# ISRAEL HIGH-TECH & INVESTMENT REPORT

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## Snubbed by Europe Turkey Looks to Israel

It may not be a marriage made in heaven, but it could well be the beginning of a close relationship which may change the face and eventually the power structure of the Middle East. Turkey is a nation of 63 million people, nearly all of them Muslims and for the greater part secularists. The army is the single most powerful political force. Its leaders are committed to promote the emergence of Turkey as a secular state.

To geographically distant United States a stable, secular and democratic Turkey is considered vital for American and western interests. America's relationship with Turkey is generally good. Turkey's relation with Europe is somewhat uneven. Though Turkey has been a member of NATO for many years nevertheless its application for membership to the European Union was recently rejected. The only fly in the political ointment is Turkey's human rights record which is less than Europe and the US would like to see.

Turkey's manufacturing sector has grown considerably since 1950, but in the early 1990s farming still engaged nearly half the labor force. The government has a great deal of influence over the Turkish economy and owns several important industries. Turkey's annual gross domestic product (GDP) is \$130 billion. About 30 percent of the GDP is contributed by industry, 15 percent by agriculture, and 55 percent by government and private services. As Turkey modernizes at an increasingly rapid rate it has found that Israel can provide many of the missing elements to bring its national and military infrastructure to the highest standards. The recently joint military maneuvers with Israel and the USA was an expression of this growing cooperation. When the Turkish State Airports Administration began to modernize its airports it chose Israeli NICE Systems to implement a digital voice recording system in 14 of its major airports. Elbit Systems, an Israeli defense company, last month received a three-year \$25 million contract to help upgrade 48 Turkish Air Force F-5 aircraft. The agreement is part of a \$75 million contract stateowned aerospace company Israel Aircraft Industries (IAI) obtained at the end of December. Turkey's neighbors include Syria and Iraq who vociferously protest their opposition to the growing ties between Turkey and Israel.

A few years ago Turkey-Israel contacts were carried out away from the public eye. The Turkish representative office in Israel was in a villa in suburban Tel-Aviv without any sign to identify it. Turkey's recent high-profile naval maneuvers have moved the Turkish-Israeli relationship to new highs of cooperation and mutual trust.

In spite of the cultural differences the process has the backing of most Israelis who have at one time or another in the past five years visited Turkey and enjoyed its beauty, its culture and the multitude of

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tourist attractions. The bonding of Israel to Turkey is a prime example of the vast benefits of mutual cooperation between Israel and its neighbors.

### Electronic Newspaper Mimics the Past

An electronically produced newspaper and the traditionally offset printed version are not the same. A young Jerusalem based startup Zebra Ltd. is trying to make electronic news downloaded from the Internet look like the "traditional" newspaper.. Zebra's "infoPager" comes close to creating a product which reminds people that the electronic edition can be made to look like the "old fashioned thing". Zebra is developing systems to edit and distribute personal newspapers via the Internet. It specializes in developing technologies which generate revenue via the Internet. Recently, Zebra completed the development of a specific personal electronic distribution system for commercial newspapers and magazines via the Internet. The "infoPager" system, as it is called, was sold to the Jerusalem Post, and negotiations are currently under way with large publishers in the US, Europe and the Far East.

The company was established in May 1996, with initial capital of \$350,000 from an American investor.

Zebra has now raised \$1 million from ISAL of the Netherlands and other investors, in the first stage of a private placement aimed at raising \$2-3 million. Zebra said that the proceeds from the placement would be used to increase marketing efforts. The company is active in a market which offers considerable potential. With a few exceptions, readers of electronic publications do not pay for access and the money generated by advertisers is insufficient to cover the high costs. Consultants estimate are that in 1998, Internet advertising spending will amount to more than one billion dollars in the US alone and that this amount is relatively small compared to advertising expenditure in television, radio and printed newspapers. The infoPager supports inter-active short films which download with the file and advertisements can be sold, due to the graphic presentation of the edition, in traditional terminology such as "one

eighth of a page", "half a page" and so forth.

### 1998 Not Too Early to Prepare for Millennium

For those preoccupied by the thought of widespread computer failure in the Year 2000, one technology expert offers this simple solution: print out a paper copy. By keeping hard copies of financial records and comparing them with statements sent out before the year 2000 most of the pitfalls of the millennium bug may be avoided. A 1997 year-end survey of 108 companies by Cap Gemini, the New York-based U.S. subsidiary of the French computer services firm Cap Gemini SA, found that only one in five employers had begun putting into effect a full-fledged strategy to conquer the computing glitch. The year 2000 software problem refers to the inability of most computer systems to read the date correctly in the new millennium. The fault arises from a long-standing programming strategy to save memory space by storing dates in a double-digit format. Uncorrected, the bug could bungle any kind of time- sensitive function, including those used to manage payroll data, file flight plans and dispense Social Security payments.

The labor-intensive task of combing through programs and correcting the bug, is expected to be mammoth and put a strain on information technology budgets. The Gartner Group, an information technology research company, predicted that to fix the problem worldwide could cost up to \$600 billion.

To adequately prepare for the millennium issue software and tools are required for the complex conversion for mainframe computer systems as well as the conversion of various information systems from one operating system to another. programming system upgrades and data field expansion. Back in 1993, Israeli Crystal System Solutions concluded that its expertise in dealing with the migration from one computer platform to another could provide a solution to the millennium conversion. From that time it concentrated its efforts in producing a highly automated millennium conversion solution based on the company's previously developed proprietary tool C-MILL and on information systems in the IBM mainframe environment. The solution solves the problem caused by the inability of certain information systems to properly interpret data for the year 2000 and beyond.

A company spokesman mentioned that it is servicing the conversion needs for a number of major Israeli institutions including Bank Leumi, Bezek Israel Telecommunications, a unit of the Israeli Defense Forces and the United Mizrahi Bank. The awareness of the problem according to Crystal System Solutions is greatest in the United States, followed by Europe and then the Far East. On the strength of its proven system Crystal System Solutions is performing a Year-2000 Millennium Conversion Project at the Ford Motor Company in the UK, in conjunction with a leading local system integrator, Logica UK Limited. Ford Motor Company has previously licensed the company's C-MILL Year-2000 conversion tool for its own use. For this project, Crystal Systems Solutions is actually performing the conversion work partially at the Ford Motor Company in the UK and partially at the its factory in Israel. American clients include such well known corporate names as Reynolds Metals, Phillips Petroleum, Blue Cross/Blue Shield of Ohio, Farmers Insurance Group, Kraft Foods and KeyCorp.

Sales are growing rapidly from \$4.5 million in 1996 to an analysts' concensus an estimated, though as yet unreported, \$22-\$23 million for 1997 and \$38 million in 1998.

Crystal System Solutions sees itself as possessing a sophisticated tool in an unlimited market and currently is straining to meet the need for additional software personnel. A the end of 1997 it employed 200 as compared with 100 in 1996. Our focus is on finding the right people and to maintain the cost of their relocation to the United states to service the needs of a growing list of clients. The implementation of a conversion project may take anywhere between 18-30 months even though not everything must be ready before 2000. Crystal Solutions made its initial public offering in the United States in January 1997 and a secondary public offering was completed in July 1997. Its shares are traded on Nasdaq under the symbol CRYSF.

### **Recent Company News**

### ECI Telecom gets Polish contract

Israel's ECI Telecom Ltd (Nasdaq:ECILF) announced recently that it has received a framework agreement from PTP Polska Telefonika Prywatna Ltd in Poland. ECI will provide solutions for local access and SDH (synchronous digital hierarchy) networks in several regions in Poland. The framework agreement, awarded for two years, will connect over 20,000 subscriber lines in Poland. ECI Telecom did not disclose the amount of the deal and company officials could not be reached for comment.

# BTG Licenses Recombinant Insulin in Poland

Bio-Technology General Corp. (NASDAQ:BTGC) has entered into a licensing agreement with IBAT-ECH Sp. zo.o., a Polish corporation, covering the development, production and commercialization of BTG's recombinant human insulin. Under the agreement, IBATECH and BTG will collaborate in the development of the know-how for large scale manufacturing of BTG's recombinant human insulin for the insulin markets in Poland and several other East European countries. IBATECH Sp. is a joint venture formed by Institute of Biotechnology and Antibiotics of Warsaw, Poland, a state-owned company conducting research, development and production of anti-cancer products and antibiotics, and PROKOM INVEST-MENTS, s.a., of Gdynia, Poland. The insulin manufacturing facility of the newly-formed joint venture will be located in Macierzysz and it is planned to be in full operation by the end of 1998. The facility will utilize BTG's proprietary process for the production of recombinant insulin. The worldwide annual insulin market is approximately \$3 billion and growing rapidly. However, with the growth in demand for recombinant insulin there is a serious shortage of capacity, commented BTG.

Bio-Technology General Corp. develops, manufactures and markets genetically engineered and other products for human healthcare.

#### Lockheed, Elbit Seek Joint Business Opportunities

Israel's Elbit Systems and Lockheed Martin (NYSE:LMT) agreed to set up a committee to seek new business opportunities for the two companies. The agreement formalizes the process of ``new business initiatives in areas of common interest to both companies," according to a formal statement by both companies.

The announcement was made during a visit to Israel by James Blackwell, President and Chief Operating Officer of Lockheed's aeronautical sector. An Elbit official refused to say how much business the two companies do together or how much revenue they expect this agreement to bring in.

#### Teledata Sinks on Asian Contagion

Israel's Teledata Communications Ltd could very well be bargain priced after its shares plummeted in heavy trading. It was among the latest of companies hit by troubled Southeast Asia markets. The telephone equipment maker's shares fell after it said its first-quarter revenues could be somewhat lower than a year earlier. Teledata blamed the drop in part on weak Southeast Asian markets. Teledata was off 7-15/16, or almost 40%, at 12-1/8 after bottoming at a 12-month low of 11-1/2. Volume was almost 3.7 million shares, more than 10 times normal. In the past three months, Teledata has dropped from a high of 47-4/16. "Today, the drop is from the profit warnings and on its future outlook," a trader said. "I don't see a big further drop for this stock. Teledata was among the latest companies to report being downgraded by their exposure to turbulent Asian markets and the region's plunging currencies. It said

some Asian customers could not get credit for purchases. Even as Teledata fell, BankAmerica Robertson Stephens' analyst Tim Savageaux boosted his rating for the shares to buy from a long-term attractive recommendation. He cited their low price for the upgrade. "We're looking to buy the stock here at \$12," he stated. Cowen & Co analyst Jim Kedersha cut his Teledata rating to buy from strong-buy. He lowered his 1998 estimate of earnings per share to \$0.70 from \$1.45.

Leasetec to Provide Financing for Indigo Indigo N.V. (Nasdaq: INDGF), a innovator in the

# Elbit Systems Wins \$25 Million Contract for 48 Turkish Air Force F-5 Aircraft

Elbit Systems Ltd. (NASDAQ:ESLTF) announced that the Government of Turkey has selected a group of companies, including Elbit Systems Ltd., to upgrade 48 Turkish Air Force F-5 aircraft. The winning group is composed of Israel Aircraft Industries, acting as a prime contractor, Elbit Systems Ltd. and Singapore Technologies Aerospace. Elbit Systems Ltd.'s portion of the contract is valued at approximately \$25 million and the company expects to execute the contract over a period of approximately three years. The winning group intends to enter into negotiations with the Government of Turkey to finalize the contract in the near future.

For Elbit Systems Ltd., it is the second major program for the Turkish Air Force. Elbit Systems Ltd. is engaged in a wide range of ground, airborne and command, control and communications programs throughout the world, with a focus on upgrading existing military platforms and developing new technologies for defense application.

## Internet

### Deutsche Telekom and VocalTec Reach Comprehensive Strategic Cooperation

Deutsche Telekom AG (NYSE: DT) and VocalTec Communications Ltd. (Nasdaq: VOCLF), the Internet (IP) Telephony Company, have reached final agreement on a Share Purchase and a comprehensive Strategic Cooperation Agreement. The agreements provide that Deutsche Telekom will acquire a 21.1% stake in VocalTec and will purchase more than \$30 million of VocalTec's products and services, including at least \$21.7 million by December 31, 1999. Europe's largest telecommunications company and the third largest carrier in the world, Deutsche Telekom is the first major carrier to develop a portfolio of Internet telephony and communications services to supplement its existing telephony services. Deutsche Telekom plans to deploy these services in 1998, coinciding with the deregulation of the European telecommunications market. "Deutsche Telekom is continuing to expand its role as a global market leader and innovator in an array of communications services with the rollout of Internet and IP telephony services based on VocalTec equipment," said Dr. Ron Sommer, Chairman of the Deutsche Telekom AG Board of Management.. The company, with a turnover of DM 63.1 billion in 1996, the last reported full year.

VocalTec Communications software enables audio, video, data, text and collaborative communications between personal computers and other devices over the Internet. The company is a leader in developing innovative, open standards products that bridge the Internet and the traditional public switched telephone network (PSTN) and drive the convergence of computing and telephone technologies.

The competition is heating up in the Internet telephony arena. Some former managers of telecom-services pioneer MFS Communications Co. have announced they plan to use funding of \$3 billion to build the first global system of Internetbased local and long- distance networks. The company would use fiber-optics and packet-data switches and routers to transmit voice and data traffic from users of the Internet. Meanwhile, telephone connections to the Internet may soon speed up. The New York Times says Compaq Computer (NYSE: CPQ), Intel (NAS-DAQ: INTC) and Microsoft have joined hands with most of the nation's largest local telephone companies to allow consumers to receive speedier-than-previously-possible Internet data over regular telephone lines.

VocalTec Communications (Nasdaq: VOCLF), announced revenues of \$4.8 million for the fourth quarter ended December 31, 1997, an increase of 60 percent over the year-ago period and 9 percent over the third quarter of 1997.

The net loss for the fourth quarter of 1997 was \$1.6 million, or \$0.18 per share, compared to a net loss of \$2.4 million, or \$0.27 per share, for the year-ago period. For the year ended December 31,

1997, revenues were \$15.7 million, an increase of 85 percent over 1996 revenues of \$8.5 million. The net loss for 1997 was \$7.7 million, or \$0.89 per share, compared to a net loss of \$7.2 million, or \$0.86 per share, in 1996 (which included a one-time charge of \$1.3 million or \$0.15 per share).

#### The Internet Market

NetVision which supplies the Israel High-Tech & Investment Report's IPS services holds a 45% share of th Israeli dial-up market. Internet Gold holds 35%. The remaining 20% are divided among TrendLine, IBM, ActCom, IsraCom, LuckyNet, InfoLink, Shani Technologies, AquaNet and Golden Lines.

NetVision's market share among big subscribers using point-to-point lines is 65%. Internet Gold holds 15% of this market, as does IBM. The other 5% are held by AquaNet, which only offers point-to-point lines.

How is the known market share translated into numbers? It appears that the number of official subscribers is 130,000.

Of these, about 60,000 are with NetVision, 45,000 with Internet Gold and another 25,000 with all the rest. But these numbers at NetVision, Internet Gold, and IBM, include the point-to-point subscribers, each of which is an organization that could represent hundreds of users, depending on the number of members and the bandwidth of the connection line. So the number of users may actually be considerably larger.

## TVG Technologies Obtains Funding for Joint Development Project

TVG Technologies Ltd. (Nasdaq:TVGLF) announced that the Israel-U.S. Binational Industrial Research and Development (BIRD) Foundation approved funding of a joint project between its subsidiary Real Vision Ltd. and Evans & Sutherland Computer Corporation (Nasdaq: ESCC). The project's total budget is \$1.2 million for a 12-month period. BIRD's share of the project will be 50% of the actual approved expenditures. The resulting product, the RapidScene-VX, will be a rapid database and photo-realistic scene generation system for use in Civil Engineering and other commercial applications.

Evans & Sutherland, a U.S.-based company, has been a leader in the computer graphics field since 1968. E&S develops and manufactures hardware and software for highly realistic visual systems that produce vivid 3D graphics and synthetic environments.

Real Vision Ltd. is an Israeli-based company which is engaged in the development and manufacture of integrated hardware and software for imaging systems. Real Vision recently developed a new and unique technology for photo-realistic 3D Image Generation.

## RAD's New Fiber Optic Modem Extends LANs Up to 31 Miles)

RAD Data Communications announced the release of its new FOMi-40 fiber optic modem, which supports LAN-to-LAN or other digital interfaces extension and offers SNMP management of the fiber link. The FOMi-40 is available as a stand alone modem or as part of RAD's LRS-12 modem hub, which combines fiber and xDSL technologies in the same central site rack. The explosive growth of Internet-driven applications is compelling carriers to manage local loop access better, even for point-to-point connectivity, according to RAD Data.

The FOMi-40 answers that demand, providing a secure long-range link over a wider access area. The FOMi-40 enables carriers to migrate from the traditional copper links over the local loop to advanced manageable fiber links. It also offers a wide range of selectable data rates (from 56 kbps to 2,048 kbps), as well as digital interfaces (V.35, V.24, X.21, RS-530, V.36, G.703 E1 or T1, and Ethernet) and optical interfaces (multimode and single mode fiber, including 1300 nm and 1550

need for site visits. The FOMi-40 can be managed from an ASCII terminal or by SNMP on a UNIX HPOV platform. RADview, RAD's SNMP application, enables carriers to manage theentire local loop up to the customer's premises equipment, from a single central management station. RAD Data Communications designs, manufactures and markets a broad range of high quality data communications and telecommunications product solutions for carriers, service providers and corporate networks.

## Science Corner

#### Windows on Your Mind

Conjuring up images in the "mind's eye" enhances our ability to see what's really there, Weizmann Institute scientists have found.

However, imagination greases the wheels of perception only when the images are drawn from short-term memory, the researchers report in the current issue of the Journal of Cognitive Neuroscience.

In contrast, reaching into our long-term memory to recall an image may interfere with our ability to perceive visual data. "It seems that, under certain circumstances, activating short-term memory can change the 'hard wiring' of the visual cortex, allowing people to see what they couldn't see before," says Dr. Alumit Ishai.

The research also supports the idea that short- and long-term visual memory may be governed by separate mechanisms in the brain.

Anyone who has looked for a friend in a crowd intuitively knows how visual imagery works: conjuring up a mental image makes it easier to identify the friend when he actually appears. As Prof. Sagi explains, memory and perception constantly work together because whenever we see something, we identify it based on images stored in memory. "Without memory, the world we perceive would be incomprehensible," he says. "However, if memory is given too much weight, the result is hallucination."

But does the brain work in the same way when we

imagine an object and when we actually see it? And does reaching into our memory to recall an image make it easier or more difficult to complete visual tasks?

Philosophers and scientists have long sought answers to these questions, but previous studies have produced conflicting results.

The new research by Ishai and Sagi explains why: previous studies made no distinction between images drawn from short- and long-term memory. The Institute researchers have, for the first time, quantified the effects of visual imagery on perception by creating experiments in which subjects viewed subtle points of light, known as Gabor signals, on a computer screen. By varying the points' intensity, they were able to establish the exact threshold of brightness at which the light became visible to the participant.

First, participants viewed a computer display in which three Gabor signals appeared along a straight line, with the flanking signals situated at various distances from the central signal. As the distance between the flanking signals was increased, participants found it more difficult to see the central signal, eventually losing sight of it altogether. Then, the scientists adjusted the brightness of the central signal in order to establish the new threshold at which participants could see the target.

At this point, memory was called into action. Sagi and Ishai showed the participants a screen with only one Gabor signal, asking them to imagine the flanking signals they had recently seen. The results were surprising: when participants imagined the flanking signals, they were able to see the target more easily than in the previous trial. By activating their short-term memory, the participants lowered the threshold of brightness at which visual perception could occur. They actually improved their own ability to see. Further experimentation linked this phenomenon specifically to short-term memory. The threshold of perception was lowered only when the participants were asked to imagine the flanking signals soon after seeing them on the screen. As more time elapsed, the flanking signals presumably

"slipped" into the participants' long-term memory bank; calling up the image raised the vision threshold, making the target signal more difficult to see.

These results indicate that short- and long-term memory are represented differently in the brain and are controlled by different neural mechanisms, although it is not yet clear what these mechanisms are. Sagi and Ishai hope that with further study of this phenomenon, it may someday be possible to harness the natural power of memory to "open the eyes" of those who suffer from vision problems.

### **Medical Diagnostics**

### Computer-Assisted Pap Smear Analysis Improves Cervical Cancer Screening

Neuromedical Systems, Inc. (Nasdaq:NSIX) reported that the January 21, 1998 issue of the Journal of the American Medical Association included a study of the effectiveness of computerassisted Pap smear rescreening with PAPNET testing conducted by the Armed Forces Institute of Pathology.

The study reports that PAPNET-assisted rescreening increased the detection of cervical abnormalities, despite a high-quality laboratory's double screening of smears from relatively low-risk, wellscreened women.

Although the study authors conclude that the detection of each additional abnormality was at a relatively high cost, the ability to extrapolate from this selected population to the general population may be limited, because neither the laboratory population nor the protocol to rescreen double-screened Pap smears represents routine clinical practice.

Indeed, the study's authors noted that the value of PAPNET-assisted rescreening "will be higher for laboratories that screen populations having a higher prevalence of cervical disease and for laboratories that have a higher false-negative rate on initial screening."

# New Investment Funds

### Leaders Launch Palestine Investment Fund

Palestinian Authority chief Yasser Arafat and senior officials launched the first private fund to invest in the West Bank and Gaza, offering what they said was a rare piece of good news about the tattered Middle East peace process.

Arafat, World Bank President James Wolfensohn and former Israeli Prime Minister Shimon Peres signed a memorandum of understanding starting the fund at a ceremony in Paris on January 20. The Peace Technology Fund, backed by the World Bank's International Finance Corp. is part of a multi-billion dollar effort by donors to improve the Palestinian economy, which has stagnated since 1993. Officials openly expressed their hopes for the fund, which they said would correct a lack of attention on the economic aspects of the peace process.

'There is no reason why we shouldn't move ahead economically,'' Peres, who will be chairman of the fund, said after the ceremony.

"I am convinced that the better the economic situation of the Palestinians will become, it will be easier for them and for us to cooperate in making peace a palpable reality."

He also said the fund had President Clinton's support and the backing of French President Jacques Chirac and other European Union leaders.

Though the Israeli government is not a signatory to the agreement, Israeli ambassador to France Avi Pazner said the fund had the full support of Prime Minister Benjamin Netanyahu's government. "We will do whatever it is possible to encourage investment in this fund," he said.

Palestinian investors so far consist mostly of wealthy Palestinians from the diaspora. The \$100-200 million fund will make direct equity and equity-related investments in West Bank and Gaza technology companies. Of the first \$100 million in the fund, 30 percent will come from Israeli investors, 30 percent from Arab and Palestinian investors and 30 percent from countries in the Organization for Economic Development and Co-Operation, the World Bank said. The IFC will make up any shortfall up to 20 percent. So far the fund consists of about \$50 million from a variety of investors -- about \$15 to \$20 million from the Israeli side, the same amount from the Palestinian side and \$10 million from the IFC. The fund will be managed by Israeli Evergreen Canada-Israel Investments Ltd. and U.S./Palestinian Capital Investment Management Corp. It will receive backing from the IFC. Ya'acov Burak founder and General Manager of Evergreen participated in the ceremony.

New Japanese High-Tech Investment Fund Tomen Corporation, one of Japan's largest general trading companies, announced the establishment of a high-tech capital venture fund that would invest in Israeli start-up companies.

Tomen will allocate \$10 million for the fund and expand the investment next year to \$50m with help from external investors.

The fund will concentrate on telecommunication, cellular and wireless communication, PC and Internet software developments and imaging. Tomen said it would provide total solutions for start-ups and would offer long term strategic partnership.

The company will also provide logistic and managerial support to these companies during the growing stages and especially to help them penetrate international markets. The fund will be managed with local co-partner ATI Systems FM. Tomen imports and exports a wide variety of products through its six divisions: metals, machinery, construction and construction materials, food products, chemicals and fuels, and textiles. Tomen said that during its five years of operation in Israel it has played a role of the "locomotive," pulling Israeli high-tech to Japan. It claimed credit for introducing Israeli echnologies to the Japanese market. The company's annual transaction of local products to Japan exceeds \$100 million. In a statement, the company called the investment

In a statement, the company called the investment fund an additional step forward in its increasing involvement in Israel. "Tomen acknowledges the uniqueness and high potential for the high-tech start up companies in Israel for the Japanese investors," the company said. He predicted that despite a slowdown in the Japanese economy, investments in Israeli hightech companies would not decline. "The Japanese will be more focused now and high-tech is one of the sectors that will receive more attention," he said.

# New Strategic Partner for Gilat Ventures in China

Gilat Satellite Networks Ltd. (Nasdaq: GILTF) reported that Singapore-based Keppel Communications has acquired a 48% equity stake in Eldon Resources Ltd. for \$15 million. British Columbia-based Eldon partnered with Gilat in 1994, through its subsidiary Xenexi Telecommunications Development Inc., in order to undertake certain joint ventures in China, including EJV, MJV and a cooperative joint venture with the Ministry of Water Resources in China for a SCADA network used to monitor and control flooding.

As a result of the Keppel acquisition, approximately 31% of Eldon will be held by Gilat and approximately 16% will be held by an existing shareholder, while approximately 5% of the shares will be held by the public. The transaction is expected to close after approval by the Vancouver Stock Exchange, on which Eldon's shares are listed. Eldon is to be renamed KSAT Satellite Networks Ltd.

Mr. Ng Eng Ho, Divisional Director of Keppel Telecommunications & Transportation Ltd., explained, "This acquisition fits very well with our strategy of providing total telecommunications solutions in Singapore and the region. KSAT Satellite also integrates well with our diversification plans in China."

Keppel Telecommunications & Transportation Ltd. is primarily involved in shipping, logistics and telecommunications businesses. Through Keppel Communications, it is involved with M1, Singapore's second largest cellular telephone operator and with the TelcomOne consortium, which is currently bidding for Singapore's second public basic telephone services (PBTS) license. Gilat Satellite Networks Ltd. designs, develops, manufactures, markets and supports Very Small Aperture Terminal (VSAT) satellite earth stations and related hub equipment and software.

### Auto Makers Face Challenges

One of the major challenges facing electric cars is short driving range before batteries need to be recharged. Fuel cells are a likely solution to this limitation. Producing electricity from hydrogen or another fuel, fuel cells may give electric cars a range similar to today's cars. The major challenges for fuel cell developers are reducing cost and size.

"In the end, what we may see is fuel-cell powered electric cars with a small battery pack for surge power and to capture energy from regenerative braking" says Frost & Sullivan Automotive Analyst Joerg Dittmer. "Such vehicles would be energy efficient, virtually emission-free, and have low maintenance needs."

According to strategic research by Frost & Sullivan Alternative Automotive Fuels and Engines Technologies, the demand for environment-friendly technologies has resulted in pressure on auto makers to provide alternative fuels and engines to the public. The main challenge for this market is to reduce the cost of alternative technologies and position them to gain consumer acceptance. Electric Fuel Corporation (EFCX:Nasdaq) Israel's major entry in the zinc lead battery field for electric cars announced that it and the Center for Sustainable Technology, L.L.C., had entered into a new partnership with U.S. Field Test Program and that the Community College of Southern Nevada (CCSN) will join their zinc-air battery demonstration program in Las Vegas.

Under the one-year project, which is slated to begin by fall 1998, the college will operate and maintain a bus powered by Electric Fuel's zinc-air battery system as part of its automotive technology and alternative fuels curriculum. This initiative coincides with a recently announced program in which Electric Fuel and CST agreed to develop a zinc-air battery field test program in the Nevada area. The program includes partnering with appropriate public and private organizations as well as plans to develop a model regeneration facility to support additional vehicle testing. "CCSN is pleased to be on the cutting edge of education," said CCSN President Dr. Richard Moore. "This project will enable the college to broaden its involvement in the study of the mechanics of alternative fuels transportation. It should benefit Nevada's economic development and prepare our students for technologies of the 21st century." The Center for Sustainable Technology was founded by the Electric Power Research Institute and Bechtel National, Inc. It develops and commercializes emerging technologies in renewable energy, energy management. Electric Fuel Corporation, with corporate offices in New York City and manufacturing and R&D facilities in Jerusalem, Israel, and Alabama, has positioned its zinc-air energy system to meet the emerging demand for zero-emission electric-powered transportation.

# Capital-investment Grant Requests Decline 27%

The volume of capital-investment aid requests dropped by 27 percent last year to \$3.4 billion from \$4.6b. in 1996, according to figures released by the Ministry of Industry and Trade Investment Center.

# Foreign Involvement in Approved Projects Down by 42% in 1997.

The center approved last year a total of 444 projects, valued at \$2.04b., in industry, tourism and agriculture. The number of approvals dropped. The decline in investment was due in part to the general slowdown in the economy, noting that there were few investments in projects through the center in industries dependent on the local market. The drop in requests is attributed directly to the reduction in capital investment aid. Two years ago 38% was offered in Area A, whereas today government aid is only 24%, and 10% in Area B. Foreigners are investing more in high-tech companies, through share purchases. In 1997, the center approved a total of 89 projects involving foreign investment, compared with 154 in 1996. The value of the 1997 projects is an estimated \$417 million, whereas the 1996 projects involving foreign investment was \$2.66 billion. The sharp increase in 1996 was due to four unusually large investments, including the massive Intel project. "In 1998, we believe foreign investment in hightech will continue without any connection to the political situation, since the main export market for these industries is in the United States," according to the Investment Center. The spokesman added that "as start-ups grow, they become a natural target for foreign investment".

#### Capital-raising More than Doubled in 1997

Israeli companies raised more than twice as much on the capital markets in 1997 as they did in 1996, according to Bank of Israel data. Last year, Israeli firms raised NIS 10.9 billion not including proceeds from the privatization of government companies. This compares to NIS 5.2 billion in 1996. The bulk of the increase was in capital-raising on the local market, which jumped from NIS 1.3 billion in 1996 to NIS 6.4 billion in 1997. NIS4.5 billion was raised overseas last year, up from NIS 3.9 billion in 1996.

According to the Central Bank, the main reason for the surge in domestic capital-raising was the sharp increase in prices on the Tel Aviv Stock Exchange at the end of 1996 and the beginning of 1997. This made it much more attractive for companies to raise money locally.

In addition, 59 percent of the new capital in 1997 was raised by the private sector, compared to only 25 percent in 1996.

Most of the money raised domestically in 1997 -71 percent - was from the sale of stock to the general public. This is in sharp contrast to 1995 and 1996, when, due to the slump in the stock market, 85 percent of locally-raised capital was raised in off-the-market transactions, the realization of options or the sale of rights to buy stock in the future at a reduced price.

Bond sales also ballooned in 1997, to NIS 1.2 billion, compared to an average of only NIS 68 million in 1994-1996. According to the central bank, this sharp increase was due to reduced sales of government bonds, which created a vacuum for the private sector to enter.

The real estate sector was the most active on the local market in 1997, accounting for 51 percent of private-sector issues. This was due to central bank regulations prohibiting the banks from lending too much to any one sector, which prevented many real-estate companies from acquiring bank loans. On the overseas market, the most active sector was software and communications, which accounted for 49 percent of the capital raised. (NIS 3.56 = \$1.0 convenience translation)

# OTI of Israel Signs Strategic Agreement with SGS-Thomson

SGS Thomson of France, and OTI, an Israeli company from Rosh Pina, have announced a strategic agreement to develop an electric wallet for use with and without contact, while maintaining a high level of security. SGS-Thomson is one of the world's largest smart card producers. OTI specializes in developing non-contact smart cards, which work without an independent voltage source. The card receives the voltage it requires to operate from the unit to which it is presented. Each card can be programmed as required, so that on one card appear several applications, such as: electronic wallet, driving licence, medical record, reserve duty book, house door key, and so on. Each application can have its own access authorization, and a high level of security.

On the occasion of the announcement, SGS-Thomson's smart card division marketing manager said: "We have checked and found that OTI technology is capable of integrating our family of smart processors with an operating system and encryption capacity on a non-contact smart card. The card has great potential, as the use of this technology makes it possible to offer a variety of effective solutions to the banking community. With currently existing solutions on other smart cards, the level of security is very limited, because there are two separate electric circuits for the same memory area.

An electronic wallet which facilitates integrated communications, makes possible a combination of transactions which require contact and non-contact transactions. Loading money can be done by a contact reader in an automatic bank teller, but payment on a bus or in a supermarket can be made by presenting the card to a non-contact reader. On Track Innovations Ltd. was set up in 1990 by a group of engineers expert in smart card technology, headed by Oded Bashan, who is president and general manager of the company. In 1993, OTI's unique data transfer method was patented in the USA. In July 1996, the company made a private placement through Credit Lyonnais Securities and was valued at \$60 million.

