

ISRAEL HIGH-TECH & INVESTMENT REPORT

A MONTHLY REPORT COVERING NEWS AND INVESTMENT OPPORTUNITIES JOSEPH MORGENSTERN, PUBLISHER
December 2003 Vol. XIX Issue No.12 You are invited to visit us at our website: <http://ishitech.co.il>

Israel's Pharma will Never be the Same

The Israeli high-tech sector and its entrepreneurs have often been criticized for their apparent inability to nurture global size firms. Why can't Israel produce a Nokia? Why do the country's entrepreneurs sell out their companies long before their potential is reached? The most popular explanation was that Israelis were inexperienced in international marketing. They missed this experience and could not create multi-national concerns. Perhaps closer to the truth was an inbred sense of impatience. The same impatience that makes great technologists play against forming business empires. Nevertheless, CheckPoint and Comverse did become multinationals. Gil Shwed, the founder of CheckPoint, continued to manage the company from Israel. He had accurately anticipated the growth of the internet and that computer security would become a major issue.

Early in November Israeli drug maker Teva Pharmaceuticals (Nasdaq: TEVA) announced the acquisition of generic drug maker Sicom (Nasdaq: SCRI). The deal values Sicom at \$3.4 billion. We questioned the investment broker firm of Merrill Lynch and it responded that it continues to maintain its positive view of Sicom and projects a 12% growth in profits for 2004. Teva is an outgrowth of Israel's rapid development. Until the early 1980s the country's pharmaceutical industry was a hodgepodge of small companies that had been founded in response to Israel's inability to obtain all of her pharmaceutical needs from overseas. Eli Hurvitz, a former kibbutznik (farmer) assumed its leadership and set a course for Teva to become a generic drug company, jointly with the American Grace Co. they broke new ground and moved into the generic drug field. Today Teva, is the largest generic company in the world. Moreover, Hurvitz wanted Teva to make a "blockbuster" drug. When the opportunity presented itself Hurvitz gambled and licensed Weizmann Institutes fundamental scientific know. He gambled heavily on acquiring the know-how, built a \$30 million plant, well ahead of being sure that the pharmaceutical trade-named

Copaxone, could be produced or would reduce the relapse rate in patients with relapsing-remitting multiple sclerosis and also encourage the release of a factor that helps protect the brain from axonal loss. Teva's Copaxone has become Israel's first home grown "blockbuster". The company recently said that worldwide sales of the branded therapy used in the treatment of multiple sclerosis climbed 25 percent in the latest quarter, to \$180 million. Teva's growth is far from over. Teva will invest \$3 million in Gamida-Cell, which has developed a technology to treat blood diseases such as leukemia and lym-



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phoma. Gamida-Cell's technology increases stem cell reproduction while limiting mutations. It also has invested to form Bioline Therapeutics, a biopharmaceutical drug development company. A third investment, in ProNeuron makes it clear that Teva aims to become an important player in the biotechnology field.

High-Tech Firms in Positive Trend in Raising Funds

This survey, conducted with the cooperation of the Israel Venture Association (IVA), reviews capital raised by private Israeli high-tech companies from Israeli venture capital funds and from other investors. The Survey is based on reports from 125 venture investors, of which 62 are Israeli management companies and 63 are other – mostly foreign – investment entities.

The positive trend in the Israeli venture market continued in 2003's third quarter as 103 Israeli high-tech companies raised \$283 million from venture investors – both local and foreign (Chart 1). The amount was up a moderate four percent from the \$271 million raised in the previous quarter and thirty-four percent from the first quarter of the year. During the first three quarters of 2003, a total of \$765 million was raised, which still reflects a decrease of 18 percent from the corresponding 2002 period.

"A review of capital raising trends in the first three quarters of the year shows a turnaround is underway," said Guy Holtzman, IVC's General Manager. "This indicates that capital raising by Israeli companies will top \$1 billion in 2003, and we are projecting another \$1 billion-plus year for 2004."

Holtzman also noted that "Capital raised by Israeli firms was 50 percent of that raised in all European countries. Furthermore, if one compares the Israeli VC industry to the US, we'll find a slower rate of decrease in investment during 2003."

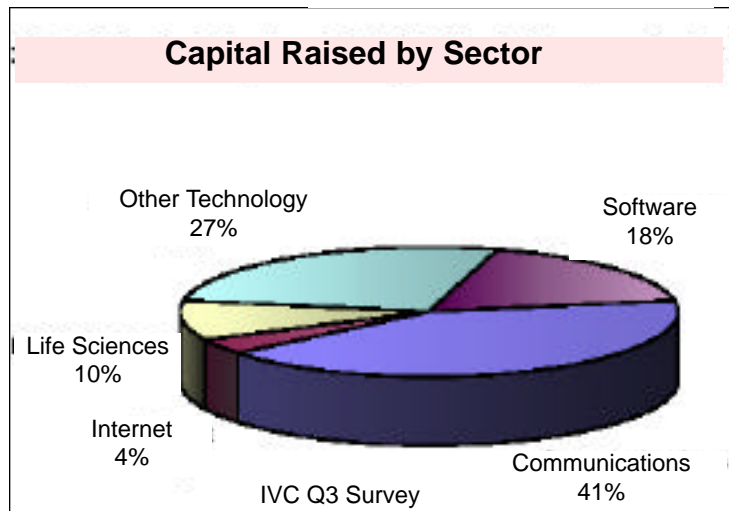
In the third quarter, Israeli VCs invested \$129 million in Israeli companies, an increase of 37 percent from both first and second quarter levels and a nine percent rise from Q3 2002.

First investments in Israeli companies accounted for 53 percent of total Israeli VC investments, compared to 40 percent in the previous quarter and 51 percent in the third quarter of 2002. The average First investment by Israeli VCs was \$1.6 million, and the average Follow-on investment was \$0.7 million.

In addition, Israeli VC investments in foreign companies was \$16 million, compared to \$34 million in the second quarter of 2003 and \$18 million in the first quarter of the year.

Capital Raised by Stage

Fifteen Seed companies raised \$21 million, seven per



cent of total capital raised. The amount was about the same as raised in the previous quarter, but 2.5 times the amount raised in Q3 2002.

Capital Raised by Sector

As in the previous two quarters, the communications sector attracted most of the funds raised. Thirty communications companies raised \$118 million, 41 percent of the total amount raised, which compared with 29 percent 37 percent in the second and first quarters of the year, respectively. Life sciences capital raising declined with 24 companies raising \$28 million or 10 percent of the total, compared with 21 companies raising \$56 million or 21 percent of the total in the second

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

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quarter. Efrat Zakai, Director of Research at IVC, said "seed investments showed marked improvement, both in Q3 and Q2, an encouraging sign after six consecutive quarters in which seed companies averaged only \$6 million in investment. We expect further increases in seed and early stage investments in future quarters." Most funding in this quarter was attracted by 47 Mid-Stage companies that raised \$135 million, 48 percent of total capital raised. This percentage was similar to that of the second quarter of the year and under the 64 percent of the third quarter of 2002.

Teva Acquires Sicom for \$3.4b



Israeli drug maker Teva Pharmaceuticals (Nasdaq: TEVA) announced the acquisition of generic drug maker Sicom (Nasdaq: SCRI). The deal, which included \$16.50 in cash plus 0.1906 Teva shares, values Sicom at \$3.4 billion, or \$27.50 per share. With the explosion of generic drugs, Sicom's generic injectable drug business will complement Teva's generic oral dose

franchise nicely. The acquisition strengthens Teva's position, most importantly in North America, where the company generated 63% of its sales in the third quarter.

SICOR, at the time of the announcement had a market capitalization \$3.2 b. Its shares were up 70% year to date. The shares are rated as a buy at Merrill Lynch. The acquisition originated in Teva's desire to begin production of generics of biotech medicines. Back in March, Jeff Fischer of the Motley Fool penned a three-part series on the potential of generic drug companies. Following a discussion of Mylan Labs (NYSE: MYL), he highlighted three companies to consider, including Sicom. At the time, he felt that Sicom was attractive at about 20 times free cash flow, or \$17.30 per share.

Teva CEO Israel Makov said the Sicom purchase contributes major growth engines to the Israeli company.

Sicom is one of the strongest companies in the U.S.

hospital sector, giving Teva an immediate presence in a market it has eyed for some time.

Sicom will constitute a base for Teva's global operations in injectables via its Irvine, California and Mexico manufacturing sites. Teva operates in this market via Pharmachemie Netherlands and a Hungarian subsidiary. Low production costs in Mexico will allow Teva to expand its product line in Europe (where it has suffered from low profit margins) and increase its product line in the U.S. (where profit margins are bigger).

Makov puts the European injectables market at 300 million euro annually, projecting it will grow to 700 million euro by 2006.

Another reason for the Sicom acquisition is the company's Mexican operation. Teva entered that market recently, establishing a subsidiary to distribute its multiple sclerosis drug there and later to distribute Teva generics in Mexico and Latin America.

Sicom is already involved in that market and 15 percent of sales originate there; the acquisition becomes a shortcut for Teva's Mexican penetration process.

Another growth engine would be Sicom's active pharmaceutical ingredient (API) manufacturing operations. Sicom makes 25 ingredients for medications it markets and 36 APIs for other drugs. Sicom's operations in this area are complementary to Teva's as they include the manufacture of cancer drugs and anti-inflammatory steroids based on synthetic derivatives of natural hormones.

Makov said buying the U.S. company will strengthen Teva's leading status in the API market. Makov noted Teva's interest in Sicom's biogenerics, generic versions of drugs originating from live cells and not through chemical synthesis

Teva's Q3 Profit Jumps 63% Teva earned \$156.6 million, or 53 cents per share, up from \$96.3 million, or 36 cents per share, in the 2002 third quarter. Teva had been expected to earn 49 cents per share, according to the average estimate of analysts polled by Reuters Research.

Teva said third-quarter revenue climbed 29 percent to \$812.6 million, boosted by sales of the company's generic version of Augmentin, the antibiotic produced originally by GlaxoSmithKline.

Analysts had, on average, expected revenues of \$788.97 million.

Teva also got a lift from the sales of Copaxone. The company said worldwide sales of the branded therapy used in the treatment of multiple sclerosis climbed 25 percent in the latest quarter, to \$180 million.

The company also upped its profit forecast for the full-year to a range of \$2.05 to \$2.09 per share from a previous range of \$2 to \$2.05 per share.

Retalix: Sales and Profits Higher

Retalix Ltd., (Nasdaq: RTLX): announced its operating results for the third quarter ended September 30, 2003.

Third quarter revenues of \$24.3 million, were up 19% for Q3 02 and its operating income was up 55% to \$3.1 million.

Net revenues for the quarter ended September 30, 2003 were a record \$24.3 million, an increase of 19% from \$20.4 million in the third quarter of 2002.. The company reported net income for the quarter of \$2.1 million, or \$0.16 per diluted share, compared to a net income of \$1.6 million, or \$0.13 per diluted share, in the third quarter of 2002.

Net revenues for the nine months ended September 30, 2003 were \$66.4 million, an increase of 23% from \$53.9 million for the comparable period in 2002. Retalix reported a net profit in the first nine months of \$4.7 million, or \$0.36 per diluted share as compared to a net income of \$3.8 million or \$0.31 per diluted share for the nine months ended September 30, 2002.

Retalix has been a favorite of ours for many years and its shares continue to be an attractive holding. The company's ordinary shares have been publicly traded on the Tel Aviv Stock Exchange since November 1994 and on the NASDAQ National Market System since July 1998.

Some Key Developments in Q3

*A.S. Watson selects Retalix StoreLine for 1850 sites across Europe

*Hy-Vee selects Retalix StoreLine for next-generation store platform

*Irving Oil selects Retalix StorePoint POS Solution for entire chain

*Tier 2 grocery chain in mid-west USA selects Retalix StoreLine 4

*Launch of "StoreClub," a web-based customer loyalty management service

"Retalix has enjoyed another successful quarter and we've been able to announce a number of important big-ticket contract wins. Our new business pipeline appears to suggest that technology spending is slowly starting to turn around," said Barry Shaked, President and CEO of Retalix.

The company's financial condition remains strong, with liquid financial resources (cash and equivalents, deposits and marketable securities) of \$38.5 million, \$3.2 million in long-term bank debt and shareholders' equity of \$66.4 million.

Retalix Ltd., with North American headquarters in Dallas, TX, provides integrated enterprise-wide software solutions for the retail food industry worldwide, including supermarkets, convenience stores and restaurants. The company offers a full suite of software applications that support a food retailer's essential retailing operations and enable retailers to increase their operating efficiencies while improving customer acquisition, retention and profitability. Retalix has installations in more than 20,000 stores and quick service restaurants across 43 countries.

AudioCodes Reports Continued Sales Growth

Yehud, Israel-based AudioCodes (Nasdaq:AUDC) which provides Voice over Packet technologies, today announced revenue growth for the 8th straight quarter. Net loss was halved against the parallel quarter, the company said.

AudioCodes is in a high-growth field and though its shares have experienced speculative movements in the past three years, remains one of our favorites. If the company achieves its profitability in 2004 its shares could command a considerably higher price than its current level of \$9. The company's shares trade both on the Tel-Aviv Stock Exchange as well as on Nasdaq.

Revenues for the third quarter were \$11.8 million versus \$10.5 million in the second quarter and \$7.2 million for the corresponding quarter of 2002. Third quarter-revenues increased 13% sequentially and 64% compared to the third quarter of 2002, the company said.

Net loss for the third quarter of 2003 was \$1.6 million, or \$0.04 per share, compared to a net loss of \$3.3 million, or \$0.09 per share, for the corresponding period last year.

Revenues for the nine months ended September 30, 2003 were \$30.7 million compared to \$19.6

million for parallel nine months.

Net loss for the nine months ended September 30, 2003 was \$6.3 million, or \$0.17 per share, compared to net loss of \$11.0 million, or \$0.28 per share, for the same period of 2002.

Cash, cash equivalents, short-term deposits and long-term bank deposits as of September 30, 2003 were \$100.4 million compared to \$103.4 million as of June 30, 2003 and \$116.3 million as of September 30, 2002.

Processor Computes at Speed of Light

An Israeli company claims to have developed a processor that computes at the speed of light because it uses optics instead of silicon.

The start-up company, Lenslet, says its processor will enable new capabilities in national security and military, multimedia and communications applications.

"Optical processing is a strategic competitive advantage for nations and companies," Lenslet's vice president for business development, Avner Halperin, said.

"Processing at the speed of light, you can have safer airports, autonomous military systems, high-definition multimedia broadcast systems and advanced next-generation communications systems."

An optical processor is a digital signal processor (DSP) with an optical accelerator attached to it that enables it to perform functions at very high speeds.

"It is an acceleration of 20 years in the development of digital hardware," Lenslet founder and chief executive officer Aviram Sariel said.

The processor performs 8 trillion operations per second, equivalent to a super-computer and 1,000 times faster than standard processors, with 256 lasers performing computations at light speed.

It is geared towards such applications as high resolution radar, electronic warfare, luggage screening at airports, video compression, weather forecasting and cellular base stations.

Lenslet said its Enlight processor, unveiled at the MIL-COM exhibition in Boston this month, is the first commercially available optical DSP.

"Optics is the future of every information device," Mr Sariel said. Jim Tully, vice president and chief of research for semiconductors and emerging technologies at Gartner, said most companies working with optics focus on switching optical signals for telecommunications rather than processing information optically.

"I'm not aware of any company that has taken it to the extent of processing optically," he said.

Lenslet has raised \$US27.5 million so far from such investors as Goldman Sachs, Walden VC, Germany's Star Ventures and Chicago-based JK&B Capital.

The company's prototype is fairly large and bulky but

when Lenslet begins to supply the processor in a few months it will be shrunk to 15 x 15 centimetres with a height of 1.7 centimetres.

"In five years we plan to shrink it to a single chip," project manager Asaf Schlezinger said.

Go4Europe Conference a Sellout

The fall conference season opened with a sellout as the fifth annual Go4Europe conference attracted 500 participants, among them 150 from overseas, most-



ly from Europe, The conference was held on November 9 at the Tel-Aviv Hilton.

"We are experiencing a low point in the economic

situation in the region. Human engagement and economic coordination would overcome the current enmity. When that happens massive economic aid of the Marshal Plan type will be available for the region," stated keynote speaker Dr. Samuel Pizar internationally acclaimed author who was nominated for the Nobel Peace Prize in 1974.

Culierman & Co., hosts of the conference have played a leading role in obtaining financing in Europe for Israeli companies. "Over the past ten years we have raised \$500m. in finance for Israeli companies and we have taken part in a number of IPOs of the 34 Israeli companies that trade on European markets," stated Edouard Cukierman, chairman of the investment house in Israel.

" You have lost money in the past six months. Our stock exchange has appreciated by 50% in that time." Finance Minister Benjamin Netanyahu, chided the overseas visitors. The finance minister listed a number recent achievements that make Israel worthy of investment at this juncture.

"In the past six months we have raised \$750m. on the international capital markets at the lowest interest rates possible. We expect a modest rate of growth, of 1% this year but growth at a considerably faster rate in 2004. We privatized El Al Israel Air Lines and saw the shares appreciate sharply on the Tel-Aviv Stock Exchange We will privatize the oil refineries, the water works, the banks and the ports and will use the El-Al model for selling off these holdings. We are about to embark on a rapid railway system connecting all cities with a population of 50,000 or more. A new railway in the southern part of the

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country will provide a link to the Mediterranean for freight reaching the Gulf of Eilat, said Mr. Netanyahu. Unemployment has recently reached the 11% level, but the Finance Minister said that he expected it to level off in mid-2004 and then to drop. The deunionization plan is still ahead. Another plan to be put into effect is the Wisconsin Policy, to induce people to return to the workforce, Netanyahu said, adding the public has shown acceptance of the reforms the treasury is spearheading. "If we pursue these steps, tax on labor and on corporations will drop," he promised.

Mr. Netanyahu predicted that a major foreign investment would be announced shortly. Later in the day Intel announced its plans to invest up to \$600 million in upgrading its Kiryat Gat manufacturing facilities. Intel will submit an application for \$120 million in grants - 20 percent of the planned investment - to the Industry and Trade Ministry's Investment Promotion Center.

Israeli Stem Cell Group Joins Cleveland Clinic

The Cleveland Clinic and a prestigious Israeli research institute agreed yesterday to jointly use stem-cell technology to regenerate heart tissue and to develop other medical advances, including robotics.

Dr. Floyd Loop, the Clinic's chief executive, and Yitzhak Apeloig, president of Technion-Israel Institute of Technology signed a multiyear agreement to work on molecular medicine and biomedical engineering research, starting with five projects in orthopedics and cardiology. The Shalom Foundation will pay \$1 million to cover the cost of the research.

The stem-cell research seeks to replace diseased and damaged heart tissue and thus reduce or eliminate the need for artificial devices and heart transplants.

In addition, the collaborators will work on:
 +Developing a miniature robotic device - with a high-quality camera to maneuver through tight spaces in ankles, knees and hips - that gives orthopedic surgeons a better view of damaged areas.

Finding new ways to use robotic technology to help identify where to implant lumbar screws dur-

ing back surgery, thereby reducing cutting and pain.

Developing an ultrasound-based method to help patients with congestive heart failure, which would enable doctors to study heart contraction and determine where to attach lead lines for devices.

Designing an artificial cartilage that mimics true cartilage when implanted.

"Everyone's very excited," said Christopher Coburn, head of the Clinic's technology commercialization division and a member of the steering committee overseeing the collaboration. "These initial projects were selected because of the potential early-term clinical applications."

Dr. Marc Penn of the Clinic who will work with Dr. Lior Gepstein of Technion on the stem-cell project, said the agreement links researchers who already have specific expertise in stem cell technology.

The Cleveland group works with adult stem cells, while Gepstein and his Technion colleagues work with embryonic stem cells.

The Technion is one of 14 institutions in the world that has developed stem cell lines that meet President Bush's criteria; it is, therefore, eligible for federal funding, according to a National Institutes of Health Web site.

Penn said researchers already know that if they "manipulate" the heart in the right way, the body's own stem cells will travel to the heart and become blood vessels. The goal now, Penn said, is to "make sure we're recruiting the right stem cells from the bone marrow and to convince them to differentiate into cardiac myocytes," or contracting cells.

Raytheon and Elta Seek Approval for Anti-Missile System

Amid fears that terrorists have obtained shoulder-held missiles, US commercial airliners could soon be equipped with anti-missile technology similar to systems being installed in Israeli planes, the manufacturer said on Tuesday.

"We hope to have FAA (Federal Aviation Administration) approval in three to six months, then we can go ahead," said Israel Livnat, president of Elta Systems, a unit of state-controlled

Israel Aircraft Industries.

Livnat said the system was a joint effort by Elta and US defense company Raytheon. "We developed the radar and Raytheon developed the decoy system."

The Raytheon/Elta system, dubbed "SafeFlight" combines Elta's missile approach warning system with Raytheon's countermeasure dispensing system. It operates independently, requires no pilot action or training, involves minimal maintenance, and is invisible from air or ground locations.

In operation, SafeFlight will detect an incoming missile "within milliseconds" and divert it from the targeted aircraft, said Livnat, who was attending an Israeli high-tech and venture capital conference in New York.

"The missile threat is there," Livnat said after a session on homeland security technologies. He said the missiles were leftovers from the Muslim guerrilla war against Soviet forces in Afghanistan in the 1980s. Thousands of shoulder-held missiles were supplied to the rebels by Washington and also were captured from the Soviets by the mujahideen guerrillas.

Elta's missile warning system, part of its "Flight Guard" system is already in operation on 150 military aircraft. It was recently selected by the Israel Ministry of Transportation to outfit Israel's commercial airliners. Just last week, an El Al flight to Los Angeles, was diverted twice over Canada amid security concerns. Although there were no details, there was speculation it was because of a missile threat. Last year, a missile was fired at another Israeli airliner taking off from east Africa, but missed.

Painless Microneedle Devices

NanoPass Technologies Ltd. in Haifa, Israel, uses MEMS production techniques to fabricate a square of silicon or polymer with an array of up to 600 micropylamids that is applied to the skin like a patch. The goal of the company's MicronJet product is to deliver large molecules such as proteins, peptides and vaccines that otherwise can't pass through the skin.

NanoPass is a market-driven developer of painless microneedle devices for drug delivery and diagnostics. The Company has registered twelve patents (pending) for the structure, materials, processes and systems for creating hollow micro-needles allowing easy bi-directional passage of biological materials through the skin, for multiple applications. Utilizing the most advanced MEMS (micro electro-mechanical systems) bioengi-

neering that is used in silicon wafer micro-fabrication, the company's founder, Dr. Shuki Yeshurun has developed a micro device that is sharp, robust and minute enough to penetrate the outer layers of the skin in a completely painless manner.

This low-cost, disposable, biocompatible product may be used for the controlled release of large molecules, including therapeutic proteins, antibodies, vaccines and peptides in a safe and efficient manner that was impossible to date with existing drug delivery solutions.

Longevity Traced to Newly Discovered Gene

Long life is generally attributed to "good genes." Now a study, led by an Israeli researcher, appears to have identified one of these genes in the form of, a genetic mutation that may allow people to live into their 90s and even past 100. "This is the first gene that is associated with longevity," says researcher Nir Barzilai. "I think there will be more."

"Genetic mutations are usually thought to cause health problems - but this time, it appears that they could delay disease and premature deaths," says Israeli-born Barzilai, who heads the Institute for Aging Research at Yeshiva University's Albert Einstein College of Medicine in New York.

A report of the study by Barzilai and his colleagues at Einstein appeared in a scientific article just published in the latest Journal of the American Medical Association (AMA).

Israel U.S. to Fund Laser that Shoots Down Rockets

Israel and the United States are to spend at least \$57 million for development of a laser cannon that can shoot down short-range missiles. A recent Israeli delegation successfully lobbied Congress to approve the new funding package for the joint U.S.-Israeli weapon, said Israeli lawmaker Yuval Steinitz. Israel wants the Nautilus to protect its northern border from rockets fired by Hizbullah from southern Lebanon.

Highest EU R&D project Acceptance Rate

Israel leads the list of countries participating in European Union (EU) R&D projects. 185 Israeli business concerns and public institutions will participate in 140 European Union projects this year. The success rate of Israeli bids to participate EU projects

is 30%, compared with a 20% general average.

At a special ceremony at the end of last week in the office of EU Ambassador to Israel Giancarlo Chevallard, dozens of Israeli concerns and institutions taking part in EU projects were given certifications. These included the Weizmann Institute of Science 13 projects, Hebrew University of Jerusalem 20 projects, and Tel Aviv University 14 projects.

Chevallard noted that Belgium was in second place with a 25% success ratio, followed by the Netherlands with 23%.

IT Services Market \$1.2 billion in 2002

Israel's information technology services market totaled \$1.214 billion in 2002, 9.3% less than the \$1.34 billion in 2001, states a new IDC Israel report. IDC cites the following factors for the drop: smaller enterprise IT budgets, especially by

Israel Ranks High on Competitiveness

The World Economic Forum has published its annual rankings whereby it compares competitiveness of 102 countries. Finland won top sport with the United States in second place. Israel was ranked 20th.

small and medium-sized private companies; the drop in GDP; less investment in Israel; the ongoing state of war; and competition between IT services companies that led to lower sweeping lower prices in the sector.

IDC states that 2002 was the third consecutive year in which Israel's IT services market shrank. IDC predicts that the market will expand by a modest 2.7% over the next five years to \$1.386 billion in 2007.

IDC revised its forecast from late 2002, which predicted only a 2.7% drop in Israel's IT services market in 2002, compared with a year earlier. IDC attributed the difference the worse than expected recession in 2002.

IDC claims that without the large-scale government intervention and projects initiated by the Ministry of Finance Accountant General, Israel's IT services market would have collapsed. Under

the circumstances, the government sector determines the size of the market, the pricing of services, and in many cases the preferred software application as well.

The government is the largest consumer of IT services, accounting for 25.4% of all projects, amounting to \$308.52 million, in 2002. IDC also notes that the manufacturing market grew by 27.8% in 2002.

IDC states that IBM (NYSE:IBM) was the largest company in Israel's IT services market in 2002, with \$164 million in revenue. It was followed by Ness Technologies and Matrix IT (TASE:MTRX), although the differences between the top three companies was small.

Together with fourth and fifth ranked Hewlett-Packard (NYSE:HPQ) and Electronic Data Systems (NYSE:EDS), the top five companies accounted for 46.5% of the market. IDC adds that following the wave of take-overs and acquisitions in the past year, the ten largest companies in Israel's IT services market now account for 60.8% of the market.

A breakdown by types of activity found that outsourcing was the largest activity, accounting for 26.5% of the market, amounting to \$321.94 million. This sum includes the outsourcing of information systems, the largest outsourcing subsector, with \$188.1 million in revenue, followed by managing and maintaining PCs and networks, and outsourcing web-based applications and services.

Israel Top High-Tech Investment Target, with UK

Ernst & Young Venture Capital Advisory Group global leader Gil Forer speaking at a recently held conference in New York conference presented figures from an Ernst & Young survey of 107 US and European venture capital funds conducted three weeks ago showing that 79% of the companies had never invested in Israel.

"The seven companies that have invested in Israel or are planning to do so, show that 13% of the dollars that will be invested outside the US will be directed to Israel. When the survey is narrowed down to only US companies, 17% of their non-US investments will be in Israel. Israel is the top investment target, together with the UK, which also

received 17% of investments by the US business sector. A survey of the European companies only found that just 7% of their planned non-US investments will be directed to Israel," said Forer. He said the reason for the difference was that European venture capitalists were more conservative than the US counterparts.

Responding to a question about Israel's future as an innovation center, Forer said 75% of the survey's respondents predicted that Israel's importance as an innovation center would grow, while 25% predicted that it would decline.

The survey's respondents ranked Israel in fourth place as an innovation center, after Silicon Valley, Boston, and Southern California, and ahead of all other countries, including China and India, and other areas in the US, such as Texas. "In the next decade, I predict that Israel will continue being one of the most important technological centers," said Forer. When asked to rank the threats to Israel as an innovation center on a scale of one to ten, the political situation was ranked 7.5, bureaucratic barriers 4.1, the rise of new innovation centers 4.1, and the high cost of living and services in Israel 4.1.

When asked why most companies have no plans to invest in Israel, 47% of the respondents said most of their money was invested in other investment instruments. Only 25% of the respondents opposed investing in Israel, due to the political situation.

FDA Approves Agis' Generic Ointment

Agis Industries (TASE:AGIS) announced recently that Food and Drug Administration (FDA) has approved its Mupirocin ointment. Mupirocin is the generic version of GlaxoSmithKline's (NYSE; LSE:GSK) Bactroban ointment, which had \$97 million in sales a year.

India-Israel Trade Increases 27.6%

Two-way trade increased by 27.6% for the period January-September 2003 reaching \$1198.6 million compared to \$939.6 million in the corresponding period last year. Indian exports to Israel for the first nine months of 2003 increased by 43.9% from \$478.8 million in 2002 to \$689.2 million in 2003. Israeli exports to India for the first nine months of 2003 increased by 10.8%, from \$459.8 million in 2002 to \$509.4 million in 2003.

Early Stage SARS Test Developed

An Israeli firm dedicated primarily to research and development of fertilization and obstetrics analysis technology has developed an early-stage SARS diagnostic kit. The kit, the company claims, can curb the spread of SARS, because the earlier the virus is caught, the faster sufferers can be quarantined, thus protecting their surroundings.

The privately-held firm, BioShaf Ltd., headquartered near Haifa, recently completed Phase I trials of the new kit, which can detect the presence of the virus that causes Severe Acute Respiratory Syndrome (SARS) at an early stage of infection. The kits, at the end of trials carried out at the Disease Control Center in Beijing, were determined to have a 97.6% success rate in identifying SARS in blood samples from hundreds of patients. The test itself is fast, taking one hour, and apparently quite accurate.

According to BioShaft, its kit uses ELISA (enzyme-linked immunosorbent assay) technology, based on the principle that if the SARS virus is present, the patient's body will develop antibodies, which can be detected using the antigen.

BioShaf, founded in 1998, is likely to see its \$2 million investment in developing the kit paying off in commercial development for supplying the kits to South-East Asia.

Alzheimer Vaccine Gets US Patent Protection

Mindset BioPharmaceuticals, an Israeli-based company, announced that the United States Patent and Trademark Office has issued a Notice of Allowance for claims covering the company's vaccine for Alzheimer's disease. The vaccine, invented by scientists at New York University School of Medicine, and exclusively licensed to Mindset for development, elicits a response against the beta-amyloid protein known to be toxic to nerve cells and to form insoluble aggregates that accumulate in the brains of Alzheimer's patients. This unique vaccine approach is based on soluble, synthetic homologues of the human amyloid toxin, which were found to be highly immunogenic when tested in animals. "We are increasingly optimistic about the ability to develop a safer and more efficacious

therapeutic vaccine for the treatment of Alzheimer's disease. The allowance by the USPTO underscores Mindset's important position in this field. This position is already supported by a strong existing intellectual property portfolio and ongoing product development programs that combine to give Mindset an extremely versatile proprietary platform for selection of an ideal therapeutic molecule," said Dr. Daniel Chain, President and Chief Executive Officer of Mindset.

Speeding Upt the Olive Harvest

A device for spraying olive trees with nutrients and growth promoters that speed the olive harvest has been developed at Ben-Gurion University of the Negev.

The team, headed by Dr. Ze'ev Weisman of BGU's Applied Research Institutes in Beersheba, created new technology that enables these substances to enter the plant tissue in a controlled and long-term process.

The olive harvest season, which began recently, is expensive, tiring for workers and hard on the trees. If the fruits are harvested by hand, many workers are needed, but hard to find. Solutions for mechanizing olive harvesting, which shake the tree, made the technical process somewhat easier, but about one quarter of all ripe olives remain on the tree after such shaking. Collecting these "stubborn" olives is thus very expensive.

There are about 1.5 billion olive trees used for their fruit around the world, says Weisman, and preserving olives is a \$1.5 billion a year industry. Spraying the trees with hormones to weaken the tissue that binds the olives to the branch has been attempted, but not successfully, due to instability of the treatments, their high cost and the serious damage caused to trees.

The new BGU device, developed with help from the Ministry of Industry, Trade and Employment, is based on crystals of nutritious substances that are friendly to both the trees and the environment. Minute amounts using a special engineering technology developed at BGU, cause nearly all the ripe olives to fall when the tree is shaken. The technique has proved successful during five years of experi-

ments by commercial growers in Israel, Spain, Italy, Turkey and Australia. When all the licensing procedures are completed, it will be the only approved device in Europe - which produces 85% of the world's olives - for making mechanical harvesting more efficient, says Weisman.

Report Supports Finance Minister's Statements

Finance Minister Benjamin Netanyahu's comments, during the Go4Europe Conference on the prospects of privatizing Israeli monopolies apparently were based on a ministry report recently released to the public.

Monopolistic inefficiencies at Israel Electric (IE), Tnuva, (dairy), Oil Refineries, the Ports Authority, and Bezeq cost the nation close to \$900 million a year, according to Treasury economist Dr. Eldad Shidlovsky. These companies have been pinpointed by the Minister as being harmful to the country's economy.

His survey provides ample ammunition for the Treasury's free market campaign to institute sweeping reforms in the economy.

Israel Electric employs at least 3,000 excessive workers and in spite of criticism by the Ombudsman, provides all workers with free electricity. These distortions cost \$524m. a year, according to Mr. Shidlovsky.

Besides the cost of free electricity estimated to cost \$8.5m., the average wage at Israel Electric in 2002 was NIS 18,300 a month, while the average wage was NIS 7,147.

The Treasury calculates that IE workers' inflated pension terms cost consumers an extra \$167m. a year. The pensioners enjoy post-retirement promotions, receive more pension provisions from IE, and retire at 55, as opposed to 65 in other industries.

The ports in Ashdod, Eilat, and Haifa have been mentioned in the report as payers of massive salaries, which make up half of the Ports Authority's expenditures.

The high cost of the wages, the average port worker received NIS 22,430 a month in 2002. As a result, exporters and importers overpay NIS 150m. to NIS

200m. a year for port services, cites the report.

Milk production, controlled by the Dairy Committee, a voluntary cartel, overcompensates dairy farmers and prevents effective competition between Tnuva, Tara, and Strauss, the three dairy products producers. Tnuva, which supplies raw milk to the other two, controls 70% of the market, while Strauss and Tara each has a 12% share.

In 2002, a liter of milk cost 60% more than in the US – NIS 4.6 compared to NIS 2.89.

Israelis also pay more for gasoline than Americans. In July, a liter of 95-octane gas there cost NIS 1.21 compared to NIS 1.51 here.

Israelis also pay more for water than in other Western countries, except Germany and Britain.

Sponges Grow Sturdy Optical Fiber

What do deep-sea sponges have to do with human communications? Researchers from Lucent Technologies' Bell Laboratories, OFS, and Tel Aviv University in Israel have found that the optical properties of the skeleton of the deep-sea sponge *Euplectella*—also known as the glass sponge—are similar to conventional fiber-optic cables. At the same time, the skeleton, made up of three layers of material, is tougher than optical fibers.

Methods borrowed from the sponge could eventually be used to build or grow tougher fiber-optic lines that require less protection, and control light more finely than today's lines, according to the researchers.

The sponge caught the researchers' attention because it is brighter than the murky ocean depths where it resides.

The researchers were surprised to find that the refractive properties of sponge skeleton, or spicules, is very similar to conventional telecommunications fiber—they both have a high refractive index core surrounded by a low refractive index shell. A material's refractive index is a measure of how light bends as it passes through.

This combination allows spicule fibers to trap light, similar to the way telecommunications fibers confine light in order to transmit it.

The glass sponge research could yield practical results

within ten years, said Sundar. The work appeared in the August 21, 2003 issue of *Nature*.

Novel Gunsights Allow to Shoot Around Corners

An Israeli company says it has developed a world first -- electronic sighting systems for troops to fire safely around corners during urban combat. The Reuters news agency was invited to see the system in operation.

Helo Point, a company based in Israel, offers a streamlined video camera mountable on a rifle or pistol. The image is relayed to a viewfinder on the soldier's helmet or wrist, allowing him to fire the weapon around obstacles and fire without exposing anything more than his arms.

"It is the first sighting system using wireless video technology, which means commanders can also watch battle as it takes place," said Helo Point director Avraham Bar-David.

"This product was developed over the past year, to satisfy demand by Israel's special units, and is already in use," he said. He declined to say how many were sold but put the unit price at \$2,000-\$3,000.

Crouched at the entrance of a mock-up house, a soldier reached in with a pistol and hit a cardboard target tucked out of sight.

An arms expert called such technology the latest phase in a quest to keep soldiers out of the line of fire while fighting.

The Israeli daily *Maariv* newspaper reported receiving that a U.S. firm had, with Israeli help, invented *Corner Shot*, a flexible, rifle-like pistol extension that keeps the weapon at arms length from the shooter and also uses a video camera for aiming.

Peptor Merging with Germany's DeveloGen

Israeli biotechnology company Peptor is merging with DeveloGen of Germany. While Peptor has concentrated on locating and developing treatments for diabetes and other autoimmune conditions, Goettingen-based DeveloGen's focus has been on diabetes and obesity treatments.

As part of the merger shareholders will receive a share for share.

The merged company, which will maintain Peptor a

fully owned subsidiary, will have its headquarters in Germany and will retain the name DeveloGen. Peptor's R&D in Israel will be maintained, as will its team for future preclinical and clinical development.

The new company will focus its financial resources on its clinical and pre-clinical programs and will employ about 85 people, led by DeveloGen's Guenther Karmann.

The merged entity will have a range of products in diverse stages of development, from preclinical onwards.

The merged entity's lead product, DiaPep277, is a Peptor development undergoing phase II clinical trials for type I diabetes and latent autoimmune diabetes in adults (LADA) and is partnered in a strategic collaboration with Aventis. This product is followed by two late stage preclinical products, scheduled to enter the clinic in 2004.

In conjunction, the companies announced a third round of financing, led by Techno Venture Management. Other investors included Nomura, DVC Deutsche Venture Capital, Global Life Science Ventures and Dansk Kapital Anlaeg.

The merger creates an integrated biopharmaceutical company with a deep clinical, preclinical and discovery pipeline of medicines to treat metabolic diseases.

The clinical pipeline is complemented by a portfolio of discovery programs. For example, the merged entity will be the first company with the potential to treat diabetes via both immunotherapy and regenerative medicine.

Last June, Peptor chief executive Yoram Carmon resigned. Peptor also became embroiled in a squabble with Teva over the giant's rights to Peptor's flagship product to treat diabetes.

DeveloGen, founded in 1998, a biology driven drug discovery company developing novel therapies for metabolic diseases, such as obesity and diabetes.

Israel Receives State-of-the-Art Jets

The first of the force's new F-16-I fighter plane rolled off the Lockheed Martin assembly on November 14, and an Israeli delegation led by Defense Minister Sha'ul

Mofaz was present take official possession. Israel has purchased 102 of the bomber jets, for record \$4.5 billion - paid for with money given Israel by the U.S. in military grants. Israel and Egypt are the two biggest recipients of U.S. aid.

The Israeli defense establishment in 1999 chose Lockheed over Boeing to manufacture the new planes. The new F-16-I, named Sufah (Thunderstorm) in Hebrew, will strengthen the IAF's long reach enabling it to reach nations such as Iran and Libya can fly a round trip of over 1,600 kilometers without refueling.

The first of the jets will arrive in Israel next month, and will be stationed - together with the families of the pilots and crews - in the Negev. The plane is different than the United States' F-16's, and no Israeli or American pilots have yet flown them - although Israeli pilots have practiced on a Sufah simulator.

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