker will initially pay \$50 million in cash for the company, and pay the

rest in shares subject to Sightline meeting milestones.

There were rumors in the past about negotiations between Sightline and Stryker, but this

time Sightline has been bought. Stryker.

Founded in 1994, Sightline has reached the sales stage for its product, with \$500,000 in sales in 2004. According to IVC Research, the company has raised \$27.5 million to date in four financing rounds. The company's main investors are Vitalife Life Sciences Venture, Inventech (which owned 10.7% of the company before the sale), Boston Scientific's (NYSE: BSX) venture capital arm (which owns 15%), Fishman Holdings, Israel Infinity Venture Capital and NGN Capital of the US.

Based at the Matam Science Industry Center in Haifa, Sightline has 30 employees. Its CEO is Avi Levy, who previously served as VP business development at Globcom Ltd. Dan Oz is CTO and Lior Buchman is the CFO.

Michigan-based Stryker develops, markets and distributes medical devices, mostly for orthopedics. The company has 15,000 employees, and posted a profit of \$675 million on \$4.4 billion in sales in 2005. It has a market cap of \$20 billion.

Technion and American Researchers, Solve Mystery of the Dolphin "Dance"

A Technion Institute of Technology researcher, in cooperation with American researchers, has solved the mystery of the technique used by dolphins in their "aerial dance". The journal "Science" reports that this research, which was recently published in the "Journal of Experimental Biology", sheds light on the "dolphin pirouette" – the rapid spinning in the air that dolphins leaping out of the water perform.

The research was carried out by Prof. Daniel Weihs of the



Faculty of Aerospace Engineering at the Technion and Professors Frank Fish and Anthony Nicastro from the West Chester University in PA.

The new research refutes the traditional theory that the dolphin pirouette is made possible thanks to the rapid movement of the dolphin's tail in the air. "Dolphins are not very flexible and it is not likely that the movement of the tail in the air would enable them to perform the pirouette," says Prof. Fish.

Based on biomechanical and hydrodynamic principles collected from studies on dolphins and fish, the three researchers formulated a mathematical model that integrates the physical principles that enable the dolphin pirouette. According to this model, the dolphin begins to spin while still underwater. All the time that the dolphin is underwater, the spinning is slow due to water resistance. When the dolphin leaps out of the water, resistance decreases suddenly and thus – with the final movement of the tail in the water – the spinning intensifies, enabling the pirouette. The model explains how the speed of the dolphin's spinning when emerging from the water – six meters per second – enables it to perform seven spins before falling back into the water.

"The dolphin pirouette," the researchers explain, "is not a form of playing or done for fun." It has a purpose. The force of the dolphin hitting the water is so great that it removes parasites such as remora, which feed by attaching themselves to sharks and dolphins. The researchers succeeded in calculating the force of hitting the water by breaking it down into its various components.

"The rapid spinning movement causes the remora to be torn away from the dolphins, and if this is not enough to disconnect it, then the blow that the parasite receives when it hits the water will cause it to be removed," explains Prof. Weihs.

"This article presents the only basic research on the dolphin pirouette from the biomechanical and hydrodynamic point of view," states Prof. Malcolm Gordon, a marine biologist from the University of California – Los Angeles. "The article completely refutes the traditional theory on this subject."

Last year, Prof. Weihs succeeded in explaining an amazing natural phenomenon – how the mother dolphin keeps her offspring swimming in tandem with her for the first full three full years of its life.

J & J buys ColBar for \$140m

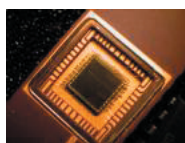
Johnson and Johnson (NYSE:JNJ) is acquiring ColBar LifeSciences Ltd., a maker of collagen-based matrices, for \$140 million. The companies have reached an agreement in principle, and a contract is expected to be signed in a few days.

ColBar was founded in 1995 by Prof. Sandu Pitaru and Prof. Haim Tal of Tel Aviv University. The company's product is based on artificial collagen matrices for use in implants instead of live tissue.

ColBar has developed two products to date, Ossix for the dental market (for encouraging bone growth in the jaw), and Evolence for the aesthetic market (for treating facial wrinkles). Products in the pipeline are being designed for the urological, orthopedic and other fields.

ColBar' already has several million dollars in sales, mostly in Europe. In 2004, the company said it expected US Food and Drug Administration (FDA) approval for Evolence and that it expected to begin marketing in the US in 2006.

Chinese chip companies on shopping spree



Chinese semiconductor companies, some of the largest in the field, are interested in acquiring Israeli technology and equipment. 11 Israeli semiconductor companies are holding a series of meeting in China

with Shanghai Hua Hong NEC Electronics Company Ltd. and Semiconductor Manufacturing International Corp. (SMIC) (NYSE: SMI; HKSE: 0981) to set up new foundries in China.

The Israel Export and International Cooperation Institute predict that Israeli semiconductor exports to China will grow 10% in 2006 to \$170 million. China's semiconductor market is estimated at several billion dollars.

The companies are Tower Semiconductor (Nasdaq: TSEM; TASE: TSEM), Camtek Ltd. (Nasdaq: CAMT; TASE:CAMT), Nova Measuring Instruments Ltd. (Nasdaq: NVMI), Jordan Valley Semiconductors Inc., Test Insight Ltd., Advanced Dicing Technologies Ltd., MKS Tenta Products Ltd., Ricor Cryogenic and Vacuum Systems Ltd., CI-Semi Ltd., Persys Technology Ltd. and BPST.

Israeli exports of electronic components and equipment

for the semiconductor industry plummeted 40% in 2005 to \$150 million, because of restrictions on exports of dual-use products following a crisis in Israeli-US relations over Israel's exports to China.

The Israeli business delegation will also participate in the Semicon China 2006 exhibition. Export Institute electronics branch manager Michael Admon said Israel has 25 semiconductor equipment companies.

Israeli VCs raise \$1.2b in 2005



In 2005, the favorable capital raising trend begun in 2004 intensified. Israeli venture capital funds raised \$1.2 billion, an increase of 40 percent from the \$724 million raised in 2004.

Capital raised by Israeli venture capital in 2005 was primarily the result of six new Israeli venture capital funds that completed their fund raising in the course of

2005. These were Benchmark Israel II that closed a \$250 million fund, Carmel that closed its \$200 million second fund and Israel Healthcare Ventures that closed on a \$140 million second fund dedicated to the life sciences. Sequoia Israel and Genesis both closed third funds of \$200 million and \$160 million, respectively, while Giza closed its fourth fund after adding \$30 million to the \$120 million raised in 2004.

In addition, first closings were carried out by four Israeli venture capital funds, including Vertex Israel III which closed \$120 million and the life science-focused Medica-Poalim, which closed on \$80 million in 2005.

Several firms, including Concord, Israel Seed and Tamar Ventures suspended their plans to raise new funds in 2005.

Capital Raised by Israeli VCs 1996-2005

1996	299
1997	580
1998	608
1999	1,354
2000	4,102
2001	1,341
2002	-119
2003	15
2004	727
2005	1,198

Source: IVA 2006 Yearbook- IVC Research Center

During the past 18 month foreign pension funds increased their involvement in the Israeli VC market. These included CalSTRS - California State Teachers' Retirement System , CalPERS, NY State Retirement System ,Oregon Public Employees Retirement Fund, Pennsylvania State Employees Retirement System and TIAA-CREF, and others.

Zeev Holtzman, said, "2005 capital raising set a four-year record, confirming the pullout from the year 2000 crises. Investments came mostly from foreign sources, while local investors were generally on the sidelines. Local inactivity raises concern that Israeli institutions will miss out on the new wave of promising investment opportunities."

\$2.3 billion available for investments

According to IVC estimates, \$2.3 billion in capital is currently available for investment by Israeli VCs, of which \$1.4 million is intended for First investments in high-tech companies. The remainder is reserved for Follow-on investments. An additional \$1 billion is expected to be raised in 2006 by Israeli VCs for investment in Israeli high technology.

Top funds capital raising 1992-2005

Between 1992 and 2005, Israeli venture capital funds raised approximately \$10.3 billion that was exclusively allocated to investments in Israeli technology companies. Of this amount, approximately \$6.8 billion (66 percent) was raised between 2000 and 2005.

The largest Israeli funds shown in the table below – ranked according to capital raised between 1992 and 2005 – accounted for \$5.8 billion of the latter amount.

Rank	Management Company	Capital Managed 1992-2005	Capital Raised 2000-2005
1	Pitango9451	800	
2	Gemini	546	400
3	Genesis	523	434
4	Star	4942	206
5	Benchmark	490	490
6	JVP	4814	225
7	Giza	466	361

8	Evergreen	4225	213
9	Vertex	4166	330
10	Sequoia Is	380	350
11	Carmel	373	373
12	Israel Seed	2627	204
13	Concord	260	185
14	Cedar	225	175
15	Israel Health	210	210
16	Challenge	2019	120
17	Walden Israel	184	90
18	Formula	170	83
19	Infinity	165	81
20	BRM	150	150
	Tamir Fish	150	150
	Medica	150	135
	Yozma	150	50
Total		7,813	5,815

Source: IVA 2006 Yearbook- IVC Research Center

\$200m invested in Israeli life sciences in 2005

70% of capital invested in the life sciences in 2005 was channeled to medical devices and equipment companies.

Capital investment in Israeli life sciences companies totaled \$200 million in 2005, according to PricewaterhouseCoopers, Israel - Kesselman & Kesselman's Money Tree survey on the life sciences. The survey was released ahead of the Biomed Israel 2006 exhibition in May.

Investment in Israeli life sciences in 2005 was less than the \$285 million invested in 2004, but reflected the multi-year average of \$50 million per quarter. The Money Tree survey for Israel was conducted at the same time as surveys in the US and Europe. 70 Israeli venture capital funds participated.

The survey also indicates that 70% of capital invested in the life sciences in 2005 was channeled to medical devices and equipment companies, the same proportion as in previous years. In contrast, the bulk of venture capital investment in the life sciences in the US was channeled to biotechnology. The survey showed that, in contrast to the US, where most investment was in later stage companies, most investment in Israel went to fairly early stage companies.

PricewaterhouseCoopers, Israel - Kesselman & Kesselman audit partner in charge of life sciences Claudio Yarza said no significant changes were

predicted for 2006. He said, however, that the option of raising capital on the Tel Aviv Stock Exchange (TASE), in the event that this window of opportunity remains open, could provide the life sciences industry with an additional source of financing, which was essential for its further development.

There is water under the desert

The one place in water-short Israel where natural groundwater is available and not being fully exploited is – of all places – in the mostly uninhabited Judean desert.

This surprising conclusion arises from a thorough hydrological mapping study done as a master's degree thesis at the Hebrew University by Leehee Laronne Ben-Itzhak, under the supervision of Prof. Haim Gvirtzman of the university's Institute of Earth Sciences. The study provides detailed information regarding the nature, volume and path of what is called the Judea Group Aquifer, an underground water reservoir beneath the Judean desert. A report on the study was carried in a recent issue of the Journal of Hydrology.

This aquifer begins in the Judean mountains and flows in a generally northeasterly direction towards the Dead Sea, with outflows at four springs adjacent to the Dead Sea – the Tsukim, Kane, Samar and Ein Gedi springs. There is also some sub-surface flow into the Dead Sea.

The rain-fed aquifer contains an average yearly volume of some 100 million cubic meters of water, of which only about 20 percent is currently used, said Prof. Gvirtzman, with the rest flowing into the Dead Sea. The water potential of the Judea Group Aquifer is sufficient to supply 5 percent of the current total freshwater usage in Israel, said Gvirtzman, and could at least meet the potable water needs of the towns of Maale Adumim, Bethlehem and Hebron at much lower cost than at present.

Currently, he says the water coming to Maale Adumim is brought sometimes hundreds of kilometers from the Sea of Galilee via the National Water Carrier. Why do that when there literally is water beneath the town, asks Gvirtzman.

In addition to the mapping survey carried out by Ben-Itzhak, who is now working on her Ph.D. thesis at the Weizmann Institute of Science, another study is

currently being done by a second graduate student, Eldad Levi, also working under Prof. Gvirtzman, who is analyzing the interface between the fresh and saline groundwater at various points in the Judea Group Aquifer, using a novel remote sensing technique called the deep time-domain electro-magnetic method.

“These two studies have practical implications regarding future possibilities of groundwater development for the benefit of both Israelis and Palestinians residing in the area and for conservation of nature reserves located along the Dead Sea,” says Gvirtzman. “The government has allocated these waters to the Palestinians, who are unfortunately doing nothing to fully exploit this available water source,” he added.

As for the impact of drawing more water away from flowing into the Dead Sea, which is rapidly becoming depleted, Gvirtzman says that in any case the current groundwater flow into the Dead Sea is totally inadequate to halt that problem and that dramatic steps would have to be taken to resolve the situation.

Technion researchers develop unit that Improves walking for Multiple Sclerosis Sufferers

Technion researchers have succeeded in developing a device that improves walking for those with Multiple Sclerosis (MS) and other neurological diseases, using virtual reality. This was reported in the latest issue of the journal “Neurology.”

The device was developed by Prof. Yoram Baram of the Faculty of Computer Science and successfully tested on MS patients by Prof. Ariel Miller of the Rappaport Faculty of Medicine, who is also head of the Center for MS and Brain Research at the Carmel Hospital in Haifa. The tests showed that the device significantly improved the patient's walking not only during the time it was used but also afterwards.

Prof. Baram came up with the idea of a virtual chessboard floor that provides patients with an immediate response using “visual hints,” which assist them in orienting and stabilizing themselves on the board. “Since we could not change the real floor, we changed the way in which the patient sees the floor,” he explains. A tiny instrument affixed to the patient's eyeglasses creates a virtual chessboard floor that “acts”, from the patient's point of view, exactly like a real floor. “When the patient starts to walk, the floor begins to move under him,” says Prof. Baram. “The patient has the feeling that he is walking on a real



chessboard.” Using an artificial nerve network, the device learns the patient’s characteristic behavior and adapts the system’s reactions to it.

The walking of most of the 40 patients who took part in this test improved in less than half an hour. There was also improvement in the walking of Parkinson’s disease patients, where the disease affected functioning of their lower extremities.

Israelis bring high-tech food to Angola

An Israeli company is using the latest water-saving technology to grow fruit and vegetables in Angola, which imports much of its food after 27 years of civil war, according to a BBC report.

“I think Angola is experiencing a boom time right now,” says Uri Ben Basat, co-manager of Terra Verde, a 45-hectare farm outside the capital Luanda.

The farm was set up at the end of the war in 2002 and has been harvesting tomatoes, peppers, cucumber, mangoes, melons and grapes for three years.

In fact, the farm produces 35 tonnes of vegetables every week of the year, selling most of this food to supermarkets and restaurants in Luanda.

During the war, the agricultural sector was devastated.

Bridges were blown up and roads and railways mined, so the food which was grown locally could not be transported to where it was needed.

Those who could afford to, came to rely on expensive imports from the rest of the world, rather than food grown within Angola.

Terra Verde is a joint Angolan-Israeli business, but the agricultural expertise comes from Europe and Israel.

The company has built its own pumping station 6km away on the banks of the River Bengo to ensure that its drip-irrigation system, where plants are fed water and fertilizer drip by drip through ground level pipes, would never run dry.

A computer program calculates the exact amounts of water needed, depending on temperature and humidity.

Different varieties of vegetables are grown both in open fields and greenhouses depending on their suitability to Angola’s almost tropical climate.

And the company buys in boxes of bees to pollinate its tomato plants organically.

All this investment came with a price tag of some \$8m.

The company says the farm is paying its way but will not say how much profit they make or what their turnover is like.

“This is a long-term project,” says marketing manager Merav Zacharin.

“Terra Verde is very much our calling card. We want investors to see what we have done here and realise that we could build the same thing for them somewhere else in Angola.”

Some 200 jobs have already been created and the company is expanding.

Another farms has been set up in Kwanza Sul province, which is 10 times bigger than Terra Verde at 450 hectares.

“Angola is hungry for food now,” says Mr Ben Basat.

“They have an impressive history of agricultural production, lots of good land and water.”

But 27 years of civil war have taken their toll.

“The biggest problem this country has is access to food,” according to WFP Country Director Rick Corsino.

“There are certain parts of the country in which most of the food is grown. Because of the war there are untold numbers of mines out there and goods and people can’t move freely.”

This is why those residents of Luanda who can afford

to, still rely heavily on expensive imported food and Terra Verde sees imported vegetables as its main competitor.

A kilo of tomatoes costs about \$4 in the supermarket, compared to \$6 for imported produce.

This is not cheap food and the average Angolan can't afford the produce grown at Terra Verde.

Their market includes large supermarkets, restaurants and the country's big employers - the oil and diamond companies.

Mr Ben Basat thinks there's only one way to lower prices considerably in Angola.

"In most countries the government assists the agricultural sector. But here they haven't helped us at all," he says.

"It's very expensive to produce here and so the prices are very high. If they want the prices to go down so that everybody from Angola can buy our product, then it needs the power of the government. I don't see any other way."

A first-hand lesson in fighting terror

The Boston Globe covered the recent Israel Homeland Security conference held in Jerusalem.

When Paul MacMillan, deputy chief of the MBTA transit police, saw roadblocks and heard wailing sirens as his convoy entered the headquarters of the Israeli Border Police, it seemed that a planned emergency drill had begun a day early. But this was no exercise.

MacMillan and 130 other senior US security officials attending a counterterrorism conference in Jerusalem found themselves caught up in an unfolding manhunt for a suspected Palestinian suicide bomber.

An hour later, after a dramatic helicopter and motorcycle chase through police roadblocks on the main Jerusalem-Tel Aviv highway, Israeli police told the Americans that the would-be bomber had been captured, with 15 pounds of explosives packed with nails and shrapnel.

The blow-by-blow account of the operation provided a real-time introduction to Israeli security pressures for the participants in the four-day conference, designed to encourage information sharing and expertise between

Israeli and US counterterrorism officials. The gathering boasted the largest group of US law enforcement, emergency services, and homeland security officials ever to assemble in Israel.

Other Bay State officials in attendance included Kenneth Kaiser, special agent in charge of the FBI's Boston office, and Albert Sherman, vice chancellor of University of Massachusetts Medical School. The largest delegation came from California, including Los Angeles Police Chief William J. Bratton, the former police commissioner in Boston, and Joanne M. Hayes-White, chief of the San Francisco Fire Department.

MacMillan said the episode in Jerusalem illustrated how much his job had changed since the Sept. 11 attacks.

But as the intelligence chief for the fourth-largest transit system in the United States, transporting 1.3 million passengers each day, MacMillan said his responsibility now goes well beyond the traditional problems of robberies and assaults.

"To say that Boston is a specific target, that's not an accurate statement. But they've hit two transit systems, in Madrid and London, and the general intelligence and logic would follow that they're eventually going to try and hit a transit system in the United States. . . . We certainly should prepare for it," he said.

The conference, hosted by the Israeli Foreign Ministry and Police, included intelligence briefings, counterterrorism drills, medical exercises, and lectures from security, police, and emergency services officials. More than twenty companies specialized in anti-terror systems exhibited their wares.

The participants toured police surveillance facilities in Jerusalem's Old City, visited a suicide-bomber exhibition at police headquarters, and observed a simulated biochemical attack on a school, followed by emergency treatment of the victims at the Assaf Harofeh Medical Center.

At Ben-Gurion Airport and the control center for Israel Railways, the officials saw state of the art CCTV facilities with "behavioral video" -- computer software that triggers an alarm when an unusual incident appears on the monitor.

MacMillan said the MBTA had been studying the

installation of behavioral video and, after seeing the Israeli system in action, he would recommend it back home -- one of several tangible results of the trip.

He also said he would recommend cooperation with Israeli police in training Boston's bomb-disposal personnel.

Also under consideration is a training course in Massachusetts run by the Israeli police.

Following an earlier visit to Israel by Robert Smith, head of counterintelligence at the State Police, the Massachusetts command staff already has been through two courses run by senior officials from the Israeli security services.

Assistance has also run in the opposite direction. Sherman, and Dr. Richard Aghababian, chairman of emergency medicine at the University of Massachusetts Medical School, have advised Israeli hospitals on developing emergency medical departments.

After watching a drill simulating an emergency room receiving victims of a large bio-chemical attack on Wednesday, Sherman said the Israelis had come a long way.

"I'm here to observe and learn and bring back to the Department of Public Health how the Israelis, who are regrettably the experts, do it differently to how we do it. In some cases it's better," said Sherman, who also serves on the Public Health Council, which sets public health policy for Massachusetts.

He said the Americans were impressed by what they saw.

"A smart man knows what he doesn't know. These people came to learn. There isn't a single person I've spoken to who doesn't have lots to bring back to their hometown," he said.

White, San Francisco's fire chief, said she found the conference "truly impressive."

"Our whole world changed after 9/11. It is something that we plan for now, but we have very little expertise in it. To come to a place like this, really you're learning from the true experts," she said.

Conference participants debated the tension between counterterrorist measures and maintaining democracy, a concern that arose when security officials at Ben-Gurion explained that they were allowed to stop any car whose passengers appeared "suspicious."

"It's a different mind set here. We're not allowed to do that. We have to have a specific plan in place on how we're going to do the stops," MacMillan said.

"It's a balancing act. We have a free and open society. If we want a dictatorship, we can lock down the country and not le

Alma Lasers acquired by TA Associates

TA Associates, a private equity and buyout firm bought purchased 65% of Alma Lasers for \$90 million. The deal for the developer, manufacturer and marketer of laser, light and radiofrequency-based systems valued Alma Lasers at \$140 million



Alma Lasers makes products mainly for cosmetic treatments and depilation. Its devices also tackle skin pigmentation and cellulite.

The aesthetic medical device market is large, growing and very profitable. The global aesthetic laser market is estimated at over \$1 billion globally and is growing at over 20% annually. The market is characterized by very high demand and attractive economics for practitioners. Growth trends are expected to be maintained as the industry expands into new applications, new geographies and an enlarged non-traditional practitioner group.

The company has 40-50 agents worldwide as well as a subsidiary in the U.S., Karni says.

The Caesaria-based company's products include the multi-application Harmony platform, which the U.S. Food and Drug Administration approved for over 60 applications.

Last June, Deloitte ranked Alma Lasers the 20th Fastest Growing Technology Company on its Fast 500 list for Europe, the Middle East and Africa (EMEA).

Alma Lasers resulted from the merger of two laser

companies, Israel-based MSQ, founded by Karni, who is a laser physicist by trade, and Orion Lasers, a U.S. based laser distributor.

TA Associates was founded in 1968. It is among the biggest private equity funds in the world, with some \$6 billion invested. Since its establishment, TA Associates has invested in 360 companies.

Omrix files for Nasdaq IPO



Omrix Biopharmaceuticals, which develops biosurgical and passive immunotherapy products, has filed a draft prospectus with the U.S. Securities and Exchange Commission to float on Nasdaq.

The company said it is planning to sell about 3.44 million shares for between \$15 and \$17 per share. If all goes as planned it should raise between \$51.6 million to \$58.5 million, which translates into a market valuation in the range of \$215 million to \$243 million post-money (after the offering).

The figures are far below the numbers that had been bandied about the capital market, which had been speaking of the company raising \$80.5 million at a company valuation in the range of \$300-350 million.

The underwriters - UBS Investment Bank, CIBC World Markets, Leerink Swann & Co. and Oppenheimer & Co. - will have the option to buy 515,625 more shares in the event of heavy demand, according to Omrix's amended offering document filed with the SEC.

The New York-based company is seeking a Nasdaq listing under the symbol OMRI

Given the failure of another biotechnology company, Predix, to go public at similar valuation ranges, Omrix may have to scale down its expectations even more. Predix cancelled after Wall Street gave it a cold shoulder.

One of Omrix's key products is a biological adhesive used to stop internal bleeding during surgery.

For 2005 Omrix, which locally operates in Kiryat

Ono, says it achieved a 38% increase in revenues to \$27.5 million, and cut its operating loss by 57% to \$2.2 million. Equity restructuring ahead of the offering led it to book financing costs of \$20.9 million, which reduced its bottom line to a loss of \$27.7 million.

The shareholders will not be piggy-backing on the offering, but they will be diluted. Chief executive and president Robert Taub will be diluted from 32.1% to 24.4%. the second biggest shareholder, the MPM biotechnology investments firm, will be diluted from 29.4% to 22.4%.



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